

DRAFT ENVIRONMENTAL ASSESSMENT

FOR

**AN INSTALLATION DEVELOPMENT PLAN AT
JOINT BASE MCGUIRE-DIX-LAKEHURST, NEW JERSEY**



PREPARED FOR:
Department of the Air Force

December 2023

**FINDING OF NO SIGNIFICANT IMPACT (FONSI) AND
FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)
INSTALLATION DEVELOPMENT PLAN
JOINT BASE MCGUIRE-DIX-LAKEHURST, NEW JERSEY**

Pursuant to provisions of the National Environmental Policy Act (NEPA), Title 42 United States Code (USC) Sections 4321 to 4347, implemented by the President's Council on Environmental Quality (CEQ) NEPA Regulations (Title 40 Code of Federal Regulations (CFR) §§1500-1508), and 32 CFR §989, *Environmental Impact Analysis Process (EIAP)*, the Department of the Air Force (DAF) assessed the potential impacts on the natural and human environment associated with the Installation Development Plan (IDP) for Joint Base McGuire-Dix-Lakehurst (JB MDL), New Jersey.

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to update and improve conditions within JB MDL through infrastructure improvement, demolition of outdated facilities, renovations, and utility installation/improvements that are compliant with applicable Unified Facilities Criteria (UFC) requirements.

DAF has identified priorities for installation development projects at JB MDL and proposes to implement them over the next five years (Fiscal Years 2023-2027). The intent of the ongoing process of installation development at JB MDL is to provide infrastructure improvements necessary to support the mission of the 87th Air Base Wing and tenant units. The 11 projects considered for implementation include those that were identified as priorities for installation development in the 2014 Installation Development Plan as well as additional projects identified by JB MDL Natural Resources that were not included in the Integrated Natural Resources Management Plan. The proposed projects are requirements for the improvement of the physical infrastructure and functionality of JB MDL, including current and future mission, facilities and infrastructure requirements, development constraints and opportunities, and land use relationships.

Under the Proposed Action, DAF proposes installation development and natural resource projects by constructing an airfield perimeter road, a new Lakehurst Air Traffic Control Tower (ATCT), a new 144-bed dorm, a new addition to the Combat Arms Training and Maintenance (CATM) facility, new wells, new aerators in two ponds, and new a septic tank; demolishing an ATCT and well facilities; renovating and repairing the Lakehurst Main Gate; and removing the berms south of McGuire runways.

There are seven infrastructure construction projects whose needs vary based on the type of project. Construction of the perimeter road running parallel to the McGuire runway is needed because no paved road exists in this area. The current unpaved road has caused security vehicles, which require a minimum of 25 feet stand-off distances and visibility from the fence line per AFI 31-101, maintenance vehicles performing required duties, and United States Department of Agriculture Bird/Wildlife Aircraft Strike Hazard personnel who are responding to various mammals and birds on the easter portion of runway 06/24, to become stuck in muddy areas. This requires off-base tow trucks to come onto the facility to pull them out.

Infrastructure construction also included replacing the ATCT, which is over 50 years old, outdated, deteriorating and unsafe. A new 144-bed dorm is proposed to be constructed to meet the DAF requirement for 810 dormitory rooms. JB MDL only has an adequate inventory of 692 rooms. In addition to these projects, the CATM facility addition is needed because the existing facility is undersized. Other infrastructure construction projects include the construction of two new wells, which are needed to replace Well #5 and #6. These wells are not currently meeting water treatment capacity and they are deteriorating. In addition, the additional of aerators in Lake of the Woods and Rainbow Ponds is proposed to reduce stagnant water in the ponds. The proposed installation of a septic System at B696 is needed to alleviate the need for a port-a-john.

There are two demolition projects, and they include the demolition of ATCT Building 552, which is needed because it's outdated and unsafe, and the demolition of well facilities Building 5280 and Building 1190. This is needed because wells #5 and #6 do not meet current standard, are failing, and lack water treatment adequate to support the mission.

There are two renovation and repair projects, which includes proposed improvements to the Lakehurst Main Gate and removal of berms. The gate project is as the existing gate does not meet security requirements. In addition, the removal of berms is needed to reduce waterfowl habitat and reduce the potential of stormwater runoff backing up from Runway 24.

DESCRIPTION OF THE PROPOSED ACTION

The scope, location, and objectives of the proposed actions are described here, and are grouped by project category: construction, demolition, and renovation and repair. In addition, any alternatives for projects where multiple viable courses of action exist are included.

Construction Projects

Project C1: Construct Airfield Perimeter Road

The proposed project includes grading the area along the proposed pathway and installing a 16-foot wide, one-way road. The roadway would be constructed with asphalt or concrete with stability to handle a large Fire Department Crash/Fire/Rescue vehicle load.

The southern perimeter of the McGuire Airfield has no paved road running parallel to the airstrip. Security vehicles, maintenance vehicles, and United States Department of Agriculture Bird/Wildlife Aircraft Strike Hazard personnel have become stuck in wet areas, requiring off-base tow trucks to pull them out. The use of off-base tow trucks requires them to be escorted from the visitor center. Also, the lack of a paved road may prevent safety vehicles from accessing parts of the airfield in an emergency.

Alternative C1-1 (Preferred Alternative): Under this alternative, the proposed perimeter road would extend the entire length of the runway. This alternative would result in approximately two acres of permanent wetland impact and two acres of permanent floodplain impact.

Alternative C1-2: Under this alternative, the proposed perimeter road would only extend a third of the way down the runway. The road would extend from the northeast end of the Runway 24 approach to where taxiway Charlie meets the runway. This alternative would result in approximately 0.7 acre of permanent wetland impact and 0.7 acre of permanent floodplain impact.

Project C2: Construct Lakehurst ATCT

Under this project, a new ATCT would be constructed to replace the existing, obsolete ATCT at the Lakehurst Airfield. The footprint for the new ATCT would be 1,000 square feet (SF). The project site would include a new 6,000 SF building to house the ATCT and support activities. A 13,000 SF parking lot would be constructed to support 40 employees. A fence would be constructed around the ATCT and ancillary facilities. The existing Lakehurst ATCT, Building 552, is over 50 years old and was built by the U.S. Navy for naval air operations to meet standards during that time period. The air traffic equipment is grossly outdated, the actual building structure is now very badly deteriorated, with structural elements such as the control cap, top deck, and observation catwalk and safety railing being deemed unsafe for personnel to use anymore due to advanced corrosion and decay. In its present state, the existing ATCT is barely able to support the new air operations mission support role of the JB MDL, which adversely affects DAF's varying aircraft related mission profiles currently present at the installation. The only viable option to remedy this marginal situation is construction of new ATCT built to DAF and Headquarters Air Mobility Command (HQ AMC) mission standards, as well as complying with all current Federal Aviation Administration requirements.

Alternative C2-1 (Site 1 - Preferred Alternative): Site 1 is located immediately northeast of Building 307 (maintenance hangar). Site 1 has good visibility to each runway end; however, the view to the east helipad is blocked by trees at the existing control cab height (83 feet). The ATCT cab height would need to be elevated to an eye level view of at least 112 feet to achieve good visibility to both helipads. The site would require 1.1 acres of tree clearing near the east helipad. There are existing utility connections for natural gas, water, wastewater, electricity, and telecommunications at this location. Additionally, Alternative C2-1 would include an emergency generator and diesel fuel Aboveground Storage Tank (AST). Access to the site would be provided via the same access to the existing ATCT. This alternative would result in approximately 0.17 acre of permanent floodplain impacts.

Alternative C2-2 (Site 2): Site 2 is located 1,280 feet northeast of the existing ATCT and is in an area previously cleared of trees. Site 2 has good visibility to the north helipad and Runway 06/24 but no visibility to the ends of Runway 15/33 or the east helipad. Visibility improves at an eye level height of 133 feet, but the Runway 15/33 end is still not visible without clearing approximately 2.5 acres of trees northeast of Runway 15/33. Utility connections to natural gas, wastewater, electricity, water, and telecommunications are approximately 987 feet to the southeast of the site along Rounds Road. Access to the site would be via a connection to Rounds Road. This alternative would result in approximately 0.32 acres of permanent floodplain impacts. An additional 0.2 acres of floodplain would be temporarily impacted as a result of tree clearing.

Alternative C2-3 (Site 3): Site 3 is located 1,958 feet southwest of the existing ATCT. The site has good visibility to all runway ends and each helipad at an eye height level of 83 feet. Connections to natural gas, a wastewater pressurized main line, electricity, water and telecommunications are located 1,120 feet to the south along Broome Road. This site would not require tree clearing for sight distance but would require several acres of tree clearing for site improvements. A new access would be constructed from Broome Road. This alternative would permanently impact 1.05 acres of floodplain.

Project C3: Construct New 144-Bed Dorm

Under this project, a new 144-bed dormitory would be built to relieve a deficiency in dormitory space at the installation. The project would consist of a 54,000 SF, three-story dormitory configured to the AF E1-E4 standard. Exterior construction would include a slab-on-grade concrete foundation, load bearing steel framed walls with brick veneer finish and cast stone accents, concrete elevated floor slabs, and metal joist hip roof structure with a standing seam metal roofing system. Exterior closures would include operable metal frame windows with Low E double pane glazing and entry doors with thermal insulation and automatic door closers. Building systems would include heating, ventilation, and air conditioning (HVAC), plumbing, electrical and lighting, communication, security, and fire detection / protection. This project would comply with Department of Defense (DoD) anti-terrorism/force protection (AT/FP) requirements per UFC 4-010-01.

Alternative C3 (Preferred Alternative): Under this alternative, the dormitory would be built near the other dormitories, cafeteria, and gymnasium.

Project C4: Addition to Combat Arms Training and Maintenance (CATM) Facility

This project would construct a 900 SF addition onto the northwest side of Building 1819. The addition would accommodate an open classroom and a laundry/shower area. It would be constructed on a reinforced concrete slab-on-grade. Construction would include load bearing masonry exterior walls with brick cladding and cast stone accents to match the existing building. Energy efficient glazing would be used on windows and doors. The roof would be gabled with three-tab shingles to match the existing shingles. The interior construction would consist of non-loadbearing partition walls as required. The project would also include the installation of power and lighting, HVAC, and pre-wired communications.

Alternative C4 (Preferred Alternative): The Preferred Alternative includes adding an addition to the existing CATM Facility.

Project C5: Construct New Wells

The proposed project involves replacing the capabilities of Wells #5 (Building 5280) and #6 (Building 1190) through the construction of two new wells and wellhouses that meet all current standards. These wells service the Dix Area. The new wells and wellhouses would be constructed near the current well sites but properly sited to retrieve needed water sources. New facilities would consist of a 3,250 SF filter building, an 800 SF sedimentation basin, a 20-foot-wide asphalt driveway with a 14-foot-wide parking area, and 639 feet of fencing.

New treatment systems would be installed to remove iron and manganese. The proposed project would include the necessary piping, electrical lines, and other utility connections to support the new wellhouses. The new wellhouses would be built from brick and concrete to house the well and treatment system. Two 5,000-gallon, galvanized steel, aboveground water storage tanks also would be constructed.

Well #5 is over 70 years old and has not been fully functional for over 20 years. Well #6 is over 50 years old and has not been fully functional for 10 years (DAF 2022d). The screen and inner casing of Well #6 are wearing thin, which will lead to failure if put back in service. The Dix Area

receives some potable water from the surface water of the Rancocas Creek via the Dix Area water treatment plant. The water treatment plant is shut down annually during summer months when the creek flow rate drops below the minimum draw level. Under low flow conditions, the primary potable water requirement is supplied by two operational deep wells, separate from the water treatment plant; however, there is no sustainable backup supply. For each well, groundwater would be pumped to the sedimentation basin, then filtered/treated in the pumphouse before distribution through the potable water lines. Pending regulations regarding the Disinfection Byproducts Rule will cause increased dependence on wells as the sole primary potable water source due to the inability of the water treatment plant to meet the drinking water criteria during hot summer months, regardless of low flow conditions.

Alternative C5 (Preferred Alternative): This alternative would construct a new Well #5 adjacent to the existing Well #5, and a new Well #6 across the street from the existing Well #6. Construction of Well #5 would result in 0.01 acre of permanent impacts to floodplains. Well #5's construction area is located within a FEMA mapped floodplain area, resulting in potential impacts to the floodplain.

Project C6: Installation of Aerators in Ponds

Under this proposed project, aerators would be installed in Lake of the Woods (Dix Area) and Rainbow Pond (Lakehurst Area). Community health concerns include stagnant water, growing fears associated with chemical usage, and increased regulatory compliance requirements to improve water quality and reduce flooding. Subsurface pond aeration is widely considered a best management practice (BMP) to improve water quality and maintain capacity. The use of a solar powered delivery system eliminates concerns regarding on-going electric costs. The installation of the aerators would take 30 days to complete. The aerators would serve up to 2 acres depending on depth and shape of the ponds. The aerators would provide oxygen to the ponds through subsurface aeration. Subsurface aeration allows the pond to function naturally by providing the oxygen needed for decomposition to occur. Subsurface aeration would reduce odor, fish kills, and sedimentation within the ponds (DAF 2022f).

Alternative C6 (Preferred Alternative): Under this alternative, the aerators would be installed in the ponds. This alternative would result in approximately 40 SF of permanent open water impacts at each pond location. According to the mapping, however, the work at Rainbow Pond is located within the FEMA floodplain. Because the work would occur within the pond itself as an open water impact, the floodplain impacts are not quantified separately.

Project C7: Installation of a Septic System

This project includes the construction of an aboveground septic tank for sanitary wastewater adjacent to Building 696 to provide improved sanitary services (DAF 2022e). Personnel currently use an unheated port-a-john, which must be maintained and periodically emptied. There are no sewer lines near the building, so connection to an existing sewer line is not possible or financially feasible. Installing an aboveground septic tank would save money from the permitting and installation of a new sewer line.

Alternative C7 (Preferred Alternative): Under this alternative, the septic tank would be installed. This alternative would result in approximately 20 SF of permanent floodplain impact.

Demolition Projects

Project D1: Demolish Air Traffic Control Facility Building 552

This project includes the demolition of ATCT Facility Building 552 (existing tower) to make space for additional future needs of JB MDL. Building 552 is 550 SF. Building 552 is more than 50 years old and has long exceeded its useful life. The air traffic equipment is grossly outdated, and it is badly deteriorated with structural elements such as the control cab, top deck, and observation catwalk and safety railing being deemed unsafe for personnel to use due to advanced corrosion and decay. The existing ATCT would be disconnected from utility lines, and the utilities would remain in place for use by the other buildings/infrastructure in the area. Construction and demolition debris would be disposed of in compliance with the 2020 JB MDL Integrated Solid Waste Management Plan, which states a minimum of 75 percent by weight of total construction and demolition debris shall be diverted from the landfill. Disposal of construction and debris waste would be the responsibility of the construction contractor. An emergency generator with a 362-gallon diesel fuel AST is on the southwest side of Building 552, which is proposed for demolition under Project D1.

Alternative D1 (Preferred Alternative): Building 552 would be demolished. Land use surrounding Building 552 would remain developed with concrete surfaces.

Project D2: Demolish Well Facilities Building 1190 and Building 5280

Wells #5 and #6 do not meet current standards, and their screens and inner casings are showing signs of wearing thin. These signs of failure mean that their water treatment capacity is not adequate to support JB MDL. In addition, the wells lack iron and manganese treatment systems. Well #5 demolition would include demolition of the filter building (Building 5280), which is 1,660 SF, and the 1,076 SF sedimentation building. Well #6 demolition would include demolition of the filter building (Building 1190), which is 1,617 SF, and a 1,010 SF sedimentation basin. The project also includes removal of 175 feet of fencing at both well locations. The buildings associated with both wells, Building 1190 and Building 5280, would be demolished and the wells would be decommissioned and sealed in accordance with New Jersey Department of Environmental Protection (NJDEP) regulations. Both wells have a 1,000-gallon diesel AST and a 1,000-gallon No. 2 fuel oil AST that would need to be removed. For Well #6, the existing utility pole and all piping and power supplies would be removed. The overhead communication line and overhead electric lines would remain. For Well #5, it is assumed that existing utility lines would be removed and utility lines for the new well would be added.

Alternative D2 (Preferred Alternative): Both well facilities would be demolished as detailed in the Project D2 description. The wells would be decommissioned and sealed in accordance with NJDEP regulations.

Renovation and Repair Projects

Project R1: Lakehurst Main Gate Security Improvements

The proposed project would upgrade the Main Gate at the Lakehurst Area into a fully functional entry control facility compliant with UFC 4-022-01, Entry Control Facilities/Access Control Points. The Lakehurst Area is the Navy's primary installation for conducting technology

development and evaluation for Aircraft Platform Interface, which includes terminal guidance, recovery, handling, propulsion and avionics support, and takeoff and aircraft weapons/ship compatibility.

The upgraded gate would consist of three entry lanes (currently it is two lanes), one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles. The new configuration would be more efficient and vehicle processing time is expected to decrease.

It is imperative that the Lakehurst Area be capable of continually providing support and services to the operating forces and shore commands of the Navy. These vital activities and functions, together with additional planned future joint-basing endeavors with activities of equal importance to the Army and Air Force, make the Lakehurst Area a prime target for potential future terroristic attacks. After the September 11, 2001, attacks on the United States, the Lakehurst Area increased its Force Protection Condition (FPCON) to "Delta" for several days and has since been under FPCON "Bravo Plus" (it was "Charlie" for a brief time after "Delta"). There continues to be a credible terroristic threat for the Lakehurst Area as evidenced by the vast number of cities and locations that have been documented as being visited by persons known to be associated with terroristic organizations. Currently, jersey barriers arranged in a serpentine pattern are used at the Lakehurst Main Gate to slow down incoming traffic, but even with other security measures they do not provide a comprehensive system for stopping vehicles driven by those intent on evading security. As security levels change, the process of placing and removing additional temporary barriers at the gate can hamper operations and takes an inordinate amount of time to deploy--especially when the FPCON is rapidly escalating.

Alternative R1 (Preferred Alternative): This alternative would involve upgrading the Main Gate by renovating the existing guardhouse and reconfiguring the approach lanes to the guardhouse. This alternative would result in approximately 140 SF of permanent floodplain impact.

Project R2: Berm Removal

The project involves removing four berms that were installed in the late 1970s to create cranberry bogs. The berms created four ponds that currently consist of approximately 20 acres of surface water impoundments. These ponds attract waterfowl species that present a hazard to airfield safety. The ponds also cause stormwater run-off draining from Runway 06/24 to back up onto the airfield. The proposed project includes removal of the berms to drain the ponds, which would restore the natural stream flow and native grasslands that existed before the ponds were created. An excavator would be used to remove an approximate 15-foot-long section from each berm, totaling approximately 61 cubic yards of material that would be spread in an off-site grassland restoration area. Approximately 6 acres would be planted in native grasses to create habitat for upland bird species and would discourage the waterfowl that are currently using the site. The project would also involve measures to eliminate or control invasive stands of phragmites. A permit for this project was received from the NJDEP on June 22, 2022. This permit authorizes the temporary disturbance of approximately 6.5 acres of freshwater wetlands and 7.9 acres of State open water for the removal of the four berms to restore natural stream flow and includes the restoration of the area as part of the BMPs.

Alternative R2 (Preferred Alternative): Under this alternative, the berms would be removed, and the land would be allowed to revert to its natural condition. This alternative would result in approximately 6.5 acres of temporary freshwater wetland impact and 7.9 acres of permanent state open water impact.

DESCRIPTION OF THE NO ACTION ALTERNATIVE

The EIAP (32 CFR § 989.8[d]) requires consideration of the No-Action Alternative(s). Under the No-Action Alternative(s), DAF would not implement any of the 11 proposed projects. The No-Action Alternative(s) would not satisfy the purpose of and need for the proposed actions for any of the 11 projects.

SUMMARY OF ENVIRONMENTAL FINDINGS

DAF has analyzed and concluded that the Proposed Action would not have significant adverse effects to the following resource areas: air quality; water resources; geology, topography and soils; cultural resources; biological resources; land use; noise; infrastructure and transportation; safety; hazardous materials and wastes; environmental justice; and airspace. Socioeconomics and visual resources were considered for potential impacts, determined to not be affected by the Proposed Action, and therefore eliminated from detailed analysis. Additionally, no significant adverse impacts would result from activities associated with the Proposed Action when considering reasonably foreseeable planned actions. Summaries of each resource area are provided herein:

Air Quality. The proposed actions would result in long-term, negligible, adverse and beneficial impacts on air quality from operation of new facilities and discontinued operation of demolished facilities. Projects C2, C3, and C4 would add new building space to JB MDL that would require permanent heating systems, which would produce air emissions while operating. Project D1 would remove building space from JB MDL and heating systems for the existing ATCT facility that would no longer be needed. Project D2 would remove diesel emergency generators and diesel and fuel oil storage tanks, reducing criteria pollutant emissions from fuel combustion and vapor emissions (i.e., VOC) from fuel transfer activities. Therefore, Projects D1 and D2 would result in a decrease in operational air emissions.

The remaining projects (i.e., Projects C1, C5, C6, C7, R1, and R2) would not include the addition or removal of any operational air emissions source; therefore, these projects would not result in changes to operational air emissions. Therefore, adverse impacts on air quality from operations would not be significant.

Climate Change and GHGs. GHG emissions produced during the construction periods for the proposed actions would not meaningfully contribute to the potential effects of climate change. Therefore, construction would result in short-term, negligible, adverse impacts from GHGs. In addition, long-term, adverse impacts from operations would be negligible. Operational emissions from the proposed actions would continue indefinitely.

In alignment with the DAF Climate Action Plan, climate priorities would be considered during the design phase for new buildings. Enhanced energy efficiency, lower GHG emitting technology, reduced embodied carbon in construction materials, sustainable building practices, and carbon-free power generation could offset the predicted increases in operational CO_{2e} emissions. In addition, construction activities would incorporate BMPs and environmental control measures

(e.g., wetting the ground surface) to minimize fugitive dust emissions. In addition, Work vehicles would be well-maintained and could use diesel particulate filters to reduce emissions of criteria pollutants.

Water Resources. Short-term minor to moderate, cumulative adverse impacts on groundwater, surface water, wetlands, and floodplains would be expected from implementation of the proposed actions. No significant impacts to water resources including surface water, groundwater, wetlands, and floodplains would be expected to result from the proposed actions because of the federal and state requirements for controlling stormwater and controlling erosion, installation and use of BMPs and incorporating LID in the designs. Short-term impacts on water resources, such as stormwater runoff, erosion and sedimentation impacts and contamination from accidental spills, would be avoided and minimized by adhering to the JB MDL Spill Prevention, Control, and Countermeasure (SPCC) Plan, New Jersey Pollutant Discharge Elimination System (NJPDES) permit, New Jersey Department of Environmental Protection (NJDEP)/United States Army Corps of Engineers (USACE) permits, installation of Best Management Practices (BMPs) and Soil Erosion and Sediment Control (SESC)/ Storm Water Pollution Prevention Plan (SWPPP) requirements, as well as the application of Low Impact Development (LID) technologies. Long-term, minor to moderate, adverse impacts would be expected on surface water and groundwater due to an increase in stormwater runoff and erosion and sedimentation potential associated with the net increase in impervious surface under the proposed actions. Although there will be filling of wetlands from the project, LID technologies and mitigation practices will be used to prevent the impacts from being long-term. Mitigation banking will be considered upon final wetland delineation. This alternative would result in approximately two acres of permanent wetland impact and two acres of permanent floodplain impacts as a result of the perimeter road construction through these resources.

Geology, Topography and Soils. Short-term, minor, adverse impacts would be expected on topography, geology, and soils due to temporary ground disturbance during construction, a net increase in impervious surfaces, increased stormwater runoff and erosion and sedimentation potential, and increased vehicle and pedestrian traffic resulting in soil compaction. Soils at JB MDL have undergone modifications as a result of development and military activities. Individually, all construction and demolition activities could have short-term, minor, adverse effects due to vegetation removal, compaction of soils, and increased soil erosion and sedimentation.

Development and implementation of an SESC plan, project-specific and installation-wide SWPPPs, SPCC plans, incorporation of LID practices, and stormwater management BMPs, such as silt fences and construction phasing, could reduce impacts from and on stormwater runoff and subsequent erosion and sedimentation potential. Therefore, potentially adverse effects would be minimized.

Cultural Resources. The proposed actions would not result in direct physical impacts to historic properties; however, Projects C2 and R2 would occur within the viewshed of the Lighter-Than-Air Historic District, Projects C1, C2, C4, C6, and C7 are within a High Archaeological Sensitive Areas (ASA). In general, impacts from the proposed actions on historic properties are limited, as no direct physical impacts to historic properties is anticipated. The proposed actions generally would occur in developed areas and in a setting that has been dominated by military operations for nearly a century. While the proposed actions would result in temporary visual impacts from construction, these would be short-term and dispersed. Character-defining features of historic

properties would remain intact and thus historic properties would continue to be capable of conveying their significance. The proposed actions would not result in direct physical impacts to historic properties; however, Projects C2 and R2 would occur within the viewshed of the Lighter-Than-Air Historic District, which would require further architectural investigation to assess potential visual impacts to the district.

As a result of previous archaeological surveys, JB MDL has identified areas of the installation as High ASA, which are areas that offer favorable environmental conditions for archaeological resource discovery. These data were incorporated into the assessment of the potential for archaeological deposits in previously non-surveyed areas, and for recommendations on further archaeological investigations prior to project implementation. JB MDL data indicate the project area for Project C4 and portions of the project areas for Alternatives C1-1 and C1-2 are within High ASAs. Projects C1, C2, C4, C6, and C7 are within an ASA, and further archaeological investigation would be required within those areas identified as High ASA.

Avoidance of known cultural resources would be taken into consideration prior to implementing reasonably foreseeable actions. However, actions that could adversely impact archaeological resources would undergo Section 106 consultation, and appropriate mitigation measures would need to be developed to avoid or reduce adverse effects on protected resources.

Biological Resources. The United States Fish and Wildlife Service (USFWS) Section 7 Coordination is ongoing. A response to the Scoping Letter was received in June 2023, requesting that Information for Planning and Consultation (IPaCs) queries be conducted for each project. The results were the identification of potential species with a determination of May Affect for Projects C1, C2 and R2.

There would be short-term, minor, adverse impacts from Alternatives C2-2, C5, C6, C7, D1, D2, and R1 on vegetation from temporary disturbance of vegetation and soil compaction during construction, demolition, and renovation activities and from permanent vegetation removal for new facilities. Short- and long-term, negligible, adverse impacts on wildlife may occur from increased noise and potential temporary displacement associated with the proposed construction, renovation, and demolition projects including berm removal and habitat transitions. Short-term, negligible, adverse impacts on wildlife would occur from noise associated with heavy equipment use and increased human presence during project construction, renovation, and demolition. Alternatives C1-1, C1-2, C2-1, C2-2, C2-3, C3, C4 and R2 would result in short- to long-term minor adverse impacts to biological resources by reducing habitat or changing it by impacting wetlands, the floodplains and forested areas. However, this also includes the restoration of the grasslands, natural stream flow and removal of invasives at R2 related to the berm removals and reduction of flooding between the C1-1/2 and R2 areas by removing the berms.

BMPs and mitigation needed to minimize and offset adverse environmental effects associated with implementing proposed projects. BMPs may include tree planting, wetlands restoration, and invasive species control.

Land Use. New facilities proposed under the reasonably foreseeable actions generally would be compatible with existing land uses at JB MDL. Long-term, negligible to minor, adverse impacts on land use would occur from the proposed actions because of slight changes in the composition of functional land uses within planning districts. One proposed action (Project C5) would require

changes to land use designations or would result in land use incompatibility. All proposed actions have been evaluated through JB MDL screening criteria to ensure they would be compatible with land use zoning designations within their respective planning districts. All proposed actions, except for Project C5, would be consistent and compatible with the functional land uses of the planning district in which they would be located. As such no land use redesignation would be required for these proposed actions. The proposed actions would support long-term operational efficiency within the associated planning district and on the installation.

Noise. Sound varies by both intensity and frequency. Sound pressure level, called decibels (dB), is used to quantify sound intensity. The “A-weighted” decibel (dBA) is used to approximate the relative loudness of sound based on human perception. The range of audible sound levels for humans is considered to be 1 to 130 dBA, and the threshold of audibility is generally within the range of 2 to 25. Most people are exposed to daily sound levels of 50 to 55 dBA or higher.

Short-term, negligible to minor, adverse noise impacts would be expected from heavy equipment and construction traffic during construction, demolition, and renovation activities. All construction, demolition, and renovation would occur within the installation’s boundary, be collocated with other existing noise-compatible activities, be temporary in nature, and end following the construction period. All construction would occur during normal working hours. These activities would be conducted in the context of an active installation where aircraft and other types of military noise is typical. Noise from construction activities at this receptor would be temporary and intermittent.

Operation of construction vehicles to transport construction and demolition equipment, materials, and debris would temporarily add to existing traffic noise near the proposed actions. Construction traffic would be minimal and therefore have a minimal impact on the noise environment. Resulting noise impacts on the environment from construction traffic for the proposed actions would be minor. No impacts are expected from long-term operations under any proposed action.

Noise from the proposed actions would attenuate to below 65 dBA at the nearest off-installation noise sensitive receptors for all proposed actions except for Project R1, where residential homes within the River Pointe neighborhood approximately 300 feet to the east, would generally experience noise of 78 dBA during renovation activities. Construction, demolition, and renovation for the remaining proposed actions would not result in noise above 65 dBA at off-installation noise sensitive receptors; therefore, these proposed actions are not discussed further.

Phasing of the construction activities would minimize potential compounded noise impacts from multiple concurrent construction, renovation, and demolition activities. In addition, mitigation measures like the installation of exhaust mufflers on the construction machinery would be used to reduce noise generation during construction activities.

Infrastructure and Transportation. The proposed actions have the potential to impact utilities, stormwater infrastructure, and transportation. Short-term, minor, adverse impacts would occur during construction, demolition, and renovation associated with the proposed actions from service interruptions should utility lines need to be rerouted or when new facilities are connected to utility distribution systems. Impervious surfaces including new buildings would increase the rate of stormwater runoff throughout the installation and would result in long-term, minor, adverse impacts.

Safety. Short-term, minor, adverse impacts on occupational health and safety at JB MDL would occur from increased hazards to construction workers, installation personnel, and civilians during construction activities. Adherence to established safety procedures, including the use of personal protective equipment (PPE), fencing project areas, posting signed, and compliance with all federal, state, and DoD Occupational Safety and Health Administration (OSHA) standards would reduce or eliminate health and safety impacts on contractors, military personnel, and the general public.

Hazardous Materials and Waste. Construction, demolition, and renovation under the proposed actions would result in short-term, negligible to minor, adverse impacts on hazardous materials and wastes. These impacts would result from the use of hazardous materials and petroleum products; generation of hazardous wastes during construction, demolition, or renovation; potential disturbance of toxic substances during facility demolition or renovation; and the potential for overlap with Installation Restoration Program (IRP) sites.

Environmental Justice. Project R1 is the only proposed project that may result in indirect environmental or socioeconomic impacts to the local environmental justice communities due to its close distance to a residential area and on base Child Development Centers (CDC). These impacts would be related to the short-term (during construction) impacts detailed in this EA. All potential impacts would be minimized and mitigated wherever possible.

In addition, the local workforce would be utilized and would create a direct beneficial impact on the local environmental justice communities.

Airspace. Short-term, minor, adverse impacts on airspace management would occur during the construction periods for the proposed actions. Although construction activities on the ground would not penetrate the primary or transitional surfaces, construction within the clear zones (CZ) may pose additional safety risks to construction crews and aircraft operations. Construction within a CZ would be scheduled to reduce the time that such activities occur concurrently with aircraft operations. Construction crews also would be notified of the hazards associated with working in a CZ.

Long-term, negligible, adverse impacts on airspace management would occur from the addition of buildings and infrastructure within planes or surfaces associated with the airfield at JB MDL. The primary surface, transitional surface, CZ, accident potential zones (APZs) would not be changed as a result of the proposed actions. The design of new infrastructure would comply with Federal Aviation Administration (FAA) and DAF requirements.

MITIGATION

As the proponent for the Proposed Action, DAF will be responsible for ensuring that the required mitigation described in the environmental findings section above and within the EA are approved by NJDEP prior to taking any specific action identified within this FONSI/FONPA.

PUBLIC REVIEW AND COMMENT

A Notice of Early Public Review was published in the *Asbury Park Press* on May 26th and May 27th and *Burlington County Times* on May 26th and May 28th announcing the commencement of the EA, detailing that the action would take place in floodplains and wetlands, and seeking advanced public comment. No comments were received.

Additionally, public notice was published in the *Asbury Park Press* and *Burlington County Times* announcing the availability of the Draft EA and Draft FONSI/FONPA for public review and comment on December 24, 2023 and December 25, 2023. The documents were made available for review during a 30-day public comment period from December 24, 2023 through January 23, 2024. Copies of the Draft EA and Draft FONSI/FONPA were made available for public review at the Manchester Branch of the Ocean County Library the Westhampton Branch of the Burlington County Library. An electronic version of the report is also available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

Electronic versions of the reports are compliant with Section 508 of the Rehabilitation Act. This allows assistive technology to be used to obtain the available information from the document. Due to the nature of graphics, figures, tables, and images occurring in the document, accessibility is limited to a descriptive title for each item.

Consultation with the New Jersey Historic Preservation Office, other identified consulting parties, and federally recognized Tribes under Section 106 of the NHPA is currently ongoing.

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and analyses contained in the attached EA, conducted under the provisions of NEPA, CEQ Regulations, and 32 CFR § 989, I conclude that the Proposed Action would not result in significant environmental impacts, either by itself or cumulatively with other known projects. Accordingly, an Environmental Impact Statement is not required. This analysis fulfills the requirements of NEPA, the President's CEQ Regulations at 40 CFR §§ 1500-1508, and the Air Force EIAP regulations at 32 CFR § 989. The signing of this Finding of No Significant Impact completes the EIAP.

A Mitigation and Monitoring Plan will be developed and implemented by DAF prior to any action being taken on any of the proposed actions, but no later than 90 days from the date of this FONSI.

FINDING OF NO PRACTICABLE ALTERNATIVE

Pursuant to Executive Order(s) 11988 and 11990, and the authority delegated by the Secretary of the Air Force Order 791.1, I find there is no practicable alternative to completing the Proposed Action, which will impact floodplains and wetlands, as described in the attached EA. The EA analyzed whether an alternative location or design of each of the proposed actions could avoid impacts to floodplains and wetlands, but due to the specifics of each of the proposed actions, no practicable alternative exists. This finding fulfills both the requirements of the referenced Executive Orders and the EIAP regulation, 32 CFR § 989.14 for a Finding of No Practicable Alternative.

Randy L. Boswell
Colonel, DAF

Date

Cover Sheet

Draft Environmental Assessment for an Installation Development Plan at Joint Base McGuire-Dix-Lakehurst, New Jersey

Responsible Agencies: Department of the Air Force, Air Mobility Command, 87th Air Base Wing.

Affected Location: Joint Base McGuire-Dix-Lakehurst, New Jersey.

Report Designation: Draft Environmental Assessment.

Abstract: The Department of the Air Force (DAF) has identified priorities for installation development projects at Joint Base McGuire-Dix-Lakehurst (JB MDL) and proposes to implement them over the next five years (fiscal years 2023-2027). The intent of the ongoing process of installation development at JB MDL is to provide infrastructure improvements necessary to support the mission of the 87th Air Base Wing and tenant units. The 11 projects considered for implementation include those that were identified as priorities for installation development in the 2014 Installation Development Plan (IDP) as well as additional projects identified by JB MDL Natural Resources that were not included in the Integrated Natural Resources Management Plan. The proposed projects are requirements for the improvement of the physical infrastructure and functionality of JB MDL, including current and future mission, facilities and infrastructure requirements, development constraints and opportunities, and land use relationships.

Under the Proposed Action, DAF would implement the preferred alternative for each of the 11 projects. Under the No-Action Alternative, DAF would not implement any of the 11 projects.

This Environmental Assessment (EA) supports the DAF Environmental Impact Analysis Process (EIAP) for the proposed projects. This EA analyzes the potential for environmental and socioeconomic impacts associated with the Proposed Action and the No-Action Alternative. No significant effects on environmental resources would be expected from the Proposed Action.

Comments and inquiries regarding this document should be directed by mail to 87th Air Base Wing Public Affairs Office, 2901 Falcon Lane, Suite 235, Joint Base McGuire-Dix-Lakehurst, New Jersey 08641, or by email to 87.abw.pa@us.af.mil.

PRIVACY ADVISORY

The Draft EA, and Draft FONSI/FONPA are being provided for public comment in accordance with the National Environmental Policy Act (NEPA) (42 United States Code § 4321 et seq.), the President's Council on Environmental Quality NEPA Regulations (40 Code of Federal Regulations §§ 1500–1508), and 32 Code of Federal Regulations § 989, *Environmental Impact Analysis Process (EIAP)*.

The EIAP provides an opportunity for public input on DAF decision-making, allows the public to offer input on alternative ways to accomplish what it is proposing, and solicits comments on the analysis of environmental effects.

Public commenting allows the DAF to make better, informed decisions. Letters or other written or oral comments provided may be published in the EA. As required by law, comments provided will be addressed in the EA and made available to the public. Providing personal information is voluntary. Any personal information provided will be used only to fulfill requests for copies of the EA or

associated documents. Private addresses would be compiled to develop a mailing list for those requesting copies of the EA. However, only the names of the individuals making comments and specific comments would be disclosed. Personal information, home addresses, telephone numbers, and email addresses would not be published in the Final EA.

Electronic version of this document are compliant with Section 508 of the Rehabilitation Act. This allows assistive technology to be used to obtain the available information from the document. Due to the nature of graphics, figures, tables, and images occurring in the document, accessibility is limited to a descriptive title for each item.

DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY

TABLE OF CONTENTS

1.0	PURPOSE OF AND NEED FOR ACTION	1
1.1	INTRODUCTION	1
1.2	PURPOSE OF INSTALLATION DEVELOPMENT	2
1.3	NEED FOR INSTALLATION DEVELOPMENT	2
1.4	PROJECTS PROPOSED FOR DEVELOPMENT	3
1.5	ENVIRONMENTAL ANALYSIS APPROACH FOR THE IDP	3
1.6	PURPOSE OF AND NEED FOR INDIVIDUAL PROPOSED ACTIONS	3
1.7	INTERAGENCY/INTERGOVERNMENTAL COORDINATION AND CONSULTATIONS	3
1.8	PUBLIC AND AGENCY REVIEW OF EA	4
1.9	DECISION TO BE MADE	5
2.0	DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES	5
2.1	PROPOSED ACTION	5
2.2	SELECTION STANDARDS FOR PROJECT ALTERNATIVES	5
2.3	PROPOSED ACTIONS AND ALTERNATIVES	6
2.3.1	<i>Construction Projects</i>	7
2.3.2	<i>Demolition Projects</i>	12
2.3.3	<i>Renovation and Repair Projects</i>	14
3.0	AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	15
3.1	AIR QUALITY	16
3.1.1	<i>Affected Environment</i>	17
3.1.2	<i>Significance Criteria</i>	18
3.1.3	<i>General Environmental Consequences of the Proposed Actions</i>	19
3.1.4	<i>Project-Specific Environmental Consequences</i>	21
3.1.5	<i>Environmental Consequences of the No-Action Alternatives</i>	22
3.2	WATER RESOURCES	22
3.2.1	<i>Affected Environment</i>	22
3.2.2	<i>Significance Criteria</i>	24
3.2.3	<i>General Environmental Consequences of the Proposed Actions</i>	24
3.2.4	<i>Project-Specific Environmental Consequences</i>	25
3.2.5	<i>Environmental Consequences of the No-Action Alternatives</i>	27
3.3	GEOLOGY, TOPOGRAPHY, AND SOILS	27
3.3.1	<i>Affected Environment</i>	27
3.3.2	<i>Significance Criteria</i>	28
3.3.3	<i>General Environmental Consequences of the Proposed Actions</i>	28
3.3.4	<i>Project-Specific Environmental Consequences</i>	28
3.3.5	<i>Consequences of the No-Action Alternatives</i>	29
3.4	CULTURAL RESOURCES	29
3.4.1	<i>Affected Environment</i>	30
3.4.2	<i>Significance Criteria</i>	31
3.4.3	<i>General Environmental Consequences of the Proposed Actions</i>	32
3.4.4	<i>Project-Specific Environmental Consequences</i>	32
3.4.5	<i>Environmental Consequences of the No-Action Alternatives</i>	33
3.5	BIOLOGICAL RESOURCES	33
3.5.1	<i>Affected Environment</i>	34
3.5.2	<i>Significance Criteria</i>	35
3.5.3	<i>General Environmental Consequences of the Proposed Actions</i>	35
3.5.4	<i>Project-Specific Environmental Consequences</i>	36
3.5.5	<i>Environmental Consequences of the No-Action Alternatives</i>	37
3.6	LAND USE	37
3.6.1	<i>Affected Environment</i>	38
3.6.2	<i>Significant Criteria</i>	38

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

3.6.3	<i>General Environmental Consequences of the Proposed Actions</i>	38
3.6.4	<i>Project-Specific Environmental Consequences</i>	39
3.6.5	<i>Environmental Consequences of the No-Action Alternatives</i>	39
3.7	NOISE	39
3.7.1	<i>Affected Environment</i>	40
3.7.2	<i>Significance Criteria</i>	40
3.7.3	<i>General Environmental Consequences of the Proposed Actions</i>	40
3.7.4	<i>Project-Specific Environmental Consequences</i>	41
3.7.5	<i>Environmental Consequences of the No-Action Alternatives</i>	41
3.8	INFRASTRUCTURE AND TRANSPORTATION	41
3.8.1	<i>Affected Environment</i>	42
3.8.2	<i>Significance Criteria</i>	44
3.8.3	<i>General Environmental Consequences of the Proposed Action</i>	44
3.8.4	<i>Project Specific Environmental Consequences</i>	45
3.8.5	<i>Environmental Consequences of the No-Action Alternatives</i>	47
3.9	HEALTH AND SAFETY	47
3.9.1	<i>Affected Environment</i>	47
3.9.2	<i>Significance Criteria</i>	47
3.9.3	<i>General Environmental Consequences of the Proposed Actions</i>	48
3.9.4	<i>Project-Specific Environmental Consequences</i>	49
3.9.5	<i>Environmental Consequences of the No-Action Alternatives</i>	49
3.10	HAZARDOUS MATERIALS AND WASTES	49
3.10.1	<i>Affected Environment</i>	50
3.10.2	<i>Significance Criteria</i>	55
3.10.3	<i>General Environmental Consequences of the Proposed Actions</i>	56
3.10.4	<i>Project-Specific Environmental Consequences</i>	58
3.10.5	<i>Environmental Consequences of the No-Action Alternatives</i>	61
3.11	ENVIRONMENTAL JUSTICE	62
3.11.1	<i>Affected Environment</i>	62
3.11.2	<i>Significance Criteria</i>	63
3.11.3	<i>General Environmental Consequences</i>	63
3.11.4	<i>Project-Specific Environmental Consequences</i>	63
3.11.5	<i>Environmental Consequences of the No-Action Alternatives</i>	64
3.12	AIRSPACE	64
3.12.1	<i>Affected Environment</i>	64
3.12.2	<i>Significance Criteria</i>	66
3.12.3	<i>General Environmental Consequences of the Proposed Actions</i>	66
3.12.4	<i>Project-Specific Environmental Consequences</i>	66
3.12.5	<i>Environmental Consequences of the No-Action Alternatives</i>	67
4.0	REASONABLY FORESEEABLE ACTIONS AND CUMULATIVE EFFECTS	67
4.1	PRESENT AND REASONABLY FORESEEABLE ACTIONS	68
4.2	ASSESSMENT OF CUMULATIVE IMPACTS BY RESOURCE	68
5.0	SUMMARY OF ENVIRONMENTAL MANAGEMENT PRACTICES	72
5.1	AIR QUALITY	72
5.2	NOISE	72
5.3	GEOLOGY, TOPOGRAPHY AND SOILS	72
5.4	WATER RESOURCES	72
5.5	BIOLOGICAL RESOURCES	73
5.6	HAZARDOUS MATERIALS AND WASTES	73
6.0	REFERENCES	74
7.0	LIST OF PREPARERS	80
8.0	ACRONYMS	81

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

APPENDICES

Appendix A – Tables, Figures and Regulatory Setting

Appendix B – Intergovernmental Coordination for Draft EA

Appendix C – Early Notice of Project Execution/Agency Responses, NOA and Public/Agency Responses

Appendix D – ACAM Models

Appendix E – USFWS Information for Planning and Consultation Reports

Appendix F – Approved Permits

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Note that in the sections below, tables, figures, and the Regulatory Criteria for each environmental resource are located in Appendix A to meet page limit requirements.

1.0 PURPOSE OF AND NEED FOR ACTION

1.1 INTRODUCTION

The 87th Air Base Wing (87 ABW) at Joint Base McGuire-Dix-Lakehurst (JB MDL), New Jersey, and Headquarters Air Mobility Command (HQ AMC) have identified priorities for installation development projects and propose to implement them over the next five years (Fiscal Year (FY) 2023-2027). This Environmental Assessment (EA) was prepared to evaluate the potential environmental impacts of these proposed projects in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] 4331 et seq.) as amended by the Fiscal Responsibility Act of 2023, the September 14, 2020 version of the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA procedures (40 Code of Federal Regulations [CFR] 1500-1508) as modified by the NEPA Implementing Regulations Revisions that became effective on May 20, 2022, the Air Force Environmental Impact Analysis Process (EIAP) Regulations at 32 CFR Part 989, and Air Force Instruction 32-7061 (Secretary of the Air Force 2003).

The intent of the ongoing process of installation development at JB MDL is to provide infrastructure improvements necessary to support the mission of the 87 ABW and tenant units. The 11 projects considered in this EA were identified as priorities for installation development in the 2014 JB MDL Installation Development Plan (IDP) as well as additional projects identified by JB MDL Natural Resources that were not included in the Integrated Natural Resources Management Plan (INRMP). These projects are requirements for the improvement of the physical infrastructure and functionality of JB MDL, including current and future mission, facilities and infrastructure requirements, development constraints and opportunities, and land use relationships.

JB MDL is in Burlington and Ocean Counties, New Jersey, 18 miles southeast of Trenton, and occupies 42,000 acres of land spanning more than 20 miles west to east (Army 1967) (see **Figure 1.1-1**). It is a multi-service joint base supporting Air Force, Army, and Navy missions, as well as the missions of other federal agencies and the New Jersey National Guard. JB MDL is home to many Department of Defense (DoD) missions including the 99th Regional Support Command, the 174th Infantry Brigade, the 108th Wing, the 305th Air Mobility Wing, the 514th Air Mobility Wing, the 621st Contingency Response Wing, the Army Support Activity-Fort Dix, the Naval Air Systems Command, the Naval Air Warfare Center Aircraft Division, and the United States Air Force Expeditionary Center.

The intent of the 87 ABW and HQ AMC is to streamline NEPA compliance and facilitate the installation development process by evaluating in one integrated document the potential impacts on the human environment of the projects proposed for execution at JB MDL.

The information presented in this EA will serve as the basis for deciding whether the Proposed Action would result in a significant impact to the human environment, requiring the preparation of an EIS, or whether no significant impacts would occur, in which case a finding of no significant impact (FONSI) would be appropriate. Executive Order (EO) 11990, *Protection of Wetlands*, and EO 11988, *Floodplain Management*, require that a Finding of No Practicable Alternative (FONPA) be prepared in conjunction with the FONSI for actions that involve action in a floodplain or new construction in a wetland. The FONPA provides a discussion for why no practicable alternatives exist for avoiding

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

impacts to these resources. A FONPA would be necessary for several of the actions evaluated in this EA.

1.2 PURPOSE OF INSTALLATION DEVELOPMENT

Installation (or Area/District) Development Plans provide a comprehensive planning framework to identify future priority requirements and goals for base development to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. Ideal development principles for maximizing the installation's long-term capabilities are identified in Strategic Vision Alignment. The Planning Constraints, together with the Installation Capacity Opportunities, identify areas suitable for future development. Those combined with Sustainability Development Indicators direct the scale of development and how and where that development should occur to best meet the ongoing mission needs and the long-term (base) IDP vision, which is illustrated in the Future Development Planning. Plan Implementation identifies short-, mid-, and long-range projects, and correlates the project with the goals and objectives of the IDP. Planning activities must integrate the NEPA process to ensure that planning and decisions reflect environmental values, identify alternatives considered, document which alternatives would be carried forward for full analysis and the rationale for those dismissed, avoid delays later in the process, and head off potential conflicts.

1.3 NEED FOR INSTALLATION DEVELOPMENT

The need for installation development at JB MDL is to provide and maintain facilities and infrastructure that are adequate to support the needs of DAF and its tenant units, and to do so in a manner that:

- Supports the DAF mission requirements, future mission capabilities requirements, and quality of life of units and Airmen hosted by the installation;
- Meets applicable DoD installation master planning criteria, consistent with Unified Facilities Criteria (UFC) 2-100-01, *Installation Master Planning*, and DAF comprehensive planning policy and directives;
- Meets all applicable requirements in NEPA of 1969 (Public Law 91-190, 42 USC 4321-4347, as amended); 32 CFR 989, Environmental Impact Analysis Process; 40 CFR 1500-1508, CEQ's Regulations on Implementing NEPA; 50 CFR 402, Interagency Cooperation; Endangered Species Act (ESA) of 1973, as amended; 36 CFR 800, Protection of Historic Properties; U.S. Army Corps of Engineers wetlands policy; Executive Order 11988, *Floodplain Management*; Executive Order 11990, *Protection of Wetlands*, State approved Coastal Management Program; Air Force Instruction 31-7001, Environmental Management; Air Force Manual (AFMAN) 32-7002, Environmental Compliance and Pollution Prevention; AFMAN 32-7003, Environmental Conservation; Section 508 of the Rehabilitation Act of 1973 (29 USC 794d); CZ Business Rule 27-Staffing of NEPA Documents; The Migratory Bird Treaty Act of 1918 (16 USC 703-712); The Bald and Golden Eagle Protection Act (16 USC 668-668c); and Clean Water Act (CWA) (33 USC §1251 et seq. (1972)). More detailed information regarding resource specific laws and regulations are provided in **Appendix A**.

1.4 PROJECTS PROPOSED FOR DEVELOPMENT

JB MDL identified 11 projects involving facility and infrastructure construction, demolition, and renovation and repair activities throughout the installation. **Table 1.4-1** lists the 11 projects, which consists of priority projects within the IDP as well as projects identified from JB MDL Natural Resources that were not included in the INRMP.

1.5 ENVIRONMENTAL ANALYSIS APPROACH FOR THE IDP

The 11 projects identified for environmental analysis are related to the different categories of activities considered and geographic areas associated with the installation. This EA assesses the impacts of these projects that may occur over the next 5 years (FY2023-2027). Analysis focuses on future development activities and priorities of the installation as established by the Wing Commander in conjunction with Major Command and DAF mission planning. Any additional projects or future activities proposed on areas associated with the installation must be evaluated on their own merit under the DAF EIAP guidelines to determine their environmental impacts and appropriate level of NEPA analysis.

1.6 PURPOSE OF AND NEED FOR INDIVIDUAL PROPOSED ACTIONS

Each of the proposed actions (or projects) has a specific purpose and need. The purpose and need for each of the projects are presented in **Table 1.6-1**.

1.7 INTERAGENCY/INTERGOVERNMENTAL COORDINATION AND CONSULTATIONS

Government to Government Consultations

EO 13175, *Consultation and Coordination with Indian Tribal Governments*, directs Federal agencies to coordinate and consult with Native American tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. Consistent with that executive order, DoD Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, and DAF Instruction 90-2002 (revised August 24, 2020), *Interactions with Federally Recognized Tribes*, federally recognized tribes that are historically affiliated with the JB MDL geographic region will be invited to consult on proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to the tribes. The National Historic Preservation Act (NHPA) (54 USC §§ 306101-306131) requires federal agencies to consult with Native American tribal governments to identify cultural resources that may be adversely affected by the agency's proposed action. The tribal consultation process is distinct from NEPA consultation or the interagency coordination process, and it requires separate notification to all relevant tribes. The timelines for tribal consultation are also distinct from those of other consultations. The JB MDL point-of-contact for Native American tribes is the Installation Commander (DoD 4710.02, Section 3.4[a]). In September 2011, the Installation Commander invited three federally recognized tribes (Delaware Nation, Delaware Tribe of Indians, and Stockbridge Munsee Community) to engage in government-to-government consultation. On December 9, 2011, the Stockbridge Munsee Community indicated that JB MDL is not in a county the tribe has an interest in. However, the Delaware Nation and Delaware Tribe of Indians expressed interest in government-to-government consultation with JB MDL. **Appendix B** lists the Native American tribal governments coordinated or consulted with regarding the Proposed Action and contains documentation of relevant correspondence.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Intergovernmental Coordination

Scoping is an early and open process for developing the breadth of issues to be addressed in an EA and for identifying significant concerns related to a proposed action. Per the requirements of Intergovernmental Cooperation Act of 1968 (42 USC 4231(a)) and EO 12372, as amended by EO 12416 and supplemented by EO 13132, Federal, state, and local agencies with jurisdiction that could be affected by the proposed actions were notified during the development of this EA. **Appendix B** contains the intergovernmental coordination list and documentation of intergovernmental coordination.

Other Agency Consultations

Per the requirements of Section 106 of the NHPA and implementing regulations (36 CFR Part 800) and Section 7 of the ESA and implementing regulations (50 CFR Part 402), including the Migratory Bird Treaty Act, findings of effect and request for concurrence have been transmitted to the New Jersey Historic Preservation Officer (HPO) and the U.S. Fish and Wildlife Service (USFWS). The concurrence and response letters from the New Jersey HPO and the USFWS will be included in the EA upon receipt.

Correspondence regarding the findings and concurrence and resolution of any adverse effect is included in **Appendix B**.

1.8 PUBLIC AND AGENCY REVIEW OF EA

NEPA requirements help ensure environmental information is made available to the public during the decision-making process and prior to an action's implementation. A premise of NEPA is that the quality of federal decisions will be enhanced if the public is involved in the planning process.

Because some of the proposed actions coincide with wetlands and/or floodplains, they are subject to the requirements and objectives of EO 11990, *Protection of Wetlands*, and EO 11988, *Floodplain Management*. The DAF has published early notice that some of the proposed actions would occur in a floodplain/wetland in the Burlington County Times and Asbury Park Press. The notice identified state and federal regulatory agencies with special expertise that have been contacted and solicited to provide public comment on the proposed actions and any practicable alternatives. The comment period for public and agency input on these projects occurred on May 26, 2023 through June 26, 2023. The Early Public Notice is located in **Appendix C**. No comments from the public were received. Agency comments to the Early Public Notice are noted in the appropriate sections and are included in **Appendix C**.

A Notice of Availability (NOA) of the Draft EA and FONSI/FONPA has been published in the newspapers of record listed above, announcing the availability of the Draft EA and FONSI/FONPA for review. The NOA invites the public to review and comment on the Draft EA and FONSI/FONPA. The public and agency review period ends 30 days after the Draft EA and FONSI/FONPA are made available for review. JB MDL published and distributed the Draft EA and Draft FONSI/FONPA for the 30-day public comment period from December 24, 2023 to January 23, 2024. The NOA and public and agency comments will be provided in **Appendix C**.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

The electronic version of this document is compliant with Section 508 of the Rehabilitation Act. This allows assistive technology to be used to obtain the available information from the document. Due to the nature of graphics, figures, tables, and images occurring in the document, accessibility is limited to a descriptive title for each item.

Copies of the Draft EA and FONSI/FONPA are also available for review at the following locations:

Burlington County Library in Westhampton, NJ	NJ and Ocean County Library-Manchester in Manchester, NJ
--	--

1.9 DECISION TO BE MADE

This EA evaluates whether the proposed actions would result in significant impacts on the human environment. If significant impacts are identified, JB MDL would mitigate impacts to below the level of significance, prepare an EIS addressing the proposed action, or abandon it.

This EA is a planning and decision-making tool that will guide JB MDL in implementing the proposed actions consistent with DAF standards for environmental stewardship.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

This EA evaluates the potential environmental impacts that may arise from implementing the 11 projects selected from the 2014 JB MDL IDP and other projects proposed by JB MDL Natural Resources. This EA treats each project as a discrete proposed action and evaluates each project and its alternatives separately. These projects include initiatives for construction, demolition, renovation, and repair. **Figure 2.1-1** is an overview map of the locations of the 11 projects and alternatives.

2.2 SELECTION STANDARDS FOR PROJECT ALTERNATIVES

The scope and location of each proposed action and, where applicable, their alternatives, have undergone extensive review by JB MDL Civil Engineering Squadron personnel, local government agencies, and supporting installation and DAF staff specialists.

Potential alternatives to the proposed actions were each evaluated against three universal selection standards. Each project description, beginning in **Section 2.3**, provides details regarding how these universal selection standards apply to specific project requirements.

Standard 1: Planning Constraints (IDP Chapter 6) – Planning constraints are man-made or natural elements that can create significant limitations to the operation or construction of buildings, roadways, utility systems, airfields, training ranges, and other facilities. These constraints, when considered collectively with the installation’s capacity opportunities, inform the identification of potential areas for development, as well as those areas that can be redeveloped to support growth. These standards address compatibility with installation operational aspects, natural and built resources, and land use compatibility, and dictate the location/placement of a proposed facility.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

- *Operational and Mission* – Operational and mission constraints are related to flying and maintaining aircraft; storing fuel, munitions, and other potentially hazardous cargo; and operating training ranges or fulfilling similar operational requirements that can limit future development activity. At JB MDL, operational constraints include, but are not limited to, airfield clearance and safety zones, noise contours, explosive safety quantity distance zones, and antiterrorism/force protection.
- *Natural* – Natural constraints include environmental and cultural resources at JB MDL. These provide positive aesthetic, social, cultural, and recreational attributes that substantially contribute to the overall quality of life on base.
- *Built* – Built constraints are related to the condition, functionality, or effectiveness of infrastructure systems, facilities, and other man-made improvements.
- *Land Use Compatibility* – Land use compatibility constraints are associated with land use designations (e.g., airfield, administrative, recreation) on the installation and ensuring that planning considerations account for compatibility between proposed and existing uses (e.g., recreational use may not be compatible with the airfield).

Standard 2: *Installation Capacity Opportunities (IDP Chapter 7)* – This refers to the capabilities of the installation’s existing facilities/infrastructure to meet existing and future mission needs. This standard drives the scope of the facility/infrastructure development and/or improvement and requires that proposed facility/infrastructure development and improvements support the following aspects:

- Mission operations, mission support, built infrastructure, quality of life

Standard 3: *Sustainability Development Indicators (IDP Chapter 8)* – This refers to the ability to operate into the future without a decline in either the mission or the natural and man-made systems that support it, creating sustainable installations. Sustainability is a holistic approach to asset management that seeks to minimize the negative impacts of DAF’s mission and operations on the environment. This standard also generally drives the scope of the facility/infrastructure development and/or improvement and supports sustainability of the installation through consideration of the following:

- Energy, water, wastewater, air quality, facilities space optimization, encroachment, airfields, natural/cultural resources

2.3 PROPOSED ACTIONS AND ALTERNATIVES

The NEPA and the CEQ regulations mandate the consideration of reasonable alternatives to the proposed actions. “Reasonable alternatives” are those that also could be utilized to meet the purpose of and need for each proposed action.

The NEPA process is intended to support flexible, informed decision-making; the analysis provided by this EA and feedback from the public and other agencies will inform decisions made about whether, when and how to execute the proposed actions. Among the alternatives evaluated for each project is a No-Action Alternative. The No-Action Alternative is used to substantively analyze the consequences of not undertaking the proposed action, not simply conclude no impact, and serves to establish a comparative baseline for analysis.

The scope, location, and objectives of the proposed actions are described here; grouped by project category. This section also presents reasonable and practicable alternatives for projects where multiple viable courses of action exist. Those alternatives are assessed relative to the universal selection

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

standards and project-specific selection standards, where applicable. Alternatives that met all three universal selection standards, in addition to project specific selection standards, were considered reasonable and retained for consideration in this EA. Alternatives that did not meet one or more of the selection standards were considered unreasonable and are not retained for consideration in this EA. Each project description also includes a figure that identifies the proposed project location and environmental and operational constraints.

2.3.1 Construction Projects

Project C1: Construct Airfield Perimeter Road

The proposed project includes grading the area along the proposed pathway and installing a 16-foot wide, one-way road. The roadway would be constructed with asphalt or concrete with stability to handle a large Fire Department Crash/Fire/Rescue vehicle load.

The southern perimeter of the McGuire Airfield has no paved road running parallel to the runway. Security vehicles, maintenance vehicles, and United States Department of Agriculture Bird/Wildlife Aircraft Strike Hazard (BASH) personnel have become stuck in wet areas, requiring off-base tow trucks to pull them out. The use of off-base tow trucks requires them to be escorted from the visitor center. Also, the lack of a paved road may prevent safety vehicles from accessing parts of the airfield in an emergency. The proposed location of the Airfield Perimeter Road is shown in **Figure 2.3.1-1**.

Additional Project-Specific Selection Standards: The construction of the perimeter road would follow UFC 3-201-01 for constructing roadways a minimum of two feet above the floodplain elevation, and UFC 3-201-01 and UFC 3-210-10 standards for surface drainage, underground drainage systems, stormwater management facilities, and erosion and sediment control. In addition, construction would follow USEPA's Low Impact Development (LID) guidelines (USEPA 2023a).

Alternatives Considered but Eliminated from Further Analysis: The location of alternative sites was limited by the requirement of the road to follow the perimeter of the fence surrounding the airfield.

Alternatives Considered for this Project: While there are no alternative locations for the perimeter road, there are two alternatives being considered for the length of the perimeter road.

Alternative C1-1 (Preferred Alternative): Under this alternative, the proposed perimeter road would extend the entire length of the runway. This alternative would result in approximately two acres of permanent wetland impact and two acres of permanent floodplain impact.

Alternative C1-2: Under this alternative, the proposed perimeter road would only extend a third of the way down the runway. The road would extend from the northeast end of the Runway 24 approach to where taxiway Charlie meets the runway. This alternative would result in approximately 0.7 acre of permanent wetland impact and 0.7 acre of permanent floodplain impact.

No-Action Alternative C1: Under the No-Action Alternative, this project would not be constructed at JB MDL. JB MDL and BASH personnel would continue driving under unsafe conditions when accessing the southern perimeter of the McGuire Airfield.

Project C2: Construct Lakehurst ATCT

Under this project, a new air traffic control tower (ATCT) would be constructed to replace the existing, obsolete ATCT at the Lakehurst Airfield. The footprint for the new ATCT would be 1,000 square feet (SF). The project site would include a new 6,000 SF building to house the ATCT and support activities. A 13,000 SF parking lot would be constructed to support 40 employees. A fence would be constructed around the ATCT and ancillary facilities. The existing Lakehurst ATCT, Building 552, is over 50 years old and was built by the U.S. Navy for naval air operations to meet standards during that time period. The air traffic equipment is grossly outdated, the actual building structure is now very badly deteriorated, with structural elements such as the control cap, top deck, and observation catwalk and safety railing being deemed unsafe for personnel to use due to advanced corrosion and decay (JB MDL 2022b). In its present state, the existing ATCT is barely able to support the new air operations mission support role of JB MDL, which adversely affects the DAF's varying aircraft related mission profiles currently present at the installation. The only viable option to remedy this marginal situation is construction of new ATCT built to DAF and HQ AMC mission standards, as well as complying with all current Federal Aviation Administration (FAA) requirements. The proposed location of the ATCT can be seen in **Figure 2.3.1-2**.

Additional Project-Specific Selection Standards: The construction of the ATCT must follow DAF requirements. Anti-terrorism/force protection (AT/FP) measures would be based on the Design Basis Threat in accordance with UFC 4-020-01 (DAF 2017a) and the ATCT & Radar Approach Control Facility Design Guide (DAF 2001). All of the ATCT alternatives are outside the Primary Surface, which is 1,000 feet wide (500 feet on each side of the runway centerline), with a Transitional Surface extending outward and upward at a slope of 7 feet horizontal for every 1-foot vertical.

Alternatives Considered but Eliminated from Further Analysis: Alternatives eliminated from analysis included using the existing ATCT and the use of a modular mobile tower. The current ATCT cannot be upgraded or renovated because it is more than 50 years old and has long exceeded its useful life, the air traffic equipment is grossly outdated, and it is badly deteriorated (DAF 2017a). Bringing the current ATCT up to current codes through renovation would be cost prohibitive. Additionally, the ATCT needs to be operational during construction of a new tower; therefore, a new ATCT cannot be built in the same location as the existing one.

Alternatives Considered for this Project: Three alternative sites are being considered for the new ATCT. A line-of-sight analysis was done for each location to determine the visibility from each proposed ATCT to all runway ends and the three helipads. The line-of-sight analysis was performed for two different heights: the height of the existing ATCT at 83 feet and at a maximum height of 133 feet.

Alternative C2-1 (Site 1 - Preferred Alternative): Site 1 is located immediately northeast of Building 307 (maintenance hangar). Site 1 has good visibility to each runway end; however, the view to the east helipad is blocked by trees at the existing control cab height (83 feet). The ATCT cab height would need to be elevated to an eye level view of at least 112 feet to achieve good visibility to both helipads. The site would require 1.1 acres of tree clearing near the east helipad. There are existing utility connections for natural gas, water, wastewater, electricity, and telecommunications at this location. Additionally, alternative C2-1 would include an emergency generator and diesel fuel aboveground storage tank (AST). Access to the site would be provided via the same access to the existing ATCT. This alternative would result in approximately 0.17 acre of permanent floodplain impacts.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Alternative C2-2 (Site 2): Site 2 is located 1,280 feet northeast of the existing ATCT and is in an area previously cleared of trees. Site 2 has good visibility to the north helipad and Runway 6-24 but no visibility to the ends of Runway 15-33 or the east helipad. Visibility improves at an eye level height of 133 feet, but the Runway 15-33 end is still not visible without clearing approximately 2.5 acres of trees northeast of Runway 15-33. Utility connections to natural gas, wastewater, electricity, water, and telecommunications are approximately 987 feet to the southeast of the site along Rounds Road. Access to the site would be via a connection to Rounds Road. This alternative would result in approximately 0.32 acres of permanent floodplain impacts. An additional 0.2 acres of floodplain would be temporarily impacted as a result of tree clearing.

Alternative C2-3 (Site 3): Site 3 is located 1,958 feet southwest of the existing ATCT. The site has good visibility to all runway ends and each helipad at an eye height level of 83 feet. Connections to natural gas, a wastewater pressurized main line, electricity, water and telecommunications are located 1,120 feet to the south along Broome Road. This site would not require tree clearing for sight distance but would require several acres of tree clearing for site improvements. A new access would be constructed from Broome Road. This alternative would also permanently impact 1.05 acres of floodplain.

No-Action Alternative C2: Under the No-Action Alternative, this project would not be constructed at JB MDL. JB MDL would continue using the existing tower, which is outdated, deteriorating and unsafe.

Project C3: Construct New 144-Bed Dorm

Under this project, a new 144-bed dormitory would be built to relieve a deficiency in dormitory space at the installation. The project would consist of a 54,000 SF, three-story dormitory configured to the AF E1-E4 standard (DAF 2022b). Exterior construction would include a slab-on-grade concrete foundation, load bearing steel framed walls with brick veneer finish and cast stone accents, concrete elevated floor slabs, and metal joist hip roof structure with a standing seam metal roofing system. Exterior closures would include operable metal frame windows with Low E double pane glazing and entry doors with thermal insulation and automatic door closers. Building systems would include heating, ventilation, and air conditioning (HVAC), plumbing, electrical and lighting, communication, security, and fire detection / protection (DAF 2021b). This project would comply with DoD AT/FP requirements per UFC 4-010-01 (DOD 2022). The proposed location of the New 144-Bed Dorm can be seen in **Figure 2.3.1-3**.

Additional Project-Specific Selection Standards: None

Alternatives Considered but Eliminated from Further Analysis: Alternatives that involved construction of the dormitory at an off-base location were dismissed as they would require additional ancillary facilities and would create housing outside of the existing residential area.

Alternatives Considered for this Project: The range of alternatives considered for the dormitory's location were limited based on vacant land within the existing dormitory complex.

Alternative C3 (Preferred Alternative): Under this alternative, the dormitory would be built near the other dormitories, cafeteria, and gymnasium.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

No-Action Alternative C3: Under the No-Action Alternative, a new dormitory would not be constructed at JB MDL. JB MDL would continue to have a deficit of 118 dormitory rooms.

Project C4: Addition to Combat Arms Training and Maintenance (CATM) Facility

This project would construct a 900 SF addition onto the northwest side of Building 1819 (DAF 2021b). The addition would accommodate an open classroom and a laundry/shower area. It would be constructed on a reinforced concrete slab-on-grade. Construction would include load bearing masonry exterior walls with brick cladding and cast stone accents to match the existing building. Energy efficient glazing would be used on windows and doors. The roof would be gabled with three-tab shingles to match the existing shingles. The interior construction would consist of non-loadbearing partition walls as required. The project would also include the installation of power and lighting, HVAC and pre-wired communications. The Addition to CATM Facility location is in **Figure 2.3.1-4**.

Additional Project-Specific Selection Standards: None.

Alternatives Considered but Eliminated from Further Consideration: There would be no alternative site locations as the proposed infrastructure is spatially connected to the existing infrastructure.

Alternatives Considered for this Project:

Alternative C4 (Preferred Alternative): The Preferred Alternative includes adding an addition to the existing CATM Facility.

No-Action Alternative C4: Under the No-Action Alternative, the project would not occur at JB MDL. The existing CATM Facility would continue to be undersized.

Project C5: Construct New Wells

The proposed project involves replacing the capabilities of Wells #5 (Building 5280) and #6 (Building 1190) through the construction of two new wells and wellhouses that meet all current standards. These wells service the Dix Area. The new wells and wellhouses would be constructed near the current well sites but properly sited to retrieve needed groundwater sources (DAF 2021d). New facilities would consist of a 3,250 SF filter building, an 800 SF sedimentation basin, a 20-foot-wide asphalt driveway with a 14-foot-wide parking area, and 639 feet of fencing.

New treatment systems would be installed to remove iron and manganese. The proposed project would include the necessary piping, electrical lines, and other utility connections to support the new wellhouses. The new wellhouses would be built from brick and concrete to house the well and treatment system. Two 5,000-gallon, galvanized steel, aboveground water storage tanks also would be constructed. Proposed locations of the new wells can be seen in **Figure 2.3.1-5**.

Well #5 is over 70 years old and has not been fully functional for over 20 years. Well #6 is over 50 years old and has not been fully functional for 10 years (DAF 2022d). The screen and inner casing of Well #6 are wearing thin, which would lead to failure if put back in service. The Dix Area receives some potable water from Rancocas Creek via the Dix Area water treatment plant. The water treatment plant is shut down annually during summer months when the creek flow rate drops below the minimum draw level. Under low flow conditions, the primary potable water requirement is supplied by two

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

operational deep wells, separate from the water treatment plant; however, there is no sustainable backup supply. For each well, groundwater would be pumped to the sedimentation basin, then filtered/treated in the pumphouse before distribution through the potable water lines. Pending regulations regarding the Disinfection Byproducts Rule will cause increased dependence on wells as the sole primary potable water source due to the inability of the water treatment plant to meet the drinking water criteria during hot summer months, regardless of low flow conditions.

Additional Project-Specific Selection Standards:

- The selected alternative must be financially reasonable. The existing wells cannot be renovated as they are incapable of being upgraded to meet federal and state standards.
- DoD AT/FP requirements per UFC 4-010-01, UFC 3-230-02 (DOD 2021), UFC 1-200-02 (DOD 2020)

Alternatives Considered but Eliminated from Further Consideration: Alternatives to the proposed project included off-base water delivery systems and upgrades to the current wells. Off-base water deliveries were dismissed based on the financial burden required to meet force protection regulations. Upgrading the current wells was dismissed because the existing wells cannot be upgraded to federal and state standards.

Alternatives Considered for this Project:

Alternative C5 (Preferred Alternative): This alternative would construct a new Well #5 adjacent to the existing Well #5, and a new Well #6 across the street from the existing Well #6. Construction of Well #5 would result in 0.01 acre of permanent impacts to floodplains. Well #5's construction area is located within a FEMA mapped floodplain area, resulting in potential impacts to the floodplain.

No-Action Alternative C5: Under the No-Action Alternative, this project would not be constructed at JB MDL. New wells would not be installed, and the potable water needs for JB MDL would not be fully met.

Project C6: Installation of Aerators in Ponds

Under this proposed project, aerators would be installed in Lake of the Woods (Dix Area) and Rainbow Pond (Lakehurst Area). Community health concerns include stagnant water, growing fears associated with chemical usage, and increased regulatory compliance requirements to improve water quality and reduce flooding. Subsurface pond aeration is widely considered a best management practice (BMP) to improve water quality and maintain capacity. The use of a solar powered delivery system eliminates concerns regarding on-going electric costs. The installation of the aerators would take 30 days to complete. The aerators would serve up to 2 acres depending on depth and shape of the ponds. The aerators would provide oxygen to the ponds through subsurface aeration. Subsurface aeration allows the pond to function naturally by providing the oxygen needed for decomposition to occur. Subsurface aeration would reduce odor, fish kills, and sedimentation within the ponds (DAF 2022f). The location of the proposed installation of pond aerators can be seen in **Figure 2.3.1-6**.

Additional Project-Specific Selection Standards: None.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Alternatives Considered but Eliminated from Further Analysis: There were no alternatives considered and dismissed for this proposed project, as the project was limited to the existing pond locations.

Alternatives Considered for this Project:

Alternative C6 (Preferred Alternative): Under this alternative, the aerators would be installed in the ponds. This alternative would result in approximately 40 SF of permanent open water impacts at each pond location. According to the mapping, however, the work at Rainbow Pond is located within the FEMA floodplain. Since the work is occurring within the pond itself as an open water impact, the floodplain impacts are not being quantified separately.

No-Action Alternative C6: Under the No-Action Alternative, aerators would not be installed in either the Lake of the Woods Pond or Rainbow Pond. Eutrophication in the ponds would not be reduced, and the associated health concerns regarding their condition would not be addressed.

Project C7: Installation of a Septic System

This project includes the construction of an aboveground septic tank for sanitary wastewater adjacent to Building 696 to provide improved sanitary services (DAF 2022e). Personnel currently use an unheated port-a-john, which must be maintained and periodically emptied. There are no sewer lines near the building, so connection to an existing sewer line is not possible or financially feasible. Installing an aboveground septic tank would save money from the permitting and installation of a new sewer line. The proposed location of the septic tank can be seen in **Figure 2.3.1-7**.

Additional Project-Specific Selection Standards: None.

Alternatives Considered but Eliminated from Further Analysis: DAF considered an alternative that included connecting Building 696 to the wastewater force main via a 325 linear foot sanitary sewer pipe. This alternative was dismissed as the connection would result in impacts to wetlands.

Alternatives Considered for this Project:

Alternative C7 (Preferred Alternative): Under this alternative, the septic tank would be installed. This alternative would result in approximately 20 SF of permanent floodplain impact.

No-Action Alternative C7: Under the No-Action Alternative, this project would not be constructed at JB MDL. A septic system would not be installed at Building 696, and the hunting shacks would continue to lack a permanent sewage service.

2.3.2 Demolition Projects

Project D1: Demolish Air Traffic Control Facility Building 552

This project includes the demolition of ATCT Facility Building 552 (existing tower) to make space for additional future needs of JB MDL. Building 552 is 550 SF, more than 50 years old, and has long exceeded its useful life. The air traffic equipment is grossly outdated, and it is badly deteriorated with structural elements such as the control cab, top deck, and observation catwalk and safety railing being deemed unsafe for personnel to use due to advanced corrosion and decay. The existing ATCT would

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

be disconnected from utility lines, and the utilities would remain in place for use by the other buildings/infrastructure in the area. Construction and demolition debris would be disposed of in compliance with the 2020 JB MDL Integrated Solid Waste Management Plan, which states a minimum of 75 percent by weight of total construction and demolition debris shall be diverted from the landfill (JB MDL 2020a). Disposal of construction and debris waste would be the responsibility of the construction contractor. An emergency generator with a 362-gallon diesel fuel AST is on the southwest side of Building 552, which is proposed for demolition under Project D1. The location of Building 552 is provided in **Figure 2.3.2-1**.

Additional Project-Specific Selection Standards: None.

Alternatives Considered but Eliminated from Further Consideration: None.

Alternatives Considered for this Project:

Alternative D1 (Preferred Alternative): Building 552 would be demolished. Land use surrounding Building 552 would remain developed with concrete surfaces.

No-Action Alternative D1: Under the No-Action Alternative, the existing ATCT tower would not be demolished to make space for additional future needs of JB MDL.

Project D2: Demolish Well Facilities Building 1190 and Building 5280

Wells #5 and #6 do not meet current standards, and their screens and inner casings are showing signs of wearing thin. These signs of failure means that their water treatment capacity is not adequate to support JB MDL (DAF 2022a). In addition, the wells lack iron and manganese treatment systems. Well #5 demolition would include demolition of the filter building (Building 5280), which is 1,660 SF, and the 1,076 SF sedimentation building. Well #6 demolition would include demolition of the filter building (Building 1190), which is 1,617 SF, and a 1,010 SF sedimentation basin. The project also includes removal of 175 feet of fencing at both well locations. The buildings associated with both wells, Building 1190 and Building 5280, would be demolished and the wells would be decommissioned and sealed in accordance with New Jersey Department of Environmental Protection (NJDEP) regulations. Both wells have a 1,000-gallon diesel AST and a 1,000-gallon No. 2 fuel oil AST that will need to be removed. For Well #6, the existing utility pole and all piping and power supplies would be removed. The overhead communication line and overhead electric lines would remain. For Well #5, it is assumed that existing utility lines would be removed and utility lines for the new well would be added. No major utility extension is anticipated. Location of the wells can be seen in **Figure 2.3.2-2**.

Additional Project-Specific Selection Standards: None.

Alternatives Considered but Eliminated from Further Consideration: None.

Alternatives Considered for this Project:

Alternative D2 (Preferred Alternative): Both well facilities would be demolished as detailed in the Project D2 description. The wells would be decommissioned and sealed in accordance with NJDEP regulations.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

No-Action Alternative D2: Under the No-Action Alternative, the wells would continue to fail, and Well Facilities Building 1190 and Building 5280 would not be demolished to make space for additional future needs of JB MDL.

2.3.3 Renovation and Repair Projects

Project R1: Lakehurst Main Gate Security Improvements

The proposed project would upgrade the Main Gate at the Lakehurst Area into a fully functional entry control facility compliant with UFC 4-022-01, Entry Control Facilities/Access Control Points. The Lakehurst Area is the Navy's primary installation for conducting technology development and evaluation for Aircraft Platform Interface, which includes terminal guidance, recovery, handling, propulsion and avionic support, and takeoff and aircraft weapons/ship compatibility (DAF 2021e).

The upgraded gate would consist of three entry lanes (currently it is two lanes), one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles (JB MDL 2021c). The new configuration would be more efficient and vehicle processing time is expected to decrease.

It is imperative that the Lakehurst Area be capable of continually providing support and services to the operating forces and shore commands of the Navy. These vital activities and functions, together with additional planned future joint-basing endeavors with activities of equal importance to the Army and DAF, make the Lakehurst Area a prime target for potential future terroristic attacks. After the September 11, 2001, attacks on the United States, the Lakehurst Area increased its Force Protection Condition (FPCON) to "Delta" for several days and has since been under FPCON "Bravo Plus" (it was "Charlie" for a brief time after "Delta") (DAF 2021e, DAF 2022b). There continues to be a credible terroristic threat for the Lakehurst Area as evidenced by the vast number of cities and locations that have been documented as being visited by persons known to be associated with terroristic organizations. Currently, jersey barriers arranged in a serpentine pattern are used at the Lakehurst Main Gate to slow down incoming traffic, but even with other security measures they do not provide a comprehensive system for stopping vehicles driven by those intent on evading security. As security levels change, the process of placing and removing additional temporary barriers at the gate can hamper operations and takes an inordinate amount of time to deploy--especially when the FPCON is rapidly escalating. The location of the proposed upgraded Lakehurst Main Gate can be seen in **Figure 2.3.3-1**.

Additional Project-Specific Selection Standards: The Lakehurst Main Gate must comply with AT/FP standards and UFC 4-022-01. The selected alternative must minimize impacts to any historic resources.

Alternatives Considered but Eliminated from Further Consideration: DAF considered an alternative that included the addition of a roundabout near the intersection of Lansdowne and Severyns Roads to control traffic. This option was dismissed as it would impact the surrounding "Lighter-Than-Air" Historic District (HD). Moving the Main Gate is not an option as no suitable locations exist and reconfiguring the current location would result in the lowest impact environmentally (DAF 2021a).

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Alternatives Considered for this Project:

Alternative R1 (Preferred Alternative): This alternative involves upgrading the Main Gate by renovating the existing guardhouse and reconfiguring the approach lanes to the guardhouse. This alternative would result in approximately 140 SF of permanent floodplain impact.

No-Action Alternative R1: Under the No-Action Alternative, the Lakehurst Main Gate would not be updated to modern safety and security standards. The Main Gate would continue to be out of compliance with the AT/FP standards and UFC 4-022-01.

Project R2: Berm Removal

The project involves removing four berms that were installed in the late 1970s to create cranberry bogs. The berms created four ponds that currently consist of approximately 20 acres of surface water impoundments (DAF 2017c). These ponds attract waterfowl species that present a hazard to airfield safety (DAF 2022g). The ponds also cause stormwater run-off draining from Runway 06/24 to back up onto the airfield. The proposed project includes removal of the berms to drain the ponds, which would restore the natural stream flow and native grasslands that existed before the ponds were created. An excavator would be used to remove an approximate 15-foot-long section from each berm, totaling approximately 61 cubic yards of material that would be spread in an off-site grassland restoration area (JB MDL 2018). Approximately 6 acres would be planted in native grasses to create habitat for upland bird species and would discourage the waterfowl that are currently using the site. The project would also involve measures to eliminate or control invasive stands of phragmites. A permit for this project was received from the NJDEP on June 22, 2022. This permit authorizes the temporary disturbance of approximately 6.5 acres of freshwater wetlands and 7.9 acres of State open water for the removal of the four berms to restore natural stream flow and includes the restoration of the area as part of the BMPs. The location of the berms is shown in **Figure 2.3.3-2**. In addition, impacts related to wetlands and floodplains are discussed in **Chapter 3, Section 3.2**, and shown in the figure.

Additional Project-Specific Selection Standards: None.

Alternatives Considered but Eliminated from Further Consideration: None.

Alternatives Considered for this Project:

Alternative R2 (Preferred Alternative): Under this alternative, the berms would be removed, and the land would be allowed to revert to its natural condition. This alternative would result in approximately 6.5 acres of temporary freshwater wetland impact and 7.9 acres of permanent state open water impact.

No-Action Alternative R2: Under the No-Action Alternative, the berms would not be removed at JB MDL. Previously existing habitat would not be restored, and waterfowl habitat would not be reduced. Additionally, stormwater run-off would continue to back up onto Runway 06/24.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section presents the affected environment and potential environmental consequences from implementing the proposed actions. All environmental resource areas were initially evaluated for potential consequences from the proposed actions. The initial evaluation determined that some environmental resource areas would not be impacted or would have clearly insignificant effects. These

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

environmental resource areas were eliminated from detailed analysis in this EA and are described as follows:

Aesthetics and Visual Resources. The proposed actions would not adversely affect the aesthetics or visual appeal of JB MDL. The new facilities would be constructed in appropriate districts and land use areas or would be consistent with the type, function, and design of surrounding facilities, which would ensure the consistent and coherent architectural character of the installation. Where applicable, landscaping would be used to maintain an attractive and professional appearance using vegetation such as shrubs and trees. Many of the proposed actions (e.g., new construction, replacing outdated facilities with new facilities, renovation, aerator installation) would enhance the existing aesthetics at JB MDL and no adverse impacts on aesthetics and visual resources would occur. Therefore, a detailed analysis of aesthetics and visual resources is not included in this EA.

Socioeconomics. Short-term, minor, beneficial impacts on socioeconomics (local economy) may occur during the construction periods for the proposed actions from increased employment and the purchase of goods and services. However, the beneficial impacts would be highly localized, and it is unlikely there would be economic impacts perceptible within the greater areas of Burlington and Ocean Counties. In 2021, it was estimated the construction labor force within Burlington and Ocean Counties included 34,387 workers, which would provide sufficient capacity to support construction for the proposed actions. Workers would commute daily to and from JB MDL; therefore, no workers would be required to relocate to the area. As such, no impacts on population, employment, economic activity, or demand for public services would be expected from the proposed actions. Operation of new facilities and infrastructure from the proposed actions would not require additional personnel to relocate to the area; therefore, the demand for housing and public services would not change and no jobs would be created or lost. As such, no long-term impacts on socioeconomics would occur and a detailed analysis of socioeconomics is not included in this EA.

The initial evaluation for potential impacts from the proposed actions determined there is the potential for significant impacts on other environmental resource areas. Therefore, these environmental resource areas were carried forward for detailed analysis in **Sections 3.1 through 3.12**. The detailed analysis in this EA determined that no significant impacts from the proposed actions, including alternatives, would occur.

3.1 AIR QUALITY

Air quality is defined by the concentration of various pollutants in the atmosphere at a given location. Under the Clean Air Act, the six pollutants defining air quality, called “criteria pollutants,” are carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, ozone (O₃), suspended particulate matter (measured less than or equal to 10 microns in diameter [PM₁₀] and less than or equal to 2.5 microns in diameter [PM_{2.5}]), and lead. CO, sulfur oxides (SO_x), nitrogen oxides (NO_x), lead, and some particulates are emitted directly into the atmosphere from emissions sources. NO_x, O₃, and some particulates are formed through atmospheric chemical reactions that are influenced by weather, ultraviolet light, and other atmospheric processes. Volatile organic compound (VOC) and NO_x emissions are precursors of O₃ and are used to represent O₃ generation.

Climate Change and Greenhouse Gases (GHGs). Global climate change refers to long-term fluctuations in temperature, precipitation, wind, sea level, and other elements of Earth’s climate. Of particular interest, GHGs are gas emissions that trap heat in the atmosphere. GHGs include water vapor, carbon dioxide (CO₂), methane, nitrous oxide (N₂O), tropospheric O₃, and several fluorinated

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

and chlorinated gaseous compounds. Most GHGs occur naturally in the atmosphere but increases in concentration result from human activities such as burning fossil fuels. Scientific evidence indicates a trend of increasing global temperature because of increases in GHG emissions from human activities that are predicted to have negative economic and social consequences across the globe. The dominant GHG emitted is CO₂, accounting for 79 percent of all GHG emissions as of 2021 (USEPA 2023c). To estimate global warming potential, all GHGs are expressed relative to a reference gas, CO₂, which is assigned a global warming potential of one (1). All GHGs are multiplied by their global warming potential, and the results are added to calculate the total equivalent emissions of CO₂ (CO₂e).

3.1.1 Affected Environment

United States Environmental Protection Agency (USEPA) Region 2 and the NJDEP regulate air quality in New Jersey. JB MDL is in Burlington and Ocean Counties, New Jersey. Burlington County is within the Metropolitan Interstate Air Quality Control Region (40 CFR § 81.15), while Ocean County is within the New Jersey-New York-Connecticut Interstate Air Quality Control Region (40 CFR § 81.13). Both Burlington and Ocean Counties are within the O₃ transport region that includes 11 states and Washington D.C. (40 CFR § 81.457). USEPA has designated Burlington and Ocean Counties as marginal nonattainment for the 2008 8-hour O₃ National Ambient Air Quality Standard (NAAQS) and moderate nonattainment for the 2015 8-hour O₃ NAAQS. Burlington County has also been designated as maintenance for the 2006 PM_{2.5} NAAQS. As such, the General Conformity Rule is potentially applicable to emissions of VOC and NO_x (because they are precursors for O₃) for actions occurring in Burlington and Ocean Counties. In addition, the General Conformity Rule potentially applies to emissions of PM_{2.5} and its precursors (VOC, NO_x, SO_x, and ammonia [NH₃]) for actions occurring in Burlington County. Portions of both counties, the City of Burlington in Burlington County and the Toms River Area in Ocean County, have been designated as maintenance for CO; however, these maintenance areas do not cover JB MDL, and the General Conformity Rule would not apply to emissions of CO for actions occurring at JB MDL. Burlington and Ocean Counties are designated as attainment or unclassified for all other criteria pollutants (USEPA 2023b). **Table 3.1.1-1** outlines the *de minimis* level thresholds that are applicable to emissions from the proposed actions.

Actions occurring in nonattainment or maintenance areas in New Jersey are required to comply with State Implementation Plans that include the *State Implementation Plan (SIP) for the Attainment and Maintenance of the Ozone NAAQS* (NJDEP 2021) and the *State Implementation Plan for Maintenance of Fine Particulate Matter (PM_{2.5}) 2006 24-hour 35 µg/m³ NAAQS* (NJDEP 2023d). The 2007 New Jersey State Implementation Plan revisions for attainment and maintenance of O₃ established general conformity budgets for the McGuire and Lakehurst Areas of JB MDL for VOCs and NO_x. These budgets were established by USEPA under 40 CFR 52.1582(m)(5) to provide the installation areas with operational flexibility to meet their current and future missions. The general conformity budget for the McGuire Area of JB MDL is 730 tons per year (tpy) of VOCs and 1,534 tpy of NO_x, while the general conformity budget for the Lakehurst Area of JB MDL is 129 tpy for VOCs and 793 tpy for NO_x as of 2011 (NJDEP 2007). The 2021 O₃ SIP revision indicates a NO_x alternative emissions limit for JB MDL is under review (NJDEP 2021).

Air emissions sources within the project areas include one diesel emergency generator at Building F552 (existing ATCT), one 200 kW diesel emergency generator at Building 5280 (Well #5), one 200 kW diesel emergency generator at Building 1190 (Well #6), and one 10 kW diesel emergency generator at Building 1819 (CATM Facility). Other stationary and mobile sources of air emissions present near the project areas include emergency generators, other internal combustion engines such as those in

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

maintenance equipment and vehicles, and external combustion engines such as those in boilers and hot water heaters.

Climate Change and GHGs. The climate in the area is affected by its proximity to Delaware Bay and the Atlantic Ocean. The average high temperature at JB MDL is 74.9 Fahrenheit (°F) in the hottest month of July and the average low temperature is 32.3 °F in the coldest month of January, with an average annual temperature of 53.9 °F. The annual average precipitation is 47.12 inches. The wettest month of the year is May with an average rainfall of 4.31 inches (IDcide 2023).

Ongoing climate change in the northeastern U.S., including Burlington and Ocean Counties, has contributed to increased average temperatures, increased rainfall intensity, increased frequency and severity of flood and drought events, sea level rise, and disruption of natural ecosystems including terrestrial, freshwater, and marine systems (Dupigny-Giroux et al. 2018). High air temperatures can cause adverse health effects such as heat stroke and dehydration, especially in vulnerable populations (i.e., children, elderly, sick, and low-income populations), which can affect cardiovascular and nervous systems. Warmer air can increase the formation of ground-level O₃, which has a variety of health effects including aggravation of lung diseases and increased risk of death from heart or lung disease (USEPA 2016).

New Jersey has experienced a 3.5 °F increase in average temperature since the 1890s, which is faster than the rest of the northeastern U.S. (2 °F) and the world (1.5 °F). This warming trend is expected to continue and, by 2050, temperatures in New Jersey are expected to increase by 4.1 °F to 5.7 °F. New Jersey also is experiencing a greater increase in precipitation than any other part of the U.S., including higher overall amounts of rainfall and a greater number of extreme weather events with heavy rainfall. A warmer atmosphere can lead to more intense storms and severe weather, which, in combination with anticipated sea-level rise and increased precipitation, will result in more frequent flooding events. Climate trends predict that the intensity of weather events (extreme high temperatures and heavy rainfall) will continue along with periods of intermittent drought. The impacts on the environment from the predicted changes may include drier growing seasons, increasing the need for irrigation, and, in some cases, decreasing agricultural yields; however, the fertilizing effect caused by a higher concentration of atmospheric CO₂ could offset effects on agriculture (Dupigny-Giroux et al. 2018, USEPA 2016, NJDEP 2020).

In 2020, Burlington County and Ocean County produced 2,615,959 tons and 3,112,539 tons of CO₂e, respectively (USEPA 2023d). In 2020, New Jersey produced 91 million metric tons of CO₂e, a decrease of 7.7 percent from the previous year (NJDEP 2022a).

3.1.2 Significance Criteria

This air quality analysis estimates the effects on air quality and climate change that would result from the proposed actions and the No-Action Alternatives. Effects on air quality are evaluated by comparing the annual net change in emissions for each criteria pollutant against the General Conformity Rule de minimis level thresholds for nonattainment or maintenance pollutants, or against insignificance indicators as defined by the Air Force Air Quality EIAP Guide, Volume II – Advanced Assessments. Per the Air Quality EIAP Guide, insignificant indicators are applied to emissions of pollutants designated as attainment or unclassified to provide an indication of the significance of potential impacts on air quality. The significance indicator is 250 tpy. Prevention of Significant Deterioration (PSD) major source threshold, as defined by the USEPA, is applied to emissions for all criteria pollutants, except lead, that have been designated as attainment. The PSD threshold for lead is 25 tpy. The PSD

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

thresholds do not denote a significant impact; however, they do provide a threshold to identify actions that have insignificant impacts on air quality. Any action with net emissions below the insignificance indicators is considered so insignificant that the action would not cause or contribute to an exceedance of one or more NAAQS (AFCEC 2020). Impacts on air quality would be considered significant if a proposed action were to exceed the General Conformity Rule *de minimis* level threshold for nonattainment or maintenance pollutants. The DAF Air Conformity Applicability Model (ACAM), version 5.0.18a, was used to estimate the annual air emissions from the proposed actions. The potential for air quality impacts was assessed in accordance with AFMAN 32-7002, Environmental Compliance and Pollution Prevention; the EIAP (32 CFR Part 989); and the General Conformity Rule (40 CFR Part 93 Subpart B). The ACAM reports with detailed emissions calculations are included in **Appendix D**.

Consistent with EO 14008 and the 2016 Final Guidance, this EA examines GHGs as a category of air emissions. It also examines potential future climate scenarios to determine whether elements of the Proposed Action would be affected by climate change. This analysis does not attempt to measure the actual incremental impacts of GHG emissions from each of the proposed actions, as there is lack of consensus on how to measure such impacts. Global and regional climate models have substantial variation in output and do not have the ability to measure the actual incremental impacts of a project on the environment.

3.1.3 General Environmental Consequences of the Proposed Actions

Based on compliance with the NAAQS, the General Conformity Rule is potentially applicable to emissions of VOC, NO_x, PM_{2.5}, SO_x, and NH₃ for proposed actions occurring in Burlington County, and to emissions of VOC and NO_x for proposed actions occurring in Ocean County. The applicable *de minimis* thresholds for these pollutants are listed in **Table 3.1.1-1** for emissions of attainment pollutants. The PSD threshold (i.e., 250 tpy for criteria pollutants besides lead and 25 tpy for lead) was used as an insignificance indicator to determine impact significance.

Generally, the proposed actions would result in short-term, minor, adverse impacts on air quality during construction, demolition, and renovation activities. Emissions of criteria pollutants would be directly produced from operation of heavy construction equipment, building and pavement demolition, heavy duty diesel vehicles hauling supplies and debris to and from the project areas, workers commuting daily to and from the project areas in their personal vehicles, and ground disturbance. All such emissions would be temporary in nature and only produced when construction activities are occurring.

Table 3.1.3-1 lists the estimated annual air emissions associated with the Preferred Alternatives. In addition, the table summarizes the annual net total emissions from construction. Estimated construction emissions from other proposed action alternatives (i.e., not the Preferred Alternative) are summarized below. The analysis conservatively assumes a 1-year construction timeline for each proposed action to equate to a worse-case emissions scenario in which all construction occurs in the same year. The actual timeline for construction is likely to be different than what was assumed for the analysis.

When considering each individual proposed action or the combination of the proposed actions that would occur in the same year, annual emissions from construction would not exceed the applicable General Conformity Rule *de minimis* level thresholds identified in **Table 3.1.1-1**. Therefore, conformity is achieved, and a general conformity determination is not required. Combined annual

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

emissions also would not exceed the PSD thresholds; therefore, construction under the proposed actions would not result in significant impacts on air quality.

The air pollutant of greatest concern during the construction periods is particulate matter, such as fugitive dust, which is produced from earth moving activities and vehicle-equipment traveling over paved and unpaved roads. The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the area of land being worked on and the level of activity. Fugitive dust emissions would be greatest during initial site preparation and site grading activities and would vary from day to day depending on the work phase, level of activity, and prevailing weather conditions.

Construction activities would incorporate BMPs and environmental control measures (e.g., wetting the ground surface) to minimize fugitive dust emissions. In addition, work vehicles would be well-maintained and could use diesel particulate filters to reduce emissions of criteria pollutants. These BMPs and environmental control measures could reduce particulate matter emissions from a construction site by approximately 50 percent.

The proposed actions would result in long-term, negligible, adverse and beneficial impacts on air quality from operation of new facilities and discontinued operation of demolished facilities. Projects C2, C3, and C4 would add new building space to JB MDL that would require permanent heating systems, which would produce air emissions while operating. Project D1 would remove building space from JB MDL and heating systems for the existing ATCT facility that would no longer be needed. Project D2 would remove diesel emergency generators and diesel and fuel oil storage tanks, reducing criteria pollutant emissions from fuel combustion and vapor emissions (i.e., VOC) from fuel transfer activities. Therefore, Projects D1 and D2 would result in a decrease in operational air emissions. The remaining projects (i.e., Projects C1, C5, C6, C7, R1, and R2) would not include the addition or removal of any operational air emissions source; therefore, these projects would not result in changes to operational air emissions. **Table 3.1.3-2** provides the estimated total net change in operational emissions from the Preferred Alternatives. Estimated operational emissions from other proposed action alternatives (i.e., not the Preferred Alternative) are summarized below. The net change in operational air emissions at JB MDL from the proposed actions would be less than one tpy for each criteria pollutant. The annual net change in criteria pollutant emissions from operations would not exceed the *de minimis* level or PSD thresholds. Therefore, adverse impacts on air quality from operations would not be significant.

Climate Change and GHGs. Construction for all the Preferred Alternatives would produce an estimated total of 4,817.5 tons (4,370 metric tons) of CO_{2e}, representing approximately 0.08 percent of CO_{2e} emissions in Burlington and Ocean Counties when combined and less than 0.005 percent of CO_{2e} emissions in New Jersey. CO_{2e} emissions from construction would be temporary and would cease following completion of construction activities. By comparison, 4,817.5 tons of CO_{2e} is approximately the GHG footprint of 973 passenger vehicles driven for one year or 551 homes' energy use for one year (USEPA 2023e). As such, GHG emissions produced during the construction periods for the proposed actions would not meaningfully contribute to the potential effects of climate change and would not considerably increase the total annual CO_{2e} emissions produced by Burlington and Ocean Counties or the state. Therefore, construction would result in short-term, negligible, adverse impacts from GHGs.

Operational activities under the Preferred Alternatives would result in a net increase of CO_{2e} emissions by 338.3 tpy (307 metric tpy), which represents approximately 0.006 percent of CO_{2e} emissions in Burlington and Ocean Counties when combined and less than 0.001 percent of CO_{2e} emissions in New

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Jersey. By comparison, 338.3 tons of CO_{2e} is approximately the GHG footprint of 68 passenger vehicles driven for one year or 39 homes' energy use for one year (USEPA 2023e). As such, air emissions produced from operations would not meaningfully contribute to the potential effects of climate change and would not considerably increase the total CO_{2e} emissions produced by Burlington and Ocean Counties or the state. Therefore, long-term, adverse impacts from operations would be negligible. Operational emissions from the proposed actions would continue indefinitely.

In alignment with the DAF Climate Action Plan, climate priorities would be considered during the design phase for new buildings. Enhanced energy efficiency, lower GHG emitting technology, reduced embodied carbon in construction materials, sustainable building practices, and carbon-free power generation could offset the predicted increases in operational CO_{2e} emissions.

Ongoing changes to climate patterns in New Jersey are described below or in **Section 3.1.1**. These climate changes are unlikely to affect DAF's ability to implement the proposed actions. However, the climate trends that could have the greatest effect on the proposed actions are increased rainfall intensity and increased frequency and severity of flood and drought events. These climate stressors particularly may affect Projects C1, C2, C5, C7, and R1, which would result in impacts to floodplains. Siting these proposed actions within the floodplain increases the risk of impacts from flooding. In addition, rising temperatures and increased atmospheric instability could cause equipment to operate less efficiently leading to greater fuel burn requirements for operations and has the potential to damage infrastructure.

The proposed actions in-and-of-themselves are only indirectly dependent on any of the elements associated with future climate scenarios (e.g., meteorological changes). At this time, no future climate scenario or potential climate stressor would have significant effects on any element of the proposed actions, nor would the proposed actions meaningfully contribute to the occurrence of such events.

3.1.4 Project-Specific Environmental Consequences

Emissions that would result from the Preferred Alternatives for all proposed actions are included and discussed above. Therefore, the Preferred Alternatives are not discussed further. The remaining alternatives to the proposed actions (i.e., Alternatives C1-2, C2-2, and C2-3) are discussed below.

Project C1: Construct Airfield Perimeter Road Alternative C1-2. Short-term, minor, adverse impacts on air quality would occur from Alternative C1-2. Similar to Alternative C1-1, construction activities would produce criteria pollutants and GHGs; however, air emissions from Alternative C1-2 would be less than those from Alternative C1-1 because of the shorter road and smaller disturbance area. As with Alternative C1-1, operation of the perimeter road would not include any sources of air emissions (e.g., heaters or generators) and no long-term impacts on air quality would occur. Annual air emissions from Alternative C1-2 were estimated using DAF's ACAM and are summarized in **Table 3.1.4-1**. Annual emissions would not exceed the de minimis level or PSD thresholds. Alternative C1-2 would produce an estimated 812.3 tons of CO_{2e}, an approximate 30 percent decrease from Alternative C1-1.

Project C2: Construct Lakehurst ATCT Alternatives C2-2 and C2-3. Short-term, minor, adverse impacts on air quality would occur from Alternatives C2-2 and C2-3. Similar to Alternative C2-1, construction activities would produce criteria pollutants and GHGs; however, air emissions from Alternative C2-2 would be slightly higher than those from Alternative C2-1 (Preferred Alternative) because Alternative C2-2 would require an access road and utility extension and a greater disturbance area. Construction activities for Alternative C2-3 would result in similar levels of criteria pollutants

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

and GHGs as Alternative C2-1. As with Alternative C2-1, the new ATCT and support facility would require permanent heating systems, which would produce air emissions while operating, resulting in long-term, negligible, adverse impacts. Annual air emissions from Alternatives C2-2 and C2-3 were estimated using DAF's ACAM and are summarized in **Table 3.1.4-2** and **Table 3.1.4-3**. Annual emissions would not exceed the de minimis level or PSD thresholds. Alternative C2-2 would produce an estimated 506.8 tons of CO₂e during construction, an approximate 3 percent increase from Alternative C2-1. Annual CO₂e emissions from operations of Alternatives C2-2 and C2-3 would be identical to those for Alternative C2-1.

3.1.5 Environmental Consequences of the No-Action Alternatives

Under the No Action Alternatives, the proposed actions would not be implemented, and the associated construction, demolition, renovation, and operational activities would not occur. As such, air quality would remain as described in **Section 3.1.1** and no impacts on air quality or Climate Change/Greenhouse Gasses would occur.

3.2 WATER RESOURCES

Water resources at JB MDL, as applicable, are managed according to the regulations listed in **Appendix A** and other applicable environmental laws and regulations. Water resources include groundwater, surface water, floodplains, and wetlands. Projects and project-specific alternatives are herein referred to as alternatives in **Sections 3** and **4**.

3.2.1 Affected Environment

Groundwater. Underlying JB MDL is the Kirkwood-Cohansey Aquifer. This aquifer is made up of the Kirkwood and Cohansey formations. The four major hydrogeologic units identified in the area include three shallow units (Cohansey Sand, Kirkwood Formation, and Vincenttown Formation) and one deep, regional unit (Potomac-Raritan-Magothy [PRM] System). The PRM system supplies potable water to JB MDL, which is discussed in more detail in **Section 3.8**. The Cohansey and Kirkwood Formations are extremely permeable and are at or near the existing ground level, feeding the area's abundant bogs, marshes, and swamps (JB MDL 2015a). Depth to the seasonal high-water table on JB MDL ranges from 6 inches to over 72 inches (JB MDL 2014a). Contamination of this aquifer is a concern due to the shallowness.

There are several Well Head Protection Areas (WHPA) located in the Lakehurst Area. USEPA defines a well head protection area as "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield." The delineation of the WHPA's is derived from the Well Head Protection Program, and the program itself is part of the 1986 Federal Safe Drinking Water Act. The WHPA is divided into three tiers that define the length of time it takes for groundwater to travel to the well. The groundwater below Alternatives R-1 and C-6 is located within designated WHPA areas.

However, a Classification Exception Area (CEA) was designated for the WHPA areas at Alternatives R-1 and C-6. The CEA identified areas are contaminated and therefore not fit for human consumption. These CEA areas act as a use restriction until water quality standards are again met.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Surface Water. Although surface water is generally defined by the watershed, the discussion below provides additional information related to the surface waters in JB MDL. Included are the Hydrologic Unit Code (HUC) associated with the watershed and the streams in the vicinity of the proposed actions.

JB MDL is located in multiple watersheds. The Union/Ridgeway Branch (Toms River) Watershed (HUC11:02040301070) is located in the Lakehurst area and the Crosswicks Creek (above New Egypt) Watershed (HUC11:02040201040) and Rancocas Creek North Branch (above New Lisbon dam) Watershed (HUC11:02040202020) are both located in the McGuire/Dix area. Newbold Run, South Run, North Run, Jacks Run, Larkins Run, and Bowkers Run are associated with the Crosswicks Creek watershed. South Run enters the McGuire Area on the west side from the Dix area and exits the McGuire Area on the southeast side. Jacks Run, Larkins Run, and Bowkers Run flow towards the southeast and eventually discharge into the North Branch of the Rancocas Creek. Lakehurst airfields are bounded to the north and south by Ridgeway Branch and Manapqua Branch, respectively. Numerous tributaries to Manapqua Branch are found adjacent to Lakehurst airfields. These streams appear to have been hydrologically modified via channelization and/or straightening.

Wetlands. There are various types of wetlands located throughout the JB MDL project area. Wetlands were delineated within the Dix and McGuire Areas in October 2017 in support of proposed boundary road construction and habitat restoration. Additional wetlands were delineated to support proposed actions in May 2023 in the Lakehurst Area; Alternative C7 Wetland A and Alternative C2-3 Wetland A delineated wetlands and watercourses fall under the jurisdiction of the NJDEP under the Freshwater Wetlands Protection Act and the New Jersey Pinelands Commission. The wetlands include herbaceous, scrub-shrub, and forested communities that are either regularly mowed on the airfield or are located outside of the airfield and are therefore maintained less frequently, or in the case of the Alternative R2 and Alternative R7 areas, not maintained. The wetlands that would be impacted by Alternative R2 have been identified as intermediate value wetlands in the approved NJDEP Freshwater Wetland General Permit #16/Flood Hazard Equivalency permit (**Appendix E**) even though they have been identified as potential habitat for sensitive species. This is most likely due to the monoculture of common reed in the wetlands and that the sensitive species have not been documented or identified as being located within the wetland system.

Besides direct impact, there are transition areas associated with wetlands that extends for 150 feet and is included in the determination of impacts. In addition, pursuant to the Pinelands Protection Act N.J.S.A. 13:18A-1 et seq., the Pinelands may provide for more stringent regulation of activities in and around freshwater wetland areas, including a wetland buffer of 300 feet. Overall, many of the wetlands located in JB MDL are mowed and modified and not identified as habitat for sensitive species and are therefore classified as ordinary value wetlands. As such, no transition area is required for these wetlands, and the impact calculations reflect that determination.

Note that JB MDL wetlands are currently managed by a prescribed mowing regime consistent with the INRMP and natural resources management practices as detailed in JB MDL's Vegetation Management Plan (MAFB 2003) to reduce aircraft ground obstruction incidents.

Floodplains. Floodplains are any land areas susceptible to being inundated by floodwaters from any source. The risk of flooding typically hinges on local topography, the frequency of precipitation events, and the size of the watershed above the floodplain. The Federal Emergency Management Agency (FEMA) mapped floodplains do not hold any regulatory authority over potential floodplain development on military installations, however, other regulations do apply. FEMA mapped floodplains

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

are used for reference and for determination of potential impacts. Specific floodplains are delineated and mapped on military installations on a project-by-project basis, as necessary.

Surface waters on the airfields have been modified over time due to the existing stormwater management system, resulting in very little natural floodplain. However, there are a number of areas at JB MDL that are shown on FEMA floodplain mapping as floodplain, and those impacts have been identified as the areas of potential impacts and are discussed further in Project Specific Environmental Consequences.

3.2.2 Significance Criteria

The significance of impacts on water resources is based on 1) the importance (i.e., legal, commercial, recreational, or ecological) of the resource, 2) the proportion of the resource that would be affected relative to its occurrence in the region, 3) the sensitivity of the resource to proposed activities, and 4) the duration of potential effects. Quantitative and qualitative analyses have been used, as appropriate, in determining the severity of impacts. Below is a list of thresholds of concern and significance based on regulatory requirements:

- Filling of wetlands and watercourses within the footprint of disturbance or surface waters downstream of project areas based on the criteria above. Thresholds are specific to the size of the impact, quality of the resource, as well as whether the impacts are temporary or permanent
- Reduction of floodplain storage, based on the location and quality of the floodplain.
- Degradation of water quality (chemical, physical, or biological effects) as a result of construction impacts.

3.2.3 General Environmental Consequences of the Proposed Actions

No significant impacts to water resources including surface water, groundwater, wetlands, and floodplains would be expected to result from the proposed actions because of the federal and state requirements for controlling stormwater and controlling erosion, installation and use of BMPs and incorporating LID in the designs.

The JB MDL has an approved New Jersey Pollutant Discharge Elimination System (NJPDES) General Permit (**Appendix E**) and a Spill Prevention Control and Countermeasure plan in place. For the proposed actions, however, a NJPDES-DST General Permit to Discharge Stormwater from Construction into Surface Waters would be required for earth disturbance of an acre or more. In addition, under the NJ Soil Erosion and Sedimentation Control Act, all construction activities that are greater than 5,000 square feet require the development of an erosion and sedimentation control plan (ESCP), which are generally reviewed by the County Conservation Districts as part of the permitting process. A stormwater pollution and prevention plan (SWPPP) may be required as well and is used to establish BMPs to reduce or eliminate exposure to pollutants. With the ESCP/SWPPPs in place, along with applying principles in design to reduce stormwater impacts to protect water resources through LID design technologies described below, it is anticipated that the majority of impacts to water resources during construction, demolition, infrastructure improvements and renovation would be

temporary and minor. Project-specific impacts on water resources for each project can be found in the discussion below.

3.2.4 Project-Specific Environmental Consequences

Section 438 of the Energy Independence and Security Act of 2007 requires federal agencies to reduce stormwater runoff from federal development projects to protect water resources. Section 438 provides guidance for federal agencies to maintain pre-development site hydrology by retaining rainfall on-site through infiltration, evaporation/transpiration, and re-use to the same extent as occurred prior to development in order to address impervious increase area. This regulation is in line with the EPA's LID design technologies, and the state erosion control and pollution permit requirements.

Water resource impacts that would result from the Preferred Alternatives and the Alternative Actions are included and discussed below. The following alternatives would not result in impacts to surface water, groundwater, wetlands, or floodplains due to the proposed site location relative to water resources: Alternatives C3, C4, D1, D2, and R1. The remaining alternatives (i.e., Alternatives C1-1, C1-2, C2-1, C2-2, C2-3, C-5, C-6, and C-7) would have short-term, minor, adverse impacts on wetlands and floodplains due to direct impacts to these resources as detailed below.

The implementation of BMPs and specific requirements from a SESC/SWPPP and NJPDES permit as discussed previously, plus the implementation of the existing JB MDL Spill Prevention, Control, and Countermeasure (SPCC) Plan would protect groundwater from contamination during construction activities. As a result, groundwater will not be discussed further.

The majority of the wetlands located in or near the JB MDL airfields are maintained and of ordinary resource value. Wetlands located off the airfields in areas with potential projects have been permitted as intermediate resource value wetlands. Floodplains on the JB MDL do not follow natural patterns due to manipulation of the landscapes as part of the development of the existing stormwater systems. However, because of permitting requirements, potential impacts to all of these resources are quantified and described.

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative). Short-term, minor, adverse impacts to water resources would occur from the construction of an airfield perimeter road along the southern perimeter of the McGuire Airfield (Alternative C1-1). The project includes grading the area and laying concrete or asphalt above an identified floodplain elevation. Short-term adverse impacts would result from the installation of temporary BMPs for erosion control and creating temporary lay-down and staging areas for construction equipment and materials. Although there would be filling of wetlands from the project, impacts to wetlands will go through an evaluation to determine if there are avoidance options or if impacts can be minimized. When avoidance and/or minimization is not possible, mitigation will be incorporated. Long-term impacts to specific wetlands may not be avoidable, but efforts will be made to reduce long-term impacts to the overall wetland systems, resulting in minor, adverse impacts. Mitigation banking would also be considered upon final wetland impact assessment to offset wetland impacts. This alternative would result in approximately two acres of permanent wetland impact and two acres of permanent floodplain impacts as a result of the perimeter road construction through these resources.

Alternative C1-2: Construct Airfield Perimeter Road Alternative C1-2. Under this alternative, the proposed perimeter road would extend approximately half the length of Alternative C1-1. Short-, minor, adverse impacts would occur from Alternative C1-2 construction activities as described above.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

This alternative would result in approximately 0.7 acres of permanent wetland impact and 0.7 acres of permanent floodplain impacts as a result of the perimeter road construction. Long-term minor adverse impacts may result from this alternative, similar to above.

Project C2-1 (Site 1): Construct Lakehurst ATCT Alternative C2-1 (Preferred Alternative). Short-term, minor, adverse impacts would occur from proposed construction of a new ATCT and associated support building at the Lakehurst Airfield (Alternative C2-1). Short-term impacts result from the installation of temporary BMPs related to erosion control, temporary additional workspace areas, and staging construction equipment and materials. This alternative would result in approximately 0.17 acres of permanent floodplain impacts as result of C2-1 construction within the floodplain. Impacts would remain minor through the use of LID technologies.

Alternative C2-2 (Site 2): Construct Lakehurst ATCT Alternative C2-2. Short-term, minor, adverse impacts would occur from Alternative C2-2 construction. Short-term impacts result from the installation of temporary BMPs and creating temporary lay-down and staging areas for construction equipment and materials. This alternative would result in approximately 0.32 acres of permanent floodplain impacts as a result of C2-2 construction with the floodplain. Impacts would remain minor through the use of LID technologies.

Alternative C2-3 (Site 3): Construct Lakehurst ATCT Alternative C2-3. Short-term, minor, adverse impacts would occur from Alternative C2-3 construction. Short-term impacts result from the installation of temporary BMPs and creating temporary lay-down and staging areas for construction equipment and materials. This alternative would permanently impact approximately one acre of floodplain as a result of C2-3 construction within the floodplain. Impacts would remain minor through the use of LID technologies.

Project C5: Construct New Wells Preferred Alternative. Short-term, minor, adverse impacts would occur because of Project C5 (Well #5 and Well #6) construction. Short-term impacts result from the installation of temporary BMPs and creating temporary lay-down and staging areas for construction equipment and materials. Construction of Well #5 would result in 0.01 acre of permanent impacts to floodplain. Impacts would remain minor through the use of LID technologies.

Project C6: Installation of Aerators in Ponds Preferred Alternative. Short-term minor beneficial impacts would occur due to Alternative C6 construction. Short-term impacts result from the installation of temporary BMPs and creating temporary lay-down and staging areas for construction equipment and materials. This alternative would result in approximately 40 SF of permanent open water wetland impacts to the man-made ponds from the installation of the aerators. Beneficial impacts from these projects are that subsurface pond aeration is considered a BMP to improve water quality and maintain capacity.

Project C7: Installation of a Septic System Preferred Alternative. Short-term minor impacts would result from Alternative C7 construction. Short-term impacts result from the installation of temporary BMPs and creating temporary lay-down and staging areas for construction equipment and materials. No direct wetland impacts are anticipated based on the proposed septic area construction; however, Alternative C7 work would fall within the 300-foot NJPC buffer of an adjacent wetland area. Impacts would remain minor through the use of LID technologies.

Project R2: Berm Removal Preferred Alternative. Short-term, moderate impacts to wetlands and open waters would occur as result of berm removal. Short-term impacts result from the installation of

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

temporary BMPs and creating temporary lay-down and staging areas for construction equipment and materials. Temporary impacts to wetlands would be approximately 6.5 acres and are considered short-term and moderate because the wetlands would be allowed to reestablish, but the invasive removals could impact the existing vegetation. Approximately 7.9 acres of open water would be permanently impacted by breaching the berms. This is a short-term impact to the stream system itself because the man-made impoundments would be removed, and the streams would regain natural flow.

A permit for this project was received by the NJDEP on June 22, 2022. As part of the permit conditions, the permittee shall minimize impacts on freshwater wetlands, transition areas, and/or State open waters through the use of BMPs including, but not limited to replanting disturbed areas with indigenous wetland plants, stabilizing disturbed soils, and backfilling the uppermost 18 inches of any excavation with the original topsoil material (NJDEP 2022b).

3.2.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed construction, demolition, and renovation/repair projects would not take place. As such, wetlands, surface water, groundwater, and floodplains would remain as they are today.

3.3 GEOLOGY, TOPOGRAPHY, AND SOILS

3.3.1 Affected Environment

Geology. JB MDL is located within both the Inner and Outer Coastal Plain Physiographic Regions. The entire JB MDL area lies located within the Kirkwood-Cohansey Formations. The Kirkwood Formation includes both sand and clay beds and is located under the Cohansey Formation. The Cohansey Formation is comprised of sand with some gravel, silt, and clay. The Cohansey Formation is the most extensive surficial deposit in the New Jersey Coastal Plain. It is primarily 50 to 100 feet thick within the JB MDL area. The sandy nature of the Cohansey Formation has influenced the soils that have developed in the areas, as they are generally acidic and corrosive according to the New Jersey Geological Survey (NJGS).

Topography. Elevations range between 76 and 151 feet at Alternative C1, C3, C4, C5, C6 (Lake of Woods Aerator), R2 and D2, as referenced to the 1988 North American Vertical Datum (NAD). The elevations at the Projects C2, C6 (Rainbow Pond Aerator), C7, R1 and D1 range from 84 to 96 feet (NAD 1988). The topography of JB MDL is generally flat, sloping gradually to the southeast at less than 5 percent from the McGuire Area (USDA 2017).

Soils. Based on the USDA-National Resources Conservation Service (NRCS) soil survey, surface soils within project areas consist primarily of fine sands to loamy sands, with lesser amounts of urban land and muck (USDA 2023). Most of the existing soil is stabilized with vegetation; however, some project areas are open water to paved surfaces. The NRCS Soil Survey Geographic (FF) database identifies soil types present within the project areas.

Table 3.3.1-1 provides a comprehensive table of soils across the project areas. **Tables 3.3.1-2 through 3.3.1-20** summarize the soil series mapped within the project areas, their drainage class, and farmland designation.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

There are several soils within the project areas that are classified as Farmland of Statewide, Local, Unique Importance or Prime Farmland. Soils mapped as Farmland of Statewide Importance are expected to produce high yields of crops when managed as farmland. Prime Farmlands are defined by the USDA as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses” (USDA 2023).

3.3.2 Significance Criteria

The significance of impacts on geology, topography and soils is based on the proposed projects impacts to the existing uses of these three resources. This section analyzes the relationship between geology, topography, and soil composition and how development or processes on the installation could cause disturbances. It considers impacts that would cause soil erosion or surface degradation or impacts to the subsurface geology or site topography. Significant impacts would result if substantial soil erosion or degradation of subsurface geology were to occur.

3.3.3 General Environmental Consequences of the Proposed Actions

In general, impacts from the proposed actions on geology, topography and soils are limited because of the implementations of sediment and pollution protection plans and the application of BMPs to protect resources as part of permit requirements for land disturbance during construction. The geology of the JB MDL area is sandy, so building engineering for the construction projects would be conducted to address this.

The current topography of the project areas is generally flat, as described previously. Under some of the proposed actions, minor alterations to the topography from excavation or grading would occur. However, the overall topography of the project areas would remain unchanged from current conditions. During construction, standard soil erosion BMPs would be used to reduce soil erosion. A Soil Erosion and Sedimentation Control (SESC) plan would be prepared for both Burlington and Ocean Counties prior to the start of any construction. The plans would need to be consistent with requirements in the existing JB MDL SWPPP/NJPDES permits (NJPDES Permit No. NJ0088323). NJDEP Division of Water Quality Management required that a NJPDES permit be obtained prior to the start of construction activities. In addition, a NJDEP permit has been obtained for Project R2.

3.3.4 Project-Specific Environmental Consequences

Impacts to geology, topography and soils that would result from the Preferred Alternatives for all proposed actions are included and discussed below. The main project that would affect geology is C5, where due to the proposed depths of the wells, there is potential to hit bedrock. Because of the sandy nature of the soils, and the shallowness of the aquifer, there is potential for temporary impacts to this during construction, however the pollution and spill prevention plans have been developed to avoid impacts to the geology and aquifer. Projects C5, C7, and R1 would require grading and would result in the addition of non-pervious surfaces. However, the grading would not measurably change the topography or the soil characteristics within the project areas because all of the proposed structures are generally proposed as slab on grade and the areas have been previously developed. For Project R2, the topography of the surface impoundments would be modified only within the footprint of each berm section proposed for removal. No other topographic modifications within the surface impoundments would occur during construction. Projects C5 and R2 are discussed in more detail below. Projects C3, C4, C6, D1, and D2 would not result in any effect to topography or soils beyond general construction impacts that would be reduced by permit BMPs previously discussed and detailed in Chapter 5. The

DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY

Project C2 alternatives, Alternative C2-1, C2-2, C2-3, would require grading and would result in the addition of non-pervious surfaces.

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative) and Construct Airfield Perimeter Road Alternative C1-2. Short-term, minor, adverse impacts would occur to the soils from the construction of an airfield perimeter road along the southern perimeter of the McGuire Airfield. The project includes grading the area and laying concrete, which would increase impervious surfaces. The increase in impervious surfaces would result from the compaction of the soils for grading and installation of the roadway. The area is being used as a road currently, so the soils are most likely compacted and are somewhat impervious in their current state. The area has been modified previously and is designed for the movement of stormwater, so soils should not be significantly altered by either of the Proposed Actions. Although the road would be constructed above the floodplain line, no significant change to the area's topography is anticipated. A SESC/SWPPP plan would be developed for the project, and a NJPDES permit would be required if there is more than 1 acre of soil disturbance.

Project C5: Construct New Wells. Short-term, minor, adverse impacts would occur to the soils from the construction of the well, sediment basin, and additional structures. The project includes excavating the well, constructing the sediment basin, grading the area and laying concrete, which increases impervious surfaces. As with Alternatives C1-1 and C1-2, the soils would be compacted as a result of the construction activities. The geology of the site would not change because the sediment basin would not be excavated to a depth that would reach bedrock or the aquifer, and the topography would not change significantly. An SESC/SWPPP plan would be required, and a NJPDES permit would be required.

Project C6: Installation of Aerators in Ponds. Short-term, minor, adverse impacts could occur to area soils as a result of the installation of the aerators due to compaction during site construction.

Project R2: Berm Removal. Short-term, minor, adverse impacts could occur to area topography because of the removal of the berms. The project area would be restored to grassland, the streams and wetlands would naturalize based on the changes associated with the berm removal and the natural restoration activities and the topography would naturally return to any hummocks or low points that occur in natural grassland/wetland/stream corridor areas.

3.3.5 Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented, and the existing conditions would remain as described in **Section 3.3**, with no impacts on geology, topography, or soils.

3.4 CULTURAL RESOURCES

Cultural resources are HDs, sites, buildings, structures, or objects considered important to a culture, subculture, or community for scientific, traditional, religious, or other purposes. Depending on the condition and historic use, such resources might provide insight into the cultural practices of previous civilizations, or they might retain cultural or religious significance to modern groups.

3.4.1 Affected Environment

The Areas of Potential Effects (APEs) for the proposed actions are discontinuous and specific to each proposed action or alternative. Typically, each proposed action has an APE comprising 1) the construction footprint of the proposed action, and 2) an area around the construction footprint in which historic properties within view of the proposed action have the potential to be impacted.

Overall, the Integrated Cultural Resources Management Plan (ICRMP) for JB MDL indicates that all three base components, McGuire, Dix, and Lakehurst Areas, have been comprehensively surveyed for archaeological and architectural resources. Past surveys on the base have resulted in the National Register of Historic Places (NRHP) listing of one archaeological site, 28BU512 (Hanover Furnace, NRHP #74001155), a late eighteenth through early twentieth-century industrial site in the Dix Area. This historic property does not overlap the APE for any of the proposed actions. Past surveys also have identified 12 archaeological sites on the installation that have been determined eligible for NRHP listing and received New Jersey HPO concurrence as a result of Phase II Testing. None of these archaeological sites overlap the APE for any of the proposed actions. An additional 49 archaeological sites on the installation have been identified in the ICRMP as eligible or potentially eligible for NRHP listing but require additional testing or New Jersey HPO concurrence. None of these archaeological sites overlap the APE for any of the proposed actions. One previously identified archaeological site is within 300 feet of a proposed action. Site 28BU472 is approximately 62 feet (19 meters) from Project C1; the site was determined not eligible in 1998.

As a result of previous archaeological surveys, JB MDL has identified areas of the installation as High Archaeological Sensitivity Areas (ASA), which are areas that offer favorable environmental conditions for archaeological resource discovery. These data were incorporated into the assessment of the potential for archaeological deposits in previously non-surveyed areas, and for recommendations on further archaeological investigations prior to project implementation. JB MDL data indicate the project area for Project C4 and portions of the project areas for Alternatives C1-1, C1-2, C2-1, C2-2, and C2-3 are within High ASAs.

One built resource on the installation is listed in the NRHP, Hangar No. 1 (NRHP #68000031), an airship hangar associated with former Naval Air Engineering Station Lakehurst's Lighter-Than-Air flight development. As the intended destination for the *Hindenberg* airship in 1937, it is also designated as a National Historic Landmark (NHL). This historic property is within the viewshed of the proposed Lakehurst Main Gate (Project R1).

Past surveys on the installation have resulted in the identification of four extant HDs eligible for listing in the NRHP: the Lighter-Than-Air HD, McGuire BOMARC-SAGE HD, the Pointville Archaeological HD (Pointville Methodist Episcopal Cemetery), and the Scott Plaza Family Housing Area HD. All have received New Jersey HPO concurrence on their NRHP eligibility. The Lighter-Than-Air HD is within the viewshed of Alternative C2-1, the proposed Lakehurst ATCT, and Project R1, Lakehurst Main Gate improvements. None of the APEs for the other proposed actions overlap the boundaries of the HDs.

Past surveys on the base also resulted in the identification of six individually eligible or potentially eligible buildings that require effects assessments if located within a project's APE. A summary of HDs and built resources listed in, eligible for listing in, and potentially eligible for listing in the NRHP subject to Section 106 are presented in **Table 3.4-1**. Other NRHP-eligible buildings and structures are

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

located on the base but are included under various Programmatic Agreements and Program Comments and, as such, require no further Section 106 consultation.

[[Preparer's Note: Consultation with the New Jersey HPO, other identified consulting parties, and federally recognized Tribes under Section 106 of the NHPA is currently ongoing. Sections below and appendices of subsequent iterations of this EA will be updated with outcomes of the Section 106 consultation process and official correspondence.]]

3.4.2 Significance Criteria

Under the NHPA guidelines, cultural resources, including buildings, structures, objects, sites, and districts, are evaluated for NRHP eligibility using the NRHP Criteria for Evaluation as listed in 36 CFR 60.4. To be listed in or considered eligible for listing in the NRHP, a cultural resource must be 50 years or older and possess at least one of the four following criteria:

1. The resource is associated with events that have made a significant contribution to the broad pattern of history (Criterion A);
2. The resource is associated with the lives of people significant in the past (Criterion B);
3. The resource embodies distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic value; or represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C);
4. The resource has yielded, or may be likely to yield, information important in prehistory or history (Criterion D).

In addition to meeting at least one of the above criteria, a cultural resource also must possess integrity of location, design, setting, materials, workmanship, feeling, and association. NRHP guidelines define integrity as the authenticity of a property's historic identity, as evidenced by the survival of physical characteristics it possessed in the past and its capacity to convey information about a culture or group of people, a historic pattern, or a specific type of architectural or engineering design or technology. Cultural resources meeting these standards (age, eligibility, and integrity) may be eligible for listing in the NRHP and are termed "historic properties" under the NHPA. Sites or structures that are not considered individually significant may be considered eligible for listing in the NRHP as part of a HD. According to the NRHP, an HD possesses a significant concentration; linkage; or continuity of sites, buildings, structures, or objects that are historically or aesthetically united by plan or physical development.

Under Section 106 of the NHPA, federal agencies must consider the effects that their undertakings may have on historic properties within that undertaking's APE. The historic properties may include those previously surveyed and evaluated as eligible for or listed in the NRHP, and those newly identified through research, fieldwork, and evaluation. In accordance with 36 CFR Part 800.5(a), the criterion of adverse effect is applied to historic properties in the APE to gauge potential impacts of an undertaking. According to 36 CFR Part 800.5, "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the [NRHP] in a manner that would diminish the integrity of the [property]." If an undertaking is determined to have an adverse effect, DAF must implement measures to avoid, minimize, or mitigate the effect.

Impacts to cultural resources result from actions that change culturally valued elements of a resource or restrict access to cultural resources. Impacts on cultural resources may be short-term or long-term

and direct or indirect. Direct impacts are defined as those coming from the undertaking at the same time and place with no intervening cause. Indirect impacts are those caused by the undertaking that are later in time or farther removed in distance, but still reasonably foreseeable. Undertakings may have beneficial impacts if they improve the preservation of cultural resources or their historic settings.

3.4.3 General Environmental Consequences of the Proposed Actions

In general, impacts from the proposed actions on historic properties are limited, as no direct physical impacts to historic properties is anticipated. The proposed actions generally would occur in developed areas and in a setting that has been dominated by military operations for nearly a century. While the proposed actions would result in temporary visual impacts from construction, these would be short-term and dispersed. Character-defining features of historic properties would remain intact and thus historic properties would continue to be capable of conveying their significance.

3.4.4 Project-Specific Environmental Consequences

There are no known historic properties within the APE for Projects C3, D1, D2, and R2. The proposed 144-bed dormitory under Project C3 would be constructed in a developed area with a low probability for intact archaeological deposits, as the location had multiple buildings on site as recently as 2013. For Projects D1 and D2, demolition would occur on developed areas with low probabilities for archaeological deposits. In addition, due to the nature of the berms (artificial landforms installed in the late 1970s), Project R2 would have no impact on cultural resources. Therefore, Projects C3, D1, D2, and R2 are not discussed further.

There are no known historic properties within the APE for Alternatives C1-1, C1-2, C2-2, and C2-3, and Projects C4, C5, C6, and C7 and impacts on architectural historic properties from these proposed actions or alternatives would not occur. The closest architectural historic property to Alternatives C1-1 and C1-2, a component of the McGuire BOMARC-SAGE HD, is more than 600 feet away from proposed construction. The closest architectural historic properties to Alternatives C2-2 and C2-3 and Projects C4, C5, C6, and C7 are more than 0.2 mile away from proposed construction. Therefore, architectural historic properties for these proposed actions or alternatives are not discussed further.

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative). Much of the project area has been previously surveyed for archaeology (Argonne 1994). JB MDL data indicate portions of the project are located in a High ASA. Based on design plans, further archaeological investigation would be required within those areas identified as High ASA.

Project C1: Construct Airfield Perimeter Road Alternative C1-2. The northern portion of the project area has been previously surveyed for archaeology (Argonne 1994). JB MDL data indicate portions of the project area are within a High ASA. Based on design plans, further archaeological investigation would be required within those areas identified as High ASA.

Project C2: Construct Lakehurst ATCT Alternative C2-1 (Preferred Alternative). Alternative C2-1 proposes construction in a partially wooded area adjacent to a waterway. The location has not been previously surveyed for archaeology. Based on design plans, further archaeological investigation would be required. In addition, this alternative proposes tree clearing adjacent to the Lighter-Than-Air

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

HD, which would require further architectural investigation to assess potential visual impacts to the district.

Project C2: Construct Lakehurst ATCT Alternative C2-2. Alternative C2-2 proposes construction in a partially wooded area and tree clearing. Portions of the project area have been previously surveyed for archaeology (CardnoTEC 2014). Based on design plans, further archaeological investigation would be required within those areas identified as High ASA, according to JB MDL data.

Project C2: Construct Lakehurst ATCT Alternative C2-3. Alternative C2-3 proposes construction in a partially wooded, undisturbed area. The location has not been previously surveyed for archaeology. Based on design plans, further archaeological investigation would be required within those areas identified as High ASA, according to JB MDL data.

Project C4: Addition to CATM Facility Preferred Alternative. While in a developed area, the project is in a High ASA, according to JB MDL data. Based on design plans, further archaeological investigation would be required within those areas identified as High ASA.

Project C5: Construct New Wells Preferred Alternative. Project C5 proposes construction in two grass-covered locations in the Dix Area, one south of 1st Street West near Pennsylvania Avenue and another north of Lewistown Road at Montpelier Street. The Lewistown Road location has been previously surveyed for archaeology (Versar 2020). Both are in developed areas, and neither is in a High ASA, according to JB MDL data.

Project C6: Installation of Aerators in Ponds Preferred Alternative. Lake of the Woods in the Dix Area has been previously surveyed for archaeology (LBA 1985). Rainbow Pond in the Lakehurst Area has not been previously surveyed for archaeology and is within a High ASA, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as High ASA.

Project C7: Installation of a Septic System Preferred Alternative. The area has not been previously surveyed for archaeology and is within a High ASA, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as High ASA.

Project R1: Lakehurst Main Gate Security Improvements Preferred Alternative. Project R1 is in a developed, largely concrete-paved area with a low probability for intact archaeological deposits. The project area has been previously surveyed for built resources. Hangar No.1, a NHL and NRHP-listed historic property, is adjacent to Project R1, as is the Lighter-Than-Air HD. Therefore, the project would require further architectural investigation to assess potential visual impacts.

3.4.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented, and the existing conditions would remain as described in **Section 3.4.2**, with no impacts on cultural resources.

3.5 BIOLOGICAL RESOURCES

Biological resources include native plants (i.e., vegetation) and wildlife and their habitats (e.g., grasslands, forests, wetlands) in which they exist. Protected and sensitive biological resources include

DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY

species listed as threatened, endangered, or proposed under the ESA, as designated by the USFWS. Habitats include wetlands and plant communities that are unusual or limited in distribution.

3.5.1 Affected Environment

JB MDL is located within the New Jersey Pinelands, which is a unique ecological region that contains abundant biological resources. The Pinelands National Reserve (PNR) was created by the National Parks and Recreation Act of 1978. The Pinelands Comprehensive Management Plan (CMP) (N.J.S.A. 13:18A-1 et seq., N.J.A.C. 7:50 et seq.) is used to manage the area. The CMP is designed to promote development in appropriated areas while protecting biological resources in the region (NJPC 2012).

The Pinelands were designated as the first National Reserve established under the National Park System in 1978 and a United Nations Educational, Scientific and Cultural Organization (UNESCO) designated Biosphere Reserve in 1988.

Vegetation. There is a diverse range of vegetative communities at JB MDL. However, the airfield areas at McGuire and Lakehurst are maintained as turf grass. As discussed in **Section 3.2**, many of the on-site wetlands are not only mowed, but they also contain common reed.

The forested areas at the base consist of forested wetlands and uplands with mixed hardwood, sweet gum, and oak/pine forest communities. The forested areas located south of Project R2 also include a healthy understory with mountain laurel, highbush blueberry, huckleberry, vines, and grasses (JB MDL 2015; E²M 2005). Proposed alternative areas requiring tree clearing activities are dominated by pitch pine, sweet gum, and eastern red cedar.

Wildlife. Wildlife species within JB MDL are primarily those associated with open spaces, forested edge habitats, and wetlands. Habitat within the airfields is disturbed and regularly mowed. Regular disturbance and succession of invasive species creates low quality habitat for many species. In addition to these low-quality habitats, there are areas of open grasslands and wetlands that support grassland birds and other protected species, as discussed below.

The watercourses and impoundments within JB MDL provide freshwater habitat for various fish species and benthic invertebrates. According to the Pinelands Preservation Alliance, watercourses in the Pinelands offer preferred habitat for a limited range of fish species due to the highly acidic nature of the streams. The substrates within the wetlands, watercourses and impoundments offer habitat for benthic macroinvertebrates.

Protected and Sensitive Species. USFWS, NJDEP-Division of Fish and Wildlife, and the New Jersey Pinelands Commission cooperate in protecting and managing the presence of threatened and endangered species throughout the installation, also referred to as sensitive species in this EA. There are both federally and state-listed species habitats located within the project areas. Sources of documentation include several wildlife studies conducted at JB MDL, a USFWS Official Species List (OSL) and New Jersey Landscape Project data. The USFWS OSLs were generated in June 2023 using project areas boundaries in the Information for Planning and Consultation (IPaC) system (**Appendix E**). **Table 3.5.1-1**, located in **Appendix A**, includes IPaC information relative to individual projects and proposed potential impact results. A response letter to the project screening request to USFWS during the DOPAA preparation is located in **Appendix B**.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Three of the sensitive species identified by the USFWS as having potential to occur at JB MDL have been identified near or within the JB MDL property boundaries. These include swamp pink (federally threatened, state endangered), American chaffseed (federally endangered, state endangered) and Knieskern's beaked-rush (federally threatened, state endangered). American chaffseed has been documented approximately two miles south of the McGuire Area of JB MDL. Swamp pink has been documented in the Dix Area, and Knieskern's beaked rush has been documented in the Lakehurst Area. None of the species have been identified within proposed Alternative areas. USFWS also lists one candidate species, the monarch butterfly, as a species that may occur within the JB MDL. Studies for this species have not been conducted to date.

The federally threatened bog turtle has also been identified as having the potential to occur on JB MDL. Although there are wetlands that have been identified as potential habitat within the project areas, no individual bog turtles have been identified at JB MDL during numerous surveys. IPaC reviews resulted in a No Effect Determination for all proposed projects. Additional surveys may be required for projects that impact wetlands.

The federally endangered northern long-eared bat and tri-colored bat were also listed as having the potential to occur on the JB MDL as part of their summer habitat, which extends from April 1 through September 30. The USFWS IPaC provides additional review keys for the likelihood of impacts to the species, and in completing the on-line questionnaire, and based on the information evaluable for each Proposed Action while answering the review keys there is a No Effect result for all the projects related to the bats. However, it is anticipated that any tree cutting restrictions required would be implemented for the bats.

[[Preparer's Note: Section 7 of the Endangered Species Act consultation with the U.S. Fish and Wildlife Service is currently ongoing. Sections below and appendices of subsequent iterations of this EA will be updated with outcomes of the Section 7 consultation process and official correspondence.]]

3.5.2 Significance Criteria

The significance of impacts on biological resources is based on 1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource, 2) the proportion of the resource that would be affected relative to its occurrence in the region, 3) the sensitivity of the resource to proposed activities, 4) the duration of ecological effects, 5) the potential for "taking" of federally listed species, and 6) effect on ESA-protected species habitat. A habitat perspective is used to provide a framework for analysis of general classes of effects (i.e., removal of critical habitat, noise, human disturbance). Pursuant to USFWS and the Pinelands CMP (N.J.A.C. 7:50-6.33) the impacts of a proposed action would be considered significant if the following were to occur:

- Irreversible, adverse impact on habitats that are critical to the survival of any local population of federally and state-listed threatened or endangered animal species
- Development in the vicinity of federally and state-listed threatened or endangered plant species

3.5.3 General Environmental Consequences of the Proposed Actions

General environmental consequences associated with the proposed actions include minor temporary to permanent impacts, including typical earth disturbance, grading, and laying concrete. BMPs and LID

technologies would be used to minimize and offset adverse environmental effects associated with implementing proposed projects. BMPs may include tree planting, wetlands restoration, and invasive species control. BMPs would be utilized specific to individual projects and are discussed in Chapter 5. Alternatives C1-1, C1-2, C2-1, C2-2, C2-3, C3, C4 and R2 would result in short-term, minor, adverse impacts from the installation of BMPs and long-term, minor, adverse impacts to biological resources as a result of reducing or changing habitats. However, at R2, there will also be restoration of the grasslands, natural stream flow and removal of invasives related to the berm removals. In addition, it is surmised that the R2 construction may reduce flooding in the Alternatives C1-1 and C1-2 areas through the removal of the berms. Alternatives C5, C6, C7, D1, D2, and R1 would have short-term, minor adverse impacts to local vegetation and potential short-term, minor, adverse impacts to habitat.

3.5.4 Project-Specific Environmental Consequences

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative) and Construct Airfield Perimeter Road Alternative C1-2. Implementation of Alternatives C1-1 (Preferred Alternative) and C1-2 would result in long-term, minor, adverse impacts due to the loss of wetland and adjacent upland grassland habitats. Alternative C1-1 construction would result in the loss of approximately two acres of a modified palustrine emergent (PEM) wetland and floodplain that provide resource habitat. Alternative C1-2 construction would result in approximately 0.7 acres of permanent wetland impacts and floodplain impact. The USFWS response letter (June 16, 2023) identified that C1, C2-3, C6, C7 and R2 are areas that may contain swamp pink habitat. However, the USFWS IPaC only identified that the C1-1 and C1-2 habitats may be suitable for swamp pink, which grows in Atlantic cedar swamps. Existing habitat, however, along the airport perimeter roads consists of upland grassland and modified PEM wetlands. This area floods regularly and is inundated with common reed. This area, therefore, does not meet the general habitat criteria for the plant. A species survey would be required to verify this. If swamp pink is identified, coordination with USFWS and NJDEP would be required to determine if avoidance of the impacts to the area are feasible or if relocation, protection of the area where the plant is located, or seed collection would be potential mitigation options.

Project C2: Construct Lakehurst ATCT Alternatives C2-1, C2-2 and C2-3. Alternatives C2-1, C2-2 and C2-3 construction activities would require tree removal. The USFWS response identified C2, C7, D1, R1, the Lakehurst area of C-6 and D2 (Well #6) may contain suitable American chaffseed habitat. The IPaC review did identify and species that would require additional review for alternatives C2-1 or C2-2. The C2-3 IPaC review has determined further investigations may be required for American chaffseed and Knieskern's beaked rush. The USFWS response identified C2, C7, D1, R1, the Lakehurst area of C-6 may contain suitable Knieskern's beaked rush habitat. Knieskern's beaked rush is found on naturally occurring, early-successional habitats and disturbed habitats such as road cuts and mowed roadsides. American chaffseed habitat includes areas with open grass/sedge systems in moist sandy loams or sandy peat loams. Neither of these habitats appear to be present in the proposed ATCT areas, but surveys would be required to verify this apparent lack of habitat. Vegetation and wildlife impacts for all three alternatives would be short-term, minor, adverse due to temporary impacts and long-term, minor, adverse due to the permanent impacts to habitats from the proposed project.

Project C5: Construct New Wells (Preferred Alternative). Long-term, minor, adverse impacts on vegetation and natural landscape areas would occur because of the proposed building and well

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

construction at Well #5 and Well #6 locations. No wildlife or sensitive species are located in these areas.

Project C7: Installation of a Septic System Preferred Alternative. Alternative C-7 would result in impacts to an area that is primarily turf. However, the IPaC review has determined further investigations may be required for American chaffseed and Knieskern's beaked rush. Knieskern's beaked rush is found on naturally occurring, early-successional habitats and disturbed habitats such as road cuts and mowed roadsides. American chaffseed habitat includes areas with open grass/sedge systems in moist sandy loams or sandy peat loams. Neither of these habitats appear to be present in the proposed Septic System areas, but surveys would be required to verify this apparent lack of habitat

Project R2: Berm Removal Preferred Alternative. Long-term, minor, adverse impacts to vegetation would occur because of the disturbance to habitats for the berm removals; however, with the restoration of the grassland habitat and the removal of common reed, this project would result in long-term, moderate, beneficial effects to biological resources. In addition to the vegetation impacts, wildlife and sensitive species could be impacted by temporary displacement during berm removal activities. However, overall, it is anticipated that this project would result in short-term, minor, adverse impacts because the area would be left to reestablish itself as a natural community and habitat for the sensitive species would be reestablished. A NJDEP permit for the berm removal has already been obtained. No special conditions are listed in the permit relative to potential species impacts. Both short-term minor and long-term minor adverse impacts to fish and benthic invertebrate species utilizing the water and substrate habitats in the impoundments would occur because of habitat loss when the impoundments would be drained. Habitat for these species would be maintained within the watercourse that would remain following berm removal. The R2 IPaC review has determined that this habitat may be suitable for swamp pink, which grows in Atlantic cedar swamps. Existing habitat, however, consists of a series of impoundments that flood regularly and are inundated with common reed. This, therefore, does not meet the general habitat criteria for the plant. A species survey would be required to verify this. If swamp pink is identified, coordination with USFWS and NJDEP would be required to determine if avoidance of the impacts to the area are feasible or if relocation, protection of the area where the plant is located, or seed collection would be potential mitigation options.

3.5.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not occur. As such, open water areas and diverse wetland habitats would remain in current conditions and the grasslands would not be constructed. No impact on biological resources would result from the implementation of the No-Action Alternatives as proposed activities would not occur.

3.6 LAND USE

Land use refers to real property classifications that indicate either natural conditions or the types of human activity occurring on a parcel. Natural condition of property can be described or categorized as unimproved, undeveloped, conservation or preservation, and natural or scenic. A wide variety of land use categories result from human activity. Descriptive terms for human activity land use generally include commercial, industrial, military, residential, agricultural, institutional, transportation, communications, utilities, and recreational.

3.6.1 Affected Environment

Twelve planning districts at JB MDL were formed to consolidate like and compatible functional land uses and to maximize operational efficiency in consideration of their relationships to the existing transportation network and established land-use patterns. Planning districts may include a single land use designation or a combination of multiple land use designations within a district. The planning districts include Aviation Industrial Complex District, Joint Base Support District, Quad District, Military Family Housing District, Field/Simulator Training District, Joint Base Industrial District, Medical District, Academic Training District, Town Center and Joint Base Administration District, Mobilization Training District, Research Campus District, and the Testing and Training District. The planning districts within which the proposed actions would occur are identified in **Table 3.6.1-1**.

3.6.2 Significant Criteria

Burlington and Ocean Counties have identified the following land use designations for areas surrounding JB MDL: Single Family, Manufacturing, Agriculture, Transportation, Mining, Utility, Forest/Wooded, Commercial/Services, Residential, Vacant Community Services, Water, Military, Multifamily, Wetlands, Urban, Recreation, and Barren/Transitional.

Land use impacts significance is based on the level of land use sensitivity in areas affected by a proposed action and the compatibility of a proposed action with existing land uses. A proposed action would result in significant impacts on land use if the following were to occur:

- Noncompliance with the existing or proposed land use plans or policies
- Incompatibility with adjacent existing or proposed land use to the extent that public health or safety is threatened
- Conflict with existing or proposed planning criteria established to ensure the safety and protection of human life and property

3.6.3 General Environmental Consequences of the Proposed Actions

Long-term, negligible to minor, adverse impacts on land use would occur from the proposed actions because of slight changes in the composition of functional land uses within planning districts. One proposed action (Project C5) would require changes to land use designations or would result in land use incompatibility. All proposed actions have been evaluated through JB MDL screening criteria to ensure they would be compatible with land use zoning designations within their respective planning districts. **Table 3.6.3-1** identifies proposed land use zoning designations for the proposed actions and land use compatibility with the land uses associated with the JB MDL-established planning districts. All proposed actions, except for Project C5, would be consistent and compatible with the functional land uses of the planning district in which they would be located. As such no land use redesignation would be required for these proposed actions. The proposed actions would support long-term operational efficiency within the associated planning district and on the installation.

3.6.4 Project-Specific Environmental Consequences

Only one proposed action (Project C5) would be incompatible with JB MDL-established land uses and is discussed below. The remaining proposed actions would be compatible with existing land uses; therefore, these proposed actions are not discussed further.

Project C5: Construct New Wells Preferred Alternative. Long-term, minor, adverse impacts would be expected under Project C5. The wells (5 & 6) would be constructed in the Academic Training District (Well #5) and Military Family Housing District (Well #6) near existing Wells #5 and #6 that would be demolished under Project D2. New wells would provide potable water to the area. According to the 2015 IDP, utilities are zoned as Industrial. In the Academic Training and Military Family Housing Districts, utilities are classified as restricted land use. However, the new wells would be sited near the existing wells of identical function and similar size/configuration. Therefore, the new wells would not change the land use zoning classification of the area and existing land use compatibility would not change.

3.6.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not occur, and land use designations would remain as they are described in **Section 3.6.1**.

3.7 NOISE

Noise is any sound that is unwanted, loud, or unpleasant; interferes with communication; is intense enough to damage hearing; or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise, distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities such as construction or vehicular traffic, which are essential to a community's quality of life. Any area where occupants are more susceptible to the adverse effects of noise are considered noise sensitive receptors. A noise sensitive receptor could include residential dwellings, hospitals, nursing homes, churches, educational facilities, and libraries. Sensitive receptors also may include noise sensitive cultural practices, some domestic animals, or certain wildlife species or broad areas such as nature preserves and designated districts in which occasional or persistent sensitivity to noise above ambient (i.e., background) noise levels exist in the environment. Ambient noise levels vary depending on housing density and proximity to open space, major traffic areas, or airports.

Sound varies by both intensity and frequency. Sound pressure level, called decibels (dB), is used to quantify sound intensity. The "A-weighted" decibel (dBA) is used to approximate the relative loudness of sound based on human perception. The range of audible sound levels for humans is considered to be 1 to 130 dBA, and the threshold of audibility is generally within the range of 2 to 25 dBA (USEPA 1981a, USEPA 1981b). Most people are exposed to daily sound levels of 50 to 55 dBA or higher. Common sounds encountered in daily life and through construction activities and their dBA levels are provided in **Table 3.7-1**.

Noise is a complex physical phenomenon and various noise metrics help to quantify the noise environment. The day-night average sound level (DNL) is a noise metric combining the levels and durations of noise events and the number of events over a 24-hour period to represent total noise exposure. DNL accounts for more intrusive nighttime noise, adding a 10 dB penalty for sounds after 10:00 P.M. and before 7:00 A.M. DNL is the FAA primary noise metric. FAA Order 1050.1E defines

DNL as the annual day/night average sound level. Noise zones indicate exposure to DNL noise from aircraft operations and are depicted as noise contours (FAA 2022).

3.7.1 Affected Environment

Noise sources at JB MDL consist of aircraft operations associated with the McGuire and Lakehurst airfields. The townships surrounding the installation, North Hanover, New Hanover, Pemberton, and Plumsted, are directly affected by noise generated from McGuire airfield operations. Noise from Lakehurst airfield operations directly affect the surrounding Jackson and Manchester Townships, and Lakehurst Borough. These affected areas are comprised mostly of Recreation, Open Space, Agriculture and Low-density Residential land use. See **Section 3.6** for further discussion on land use. In addition to aircraft operations, on-installation construction and demolition, aircraft ground support equipment, weapons firing, and vehicle traffic produce noise at JB MDL. Approximately 89 percent of on-installation land is within the aircraft generated noise contours ranging from 65 to 75 dBA DNL.

The area surrounding JB MDL is largely forested. Some airfield and operational noise are attenuated by trees, providing partial year-round noise abatement for adjacent off-installation areas. JB MDL actively participates in the DoD Readiness and Environmental Protection Initiative program to identify and purchase restrictive easements for off-base land parcels that are in noise zones with high levels of noise. To date, the program has resulted in easements on, or long-term preservation of, 990 acres in the vicinity of the McGuire airfield.

All 11 proposed actions are within the installation boundary. Of the 11 proposed actions, one is within the 70-80 dB DNL noise contours (Project C1); two are within the 60 to 75 dB DNL noise contours (Projects C2 and R2); three are within the 65 to 70 dB DNL noise contours (Projects C4, C7, and D1); and five are outside the 65 dBA DNL noise contour (Projects C3, C5, C6, D2, and R1). Noise-sensitive receptors are normally not recommended within areas where noise exceeds 65 dB DNL. The nearest on-installation noise sensitive receptors to the proposed actions vary in distance from approximately 111 to 10,000 feet and include housing, a school, training facilities, and a child development center. Off-installation sensitive receptors are approximately 300 feet to more than 9,000 feet away from the proposed actions. They include health care facilities, residences, schools, and places of worship (see **Table 3.7.1-1**).

3.7.2 Significance Criteria

Analysis of potential noise impacts is based on changes to the ambient noise environment or potential changes to land compatibility from noise caused by the proposed actions. Noise impacts would be considered significant if a proposed action were to result in the violation of applicable federal or local noise regulations, create appreciable areas of incompatible land use outside the installation boundary, or result in noise that would negatively affect the health of the community.

3.7.3 General Environmental Consequences of the Proposed Actions

Short-term, negligible to minor, adverse noise impacts would be expected from heavy equipment and construction traffic during construction, demolition, and renovation activities. All construction, demolition, and renovation would occur within the installation's boundary, be collocated with other existing noise-compatible activities, be temporary in nature, and end following the construction period. All construction would occur during normal working hours. These activities would be conducted in the context of an active installation where aircraft and other types of military noise is typical. The

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

nearest noise sensitive receptors would generally experience less than 80 dBA from the proposed actions at 250 feet away (USEPA 1971, TRS Audio 2023). Noise levels generated from construction would attenuate to below 65 dBA between approximately 500 and 1,500 feet from the construction area. All off-installation noise sensitive receptors, except the residential homes 300 feet southwest of Project R1, would be far enough away from construction that noise at these receptors would not exceed ambient levels. Noise from construction at the residential homes near Project R1 could reach levels up to 78 dBA (TRS Audio 2023). Noise from construction activities at this receptor would be temporary and intermittent.

Operation of construction vehicles to transport construction and demolition equipment, materials, and debris would temporarily add to existing traffic noise near the proposed actions. Construction traffic would be negligible and therefore have a negligible impact on the noise environment. See **Section 3.8** for discussion on transportation. Resulting noise impacts on the environment from construction traffic for the proposed actions would be minor. No impacts are expected from long-term operations under any proposed action.

3.7.4 Project-Specific Environmental Consequences

Noise from the proposed actions would attenuate to below 65 dBA at the nearest off-installation noise sensitive receptors for all proposed actions except for Project R1, which is discussed below. Construction, demolition, and renovation for the remaining proposed actions would not result in noise above 65 dBA at off-installation noise sensitive receptors; therefore, these proposed actions are not discussed further.

Project R1: Lakehurst Main Gate Security Improvements (Preferred Alternative). Short-term, minor, adverse noise impacts would be expected from heavy equipment and construction traffic during renovation of the Lakehurst Main Gate. The nearest off-installation noise sensitive receptor, residential homes within the River Pointe neighborhood approximately 300 feet to the east, would generally experience noise of 78 dBA during renovation activities (USEPA 1971, TRS Audio 2023). This residential area is separated from the Lakehurst Main Gate by a road (South Hope Chapel Road) and forested area. The speed limit on this area of South Hope Chapel Road is 50 miles per hour, so the ambient sound levels in this area are likely above 65 dBA from road traffic. The additional sound attenuation provided by existing vegetated areas would reduce the noise levels from renovation experienced at the residential area and may absorb enough sound to attenuate the noise below 65 dBA. Therefore, no significant impacts on noise would occur. No long-term impacts on the noise environment would occur from operation of the renovated Lakehurst Main Gate, as proposed operation would be consistent with existing conditions.

3.7.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented, and the existing noise environment would remain as described in **Section 3.7.2**.

3.8 INFRASTRUCTURE AND TRANSPORTATION

Infrastructure includes public works systems such as utilities and transportation networks that enable a population in a specified area to function. Infrastructure is wholly man-made with a high correlation between the type and extent of infrastructure and the degree of which an area is characterized as urban or developed. The availability of infrastructure and its capacity to support growth are generally

regarded as essential to the economic growth of an area. The infrastructure components addressed in this section include utilities (i.e., electrical system, water supply, wastewater system, natural gas supply, communications system, and solid waste management), stormwater management, and transportation.

3.8.1 Affected Environment

Electrical Supply. Electricity at JB MDL is provided by Jersey Central Power Company. Electricity is transmitted via six 34.5 kilovolt lines to on-installation substations that feed into transformers and step-down facilities, then is distributed throughout the installation via service connections and power distribution lines. The entire electrical supply system at the Lakehurst Area is underground, as is most of the electrical supply at the McGuire Area. The Dix Area has many areas that utilize overhead distribution networks that have gradually been transitioning to an underground system. The current average electrical demand at JB MDL is 530,460-kilowatt hours per day. Jersey Central Power Company has a substantial capacity to accommodate current and future electrical demands. The condition of the electrical infrastructure at JB MDL is considered inadequate according to the 2014 JB MDL *Infrastructure Condition Validation Report*. Outdated equipment in the overhead electrical system is present in the Dix Area and some portions of the McGuire Area, and transformers requiring safety corrections are present in the Lakehurst Area.

Water Supply. Potable water is supplied to JB MDL from 31 groundwater wells and from surface water through the Dix Area treatment facility. Water distribution is comprised of three separate systems, with connections between the McGuire and Dix systems, while the Lakehurst system operates independently. The average water demand at JB MDL is 3.439 million gallons per day (mgd), while peak demand is 4.161 mgd. Potable water at the Dix Area is obtained from three operational groundwater wells and a surface water treatment plant. Groundwater wells ranging from 1,118 feet to 1,155 feet in depth are screened in the PRM aquifer system and supply approximately 700 gallons per minute each. Groundwater is filtered and disinfected prior to distribution. Well #5 is operational although it is in need of repairs. Well #6 is currently not operational. The current Dix Area water supply system is not sufficient to support the installation's demand at full mission capacity. The Dix water treatment plant treats surface water from the Rancocas Creek, although it is not considered a sufficient water supply because it does not operate during summer months when the creek is below the minimum withdrawal level. The McGuire Area obtains potable water from three groundwater wells and the Lakehurst Area obtains potable water from 25 wells on the installation.

Wastewater System. The wastewater collection system at JB MDL serves industrial, commercial, and military family housing needs. The wastewater system is comprised of 571,818 linear feet of sewer mains and 37 lift stations. Wastewater from the Dix and McGuire Areas flow into an on-installation wastewater treatment plant with a maximum capacity of 4.9 mgd, and average demand of 940,000 gpd. Wastewater from the Lakehurst Area is discharged off-installation to the Ocean County Utilities Authority regional treatment plant. The capacity of the current wastewater discharge system at JB MDL is adequate to accommodate current and future mission requirements.

Natural Gas Supply. Natural gas at JB MDL is managed by JB MDL and four private utility companies. The overall natural gas distribution system at JB MDL is very degraded and is considered to be in inadequate condition according to the 2014 JB MDL *Infrastructure Condition Validation Report*.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Communications. The communications system at JB MDL consists of approximately 250 miles of copper cabling that includes several looped distribution systems; however, a majority of the lines are considered degraded and need replacement. JB MDL also contains close to 250 miles of fiber optic communication lines serving 948 buildings. Modernization and upgrades are being implemented to satisfy current and future mission needs. Upgrades include additional expansion of fiber-optic cables throughout the base, plans for back-up power, cooling systems, and transitioning communication lines to be underground.

Solid Waste Management. JB MDL maintains an Integrated Solid Waste Management Plan. The plan covers general solid waste and includes construction and demolition debris, compost material, and industrial solid waste (JB MDL 2020a). The installation strives for a diversion rate of 50 percent of non-hazardous solid waste, and 60 percent of construction and demolition debris. There are no operational landfills on JB MDL. Materials that cannot be reused or recycled are transported off-installation to the nearest waste collection facilities for Ocean County and Burlington County.

Stormwater Management. There are two separate stormwater management systems at JB MDL; one serves the Dix and McGuire Areas, and the other serves the Lakehurst Area. Stormwater runoff flows north from the Dix Area to the McGuire Area. Approximately 88 percent of surface drainage flows into Crosswicks Creek, and the remaining 12 percent flows to Rancocas Creek. The Dix and McGuire stormwater management systems utilize detention ponds to manage drainage in areas of new development. In the McGuire Area, the ponds created by existing berms (Project R2) direct excess stormwater flow coming off the runway, back to the airfield. Stormwater runoff from the Lakehurst Area flows to natural streams and fire ponds to provide reservoirs that reduce peak stormwater flows. In addition, sand and gravel soils in the Lakehurst Area allow for rapid natural drainage of stormwater. JB MDL is considered to have an adequate capacity for installation-wide stormwater management. The installation operates under three SWPPP's, one for each area.

External Roadway Network. Major highways in the area include Interstate 295, Interstate 95, and the New Jersey Turnpike. Several arterial roadways, including County Routes 537, 670, and 680, connect the installation to regional roadways that include State Route 68 and U.S. Route 206. County Route 680 is the primary access road to the McGuire Main Gate. Primary access to the Dix Main Gate is Fort Dix Road. Lansdowne Road, off of South Hope Chapel Road, is the primary access road to the Lakehurst Main Gate.

Internal Roadway Network. The internal roadway system at JB MDL forms an irregular grid pattern with access provided at numerous points along the perimeter. There is no single road that acts as a major thoroughfare located on the installation or that connects multiple access control points. The internal roadway system is generally divided into three classifications: arterial roadways, collector roadways, and local roadways. Arterials (primary roads) carry most of the installation's traffic, collectors (secondary roads) distribute traffic from arterials to local streets, and local streets (tertiary roads) are the remaining streets that connect individual parcels of land to collector streets and each other. The 2015 IDP lists all roadways under their respective roadway classifications throughout JB MDL.

JB MDL currently has ten gates in operation: McGuire Main Gate, Dix Main Gate, Dix Commercial Gate, Wrightstown Gate, Pemberton Gate, Brown Mills Gate, Lakehurst Main Gate, Lakehurst Commercial Gate, Pinehurst Gate, and the New Jersey Air National Guard Gate. The 2015 IDP made several specific gate recommendations to improve security, safety, traffic flow, and aesthetic of the

base. Recommendations were made for adding a gate check lane at the Lakehurst Main Gate for improving traffic flow through an increased headroom capacity.

3.8.2 Significance Criteria

Impacts on infrastructure and transportation are evaluated based on the potential for disruption or improvement of existing infrastructure services and additional demand of utilities and transportation/circulation. The proposed actions would have significant impacts at JB MDL if one or more of the following were to occur: exceedance of utility capacities, long-term interruption of a utility, disruption of roadway accessibility, or violation of an approved plan for that utility.

3.8.3 General Environmental Consequences of the Proposed Action

Utilities. Short-term, negligible to minor, adverse impacts would occur during construction, demolition, and renovation activities. It is expected short-term, localized utility interruptions may occur while connecting/disconnecting utility systems to new/renovated and demolished facilities.

Demand for solid waste management would increase during the short-term construction phases for the proposed actions. **Table 3.8.3-1** provides the anticipated amount of solid waste generation from the construction phases of the proposed actions.

To maximize landfill diversion rates, contractors would be required to recycle construction and demolition debris, such as scrap metals, clean fill material, asphalt, and cement in accordance with applicable federal and installation policies. The total weight of all materials diverted for recycling or reuse would be reported to the JB MDL Qualified Recycling program to be credited toward the DoD-mandated construction and demolition waste diversion rate of 60 percent. Contractors would be responsible for disposing non-recyclable debris at appropriate off-base waste facilities.

In the operational phase, the proposed actions would result in utility impacts between long-term, minor, adverse impacts and long-term, moderate, beneficial impacts. Additional strain on utilities including electrical supply, water supply, wastewater/sanitary sewer, natural gas, communications, and solid waste would be expected. Projects C2, C3, C4, and C5 would have the greatest long-term impact on utilities; however, the utilities infrastructure at JB MDL would not be overwhelmed by new construction. New construction would meet DoD regulations, which would include various efficiency measures into facility design, thus minimizing adverse impacts. Potential long-term impacts resulting from the proposed actions are provided in **Table 3.8.3-2**.

Stormwater Management. Short-term, negligible, adverse impacts on the stormwater management system would occur during the construction phases for the proposed actions. During construction, ground disturbance could disturb natural stormwater drainage features and temporarily increase the potential for soil erosion and sediment transport during rain events. Soil and sediment erosion would be minimized wherever possible by adhering to the SWPPPs in use at JB MDL.

Long-term, negligible to minor, adverse impacts on stormwater infrastructure would occur from operations (see **Table 3.8.3-2**). New construction of buildings and roadways would increase the amount of impervious surface cover throughout JB MDL. Impervious surface cover inhibits absorption and drainage of stormwater into the soil, and therefore increases the rate at which stormwater runoff flows. Increased stormwater runoff would promote erosion and pollution to nearby surface water bodies. The additional impervious surface cover that would result from the proposed actions would put

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

strain on the existing stormwater infrastructure at JB MDL but would not overwhelm the system. Low Impact Development practices would be utilized to minimize impacts from stormwater including erosion and sediment control. Applicable projects would adhere to Section 438 of the Energy Independence and Security Act to maintain or restore predevelopment hydrology.

Transportation. Short-term, negligible to moderate, adverse impacts on transportation infrastructure would occur from the proposed actions. During construction, demolition, and renovation, daily traffic and peak hour traffic throughout the installation at the proposed project areas would temporarily increase from an increase in POV traffic from personnel commuting to the project sites, hauling of debris and materials, and transporting construction equipment. Construction traffic accessing the Dix Area would use either the Dix Commercial Gate, Dix Main Gate, or the Pemberton Gate. Construction traffic accessing the McGuire Area would use the McGuire Main Gate. Impacts would primarily occur on arterial and local roads. Lakehurst Area construction traffic would use either the Lakehurst Commercial Gate, Lakehurst Main Gate, or the Pinehurst Gate. Under Project R1, the Lakehurst Main Gate may be closed, or traffic may be extremely limited during gate renovation activities.

Long-term, negligible to minor, adverse and beneficial impacts on transportation would be expected under the Proposed Action (see **Table 3.8.3-2**). Projects C1 and R1 would result in the greatest long-term, beneficial impacts on transportation at JB MDL when comparing all proposed actions. Projects C2, C3, and C4 would have adverse impacts on transportation from enabling additional traffic in the vicinity of those project areas.

3.8.4 Project Specific Environmental Consequences

Projects C4, C6, C7, D1, and D2 would not include permanent or substantial changes to infrastructure or transportation; therefore, these proposed actions are not discussed further. Projects C1, C2, C3, C5, R1, and R2 would have measurable impacts and are discussed further below.

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative). Short-term, minor, adverse impacts on utilities would occur from increased generation of solid waste under Alternative C1-1. Long-term, minor, adverse impacts would occur on stormwater runoff rates in the immediate area from the addition of approximately 70 acres of impervious surface. Alternative C1-1 would establish an additional one-way road along the entire length of the airfield at the McGuire Area of JB MDL. This proposed roadway would be considered a local roadway in the traffic configuration of JB MDL and would result in negligible, beneficial impacts on transportation in the McGuire Area. However, the road would be within the restricted area of the airfield and roadway access would be limited to designated personnel with permission from Air Traffic Control.

Project C1: Construct Airfield Perimeter Road Alternative C1-2. Environmental consequences from Alternative C1-2 would be similar to but less than those discussed for Alternative C1-1. Alternative C1-2 would include a perimeter roadway along a third of the length of the runway, adding approximately 35 acres of impervious surfaces. Impacts on stormwater runoff rates from Alternative C1-2 would be less than those described for Alternative C1-1 due to less impervious surface cover.

Project C2: Construct Lakehurst ATCT Alternative C2-1 (Preferred Alternative). Short- and long-term, minor, adverse impacts on utilities would occur from increased generation of solid waste and from increased demand on electrical supply, wastewater, natural gas, and communication utilities during operations. Utilities would experience additional strain, although capacity would not be exceeded. Connections to electrical supply, wastewater, natural gas, and potable water are present at

DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY

the proposed ATCT site under Alternative C2-1; therefore, utility extensions would not be required. A slight increase in stormwater runoff rates would occur from the addition of approximately one acre of impervious cover. Alternative C2-1 would not require an access road. Access would be via Rounds Road.

Project C2: Construct Lakehurst ATCT Alternative C2-2. For Alternative C2-2, short-term, minor, adverse impacts on utilities would occur from increased generation of solid waste. Long-term, minor, adverse impacts on utilities, stormwater, and transportation would be expected as a result of Alternative C2-2. Under Alternative C2-2, natural gas, wastewater, electrical supply, potable water, and communications utilities would be extended an additional 987 feet. Alternative C2-2 also would require an approximately 230-foot access road connected to Rounds Road. An access road would increase impervious surface cover, therefore intensifying stormwater runoff rates in the immediate vicinity.

Project C2: Construct Lakehurst ATCT Alternative C2-3. Environmental consequences for Alternative C2-3 would be similar to those discussed for Alternative C2-2, although utilities would require an extension by 1,120 feet, and an approximately 300-foot access road to Broome Road would be required.

Project C3: Construct New 144-Bed Dorm (Preferred Alternative). For Project C3, short-term, minor, adverse impacts on utilities would occur from increased generation of solid waste. During operation of the new dorm, electrical supply, wastewater, natural gas, and communication utilities would experience additional strain, although it would not exceed capacity. Stormwater runoff rates would increase, as impervious surface cover would increase by approximately 1.2 acres.

Project C5: Construct New Wells (Preferred Alternative). Project C5 would not result in changes to utility demand as the proposed wells would replace existing wells in the area and would be of similar size and function. Replacing Wells #5 and #6 under Project C5 would result in long-term, moderate, beneficial impacts on the potable water supply at JB MDL, as the new operational wells would alleviate the existing potable water deficiency.

Project R1: Lakehurst Main Gate Security Improvements (Preferred Alternative). Project R1 would result in long-term, negligible to minor, beneficial impacts on transportation because increasing gate capacity from two lanes to three lanes at the Lakehurst Main Gate would improve traffic circulation into and out of the Lakehurst Area. During the renovation phase, Project R1 would cause temporary disruptions to traffic circulation at the Lakehurst Main Gate. Traffic flowing in and out of the gate may be completely inhibited or substantially congested. During renovations, traffic would be required to access the Lakehurst Area using a different gate such as the Lakehurst Commercial Gate or the Pinehurst Gate. Traffic interruptions at the Lakehurst Main Gate would be temporary and would cease following renovations. Long-term, negligible, adverse effects on utilities would occur due to operation.

Project R2: Berm Removal (Preferred Alternative). Project R2 would result in long-term, minor, beneficial impacts on stormwater infrastructure. The berm removal would improve stormwater catchment in the airfield area. Project R2 would reduce excess stormwater to the airfield when removed because less stormwater runoff would be directed onto the airfield.

3.8.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented, and the existing conditions would remain as described in **Section 3.8.1**.

3.9 HEALTH AND SAFETY

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Potentially unsafe situations or environments exist when a hazard is exposed to a potentially susceptible population. Ensuring safety during a project is one of the highest priorities to prevent short-term and long-term harm to health for contractors, the public, and DoD personnel.

3.9.1 Affected Environment

Contractors that perform construction activities on JB MDL are responsible for following federal Occupational Safety and Health Administration (OSHA) safety regulations, such as using personal protective equipment (PPE), creating site-specific health and safety plans (HASP), and distributing and storing Safety Data Sheets (SDSs). Site-specific HASPs detail operation of equipment, proper PPE, protocol and procedures for handling hazardous materials and wastes, emergency response procedures, and guidance with respect to hazard identification.

In addition to following OSHA regulations, contractors also must acknowledge the presence of Environmental Restoration Program (ERP) sites on JB MDL. ERP consists of the Installation Restoration Program (IRP), the Military Munitions Response Program (MMRP), and the Building Demolition and Debris Removal Program. Construction activities that take place too close to an ERP site create the risk of impeding remediation progress or contamination affecting construction activities. Most of the project areas are not near any ERP site; however, Project C1 overlies three IRP sites (see **Figure 2.3.3-2**) and Project R1 is adjacent to a groundwater monitoring well (see **Figure 2.3.3-2**). In addition, Projects C2 and D1 are within potential Munitions and Explosives of Concern (MEC) areas that are monitored under the MMRP. See **Section 3.10** for more details on locations and contents of ERP sites. Most of the project areas are isolated from major buildings on the installation, with the exception of Project C3 and Project C4.

Explosive safety quantity distance (ESQD) arcs are imaginary areas established around facilities used for the storage, handling, and maintenance of munitions to provide a safety buffer in case of a detonation. They can be dangerous for construction contractors and personnel when working within or nearby, and development within ESQD arcs should be avoided. There are few ESQD arcs on JB MDL, and they do not cover a substantial portion of land. Projects C1 and D1 are approximately 0.2 mile southwest of the ESQD arc near the Lakehurst Airfield. Project R2 is within an ESQD arc associated with an ammunition supply point on the Dix Range. Out of the four berms that would be removed under Project R2, only one is within the ESQD arc (see **Figure 2.3.3-2**).

3.9.2 Significance Criteria

The criteria considered to determine whether an alternative would result in risks to health and safety from construction includes the extent or degree to which an alternative would result in the following:

- Proximity to contaminated sites or ESQD arcs

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

- Major occupational hazards for personnel
- Inability to meet health and safety standards or adhere to OSHA/DAF regulations

3.9.3 General Environmental Consequences of the Proposed Actions

Under the Proposed Actions, short-term, negligible, adverse impacts on health and safety would occur during construction, demolition, and renovation activities due to the inherent risks to construction contractors associated with such activities. To minimize safety risks, OSHA and DAF regulations would be followed and contractors would use appropriate PPE and adhere to safety standards outlined in a site-specific HASP. Contractors would regularly review heavy equipment usage to retain familiarity. Construction areas would be fenced off, and signs would be placed to mark dangerous areas for contractors, DoD personnel and the public. These measures would minimize health and safety risks.

Impacts would be the same for all proposed actions, with some exceptions. Project C1 would take place within the McGuire airfield fence line, placing construction contractors close to the airfield. Coordination with air traffic control would be required to maintain safety at the airfield during road construction because aircraft operations close to contractors would present a safety risk. Tracking when aircraft are arriving or departing and ensuring that construction occurs outside those times and avoiding critical aircraft operations would maintain safety for contractors, airfield personnel, and pilots. Similarly, Project C2 would take place at Lakehurst airfield, and would require the same measures to be put in place. Otherwise, these projects do not pose any risks to health and safety. Projects C1 and D1 are outside the ESQD arc 0.2 mile away and associated hazards do not pose any safety risks for these proposed actions. One berm under Project R2 is within an ESQD arc. Renovation would still occur inside this arc, and contractors would be exposed to an increased risk from potential explosion at the ammunition supply point. However, handling and transportation of munitions would be scheduled so that it occurs outside of renovation hours, minimizing the potential safety risks. The rest of the berms under Project R2 are outside of the ESQD arc, and contractors removing those berms would not be at an increased risk.

Minor safety risks may be present due to construction taking place in wetlands for Projects C1, C2, C7, and R2, but this would be avoided with proper safety equipment. Alternatives C2-1 and C2-2 would require tree clearing, and tree clearing practices have inherent safety risks such as falling trees. Contractors would follow safety regulations and would properly maintain and follow equipment guidance, which would minimize safety risks.

Many of the proposed actions would reduce safety and health risks by providing upgrades to facilities, resulting in long-term, minor, beneficial impacts. Projects C2/D1, C5/D2, C7, and R1 would improve health and safety conditions at these facilities. Under Project D1, demolishing the existing ATCT that was deemed unsafe for personnel to use would eliminate the inherent risks to personnel associated with operating in such a facility. Project C2 would provide a new ATCT that meets safety standards. Demolishing existing wells and constructing new ones under Projects C5 and D2 would allow for an improved filtration method for personnel to replace the old one. Installing a septic tank under Project C7 would replace a port-a-john as a permanent addition to the Archery Shooter's Association ranges, improving sanitary conditions. The Lakehurst Gate security improvements under Project R1 would bring the gate up to compliance with AT/FP and UFC standards.

3.9.4 Project-Specific Environmental Consequences

Impacts on health and safety from the proposed actions would be similar and activity-specific rather than Project-specific impacts are discussed in **Section 3.9.3**. Therefore, impacts on health and safety from the proposed actions are not discussed further.

3.9.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented and there would be continued long-term, moderate, adverse impacts on health and safety. Failing to implement projects such as Projects C1, C2/D1, C5/D2, R1, and R2 would result in moderate impacts on personnel health and safety. If Project C1 is not implemented, vehicles would continue to get stuck in the mud and not potentially impact BASH personnel response. If the ATCT is not demolished and replaced under Projects C2 and D1, it would continue to pose health and safety risks to personnel due to its age and rate of deterioration. Similarly, if the wells not meeting current drinking water standards are not demolished and replaced under Projects C5 and D2, they would continue to deteriorate and would not provide clean water to personnel. Aboveground water treatment would not be adequate or cost efficient. If security improvements at the Lakehurst Main Gate were not implemented under Project R1, critical security AT/FP and UFC standards would continue to not be met. If Project R2 is not implemented, then BASH risks from waterfowl that are attracted to these ponds would continue.

3.10 HAZARDOUS MATERIALS AND WASTES

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Hazardous materials are defined by 49 CFR § 171.8 as hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (49 CFR § 172.101), and materials that meet the defining criteria for hazard classes and divisions in 49 CFR Part 173. Hazardous wastes are defined by the Resource Conservation and Recovery Act (RCRA) at 42 USC § 6903(5), as amended by the Hazardous and Solid Waste Amendments, as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating, reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.” Petroleum products include crude oil or any derivative thereof, such as gasoline, diesel, or propane. They are considered hazardous materials because they present health hazards to users in the event of incidental releases or extended exposure to their vapors.

Evaluation of hazardous materials and wastes focuses on the storage, transportation, handling, and use of hazardous materials, as well as the generation, storage, transportation, handling, and disposal of hazardous wastes. In addition to being a threat to humans, the improper release or storage of hazardous materials, hazardous wastes, and petroleum products can threaten the health and well-being of wildlife species, habitats, soil systems, and water resources.

Toxic Substances. Toxic substances are substances that might pose a risk to human health and are addressed separately from hazardous materials and hazardous wastes. Toxic substances include asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs), all of which are typically found in buildings and utilities infrastructure.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Asbestos is regulated by USEPA under the Clean Air Act; Toxic Substances Control Act; and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). USEPA has established that any material containing more than 1 percent asbestos by weight is considered an ACM. ACMs are generally found in building materials such as floor tiles, mastic, roofing materials, pipe wrap, and wall plaster. USEPA has implemented several bans on various ACMs between 1973 and 1990, so ACMs are most likely in older buildings (i.e., constructed before 1990). LBP was commonly used prior to its ban in 1978; therefore, buildings constructed prior to 1978 may contain LBP. PCBs are man-made chemicals that persist in the environment and were widely used in building materials (e.g., caulk) and electrical products prior to 1979. Structures constructed prior to 1979 potentially include PCB-containing building materials.

Environmental Contamination. The CERCLA governs response or cleanup actions to address releases of hazardous substances, pollutants, and contaminants into the environment. The Defense ERP was formally established by Congress in 1986 to provide for the cleanup of DoD property at active installations, Base Realignment and Closure installations, and formerly used defense sites throughout the United States and its territories. The two significant restoration programs under the ERP are the IRP and the MMRP. The IRP addresses contaminated sites, while the MMRP addresses nonoperational military ranges and other sites suspected or known to contain MEC, which includes unexploded ordnance (UXO), discarded military munitions, and munitions constituents. Each site is investigated, and appropriate remedial actions are taken under the supervision of applicable federal and state regulatory programs. When no further remedial action is necessary for a given site, the site is closed, and it no longer represents a threat to human health.

Polyfluoroalkyl Substances. DoD has identified certain per- and polyfluoroalkyl substances (PFAS) as potential contaminants of concern (COCs) that have affected DoD installations (AFCEC 2022a). This family of chemicals was developed in the 1940s and includes the chemicals perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutanesulfonic acid (PFBS). Aqueous film forming foam (AFFF) containing PFAS was developed in the early 1960s and used at airports, municipal fire stations, petroleum facilities, and in other industries in the United States to extinguish hydrocarbon-based fires effectively. Fire fighters at military installations regularly used AFFF in emergencies or were trained with AFFF in an unconfined manner.

Radon. Radon is a naturally occurring odorless and colorless radioactive gas found in soils and rocks that can lead to the development of lung cancer. Radon tends to accumulate in enclosed spaces, usually those that are below ground and poorly ventilated (e.g., basements). USEPA established a guidance radon level of 4 picocuries per liter (pCi/L) in indoor air for residences, and radon levels above this amount are considered a health risk to occupants.

3.10.1 Affected Environment

Hazardous Materials, Hazardous Wastes, and Petroleum Products. The JB MDL Hazardous Material Management Plan (HMMP) provides information on hazardous materials regulations; the identification and types of hazardous materials; SDS requirements; storage area types; labeling and management of hazardous materials; inventory, inspections, safety, and waste minimization procedures; and training for the handling of hazardous materials. The plan documents the installation's hazardous materials program and includes procedures for minimizing the amount of material used and waste generated (JB MDL 2013b). The JB MDL Hazardous Waste Management Plan (HWMP) provides local procedures for hazardous waste management and pollution prevention. The plan incorporates DAF, USEPA, OSHA, and state and local requirements regarding the management of

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

hazardous waste as they relate to environmental protection and worker safety during operations at JB MDL. Additionally, the HWMP incorporates turn-in requirements for hazardous waste and the management of military munitions waste generated at JB MDL (JB MDL 2021d).

The McGuire Area has an Integrated Contingency Plan (ICP) for Oil Spill Prevention and Response that addresses spill prevention, containment, and cleanup and emergency response actions. The ICP meets the combined regulatory requirements for a SPCC Plan and a Facility Response Plan, and addresses emergency planning, notification, and response actions directed by USEPA, the state of New Jersey as well as the RCRA, CERCLA, Emergency Planning and Community Right-to-Know Act, and OSHA (JB MDL 2019b). The McGuire Area also has a combined Discharge Prevention, Containment and Countermeasure (DPCC) and Discharge Cleanup and Removal (DCR) Plan to demonstrate compliance with the New Jersey Spill Compensation and Control Act (N.J.A.C. 7:1E-1, et seq.). The DPCC Plan describes the facilities and operational procedures for managing the storage and transfer of petroleum and other hazardous substances. It also identifies discharge prevention and control mechanisms and outlines facility inspections, recordkeeping, and personnel training programs. The DCR Plan describes contingency systems and plans in place for responding to, and cleaning up after, any discharges (JB MDL 2021e).

The Dix and Lakehurst Areas each have an SPCC Plan. The installation-specific SPCC Plans outline policies and procedures to prevent an oil spill from migrating off the unit-controlled areas of the installation, as well as the discharge of harmful quantities of oil into the navigable waters of the United States (JB MDL 2019c, JB MDL 2022c).

An emergency generator with a 240-gallon, double-walled diesel fuel AST is on the west side of Building 1819, which is proposed for a 900-SF addition under Project C4 (JB MDL 2019b, DAF 2022a). Additionally, an emergency generator with a 362-gallon diesel fuel AST is on the southwest side of Building 552, which is proposed for demolition under Project D1 (DAF 2022a). Buildings 1190 and 5280 in the Dix Area, which are proposed for demolition under Project D2 each contain a 200-gallon poly tank with secondary containment containing calcium hypochlorite (chlorine) and a 300-gallon tank with secondary containment containing potassium permanganate. Additionally, Buildings 1190 and 5280 each have two 1,000-gallon ASTs, one containing diesel fuel and one containing fuel oil (JB MDL 2022c, DAF 2022a).

Toxic Substances. Building 1819 (Project C4) was constructed in 1960; Building 552 (Project D1) was constructed in 1972; and Buildings 1190 and 5280 (Project D2) were both constructed in 1971. Based on the age of these buildings, they are assumed to contain toxic substances such as ACM, LBP, and PCBs. Building 696, which is adjacent to the area proposed for construction of an aboveground septic tank to provide improved sanitary services (Project C7), was constructed in 2008 and is not suspected to contain toxic substances (JB MDL 2022b).

Environmental Contamination. Where practical, alternatives to meet the need for a proposed action are developed to avoid contaminated sites. If an alternative cannot avoid being located within or affecting a contaminated site, either a Waiver to Construct or Local Waiver Approval would be required. For military construction work on ERP sites, a Waiver to Construct would be obtained from HQ AMC and requires regulatory agencies be notified of the proposed construction. Minor repair and demolition projects on ERP sites require a Local Waiver Approval. In addition, the JB MDL MEC Sweep Policy detailed in the *JB MDL Policy for Managing Munitions and Explosives of Concern* (2016), applies to ground disturbance occurring within MMRP sites and requires a full sweep of areas that are known to contain MEC (i.e., MEC Level 3 areas) to be conducted by certified UXO technicians

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

before ground disturbance can occur. Based on the type and extent of the project, the JB MDL Remedial Project Manager determines whether notification of regulatory agencies is required. Waiver submissions should include, if applicable, the Contaminated Soil Policy, MEC Sweep Policy, site-specific HASP, dewatering plan, and soil sampling and disposal plan (AFCEC 2021).

This EA focuses only on the active contamination sites that have the potential to be impacted by the proposed actions. Sites that require no further action, do not directly coincide with proposed activities, or would not be impacted by the proposed actions are not discussed in this EA. There are three IRP sites and one MMRP site on the installation that have the potential to be affected by the proposed actions. The IRP sites are AT029, FT011, and LF002 and the MMRP site is ZZ003. A summary of IRP sites AT029, FT011, and LF002 and MMRP site ZZ003 is as follows.

- AT029, Suspected Fire Training Area No. 5, is a fire training area within the McGuire airfield used for aircraft operations, weed control, and aircraft cleaning operations. AT029 is listed on the Pre-Decision Document (DD) Site Register. The site was last inspected under the Land Use Control (LUC) Awareness Program in November 2022 (AFCEC 2021, AFCEC 2022a).
 - Groundwater and sediment at AT029 are impacted by VOCs, semi-volatile compounds (SVOCs), dieldrin, and metals; surface water is impacted by VOCs, SVOCs, pesticides, and metals; and surface and subsurface soil are impacted by dieldrin (AFCEC 2022a).
 - The Human Health and Ecological Risk Assessment determined that risk levels associated with groundwater exposure were within acceptable range other than iron and manganese, which were determined to be above the hazard threshold. Risk and hazards from soil are within the acceptable range and below hazard threshold levels, except thallium, which slightly exceeds the hazard threshold for future residential use. However, the Final Remedial Investigation (RI) provided a risk management conclusion that no action was required for thallium, and it was not retained as a COC in the Feasibility Study. COCs in groundwater do not exceed chemical-specific applicable or relevant and appropriate requirements. Additionally, no contaminants of potential ecological concern were identified in surface soil, surface water, or sediment (AFCEC 2022a).
 - AT029 was identified in the Preliminary Assessment (PA) for per- and polyfluoroalkyl substances (PFAS) as a site requiring investigation and is being investigated for PFAS under AFFF Area 7 as Site AT029P-Sub (AFCEC 2021).
 - Alternative C1-1 is proposed to occur within AT029. The Alternative C1-1 project area includes five groundwater monitoring wells associated with AT029 (see **Figure 3.10.2-1**) (AFCEC 2022a, AFCEC 2022b).
- FT011, Fire Protection Training Area No. 2, is an unlined fire training area near the McGuire airfield that was used from 1958 to 1973 for fire training exercises with JP-4 jet propulsion fuel. The burn area was flooded with water to float the jet fuel and a nearby drainage swale was blocked to prevent water, which contained fuel and other extinguishing agents (e.g., carbon dioxide, protein foam, and water), from flowing off-site. FT011 is listed on the Pre-DD Site Register. The site was last inspected under the LUC Awareness Program in November 2020 (AFCEC 2021, AFCEC 2022a).

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

- Groundwater at FT011 is impacted by VOCs, SVOCs, dieldrin, and metals; surface and subsurface soils are impacted by dioxin/furan compounds; and surface water and sediments are impacted by dieldrin and metals (AFCEC 2022a).
- The Human Health and Ecological Risk Assessment determined that risk levels associated with groundwater exposure were within acceptable range other than arsenic, which was determined to be above the hazard threshold. Risk and hazards from soil, surface water, and sediment are within the acceptable range and below hazard threshold levels. COCs in groundwater do not exceed chemical-specific applicable or relevant and appropriate requirements. Additionally, no contaminants of potential ecological concern were identified in surface soil, surface water, or sediment (AFCEC 2022a).
- FT011 was identified in the PA for PFAS as a site requiring investigation and is being investigated for PFAS under AFFF Area 8 as Site FT011P-Sub (AFCEC 2021).
- Alternatives C1-1 and C1-2 are proposed to occur within FT011. The Alternatives C1-1 and C1-2 project areas include 14 groundwater monitoring wells associated with FT011 (see **Figure 3.10.2-1**) (AFCEC 2022a, AFCEC 2022b).
- LF002, Landfill No. 4, is a 25-acre former landfill that was in operation at the eastern boundary of the McGuire Area from 1958 to the early 1970s. General refuse, coal ash, and miscellaneous industrial chemicals were placed in the landfill and covered with sandy soil. Groundwater at LF002 is impacted by VOCs, SVOCs, and metals. A Record of Decision was reached with regulatory concurrence in October 2019 and LF002 is listed on the Post-DD Site Register. The site was last inspected under the LUC Awareness Program in November 2020 (AFCEC 2021, AFCEC 2022a, AFCEC 2022c).
 - Remedial Action (RA) at LF002 included the construction of a 2-foot clean soil cover and the establishment of engineering and institutional LUCs, groundwater institutional controls, long-term monitoring groundwater and surface water, and soil hot spot removals (AFCEC 2021, AFCEC 2022c).
 - The Human Health and Ecological Risk Assessment determined that risks and hazards to current and future installation worker exposures are within the acceptable risk ranges and below the threshold level. COCs in groundwater were identified due to exceedances of chemical-specific applicable or relevant and appropriate requirements. PCBs in soil exceed unrestricted use standards in one isolated area. All estimated risks from potential exposure can be successfully managed when the presumptive remedy for landfills is applied (AFCEC 2022a).
 - Alternatives C1-1 and C1-2 are proposed to occur within LF002. The Alternatives C1-1 and C1-2 project areas includes six groundwater monitoring wells associated with LF002. (See **Figure 3.10.2-1**) (AFCEC 2022a).
- ZZ003, Former Lakehurst Proving Grounds, is approximately 2,900 acres and includes about one-third of the Lakehurst Area. Between 1915 and 1945 various entities conducted ordnance manufacturing and testing, chemical weapons testing, and aircraft bombing exercises at the site. ZZ003 is listed on the Pre-DD Site Register (AFCEC 2021).

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

- During the PA, munitions items and debris were discovered indicating that further investigation was warranted. A Site Inspection (SI) conducted in July 2012 detected numerous subsurface anomalies and sampling results indicated minor isolated detections of explosive compounds or metals in soil and groundwater. MEC and chemical munitions were discovered during an RI in 2015 and 2016 in the Parachute Jump Circle Target Areas (AFCEC 2021). An RA was finalized in December 2022 and the RI was finalized in May 2023. A Feasibility Study is planned to address site risks from MEC.
- There are four levels of management of MEC at JB MDL. There are two proposed actions and four alternatives to proposed actions that are proposed to occur within a MEC Level 2 area of ZZ003 and one alternative to a proposed action is proposed to occur within a MEC Level 3 area of ZZ003. MEC Level 2 and Level 3 management procedures according to the JB MDL MEC Sweep Policy are described below:
 - MEC Level 2 area: Potential UXO/MEC Area designated as “Use Caution.” Activities in Level 2 areas require individuals working in the areas to be trained to recognize and report UXO/MEC items if encountered. Individuals in a Level 2 area should be aware of the potential to encounter UXO and know what to do if UXO/MEC is encountered (AFCEC 2021).
 - MEC Level 3 area: Known UXO/MEC Area designated as “Action Required.” During the project planning process, JB MDL personnel shall take Level 3 areas into consideration and avoid ground disturbance or siting construction projects in these areas. If construction is unavoidable, the construction contract would include the requirement for a certified UXO technician to perform a complete UXO/MEC sweep of the area to be disturbed before construction can begin. Ground disturbance includes any excavation, trenching, grading, clearing, grubbing, or any work that requires a dig permit, to include building demolition and pavement removal. A UXO sweep includes the preparation of an Explosives Safety Submission (ESS), performing surface clearance and a sub-surface metal detector survey, and removal and disposal of discovered UXO/MEC. Contracts must include the requirements for the preparation and approval of an ESS and should include appropriate requirements for contingencies when working in a known UXO/MEC area (AFCEC 2021).
- Alternatives C2-1, C2-1 Tree Clearing, C2-2, and C2-3 and Projects C7 and D1 are proposed to occur within the ZZ003 Level 2 area.
- Alternative C2-2 Tree Clearing is proposed to occur within the ZZ003 Level 3 area.

A groundwater monitoring well associated with legacy Site TT013, Former Fuel Farm No. 125, is immediately south of Lansdowne Road near the Lakehurst Main Gate, which is proposed for renovation under Project R1. Although there is no contamination associated with the legacy site, there is a potential for PFAS to be present in the groundwater and the well will be used for future PFAS investigations. Additionally, a groundwater treatment system is present north of Lansdowne Road (Project R1) (see **Figure 3.10.2-2**) (AFCEC 2023).

Polyfluoroalkyl Substances. The Air Force Civil Engineer Center (AFCEC) ERP prepared a Relative Risk Site Evaluation (RRSE) for perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutanesulfonic acid (PFBS), which are components of AFFF. The RRSE compared

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

groundwater and soil sample results to human health screening levels (i.e., regional screening levels [RSLs] for PFOS, PFOA, PFBS, perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid, and GenX chemicals). In addition, surface water results were compared to ecological screening levels for PFOS and PFOA. Through investigations pursuant to CERCLA, the RRSE identified 18 potential AFFF release areas on JB MDL for the potential presence of PFAS in the soil and/or groundwater. These 18 potential release areas are being investigated in the RI (AFCEC 2022d). Alternative C1-1 is proposed to occur within AFFF Area 7 (Site AT029P-Sub), and Alternatives C1-1 and C1-2 are proposed to occur within AFFF Area 8 (Sites FT011P-Sub and SS056P).

- AFFF Area 7, Suspected Fire Training Area No. 5, is Site AT029P-Sub and is listed on the Pre-DD Site Register (AFCEC 2021). Due to the lack of historical knowledge, it is unknown if AFFF was used in this area. During the SI, regional and ecological screening level exceedances in concentrations of PFNA, PFOS, and combined PFOS/PFOA were encountered in surface water and RSL exceedances for PFOS and combined PFOA/PFOS were encountered in groundwater; however, AFFF Areas 5 (Site AT054P), 6 (Site FT013P-Sub), and 9 (Site SS055P) are potentially upgradient. Therefore, surface water and groundwater from these sites could comeingle with surface water and groundwater at AFFF Area 7. No RSL exceedances in sediment and subsurface soil were encountered at AFFF Area 7. Alternative C1-1 is proposed to occur within AT029P-Sub. The Alternative C1-1 project area includes five groundwater monitoring wells associated with AFFF Area 7 (see **Figure 3.10.2-1**) (AFCEC 2022b, AFCEC 2022d).
- AFFF Area 8, Former Fire Training Area No. 2, is composed of FT011P-Sub and SS056P, AFFF Release at 1983 Plane Crash Site, and is listed on the Pre-DD Site Register (AFCEC 2021). Extinguishing agents used during training exercises at FT011P-Sub included carbon dioxide, protein foam, and water. It is unknown whether PFAS was used, but the potential exists that AFFF was used in fire training activities. At SS056P, which is approximately 500 feet northwest of FT011P-Sub, approximately 100 gallons of AFFF were used in an emergency response to a plane crash in June 1983 on the eastern portion of the McGuire airfield near the intersection of Runway 06/24 and Taxiway C. During the SI, RSL exceedances in concentrations of PFNA, PFOA, PFOS, and combined PFOA/PFOS were encountered in groundwater. No RSL exceedances in surface and subsurface soils were encountered at AFFF Area 8. Alternatives C1-1 and C1-2 are proposed to occur within FT011P-Sub. The Alternatives C1-1 and C1-2 project areas include 14 groundwater monitoring wells associated with AFFF Area 8 (see **Figure 3.10.2-1**) (AFCEC 2022b, AFCEC 2022d).

Radon. The McGuire Area and the western portion of the Dix Area are within Burlington County. USEPA rates Burlington County, New Jersey, as radon zone 2. Counties in zone 2 have a predicted average indoor radon screening level of between 2 and 3.9 picocuries per liter (pCi/L). The eastern portion of the Dix Area and the Lakehurst Area are within Ocean County. USEPA rates Ocean County, New Jersey, as radon zone 3. Counties in radon zone 3 have a predicted average indoor radon screening level of less than 2 pCi/L. Predicted radon in these zones are less than the USEPA guidance indoor radon level of 4 pCi/L (USEPA 2022).

3.10.2 Significance Criteria

Impacts on or from hazardous materials and wastes would be significant if a proposed action would result in noncompliance with applicable federal or state regulations, or increase the amounts generated or procured beyond current management procedures, permits, and capacities. Impacts on contaminated

sites would be significant if a proposed action would disturb or create contaminated sites resulting in negative impacts on human health or the environment, or if a proposed action would make it substantially more difficult or costly to remediate existing contaminated sites.

3.10.3 General Environmental Consequences of the Proposed Actions

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Short-term, negligible, adverse impacts would occur from the use of hazardous materials and petroleum products and the generation of hazardous and petroleum wastes during construction, demolition, renovation, and maintenance under the proposed actions. Hazardous materials that could be used include paints, solvents, preservatives, and sealants. Hydraulic fluids and petroleum products, such as diesel fuel and gasoline, would be used in vehicles and equipment supporting construction, demolition, and renovation. Demolition under the proposed actions would generate negligible to minor quantities of hazardous and universal wastes. Contractors would be responsible for the disposal of hazardous and universal wastes in accordance with federal and state laws. All hazardous materials, petroleum products, and hazardous and petroleum wastes used or generated during construction, demolition, and renovation would be contained, stored, and managed in accordance with the installation's HMMP and HWMP; the McGuire Area ICP and DPCC and DCR Plan; the Dix and Lakehurst Areas SPCC Plans; and federal, state, and DAF-applicable regulations to minimize the potential for releases (e.g., secondary containment, inspections, spill kits). All construction equipment would be maintained according to the manufacturer's specifications and drip mats would be placed under parked equipment as needed. The BMPs identified in **Section 5.6** would be followed to reduce adverse impacts.

None of the proposed actions would require changes or increases in the types and amounts of hazardous materials, petroleum products, and hazardous and petroleum wastes already used, stored, and generated on the installation. The emergency generator and diesel fuel AST adjacent to Building 1819 (Project C4) is not within the footprint of construction and would not be impacted by Project C4. Prior to demolition of Building 552 (Project D1), the adjacent emergency generator and diesel fuel AST would be deactivated and removed. Prior to demolition of Buildings 1190 and 5280 (Project D2), the 200-gallon tanks containing calcium hypochlorite (chlorine), 300-gallon tanks containing potassium permanganate, and the 1,000-gallon ASTs containing diesel fuel and fuel oil would be drained and removed.

Toxic Substances. Short-term, negligible to minor, adverse impacts from toxic substances would occur during construction of the proposed addition to Building 1819 (Project C4) and the proposed demolition of Buildings 552, 1190, and 5280 (Projects D1 and D2). Surveys for toxic substances (i.e., ACMs, LBP, and PCBs) would be completed, as necessary, by a certified contractor prior to work activities to ensure that appropriate measures are taken to reduce potential exposure to, and release of, these substances. If toxic substances were discovered, they would be properly characterized, handled, and disposed of. Contractors would wear appropriate PPE and would be required to adhere to all federal, state, and local regulations regarding these toxic substances.

ACM- and LBP-contaminated debris would be disposed of at a USEPA-approved landfill. Potential PCB-containing equipment not labeled PCB-free or missing date of manufacture labels would be removed and handled in accordance with the installation's HWMP and federal and state regulations. PCB-containing materials would be transported off-installation and disposed of at a certified hazardous waste disposal facility. Long-term, negligible, beneficial impacts would occur from a reduced potential for exposure to and removal of toxic substances at JB MDL. New building construction is unlikely to use these toxic substances because federal policies and laws limit their use in building construction.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Environmental Contamination. Short-term, negligible to moderate, adverse impacts would occur because there are three IRP sites with associated groundwater monitoring wells and one MMRP site on the installation that have the potential to be affected by the proposed actions. Alternative C1-1 is proposed to occur in IRP site AT029, and Alternatives C1-1 and C1-2 are proposed to occur within IRP sites FT011 and LF022. Alternatives C2-1, C2-2, and C2-3, and Projects C7 and D1 are proposed to occur within an MMRP site MEC Level 2 area. Tree clearing for Alternative C2-2 is proposed to occur within an MMRP site MEC Level 3 area. Prior to the start of construction within an active ERP site, contractors would coordinate with the JB MDL Restoration Program Manager. Depending on the proposed activities, a Waiver to Construct or a Local Waiver Approval and associated documentation would be prepared and submitted for review and approval to ensure contamination from these sites is not impacted or spread. A HASP would be developed in accordance with OSHA regulations to protect contractors. The JB MDL Restoration Program Manager would ensure consultation and coordination with HQ AMC and regulatory agencies, as necessary, is conducted. Additionally, Project R1 would occur immediately adjacent to a groundwater monitoring well associated with a legacy site that will be used for future PFAS investigations as well as a nearby groundwater treatment system.

Damage to groundwater monitoring wells should be avoided. Should a proposed action have the potential to impact groundwater monitoring wells, the contractor would be responsible for subcontracting a licensed well driller in the state of New Jersey to make any necessary adjustments (e.g., convert stick-up to flush mount or raise flush mount to a new level). In addition, the contractor would be required to survey the wells and submit necessary paperwork to NJDEP. Underground utilities associated with the groundwater treatment system near Project R1 would be identified during the installation's dig permit process and should be treated like any other utility system on the installation (AFCEC 2023).

Polyfluoroalkyl Substances. Short-term, negligible to minor, adverse impacts would occur because Alternatives C1-1 and C1-2 would occur within active AFFF areas with associated groundwater monitoring wells. Although no RSL exceedances in sediment and surface and subsurface soils were encountered in the AFFF areas during the SI, there is a potential to encounter PFAS in soils that may require removal and disposal. Should contaminated soil be encountered, the contractor would be responsible for the costs associated with the removal and disposal. As described above under *Environmental Contamination*, prior to the start of construction, contractors would coordinate with the JB MDL Restoration Program Manager and prepare the appropriate waivers, HASPs, and other relevant documentation to ensure that contamination from these sites is not impacted or spread, and consultation and coordination with HQ AMC and regulatory agencies, as necessary, would be conducted. Should a proposed action have the potential to impact groundwater monitoring wells, the contractor would be responsible for subcontracting a licensed well driller in the state of New Jersey to make any necessary adjustments. In addition, the contractor would be required to survey the wells and submit the necessary paperwork to NJDEP.

Radon. Long-term, negligible, adverse impacts from radon are possible for proposed building construction projects within Burlington County. Based on the USEPA rating of radon zone 2 for Burlington County, it is still possible new facilities could have indoor radon screening levels greater than four pCi/L. Although basements and poorly ventilated areas are most commonly affected by radon, any indoor space in contact with the ground (i.e., first floor of a slab building) is at risk. Radon would be managed in new construction by incorporating passive features into the design that limit the ability for radon to enter the building. These features would include placing aggregate material and matting below the concrete floor to encourage lateral, rather than vertical, flow of soil gas; designing

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

the HVAC system to avoid depressurization of the first floor; and using airtight seals around pipes and wires where they protrude from below grade. Periodic radon testing would occur, as needed, in each new or renovated building. Post-construction radon management measures, such as installing ventilation systems to remove radon that has already entered the building, would be installed should buildings test higher than four pCi/L.

No impacts from radon are expected for proposed building construction projects within Ocean County because Ocean County has a low potential for radon accumulation greater than 2 pCi/L within buildings.

3.10.4 Project-Specific Environmental Consequences

Impacts associated with hazardous materials and wastes from the proposed actions would be as described in **Section 3.10.3**. For Projects C5 and D2, it is assumed that the storage tanks containing calcium hypochlorite (chlorine), potassium permanganate, diesel fuel, and fuel oil at Buildings 1190 and 5280 would be either drained and relocated to the Project C5 location or closed and removed. Projects C1, C2, C7, D1, and R1 would occur within or near one or more active ERP sites or sites with active monitoring equipment; therefore, these proposed actions are discussed further below.

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative). Short-term, negligible, adverse impacts associated with hazardous materials and wastes would result from construction of the proposed airfield perimeter road under Alternative C1-1. Construction would result in a temporary increase in the use of hazardous materials and petroleum products and the generation of hazardous and petroleum wastes. Contractors would be responsible for the management and disposal of these substances, which would be handled in accordance with the installation's HMMP and HWMP; the McGuire Area ICP and DPCC and DCR Plan; and federal, state, and DAF regulations.

Alternative C1-1 would occur within IRP sites AT029, FT011, and LF002 and AFFF Areas 7 (Site AT029P-Sub) and 8 (Site FT011P-Sub). Additionally, a total of 25 groundwater monitoring wells associated with IRP sites AT029, AT029P-Sub, FT011, FT011P-Sub, and LF002 are within or immediately adjacent to Alternative C1-1 (see **Figure 3.10.2-1**). Should Alternative C1-1 impact groundwater monitoring wells, the contractor would be responsible for subcontracting a licensed well driller in the state of New Jersey to make any necessary adjustments (e.g., convert stick-up to flush mount or raise flush mount to a new level). Additionally, the contractor would be required to survey the wells and submit the required paperwork to the NJDEP. Prior to the start of construction within the active ERP sites, contractors would coordinate with the JB MDL Restoration Program Manager. Alternative C1-1 would require a Waiver to Construct and associated documentation to be prepared and submitted for review and approval to ensure that contamination from these sites is not impacted or spread and a HASP would be developed in accordance with OSHA regulations to protect contractors working in the area. The JB MDL Restoration Program Manager would ensure that consultation and coordination with HQ AMC and regulatory agencies is conducted.

No long-term changes to hazardous materials, petroleum products, or hazardous and petroleum wastes management would occur from Alternative C1-1. No impacts associated with toxic substances and radon would occur.

Project C1: Construct Airfield Perimeter Road Alternative C1-2. Impacts on hazardous materials and wastes from Alternative C1-2 would be similar to those described for Alternative C1-1; however,

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

construction would not occur within IRP site AT029 and AFFF Area 7 (Site AT029P-Sub) or result in impacts on the five groundwater monitoring wells associated with those sites.

Project C2: Construct Lakehurst ATCT Alternative C2-1 (Preferred Alternative). Short-term, negligible to minor, adverse impacts associated with hazardous materials and wastes would result from construction of the proposed ATCT and tree clearing under Alternative C2-1. Construction would result in a temporary increase in the use of hazardous materials and petroleum products and the generation of hazardous and petroleum wastes. Contractors would be responsible for the management and disposal of these substances, which would be handled in accordance with the installation's HMMP and HWMP; the Lakehurst Area SPCC Plan; and federal, state, and DAF regulations.

Alternative C2-1 would occur within the Level 2 area of MMRP site ZZ003 where there is a potential for MEC to be present. Prior to the start of construction, contractors would coordinate with the JB MDL Restoration Program Manager. Alternative C2-1 would require a Waiver to Construct and associated documentation to be submitted. A HASP would be developed in accordance with OSHA regulations. Consultation and coordination with HQ AMC and regulatory agencies would be conducted. A Level 2 area requires individuals working in the area to be trained to recognize and report MEC items if encountered. If during construction, an item is identified as potential MEC, the location would be marked, and the contractor would leave the area and contact JB MDL Security immediately. JB MDL Explosive Ordnance Disposal (EOD) personnel would remove or dispose of the item. Preparation and approval of an ESS may be required before work could resume in the area depending on site-specific issues, which would be determined by JB MDL Safety and EOD, in accordance with the JB MDL MEC Sweep Policy. Should potential MEC items be encountered more than two times during a project, the area would be redesignated as a Level 3 "Action Required" area. The contractor would be required to stop work and begin the Level 3 protocol to include preparation of an ESS and obtaining a certified UXO technician to provide on-site construction support for the remainder of the project.

No long-term impacts associated with hazardous materials, petroleum products, or hazardous and petroleum wastes management would occur from Alternative C2-1. Although Alternative C2-1 would include an emergency generator and diesel fuel AST, the emergency generator and diesel fuel AST near Building 552, which is proposed for demolition under Project D1, would be deactivated and removed prior to demolition. It is assumed the existing and proposed ATCTs would use similar amounts of diesel fuel. No impacts from toxic substances and radon would occur.

Project C2: Construct Lakehurst ATCT Alternative C2-2. Impacts on hazardous materials and wastes from Alternative C2-2 would be similar to those described for Alternative C2-1; however, tree clearing for Alternative C2-2 would occur within the Level 3 area of MMRP site ZZ003, which could result in short-term, minor to moderate, adverse impacts. A Level 3 area is an area where known MEC is present, and the construction contract would include the requirement for a certified UXO technician to perform a complete MEC sweep of the area to be disturbed before construction could begin, in accordance with the JB MDL MEC Sweep Policy. Contracts must include the requirements for the preparation and approval of an ESS and should include appropriate requirements for contingencies when working in a known MEC area. Certified UXO technicians supplied by the contractor would perform a MEC sweep of the Level 3 area and JB MDL EOD personnel would excavate and conduct on-site disposal of any identified anomalies. However, if suspected Chemical Warfare Material (CWM) is discovered, the suspected item must not be moved, and the contractor would be required to stop work. The location of the item would be marked, and JB MDL EOD would be notified immediately. Contractors or the UXO technician hired by the contractor are not permitted to handle

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

CWM. JB MDL EOD would respond to the site and remove the suspected CWM. If CWM is discovered, the site would immediately be reclassified and managed as a Level 4 – Known Lakehurst former Target/Impact Areas with MEC/potential for CWM Area designated as “Action Required” and the Level 4 protocol would be initiated. A Level 4 area includes the DoD Explosives Safety Board requirement of a Chemical Safety Submission to perform a MEC sweep. The MEC sweep would be contracted through the U.S. Army Corps of Engineers, Huntsville District, and on-site support from Army Edgewood Chemical Biological Center would be required prior to conducting subsurface work in the area.

Project C2: Construct Lakehurst ATCT Alternative C2-3. Impacts from Alternative C2-3 would be similar to those described for Alternative C2-1; however, tree clearing would not be required for Alternative C2-3. This project would occur within the Level 2 area of MMRP site ZZ003.

Project C7: Installation of a Septic System (Preferred Alternative). Short-term, negligible to minor, adverse impacts associated with hazardous materials and wastes would result from construction of the proposed septic system to Building 696 under Project C7. Construction would result in a temporary increase in the use of hazardous materials and petroleum products and the generation of hazardous and petroleum wastes. Contractors would be responsible for the management and disposal of these substances, which would be handled in accordance with the installation’s HMMP and HWMP; the Lakehurst Area SPCC Plan; and federal, state, and DAF regulations.

Project C7 would occur within the Level 2 area of MMRP site ZZ003. As described for Alternative C2-1, prior to the start of construction, contractors would coordinate with the JB MDL Restoration Program Manager. Project C7 would require a Waiver to Construct and associated documentation to be submitted. A HASP would be developed in accordance with OSHA. Consultation and coordination with HQ AMC and regulatory agencies would be conducted. As described for Alternative C2-1, all Level 2 area requirements would be followed.

No long-term changes to hazardous materials, petroleum products, or hazardous and petroleum wastes management would occur from Project C7. No impacts from toxic substances and radon would occur.

Project D1: Demolish Air Traffic Control Facility Building 552 (Preferred Alternative). Short-term, negligible to minor, adverse impacts associated with hazardous materials and wastes would result from demolition of Building 552 under Project D1. The emergency generator and diesel fuel AST on the southwest side of Building 552 would be deactivated and removed prior to demolition. Demolition would result in a temporary increase in the use of hazardous materials and petroleum products and the generation of hazardous, universal, and petroleum wastes. Contractors would be responsible for the management and disposal of these substances, which would be handled in accordance with the installation’s HMMP and HWMP; Lakehurst Area SPCC Plan; and federal, state, and DAF regulations.

Based on the year of construction (1972), Building 552 is assumed to contain ACMs, LBP, and PCBs. Surveys for toxic substances would occur prior to demolition so these materials could be properly characterized, handled, and disposed of. Any potential PCB-containing equipment not labeled PCB-free or missing date of manufacture labels would be removed and handled in accordance with the installation’s HWMP and federal and state regulations. PCB-containing materials would be transported off-installation and disposed of at a certified hazardous waste disposal facility. Long-term, negligible, beneficial impacts would be experienced from the reduced potential for exposure to and maintenance of toxic substances on JB MDL.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Project D1 occurs within the Level 2 area of MMRP site ZZ003. As described for Alternative C2-1, prior to the start of demolition, contractors would coordinate with the JB MDL Restoration Program Manager. Project D1 would require either a Waiver to Construct or Local Waiver Approval and associated documentation to be prepared and submitted for review and approval. A HASP would be developed in accordance with OSHA regulations to protect contractors working in the area. Consultation and coordination with HQ AMC and regulatory agencies would be conducted. As described for Alternative C2-1, all Level 2 area requirements would be followed.

No long-term changes to hazardous materials, petroleum products, or hazardous and petroleum wastes management would occur from Project D1. Although Project D1 would include the deactivation and removal of an emergency generator near Building 552 prior to demolition, the proposed construction of the Lakehurst ATCT under Project C2, would include an emergency generator and diesel fuel AST. It is assumed the existing and proposed ATCTs would use similar amounts of diesel fuel. No impact from radon would occur.

Project R1: Lakehurst Main Gate Security Improvements (Preferred Alternative). Short-term, negligible to minor, adverse impacts associated with hazardous materials and wastes would result from construction of the proposed Lakehurst Main Gate security improvements under Project R1. Construction would result in a temporary increase in the use of hazardous materials and petroleum products and the generation of hazardous and petroleum wastes. Contractors would be responsible for the management and disposal of these substances, which would be handled in accordance with the installation's HMMP and HWMP; the Lakehurst Area SPCC Plan; and federal, state, and DAF regulations.

A groundwater monitoring well associated with legacy site TT013 is immediately south of Project R1. Although there is no contamination associated with the legacy site, the groundwater monitoring well will be used for future PFAS investigations. Additionally, a groundwater treatment system is present north of Project R1 (see **Figure 3.10.2-2**). Should Project R1 have the potential to impact the groundwater monitoring well, the contractor would be responsible for subcontracting a licensed well driller in the state of New Jersey to make any necessary adjustments. In addition, the contractor would be required to survey the wells and submit the necessary paperwork to the NJDEP. Underground utilities associated with the groundwater treatment system would be identified during the installation's dig permit process and should be treated like any other utility system on the installation.

No long-term changes to hazardous materials, petroleum products, or hazardous and petroleum wastes management would occur from Project R1. No impacts from toxic substances and radon would occur.

3.10.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented and additional quantities of hazardous materials, petroleum products, and hazardous and petroleum wastes would not be used, stored, or generated at the installation. The management of hazardous materials, petroleum products, and hazardous and petroleum wastes would not change. No impact on radon would occur. ERP sites would continue to be investigated, remediated, and monitored according to current plans. Toxic substances would remain in Buildings 552, 1190, 1819, and 5280 and would continue to require maintenance by DAF personnel. As such, long-term, negligible, adverse impacts would continue from the potential for exposure to and maintenance of toxic substances in these buildings.

3.11 ENVIRONMENTAL JUSTICE

The USEPA defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

1. Are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
2. Have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.” (EO 14096, *Revitalizing Our Nation’s Commitment to Environmental Justice for All* [April 21, 2023]).

CEQ defines that minority populations exist if (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. This EA utilizes CEQ’s first definition and stipulates that minority populations are present when the minority population within the overall community surpasses 50 percent.

The U.S. Census Bureau defines a “poverty area” as a Census tract where 20 percent or more of the residents have incomes below the poverty threshold, and an “extreme poverty area” as one with 40 percent or more below the poverty level. The Census poverty level refers to income levels, based on family size, age of householder, and the number of children under 18 years of age, that are considered too low to meet essential living requirements. The criteria for determining poverty level are applied nationally (except for Alaska and Hawaii), without regard to the local cost of living.

3.11.1 Affected Environment

This project’s environmental justice region of influence (ROI) includes the municipalities of New Hanover Township, North Hanover Township, Pemberton Township, Springfield Township, and Wrightstown Borough in Burlington County, New Jersey and Jackson Township, Manchester Township, and Lakehurst Borough in Ocean County, New Jersey. Minority populations in 2021 were largest in New Hanover Township with 46 percent, which was larger than minority population rates in Burlington County (35 percent), Ocean County (16 percent), and the state (45 percent). Using the CEQ minority population threshold of 50 percent, none of the communities in the ROI would be considered as areas of potential environmental justice concern due to minority status. Low-income populations were determined by using the 2021 federal poverty rate of 11.6 percent. All municipalities in the ROI fall below this level as well as the statewide poverty rate of 10.2 percent. While Burlington County also falls below these levels, Ocean County ranks above the two, as shown on **Table 3.11.1-1**.

While the proposed projects do not fall under the types of projects outlined in NJDEP EJ Rules, the potential impacts of the proposed actions due to their proximity to residential communities are evaluated.

The New Jersey Department of Environmental Protection’s Environmental Justice Mapping, Assessment and Protection Tool (EJMAP) identifies block groups within the ROI as Overburdened

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Communities (OBCs) and/or Adjacent Block Groups (ABGs). The EJMAP classifies OBCs using minority and low-income criteria, as shown in **Table 3.11.1-2**.

EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, issued on April 21, 1997, aims to protect children from environmental health and safety risks. Its objectives are to (1) prioritize identification and assessment of such risks affecting children and to (2) ensure that Federal agency policies address these concerns. This section identifies the distribution of children within the communities in the immediate vicinity of the proposed actions. When implementing new developments or environmental changes, the potential impact on children and infants is consistently evaluated due to their vulnerability to elements like noise and air pollutants. This evaluation is crucial to safeguard their safety and health. For this EA, children are defined as individuals under 18 years old, and the assessment includes Burlington and Ocean County, where the proposed actions are situated.

Burlington County has 140 public schools and Ocean County has 117. These schools serve approximately 70,000 and 65,000 students respectively (NJ DOE 2023). The nearest school to the proposed actions is located outside JB MDL, approximately 1 mile away (NEPAssist 2023). According to JB MDL's 2015 "Installation Development Plan", there are four Child Development Centers (CDCs) on JB MDL.

Table 3.11.1-3 summarizes the population of children in Burlington and Ocean County versus New Jersey. The percentage of children in Burlington and Ocean County is similar to that of New Jersey.

Elderly populations are often more vulnerable to the consequences of potential environmental impacts. Both Burlington County (17.7%) and Ocean County (22.3%) have a higher percentage of residents who are 65 years of age and over than the statewide rate (16.9%).

3.11.2 Significance Criteria

Impacts on minority, low-income, child, and elderly populations would be considered significant if they are disproportionate and adverse, although such effects may be inherent for child and elderly populations because children and elderly individuals are more vulnerable to levels of noise and air pollution exposure.

3.11.3 General Environmental Consequences

The four CDCs at JB MDL are the environmental justice population closest to the proposed actions. However, as a result of the implementation of BMPs, and any permit requirements related to each proposed action, they would likely only experience minor and temporary impacts to noise and air quality during construction. Overall, however, due to the location of EJ populations, elderly populations, and other children's facilities located off-base, these impacts are not considered further.

3.11.4 Project-Specific Environmental Consequences

Impacts related to environmental justice communities from the proposed actions are described below. Due to their distance from residential communities, EJ Communities, and elderly populations, Projects C1-1, C1-2, C2-1, C2-2, C2-3, C3, C4, C5, C6, C7, D1 and D2 are not expected to have adverse environmental and/or socio-economic impacts on environmental justice populations.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Due to their distance from residential communities and schools, Projects C1-1, C1-2, C2-1, C2-2, C2-3, C3, C4, C5, C6, C7, D1 and D2 and R2 have no expected adverse environmental and/or socio-economic impacts on populations under 18 or over 65 years of age, and therefore impacts are not discussed further in this EA. Project R1 is more likely to result in indirect impacts due to the projects distance to residential areas, including a retirement community (River Pointe).

Project R1: Lakehurst Main Gate Security Improvements (Preferred Alternative). Project R1 does not fall under the types of projects outlined in NJDEP EJ Rules for evaluation of the relative environmental and public health stressors and the requirement to investigate how to avoid these, but because of the project's location, potential impacts are still evaluated below. Project R1 is likely to result in short-term, minor, direct and/or indirect, adverse impacts due to the close distance to residential areas, the River Pointe Neighborhood, which is located approximately 300-feet to the east. A road and forested area separate the main gate from the community. River Pointe is a retirement community and is likely to have a significant presence of residents over the age of 65, but is unlikely to have a significant presence of populations under 18 years of age. Direct impacts to the residents environmental and/or socio-economic impacts on environmental justice populations is not anticipated due to the distance of the community from the construction activities, the separation of the community by the road and trees, and because of the use of BMPs that would reduce air quality and noise impacts during construction activities. Project R1 is near two block groups identified by the EJMAP as low-income OBCs in Lakehurst Borough. No direct or indirect permanent impacts to the OBCs populations are anticipated from Project R1, including on children. The project may result in a short-term, minor, beneficial, direct impact to the socioeconomics of the community due to hiring from the local workforce.

3.11.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented, and the existing conditions would remain as described in **Section 3.10.1**.

3.12 AIRSPACE

Airspace management is defined by DAF as the coordination, integration, and regulation of the use over airspace that overlies the borders of the U.S. and its territories. The National Airspace System (NAS) principal attributes include controlled and uncontrolled airspace; air navigation facilities, equipment, and services; airports and landing areas; aeronautical charts information, and services; rules and regulations; procedures and technical information; and workforce and material.

3.12.1 Affected Environment

Because the proposed actions at JB MDL do not include aircraft operations or activities within NAS airspace and would not result in changes to the shape, or designation of existing airspace, consideration of airspace management in this EA refers to NAS-related ground (airport and airfield) features including clear zones (CZs), accident potential zones (APZs), imaginary surfaces, and other ground-based airspace hazards.

The primary airfield management concern at JB MDL is the potential for aircraft mishaps (i.e., crashes or crash landings) at the airfield. This includes mishaps caused by adverse weather events and bird/wildlife aircraft strikes. CZs and APZs are areas at each end of a runway that area associated with a higher potential for aircraft accidents, and therefore must remain clear of incompatible facilities or infrastructure that would present obstacles to navigation that would increase the risk of a mishap. The

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

CZ begins immediately adjacent to each end of the runway and is the area of highest accident potential. Accident potential decreases as an aircraft transitions from the CZ at the end of the runways into the respective APZs I and II.

The primary surface for the airfields at JB MDL defines the limits of the obstruction clearance requirements in the immediate vicinity of the runways. The primary surface is made up of the runway, runway shoulders, and lateral safety zones and extends 200 feet beyond each runway end. The width of the primary surface is 1,000 feet, or 500 feet on each side of the runway centerline. The transitional surface extends up and out at a 7:1 degree slope.

Slopes associated with the visual approach-departure surface to and from the runways at McGuire and Lakehurst airfields are symmetrically centered on the runway centerlines. Each slope begins as an inclined plane 200 feet beyond each end of the runway surface and extends for 50,000 feet. The slope of the approach-departure surface is 50:1 until it reaches an elevation of 500 feet above the airfield elevation. The width of this imaginary surface starts at 2,000 feet at the runway end and flares out to 16,000 feet at the end of the surface.

The Air Installation Compatible Use Zone (AICUZ) program at JB MDL includes three safety zones: the CZ, APZ I, and APZ II. Each of JB MDL's CZs encompasses an area 3,000 feet wide by 3,000 feet long. Each APZ I is 3,000 feet wide by 5,000 feet long and each APZ II is 3,000 feet wide by 7,000 feet long. Approximately 6.8 percent of JB MDL land is affected by airfield clearances, which is considered minor. At the McGuire airfield, the land constrained by the CZs associated with Runway 06/24 (northeast/southwest runway) and Runway 18/36 (north/south runway) is completely within the installation boundary. At the Lakehurst airfield, the land constrained by the CZs associated with Runway 06/24 (northeast/southwest runway) and Runway 15/33 (northwest/southeast runway) is mostly within the installation boundary. Portions of the CZs at the Lakehurst airfield extend off installation; however, the land underlying the off-installation CZs is recreation/open space and is compatible with AICUZ areas of influence. Portions of APZ I and APZ II at both airfields extend off the installation. Of the off-installation land underlying APZ I and APZ II at JB MDL, the land use of approximately 248 acres is incompatible with the AICUZ. Restricted land uses within APZ I and APZ II include high-density functions such as multistory buildings, schools, restaurants, and churches.

There are also three helicopter landing zones (HLZs) at the Lakehurst airfield. Each HLZ is 3,500 feet long by 90 feet wide. For HLZs, the primary surface begins at the end of the runway, extends to the CZ, and is 180 feet wide. The CZ begins at the end of the runway and is 500 feet wide. The approach-departure clearance surface starts at the end of the primary surface and slopes upward with a 20:1 slope, extending 10,500-feet. The width of the surface starts at 500 feet at the beginning of the slope and flares out to 2,500 feet at the end of the surface.

Of the proposed actions, only Projects C1, C2, and D1 would be located within or near imaginary surfaces or clear areas at the JB MDL airfields. The site for the northern portion of the proposed airfield perimeter road associated with Projects C1-1 and C1-2 would be located within the CZ that extends from the northeastern end of Runway 06/24 at the McGuire airfield. An additional three acres of the proposed airfield perimeter road for Alternative C1-1 would be within the CZ associated with the southwestern end of Runway 06/24. For Project C2, all alternatives would be outside of the primary surface; however, each ATCT alternative would be located within the transitional imaginary surface. The existing ATCT (Building 552), located on Lakehurst airfield pavement, would be demolished under Project D1 and is located within the transitional imaginary surface.

3.12.2 Significance Criteria

Impacts on airspace management would be considered significant if proposed facility or infrastructure development actions would encroach on imaginary surfaces at JB MDL and result in areas of incompatibility with the AICUZ or reduce safety during airfield management or flight operations.

3.12.3 General Environmental Consequences of the Proposed Actions

Impacts on airspace management were evaluated only for the proposed actions (Projects C1, C2, and D1) that would occur in or around the airfields or within safety zones associated with runways at JB MDL. The remaining proposed actions were not included in the analysis for impacts on airspace and airfield management.

Short-term, minor, adverse impacts on airspace management would occur during the construction periods for the proposed actions. Although construction activities on the ground would not penetrate the primary or transitional surfaces, construction within the CZ may pose additional safety risks to construction crews and aircraft operations. Construction within a CZ would be scheduled to reduce the time that such activities occur concurrently with aircraft operations. Construction crews also would be notified of the hazards associated with working in a CZ.

Long-term, negligible, adverse impacts on airspace management would occur from the addition of buildings and infrastructure within planes or surfaces associated with the airfield at JB MDL. The primary surface, transitional surface, CZ, APZs would not be changed as a result of the proposed actions. The design of new infrastructure would comply with FAA and DAF requirements.

3.12.4 Project-Specific Environmental Consequences

Project C1: Construct Airfield Perimeter Road Alternative C1-1 (Preferred Alternative). Short-term, minor, adverse impacts on airfield management would occur during the construction period for Alternative C1-1 because construction crews would be working within the CZs associated with Runway 06/24 and would be exposed to potential aircraft mishaps. Similarly, long-term, minor, adverse impacts would occur during operation of the perimeter road because natural resources crews accessing areas within the CZ would be exposed to potential aircraft mishaps. The proposed perimeter road would be constructed in accordance with applicable DAF and FAA requirements including Federal Aviation Regulation Part 77 and UFC 3-260-01. As identified in DAF Instruction 4165.57, roads without sidewalks or bicycle trails, provided they do not violate obstacle clearance criteria, is an acceptable use of land within the CZ. The proposed perimeter road would be consistent with acceptable land uses and thus would not affect airfield safety or be incompatible with the AICUZ.

Project C1: Construct Airfield Perimeter Road Alternative C1-2. Under Alternative C1-2, identified short-term, minor and long-term, minor adverse impacts would be the similar to but less than those described for Alternative C1-1 because it would be shorter than Alternative C1-1.

Project C2: Construct Lakehurst ATCT Alternative C2-1 (Preferred Alternative). Alternative C2-1 would underlie the transitional surface associated with Runway 06/24 at the Lakehurst airfield. At this site, the transitional surface is 114 feet above ground level. Tall objects or buildings that would extend into the transitional zone could pose significant hazards to flight operations or interfere with navigational equipment. Long-term, minor, adverse impacts would occur from project C2-1 if the height of the proposed ATCT would result in a violation of obstacle clearance criteria. If the clearance

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

criteria were violated, re-evaluation and changes in the airspace configuration for the airfield would be required. To avoid conflict, the proposed ATCT would be designed in accordance with the DAF ATCT Design Guide. JB MDL would coordinate the final design of the ATCT with FAA for approval and would ensure the height restriction criteria in Federal Aviation Regulation Part 77 is met. Tree clearing required for Alternative C2-1 would not affect the transitional surface. Long-term, minor, beneficial impacts would occur from Alternative C2-1 because visibility to each runway end and the three HLZs at the Lakehurst airfield would be achieved.

Project C2: Construct Lakehurst ATCT Alternative C2-2. Impacts from Alternative C2-2 would be similar to those described for Alternative C2-1. Alternative C2-2 underlies the transitional surface associated with Runway 06/24 where the transitional surface is 74.5 feet above ground level. Long-term, minor, adverse impacts would occur if the height of the ATCT violates obstacle clearance criteria. To avoid airspace conflicts, the proposed ATCT would be designed in accordance with the DAF ATCT Design Guide and final design of the ATCT would be approved by FAA. Tree clearing required for Alternative C2-2 would not affect the transitional surface. Long-term, minor, beneficial impacts would occur from Alternative C2-2 because visibility to each runway end and the three HLZs at the Lakehurst airfield would be achieved.

Project C2: Construct Lakehurst ATCT Alternative C2-3. Impacts from Alternative C2-3 would be similar to those described for Alternative C2-2. Alternative C2-3 underlies the transitional surface associated with Runway 06/24 at the Lakehurst airfield. At this site, the transitional surface would be penetrated over 45 feet above ground level. Long-term, minor, adverse impacts would occur if the height of the ATCT violates obstacle clearance criteria. To avoid airspace conflicts, the proposed ATCT would be designed in accordance with the DAF ATCT Design Guide and final design of the ATCT would be approved by FAA. Long-term, minor, beneficial impacts would occur from Alternative C2-3 because visibility to each runway end and the three HLZs at the Lakehurst airfield would be achieved.

Project D1: Demolish Air Traffic Control Facility Building 552 (Preferred Alternative). Long-term, minor, beneficial impacts on airfield management and safety from demolition of the existing ATCT would occur because the control cab, top deck, and conservation catwalk railing have been deemed unsafe for personnel to use and replacement of the ATCT would eliminate these unsafe structures. Continued deterioration of these structural elements would eventually render the ATCT unusable, resulting in impacts on air operations at the Lakehurst airfield. Project D1 would permanently remove the unsafe structure, which would remove the existing ATCT from the transitional surface associated with Runway 06/24 but would be replaced by a new ATCT under Project C2.

3.12.5 Environmental Consequences of the No-Action Alternatives

Under the No-Action Alternatives, the proposed actions would not be implemented, and the associated construction, demolition, renovation, and operational activities would not occur. As such, airspace management would remain as described in **Section 3.12.1**. Under the No-Action Alternative for Project D1, the existing ATCT would continue to deteriorate, which would eventually render the ATCT unusable resulting in long-term, adverse impacts on air operations at the Lakehurst airfield.

4.0 REASONABLY FORESEEABLE ACTIONS AND CUMULATIVE EFFECTS

CEQ regulations implementing the procedural provisions of NEPA define cumulative effects as follows (40 CFR § 1508.1(g)(3)): “Cumulative effects, which are effects on the environment that result

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.”

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Past actions are those actions, and their associated impacts, which have shaped the current environmental conditions of the affected environment. Therefore, the impacts of past actions are now part of the existing environment and are included in the discussion of the affected environment in **Section 3**. This EA considers present and reasonably foreseeable actions based out of JB MDL and the surrounding area that could have a causal relationship to the proposed actions and may result in cumulative impacts. These present and reasonably foreseeable future actions are listed in **Section 4.1**. The cumulative effects on the environment that would result from the incremental impacts of the proposed actions, when combined with the potential impacts of the present and reasonably foreseeable actions, are discussed in **Section 4.2.1** through **4.2.12**. These sections present a qualitative analysis of the cumulative effects.

4.1 PRESENT AND REASONABLY FORESEEABLE ACTIONS

A desktop review did not identify any off-installation present or reasonably foreseeable actions within one mile of any proposed action over the next three years (2024-2027). Five on-installation planned actions were identified: 1) addition to the loading dock at Building 1816, approximately 0.2 mile southwest of the CATM facility (Building 2711) (McGuire Area); 2) construction of the Dix fitness center (Dix Area); 3) connection of Buildings 5651 and 5652 just west of the McGuire airfield (Dix Area); 4) fiber optic cable upgrades (installation-wide); and 5) energy performance optimization contract infrastructure upgrades (installation-wide). Public Service Electric and Gas (PSE&G) also plans to replace a gas line along Wrightstown/Cookstown Road. The project is in the beginning stages and construction is anticipated to start in two years (2025).

4.2 ASSESSMENT OF CUMULATIVE IMPACTS BY RESOURCE

Air Quality. Short- and long-term, minor, adverse cumulative impacts on air quality would occur from the proposed actions when combined with construction and operation for past and reasonably foreseeable actions. Reasonably foreseeable construction actions that coincide with construction, demolition and renovation under the proposed actions would contribute additional air emissions within Burlington and Ocean Counties; however, occurrences of additive emissions would be temporary in nature and would cease upon completion of reasonably foreseeable construction activities. The PSD thresholds would be applied to each individual reasonably foreseeable action, separate from the proposed actions. Therefore, the additive emissions of criteria pollutants from construction and operation for the reasonably foreseeable actions at JB MDL, such as the addition to the loading dock at Building 1816, construction of the Dix fitness center, and connection of Buildings 5651 and 5652, would not be combined with the emissions from the proposed actions and would not exceed the insignificance indicators. Because emissions from the proposed actions would not be considered significant for the region, cumulative impacts on air quality from the proposed actions, when combined with other past and reasonably foreseeable actions, would not be significant.

Water Resources. Short-term minor and long-term minor, cumulative adverse impacts on groundwater, surface water, wetlands, and floodplains would be expected from implementation of the proposed actions when combined with past and other reasonably foreseeable future actions at JB MDL.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

For reasonably foreseeable future actions, short-term impacts on water resources, such as stormwater runoff, erosion and sedimentation impacts and contamination from accidental spills, would be avoided and minimized by adhering to the JB MDL SPCC, NJPDES permit, NJDEP/USACE permits, installation of BMPs and SESC/SWPPP requirements and the application of LID design technologies. Long-term, minor, adverse impacts would be expected on surface water and groundwater due to an increase in stormwater runoff and erosion and sedimentation potential associated with the net increase in impervious surface under the proposed actions and direct impacts to wetlands and waterways.

Geology, Topography and Soils. Short-term, minor, adverse impacts would be expected on topography, geology, and soils due to temporary ground disturbance during construction, a net increase in impervious surfaces, increased stormwater runoff and erosion and sedimentation potential, and increased vehicle and pedestrian traffic resulting in soil compaction. Soils at JB MDL have undergone modifications as a result of development and military activities. Individually, all construction and demolition activities could have short-term, minor, adverse effects due to vegetation removal, compaction of soils, and increased soil erosion and sedimentation. Considered cumulatively, the Proposed Action and present and other reasonably foreseeable future actions have the potential for short-term, minor, adverse effects and beneficial effects on topography and soils. Through the implementation of BMPs, the SESC/SWPPPs, and NPDES permit potentially adverse cumulative effects would be minimized. Therefore, the proposed actions when combined with past and other reasonably foreseeable future actions would result in minor, adverse cumulative impacts on soils.

Cultural Resources. The proposed actions would not result in direct physical impacts to historic properties; however, Projects C2 and R2 would occur within the viewshed of the Lighter-Than-Air HD, and Projects C1, C2, C4, C6, and C7 are within a High ASA. The reasonably foreseeable actions that have the potential to interact with the proposed actions include the fiber optic cable upgrades and energy performance optimization contract infrastructure upgrades. These actions would include ground disturbance that, if occurring concurrently and near the proposed actions, could result in additive visual impacts to historic properties or HDs during construction. When combined with the potential visual impacts from Projects C2 and R2, the cumulative impacts would be short-term and minor. The potential disturbance or removal of archaeological artifacts required for the proposed actions and reasonably foreseeable actions may incrementally impact the cultural and historic setting of JB MDL. Avoidance of known cultural resources would be taken into consideration prior to implementing reasonably foreseeable actions. However, actions that could adversely impact archaeological resources would undergo Section 106 consultation, and appropriate mitigation measures would need to be developed to avoid or reduce adverse effects on protected resources. Therefore, the proposed actions, when combined with past and reasonably foreseeable actions, would not result in significant cumulative impacts on cultural resources.

Biological Resources. There would be short-term, minor, adverse impacts on vegetation from temporary disturbance of vegetation and soil compaction during construction, demolition, and renovation activities and from permanent vegetation removal for new facilities. Short- and long-term, negligible, adverse impacts on wildlife may occur from increased noise and potential temporary displacement associated with the proposed construction, renovation, and demolition projects including berm removal and habitat transitions. Short-term, negligible, adverse impacts on wildlife would occur from noise associated with heavy equipment use and increased human presence during project construction, renovation, and demolition. Past actions have resulted in long-term, minor to moderate, adverse impacts on biological resources from development, environmental contamination, and noise.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Therefore, the proposed actions, when combined with BMP utilization, and past and reasonably foreseeable actions, would not result in significant cumulative impacts on biological resources.

Land Use. New facilities proposed under the reasonably foreseeable actions generally would be compatible with existing land uses at JB MDL. Short-term, minor, adverse, cumulative impacts on land use could result from temporary increases in noise levels if any of the construction activities as part of the reasonably foreseeable actions were to occur simultaneously with the construction, demolition, and renovation activities planned for the proposed actions. However, the additive noise levels would not result in additional areas of incompatible land uses nor preclude the viability of existing land uses. In addition, noise levels would be similar enough to baseline conditions as to not be considered significant.

No long-term, adverse, impacts on land use would be anticipated from any of the proposed actions, except for Project C5. Under Project C5, Wells #5 and #6 would be considered a utility, which is an incompatible land use in the Academic Training District; however, the wells would be replacing existing wells with identical function and no changes in land use zoning classification or land use compatibility would occur. The proposed actions and reasonably foreseeable actions on JB MDL would adhere to installation planning principles to maintain land use compatibility. The proposed actions and reasonably foreseeable actions could result in long-term, minor, beneficial impacts as these actions would, to the greatest extent practicable, consolidate like functions, increase efficiency, or remove outdated and underused facilities. Therefore, the proposed actions, when combined with past and reasonably foreseeable actions, would not result in significant cumulative impacts on land use.

Noise. Construction, demolition, and renovation under the proposed actions, when combined with construction and renovation required for the reasonably foreseeable actions, would result in intermittent, short-term, adverse impacts on the noise environment from the potential for additive construction noise. This additive noise would be concentrated where proposed actions are near other reasonably foreseeable actions, such is the case for Project C4 and the loading dock addition at Building 1816. If conducted concurrently, the construction, demolition, and renovation actions from the proposed actions and reasonably foreseeable actions would produce additive noise levels a few dB over what would be produced by the proposed actions alone. These cumulative impacts would be temporary and minor. Long-term operation of new facilities under the proposed actions and reasonably foreseeable actions would produce noise levels that are consistent with ambient levels. Therefore, the proposed actions, when combined with past and reasonably foreseeable actions, would not result in significant cumulative impacts on noise.

Infrastructure and Transportation. The proposed actions and reasonably foreseeable actions at JB MDL have the potential to impact the following: utilities, stormwater infrastructure, and transportation. Short-term, minor, adverse cumulative impacts would occur during construction, demolition, and renovation associated with the proposed actions and reasonably foreseeable actions from service interruptions should utility lines need to be rerouted or when new facilities are connected to utility distribution systems. Impervious surfaces, including new buildings under the reasonably foreseeable actions, would increase the rate of stormwater runoff throughout the installation and, when combined with the proposed actions, would result in long-term, minor, adverse cumulative impacts. If construction within the Lakehurst Area under the reasonably foreseeable actions were to coincide with the renovation of the Lakehurst Main Gate under Project R1, construction workers would add additional congestion at the gate, resulting in additive traffic. However, additive traffic would be temporary and intermittent. Therefore, the proposed actions, when combined with the past and

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

reasonably foreseeable actions, would not result in significant cumulative impacts on infrastructure and transportation.

The reasonably foreseeable actions to upgrade fiber optic cables and optimize energy performance infrastructure would increase utility efficiency for all existing and proposed facilities at JB MDL, resulting in long-term, beneficial cumulative impacts.

Safety. Short-term, minor, adverse cumulative impacts on occupational health and safety at JB MDL would occur from increased hazards to construction workers, installation personnel, and civilians should construction under the reasonably foreseeable actions occur concurrently with the proposed actions. Additive impacts on health and safety would be concentrated where proposed actions are near past (existing) and reasonably foreseeable actions. This includes Project C4 and the loading dock addition at Building 1816. Adherence to established safety procedures, including the use of PPE, fencing project areas, posting signs, and compliance with all federal, state, and DoD OSHA standards would reduce or eliminate health and safety impacts on contractors, military personnel, and the general public. Therefore, the proposed actions, when combined with past and reasonably foreseeable actions, would not result in significant cumulative impacts on health and safety.

Hazardous Materials and Wastes. Construction, demolition, and renovation under the proposed actions, when combined with similar activities under the reasonably foreseeable actions, would result in short-term, negligible to minor, adverse impacts on hazardous materials and wastes. These impacts would result from the use of hazardous materials and petroleum products; generation of hazardous wastes during construction, demolition, or renovation; potential disturbance of toxic substances during facility demolition or renovation; and the potential for overlap with IRP sites. New facilities under the reasonably foreseeable actions would be sited to avoid known contaminated sites and would be spatially separated from the proposed actions. Past actions have resulted in long-term, minor to moderate, adverse impacts on hazardous materials and wastes from construction, operation, and environmental contamination. Therefore, the proposed actions, when combined with past and reasonably foreseeable actions, would not result in significant cumulative impacts on or from hazardous materials and wastes.

Environmental Justice. Project R1 is the only proposed project that may result in indirect environmental or socioeconomic impacts to the local environmental justice communities due to the distance to a residential area and on base CDC. These impacts would be related to the short-term (during construction) impacts detailed in this EA. All potential impacts would be minimized and reduced wherever possible.

In addition, the local workforce would be utilized and would create a direct beneficial impact on the local environmental justice communities. In combination with past and other reasonably foreseeable future actions, the proposed actions would result in indirect, short term cumulative impacts to the local environmental justice communities.

Airspace. Of the proposed actions, only Projects C1, C2, and D1 would occur at or around the airfields at JB MDL. The reasonably foreseeable actions that have the potential to also occur at or around the airfields include fiber optic cable upgrades and energy performance optimization contract infrastructure upgrades. Short-term, minor, adverse cumulative impacts from the construction and demolition activities under Projects C1, C2, and D1 when combined with construction for the reasonably foreseeable actions would occur from the potential additional personnel working within runway safety zones (i.e., CZs and APZs). As for the proposed actions, construction within a CZ would

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

be scheduled to reduce the time that these actions occur concurrently with aircraft operations. The fiber optic cable and energy performance optimization contract infrastructure upgrades would include upgrading existing utilities and infrastructure and therefore do not include introduction of new utilities, infrastructure, or facilities near the airfields that could encroach on imaginary surfaces or runway safety zones. Therefore, the proposed actions, when combined with past and reasonably foreseeable actions, would not result in significant cumulative impacts on airfield management.

5.0 SUMMARY OF ENVIRONMENTAL MANAGEMENT PRACTICES

Based on the analysis presented in this EA, implementation of the Proposed Action would not result in significant adverse impacts on any of the resources analyzed within this document, and no further analysis or documentation, such as the preparation of an EIS, is required. Summaries of BMPs for air quality, noise, geology, topography and soils, water resources, biological resources, and hazardous materials and wastes presented in Chapter 3 are provided below.

5.1 AIR QUALITY

- Construction activities would incorporate BMPs and environmental control measures (e.g., wetting the ground surface) to minimize fugitive dust emissions.
- Work vehicles would be well-maintained and could use diesel particulate filters to reduce emissions of criteria pollutants.

5.2 NOISE

- The use of exhaust mufflers can reduce the noise level of construction vehicles and heavy equipment up to 10 dBA.
- Phasing of construction would minimize potential compounded noise impacts from multiple concurrent construction, renovation, and demolition activities.

5.3 GEOLOGY, TOPOGRAPHY AND SOILS

- Development and implementation of an SESC plan, project-specific and installation-wide SWPPPs, SPCC plans, incorporation of LID practices, and stormwater management BMPs, such as silt fences and construction phasing, could reduce impacts from and on stormwater runoff and subsequent erosion and sedimentation potential.

5.4 WATER RESOURCES

- Similar to geological resources, development and implementation of an SESC plan, project-specific and installation-wide SWPPPs, incorporation of LID practices, and stormwater management BMPs, such as silt fences and construction phasing, could reduce impacts from and on stormwater runoff and subsequent erosion and sedimentation potential or pollutant loading.

5.5 BIOLOGICAL RESOURCES

- Pre-demolition biological surveys for the sensitive species would be required. In addition, tree clearing restrictions related to bats would be implemented. Strategic replanting of trees in alternative locations that are not included in future development plans at JB MDL could offset potential impacts to the tree removals.

5.6 HAZARDOUS MATERIALS AND WASTES

- Prior to renovation or demolition, surveys for ACM, LBP, and PCBs would be completed, as necessary, by a certified contractor to ensure that appropriate measures are taken to reduce the potential for exposure to, and release of, toxic substances. Contractors would wear appropriate PPE and adhere to all federal, state, and local regulations as well as the installation's ACM and LBP Management Plans. All ACM- and LBP-contaminated debris would be disposed of at a USEPA-approved landfill.
- Use of secondary containment for temporary ASTs onsite for power generation or equipment fuel during construction activities and adherence to applicable federal, state, and local laws and regulations would minimize potential impacts. In the event of a spill, the contractor would follow the appropriate measures outlined in the installation's SPCC Plan.
- All hazardous and petroleum waste generated would be handled and disposed of in accordance with the installation's HWMP and federal, state, and local regulations.
- All hazardous materials and petroleum products would be stored in containers that meet federal, state, and local requirements and handled in accordance with the installation's SWPPP and SPCC Plan.
- Secondary containment systems would be used as necessary to prevent or limit accidental spills. Additionally, all construction equipment would be maintained according to the manufacturer's specifications and drip mats would be placed under parked equipment as needed.
- Should unknown, potentially hazardous wastes be discovered or unearthed during construction and demolition, construction contractors would immediately cease work, contact appropriate installation personnel, and await sampling and analysis results before taking any further action. Any unknown waste determined to be hazardous would be managed or disposed of in accordance with applicable laws and regulations.
- Maintaining a hazardous materials management system that uses waste characterization procedures to ensure that toxic chemicals do not enter the solid waste stream could reduce potential impacts.

DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY

6.0 REFERENCES

Short Citation	Reference
AFCEC 2020	Air Force Civil Engineer Center (AFCEC). 2020. <i>Air Quality Environmental Impact Analysis Process (EIAP) Guide, Volume II – Advanced Assessments</i> . July 2020.
AFCEC 2021	AFCEC. 2021. <i>Environmental Land Use Controls Implementation Plan (2021 Update)</i> . October 2021.
AFCEC 2022a	AFCEC. 2022. <i>Final Site Management Plan Amendment FY2022</i> . September 2022.
AFCEC 2022b	AFCEC. 2022. <i>Final Addendum-1 Facility-Specific Work Plan/Uniform Federal Policy – Quality Assurance Project Plan Phase I Remedial Investigations (RIs) for Per- and Polyfluoroalkyl Substances (PFAS) Impacted Sites at Joint Base McGuire-Dix-Lakehurst (JB MDL) – McGuire, New Jersey</i> . September 2022.
AFCEC 2022c	AFCEC. 2022. <i>Documentation of Compliance with State ARARs, McGuire – Operable Unit 3 (Sites LF002, LF020, and WP021)</i> . June 2022.
AFCEC 2022d	AFCEC. 2022. <i>Relative Risk Site Evaluation Joint Base McGuire-Dix-Lakehurst, Burlington County, NJ</i> . August 8, 2022.
AFCEC 2023	AFCEC. 2023. Email conversation between James Richman, AFCEC CZOE, Catherine Brunson, 787 CES/CEIEA, and Carolyn Hein, HDR, regarding monitoring wells near Projects R1 and C1 and groundwater treatment system near Project R1.
Argonne 1994	Argonne National Laboratory (Argonne). 1994. <i>An Archaeological and Historic Resources Inventory of McGuire Air Force Base, New Jersey</i> .
Army 1967	U.S. Army (Army). 1967. <i>The History of Fort Dix, New Jersey (1917-1967)</i> . 1967.
Burlington County 2023	Burlington County. 2023. <i>Recycling and Waste Management: Solid Waste Facilities</i> . Available online: https://www.co.burlington.nj.us/399/Facilities
CardnoTEC 2014	CardnoTEC. 2014. <i>Phase I Archaeological Survey at Joint Base McGuire-Dix-Lakehurst, New Jersey</i> . September 2014.
CEQ 2016	Council on Environmental Quality (CEQ). 2016. <i>Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews</i> . August 1, 2016.
CEQ 2023	CEQ. 2023. <i>National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change</i> . 88 Federal Register 1196. January 9, 2023.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Short Citation	Reference
CHC 2022	Center for Hearing and Communication (CHC). 2022. <i>Common Noise Levels</i> . Available online: < https://noiseawareness.org/info-center/common-noise-levels/ >. Accessed June 22, 2023.
DAF 2001	Department of the Air Force (DAF). 2001. Air Traffic Control Tower (ATCT) and Radar Approach Control Facility (RAPCON) Design Guide. November 15, 2001.
DAF 2017a	DAF. 2017. AF Form 1391, FY2017 Project Data: Sustainment-Repair Westfield Air Traffic Control Tower FAC 552. 2017.
DAF 2017b	DAF. 2017. DD Form 1155: Scope of Work, Environmental Assessment for the Development of a Boundary Road and Berm Removal. September 21, 2017.
DAF 2021a	DAF. 2021. AF Form 813 Request for Environmental Impact Analysis: Addition to CATM Facility, B1819. October 15, 2021.
DAF 2021b	DAF. 2021. AF Form 813 Request for Environmental Impact Analysis: Construct New Dormitory. November 19, 2021.
DAF 2021c	DAF. 2021. AF Form 813 Request for Environmental Impact Analysis: Construct New Wells on Dix Annex. August 24, 2021.
DAF 2021d	DAF. 2021. AF Form 813 Request for Environmental Impact Analysis: Lakehurst Main Gate Security Improvements. October 15, 2021.
DAF 2021e	DAF. 2021. DD Form 1391c: Control Tower, Lakehurst Airfield. August 20, 2021.
DAF 2022a	DAF. 2022. List of Tanks Near the Buildings Analyzed in the IDP EA. December 7, 2022.
DAF 2022b	DAF. 2022. AF Form 1391 Military Construction Project Data: 144 Bed Dormitory. December 2022.
DAF 2022c	DAF. 2022. AF Form 1391 Military Construction Project Data: Main Gate Security Improvements. December 2022.
DAF 2022d	DAF. 2022. DD Form 1391, FY2025 Project Data: Well No. 6 and Wellhouse. August 2022.
DAF 2022e	DAF. 2022. AF Form 813 Request for Environmental Impact Analysis: Installation of a Septic System at B696. December 8, 2022.
DAF 2022f	DAF. 2022. AF Form 813 Request for Environmental Impact Analysis: Installation of Aerators in Ponds. December 8, 2022.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Short Citation	Reference
DAF 2022g	DAF. 2022. AF Form 813 Request for Environmental Impact Analysis: Removal of Berms. December 8, 2022.
DAF SAF/IE 2022	Department of the Air Force, Office of the Assistant Secretary for Energy, Installations, and Environment (DAF SAF/IE). 2022. <i>Department of the Air Force Climate Action Plan</i> . October 2022
DOD 2020	Department of Defense (DOD). 2020. UFC 1-200-02. High Performance and Sustainable Building Requirements
DOD 2021	DOD. 2021. UFC 3-230-02. Operation and Maintenance Water Supply Systems.
DOD 2022	DOD. 2022. UFC 4-010-01. DoD Minimum Antiterrorism Standards for Buildings.
DOS and EOP 2021	United States Department of State (DOS) and United States Executive Office of the President (EOP). 2021. <i>The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050</i> . November 2021.
Dupigny-Giroux et al. 2018	Dupigny-Giroux, L.A., E.L. Mecray, M.D. Lemcke-Stampone, G.A. Hodgkins, E.E. Lentz, K.E. Mills, E.D. Lane, R. Miller, D.Y. Hollinger, W.D. Solecki, G.A. Wellenius, P.E. Sheffield, A.B. MacDonald, and C. Caldwell. 2018. <i>Chapter 18: Northeast</i> . In <i>Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II</i> [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA. Available online: < https://nca2018.globalchange.gov/chapter/18/ >. Accessed June 21, 2023.
FAA 2022	Federal Aviation Administration (FAA). 2022. Fundamentals of Noise and Sound. Available online: < https://www.faa.gov/regulations_policies/policy_guidance/noise/basics#metrics >. Accessed June 22, 2023.
IDcide 2023	IDcide. 2023. McGuire AFB, NJ Weather. Available online: < https://www.idcide.com/weather/nj/mcguire-afb.htm >. Accessed June 21, 2023.
JB MDL 2013a	JB MDL. 2013. <i>Air Installation Compatible Use Zone Study</i> . July 2013.
JB MDL 2013b	JB MDL. 2013. <i>Final Hazardous Materials Management Plan</i> . January 2013.
JB MDL 2015	JB MDL. 2015. <i>Installation Development Plan, Joint Base McGuire-Dix-Lakehurst</i> . May 2015.
JB MDL 2016	JB MDL. 2016. <i>JB MDL Policy for Managing Munitions and Explosives of Concern</i> .
JB MDL 2019a	JB MDL. 2019. <i>2019-2023 Integrated Cultural Resources Management Plan</i> .

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Short Citation	Reference
JB MDL 2019b	JB MDL. 2019. <i>Integrated Contingency Plan Oil and Hazardous Substance Spill Prevention and Response, McGuire Portion</i> . September 2019.
JB MDL 2019c	JB MDL. 2019. <i>Spill Prevention, Control, and Countermeasures Plan, Lakehurst Portion</i> . August 2019.
JB MDL 2020a	JB MDL. 2020. <i>Integrated Solid Waste Management Plan</i> . February 27, 2020.
JB MDL 2021a	JB MDL. 2021. <i>Integrated Natural Resources Management Plan</i> . December 2021.
JB MDL 2021b	JB MDL. 2021. Description of Work: Dix Berm Removal Project, Joint Base McGuire-Dix-Lakehurst, New Jersey. November 2021.
JB MDL 2021c	JB MDL. 2021. Lakehurst Main Gate Design Description. June 24, 2021.
JB MDL 2021d	JB MDL. 2021. <i>Hazardous Waste Management Plan</i> . July 9, 2021.
JB MDL 2021e	JB MDL. 2021. <i>Discharge Prevention, Containment, and Countermeasure (DPCC) and Discharge Cleanup and Removal (DCR) Plan, McGuire Area</i> . Revised May 2021.
JB MDL 2022a	JB MDL. 2022. <i>Berm Removal Map</i> . February 2022.
JB MDL 2022b	JB MDL. 2022. Buildings List. April 21, 2022.
JB MDL 2022c	JB MDL. 2022. <i>Spill Prevention, Control, and Countermeasure Plan, Dix Area</i> . February 2022.
JB MDL 2023	JB MDL. 2023. <i>Lakehurst Air Traffic Control Tower Siting Study Report</i> . February 24, 2023.
LBA 1985	Louis Berger & Associates, Inc (LBA). 1985. <i>Cultural Resource Survey and Evaluation, U.S. Army Training Center and Fort Dix, Volume I</i> . January 1985.
NJDEP 2007	New Jersey Department of Environmental Protection (NJDEP). 2007. <i>State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Ozone National Ambient Air Quality Standard: 8-Hour Ozone Attainment Demonstration</i> . Final. October 29, 2007. Available online: < https://dep.nj.gov/airplanning/state-implementation-plans-sips/ >. Accessed June 22, 2023.
NJDEP 2020	NJDEP. 2020. <i>2020 New Jersey Scientific Report on Climate Change</i> . June 30, 2020. Available online: < https://www.nj.gov/dep/climatechange/data.html >. Accessed June 21, 2023.
NJDEP 2021	NJDEP. 2021. <i>State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Ozone National Ambient Air Quality Standards: 2008 75 ppb 8-Hour Ozone Attainment Demonstration Northern New Jersey-New York-Connecticut Nonattainment Area, 2008 75 ppb and 2015 70 ppb 8-Hour Ozone Reasonably</i>

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Short Citation	Reference
	<i>Available Control Technology (RACT) Determinations and Nonattainment New Source Review (NNSR) Program Compliance Certifications and 2017 Periodic Emissions Inventory</i> . November 2021. Available online: < https://dep.nj.gov/airplanning/state-implementation-plans-sips/ >. Accessed June 21, 2023.
NJDEP 2022a	NJDEP. 2022. <i>New Jersey Greenhouse Gas Inventory 2022 Mid-Cycle Update Report</i> . December 2022. Available online: < https://dep.nj.gov/ghg/nj-ghg-inventory/ >. Accessed June 22, 2023.
NJDEP 2022b	NJDEP. 2022. FWGP16 Habitat Create/Enhance Permit, FHA Permit Equivalency, and Water Quality Certificate for Breaching of Four Berms on Joint Base McGuire-Dix-Lakehurst, New Jersey. Permit Nos.: 0300-09-0006.1 FWW170001 and 0300-19-0006.1 FHA220001. June 22, 2022.
NJDEP 2023	NJDEP. 2023. <i>State Implementation Plan (SIP) Revision for Maintenance of the Fine Particulate Matter (PM_{2.5}) 2006 24-hour 35 µg/m³ National Ambient Air Quality Standards, Limited Maintenance Plan Proposal</i> . January 2023. Available online: < https://dep.nj.gov/airplanning/state-implementation-plans-sips/ >. Accessed June 21, 2023.
Secretary of the Air Force 2003	Secretary of the Air Force. 2003. Air Force Instruction 32-7061, <i>The Environmental Impact Analysis Process</i> . March 12, 2003, certified current April 2, 2010.
TRS Audio 2023	Tontechnik-Rechner-SengPiel Audio (TRS Audio). 2023. <i>Damping of Sound Level (decibel dB) vs. Distance</i> . Available online: < http://www.sengpielaudio.com/calculator-distance.htm >. Accessed March 27, 2023.
USCB 2021	United States Census Bureau (USCB). 2021. <i>2017-2021 American Community Survey 5-Year Estimates, Table DP03 Selected Economic Characteristics for New Jersey; Burlington County, New Jersey; and Ocean County, New Jersey</i> . 2021. Available online: < https://data.census.gov/ >. Accessed June 26, 2023.
USEPA 1971	United States Environmental Protection Agency (USEPA). 1971. <i>Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances</i> . 31 December 1971. Available online: https://nepis.epa.gov/Exe/ZyPDF.cgi/9101NN3I.PDF?Dockey=9101NN3I.PDF . Accessed June 22, 2023.
USEPA 1981a	USEPA. 1981. <i>Noise and its Measurement</i> . January 1981. Available online: < https://nepis.epa.gov/Exe/ZyPDF.cgi/93000Q53.PDF?Dockey=93000Q53.PDF >. Accessed June 22, 2023.
USEPA 1981b	USEPA. 1981. <i>Noise Effects Handbook</i> . July 1981. Available online: < https://www.nonoise.org/library/handbook/handbook.htm#Contents >. Accessed June 22, 2023.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Short Citation	Reference
USEPA 2003	USEPA. 2003. <i>Building-Related Construction and Demolition Materials Amounts</i> .
USEPA 2016	USEPA. 2016. <i>What Climate Change Means for New Jersey</i> . August 2016. Available online: < https://19january2017snapshot.epa.gov/climate-impacts/climate-change-impacts-state_.html >. Accessed June 22, 2023.
USEPA 2022	USEPA. New Jersey – EPA Map of Radon Zones. August 17, 2022. Available online: < http://www.epa.gov/radon/zonemap.html >. Accessed June 18, 2023.
USEPA 2023a	USEPA. 2023. <i>Urban Runoff: Low Impact Development</i> , Last updated November 20, 2023. Available online:< https://www.epa.gov/nps/urban-runoff-low-impact-development >. Accessed Aug 24, 2023
USEPA 2023b	USEPA. 2023. <i>New Jersey Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants</i> . May 31, 2023. Available online: < https://www3.epa.gov/airquality/greenbook/anayo_nj.html >. Accessed June 21, 2023.
USEPA 2023c	USEPA. 2023. <i>Overview of Greenhouse Gases</i> . Updated April 13, 2023. Available online: < https://www.epa.gov/ghgemissions/overview-greenhouse-gases >. Accessed June 21, 2023.
USEPA 2023d	USEPA. 2023. <i>2020 National Emissions Inventory (NEI) Data for New Jersey</i> . March 2023. Available online: < https://www.epa.gov/air-emissions-inventories/2020-nei-supporting-data-and-summaries >. Accessed June 21, 2023.
USEPA 2023e	USEPA. 2023. <i>Greenhouse Gas Equivalencies Calculator</i> . Updated April 2023. Available online: < https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator >. Accessed June 22, 2023.
Versar 2020	Versar. 2020. <i>Phase I Archaeological Survey of 5,000 Acres and Phase II NRHP Evaluation of 13 Sites, Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey</i> . February 2020.

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

7.0 LIST OF PREPARERS

Preparer	Degree(s)	Years of Experience	Responsible For
Michelle Bare	General Studies	34	Author: Hazardous Materials and Wastes
Dorothy Daly	Master Landscape Architecture B.A. Psychology	25	Author: Water Resources, Geology, Biologic Resources, Environmental Justice
Tim Didlake	B.S. Earth Sciences	15	Peer Reviewer: Air Quality, Hazardous Materials and Wastes
Peter Gaskins	B.S. Environmental Science	21	Author: Water Resources, Geology, Biologic Resources
Carolyn Hein	B.S. Environmental Science	4	Deputy Project Manager, QC Author: Air Quality, Airspace, Cumulative Impacts
Chris Holdridge	M.S. Environmental Science B.S. Environmental Studies	27	Project Manager, Senior QC
James Hunkele	B.S. Environmental Resource Management	20	Author: Soils, Peer Reviewer, IPaC, QC
Vivian Kase	B.A. Geography	>1	Acronyms and Reference List
Ann Keen	M.A. Art History B.S. Art History	18	Author: Cultural Resources
Krystal McCulloch		11	Editing, Report Compilation
Zack Overfield, RPA	M.A. Anthropology B.A. Sociology with Anthropology Emphasis	13	Peer Reviewer: Cultural Resources

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Celeste Pachella	B.S. Environmental Science: Geography Certified in G.I.T.	2	Author: Land Use, Infrastructure and Transportation
Deborah Peer	M.S. Environmental Science and Management B.S. Zoology B.S. Wildlife Science	22	Peer Reviewer: Land Use, Airspace
Stephen Pyle	J.D. with Certification in Environmental Law B.S. Natural Resources Management	21	Peer Reviewer: Noise, Cumulative Impacts
Parsa Rafatian	B.S. Geological Engineering	7	GIS
Amberlyn Rector	B.S. General Studies	2	Author: Noise
Wendy Schellhamer	B.S. Environmental Resource Management M.A. Psychology	30	Water Resources, Geology, Biologic Resources, Peer Reviewer, QC
Patrick Solomon	M.S. Geography B.A. Geography	29	Peer Reviewer: Health and Safety, Infrastructure and Transportation
Dylan Wake	B.S. Environmental Science and Policy	1	Author: Health and Safety

8.0 ACRONYMS

Acronym	Definition
ABG	Adjacent Block Group
ABW	Air Base Wing
ACAM	Air Conformity Applicability Model
ACM	asbestos-containing material
AFCEC	Air Force Civil Engineer Center
AFFF	Aqueous film forming foam
AFMAN	Air Force Manual
AICUZ	Air Installation Compatible Use Zone
APE	Area of Potential Effect
APZ	accident potential zone

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Acronym	Definition
ASA	Archaeological Sensitivity Area
AST	aboveground storage tank
ATCT	air traffic control tower
AT/FP	anti-terrorism/force protection
BASH	Bird/Wildlife Aircraft Strike Hazard
BMP	best management practice
CATM	combat arms training and maintenance
CDC	Child Development Center
CEA	Classification Exception Area
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHC	Center for Hearing and Communication
CMP	Comprehensive Management Plan
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	total equivalent emissions of CO ₂
COC	contaminant of concern
CWA	Clean Water Act
CWM	Chemical Warfare Material
CZ	clear zone
DAF	Department of the Air Force
dB	decibels
dBA	A-weighted decibel
DCR	Discharge Cleanup and Removal
DD	Decision Document
DNL	day-night average sound level
DoD	Department of Defense
DOS	Department of State
DPCC	Discharge Prevention, Containment and Countermeasure
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EJMAP	Environmental Justice Mapping, Assessment, and Protection Tool
EO	Executive Order
EOD	Explosive Ordnance Disposal
EOP	Executive Office of the President
ERP	Environmental Restoration Program
ESA	Endangered Species Act
ESQD	Explosive Safety Quantity Distance
ESS	Explosives Safety Submission
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FPCON	Force Protection Coordination
GHG	greenhouse gas

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Acronym	Definition
HASP	Health and Safety Plans
HD	Historic District
HLZ	helicopter landing zone
HMMP	Hazardous Material Management Plan
HPO	Historic Preservation Officer
HQ AMC	Headquarters Air Mobility Command
HUC	Hydrologic Unit Code
HVAC	Heating, Ventilation and Air Conditioning
HWMP	Hazardous Waste Management Plan
ICP	Integrated Contingency Plan
ICRMP	Integrated Cultural Resources Management Plan
IDP	Installation Development Plan
INRMP	Integrated Natural Resources Management Plan
IPaC	Information Planning and Consultation
IRP	Installation Restoration Program
JB MDL	Joint Base McGuire-Dix-Lakehurst
LBP	lead-based paint
LID	Low Impact Development
LUC	Land Use Control
MEC	munitions and explosives of concern
mgd	million gallons per day
MMRP	Military Munitions Response Program
NAD	North American Vertical Datum
NAS	National Airspace System
NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NH ₃	ammonia
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NJDEP	New Jersey Department of Environmental Protection
NJGS	New Jersey Geological Survey
NJPDES	New Jersey Pollutant Discharge Elimination System
NNSR	Nonattainment New Source Review
NOA	Notice of Availability
N ₂ O	nitrous oxide
NO _x	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	ozone
OBC	Overburdened Community
OSHA	Occupational Safety and Health Administration
OSL	Official Species List
PA	Preliminary Assessment
PCB	polychlorinated biphenyl

**DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

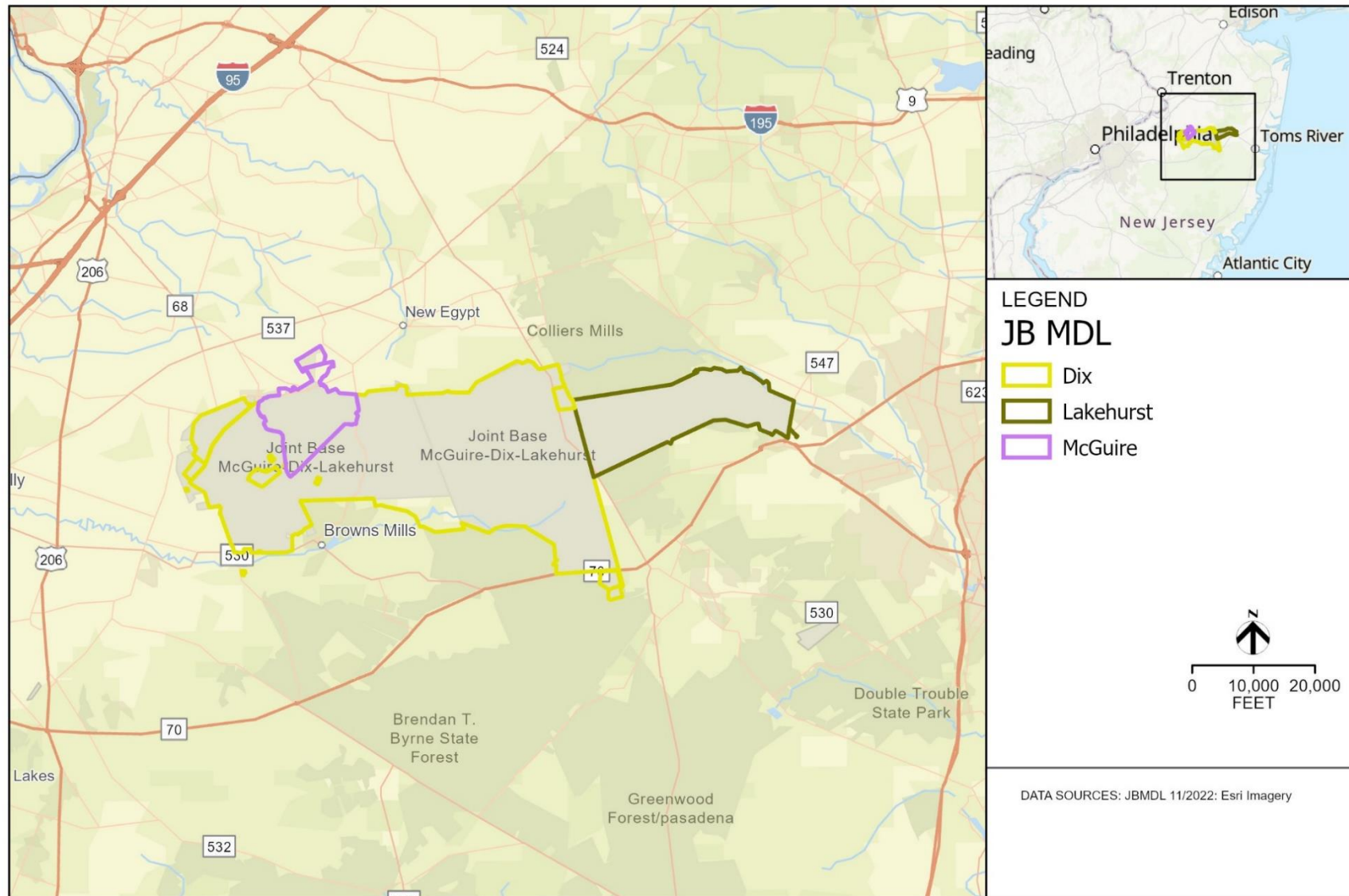
Acronym	Definition
pCi/L	picocuries per liter
PEM	palustrine emergent
PFAS	per- and polyfluoroalkyl substances
PFBS	perfluorobutanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
PM ₁₀	particulate matter less than or equal to 10 microns in diameter
PM _{2.5}	particulate matter less than or equal to 2.5 microns in diameter
PNR	Pinelands National Reserve
PRM	Potomac-Raritan-Magothy System
PSD	Prevention of Significant Deterioration
PPE	personal protective equipment
RA	Remedial Action
RACT	Reasonably Available Control Technology
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROI	Region of Influence
RRSE	Relative Risk Site Evaluation
RSL	regional screening level
SDS	Safety Data Sheet
SESC	Soil Erosion and Sediment Control
SF	square foot
SI	Site Inspection
SIP	State Implemented Plan
SO _x	sulfur oxide
SPCC	Spill Prevention, Control and Countermeasures
SSURGO	Soil Survey Geographic
SVOC	semi-volatile organic compound
SWPPP	Storm Water Pollution Prevention Plan
tpy	tons per year
UFC	United Facilities Criteria
UNESCO	United Nations Educational, Scientific, and Cultural Org.
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UXO	unexploded ordnance
VOC	volatile organic compound
WHPA	Well Head Protection Areas

APPENDIX A

Tables, Figures and Regulatory Setting

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 1.1-1: Location of Joint Base McGuire-Dix-Lakehurst



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Table 1.4-1: Projects Proposed for Development

Project ID	Project Name	Description of Project	Approximate Implementation Year
<i>Construction Projects</i>			
C1	Construct Airfield Perimeter Road	Construct an airfield perimeter road along the southern perimeter of the McGuire Airfield. The project includes grading the area and laying concrete. Culverts already exist in the area.	FY 27
C2	Construct Lakehurst Air Traffic Control Tower (ATCT)	Construct a new ATCT and associated support building at the Lakehurst Airfield because the existing tower is over 50 years old, outdated, and unsafe.	FY 24
C3	Construct New 144-Bed Dorm	Construct a new 54,000 square foot (SF) dormitory consisting of concrete foundation, slab-on-grade, steel-framed with brick veneer, elevated concrete floor slabs, and a metal joist hip roof structure with standing seam metal roof.	FY 24-28
C4	Addition to Combat Arms Training and Maintenance (CATM) Facility	Construct a 900 SF addition to Building 1819. The addition would consist of reinforced concrete slab on grade, masonry exterior walls with brick cladding, gable roof; interior construction of partition walls (non-load bearing) power, lighting, heating, ventilation, and air conditioning (HVAC), and communications wiring.	FY 27
C5	Construct New Wells	Construct two new potable water wells and wellhouses to replace Wells #5 and #6, which are inadequate to support the installation's mission when fully mobilized.	FY 25
C6	Installation of Aerators in Ponds	Add solar powered aerators in two ponds - Lake of the Woods (Lakehurst Area) and Rainbow Pond (Dix Area). The aerators would consist of a mast holding a solar panel, an aerator, and a weighted hose leading to the aeration head installed in the middle of each pond.	FY 24
C7	Installation of a Septic System	Install an aboveground septic tank at Building 696, the hunter's shack in the Archery Shooter's Association ranges to replace the existing port-a-john.	FY 24

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

<i>Demolition Projects</i>			
D1	Demolish ATCT Facility Building 552 (Building 552)	Demolish the existing ATCT, which is old, outdated, and unsafe.	FY27
D2	Demolish Well Facilities Building 1190 and Building 5280	Demolish facilities Building 1190 and Building 2580 that are associated with Wells #5 and #6, which do not meet current standards.	FY25
<i>Renovation and Repair Projects</i>			
R1	Lakehurst Main Gate Security Improvements	Upgrade the Lakehurst Main Gate into a fully functional Entry Control Facility (ECF) that is compliant with the Unified Design Guidance for Entry Control Facilities. Proposed plans include construction of a new guardhouse, new configuration of driving lanes, and the demolition of the old guardhouse and driving lanes.	FY27
R2	Berm Removal	Remove four berms in existing ponds southeast of the McGuire Airfield. The proposed project includes removing the berms to drain the ponds and restore the native grasslands that existed before the ponds were created. At least 6 acres would be planted with native grasses to create habitat for upland bird species. The project also includes measures to eliminate or control invasive stands of Phragmites.	FY24

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Table 1.6-1: Purpose and Need for Each Proposed Action

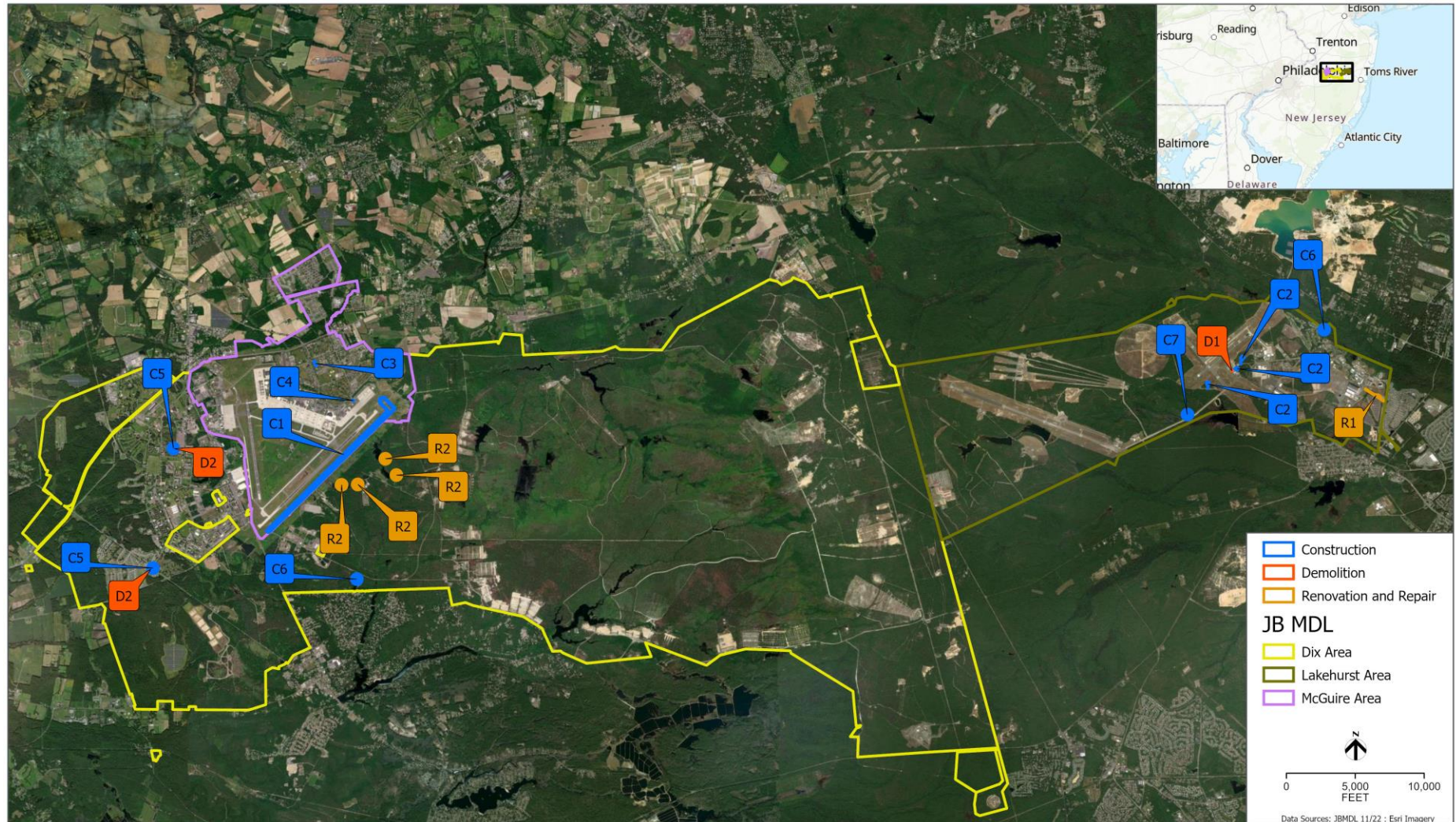
Project ID	Project Name	Purpose of the Action	Need for the Action
<i>Construction Projects</i>			
C1	Construct Airfield Perimeter Road	The purpose is to ensure security, maintenance, and Bird/Animal Strike Hazard (BASH) vehicles can safely drive along the perimeter fence.	The project is needed because a perimeter road does not exist in this area and vehicles are getting stuck in the mud attempting to perform required activities. Periodic inspections are required by JB MDL security, which require a minimum of 25 feet stand-off distances and visibility from the fence line per AFI 31-101. BASH personnel also have a wildlife contract requiring them to respond to various mammals and birds on the eastern portion of Runway 06/24.
C2	Construct Lakehurst ATCT	The purpose is to provide the Lakehurst Airfield with an ATCT that meets DAF standards.	The project is needed because the current tower is over 50 years old, outdated, deteriorating, and unsafe.
C3	Construct New 144-Bed Dorm	The purpose is to provide unaccompanied enlisted personnel with housing conducive to their proper rest, relaxation, and personal well-being.	The project is needed because DAF has a requirement for 810 dormitory rooms and has an adequate inventory of 692 rooms.
C4	Addition to CATM Facility	The purpose is to increase the size of the CATM building to support existing activities.	The project is needed because the existing CATM is undersized based on criteria in AFMAN 32-1084.
C5	Construct New Wells	The purpose is to support the full potable water needs for JB MDL.	The project is needed because Wells #5 and #6 fail to meet current standards. Water treatment capacity is not adequate to support the installation's mission. A 2011 Well Rehabilitation study indicated that the screen and inner casing of Well #6 are showing signs of wearing thin.

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Project ID	Project Name	Purpose of the Action	Need for the Action
<i>Construction Projects (Continued)</i>			
C6	Installation of Aerators in Ponds	The purpose is to reduce the effects of eutrophication to Lake of the Woods and Rainbow Pond.	The project is needed because of rising community health concerns regarding the condition of the ponds including stagnant water and fears associated with chemical usage to treat the pond.
C7	Installation of a Septic System	The purpose is to support recreational activities in the hunting shacks by providing more sustainable sewage services at Building 696.	The project is needed because there is no permanent sewage service at the hunting shacks.
<i>Demolition Projects</i>			
D1	Demolish ATCT Facility Building 552	The purpose is to remove an outdated and unsafe facility.	The project is needed to make space for additional future needs of JB MDL.
D2	Demolish Well Facilities Building 1190 and Building 5280	The purpose is to remove outdated structures.	The project is needed to make space for additional future needs of JB MDL.
<i>Renovation and Repair Projects</i>			
R1	Lakehurst Main Gate Security Improvements	The purpose is to update the Lakehurst Main Gate to modern safety and security standards and to comply with antiterrorism/force protection (AT/FP) standards.	The project is needed because Lakehurst Main Gate is not compliant with the Unified Design Guidance for Entry Control Facilities.
R2	Berm Removal	The purpose is to restore previously existing habitat.	The project is needed is to reduce waterfowl habitat and reduce the potential for stormwater run-off backing up from Runway 24.

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.1-1: Location on JB MDL of Projects Included in the Proposed Action



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.3.1- 1: Proposed Airfield Perimeter Road

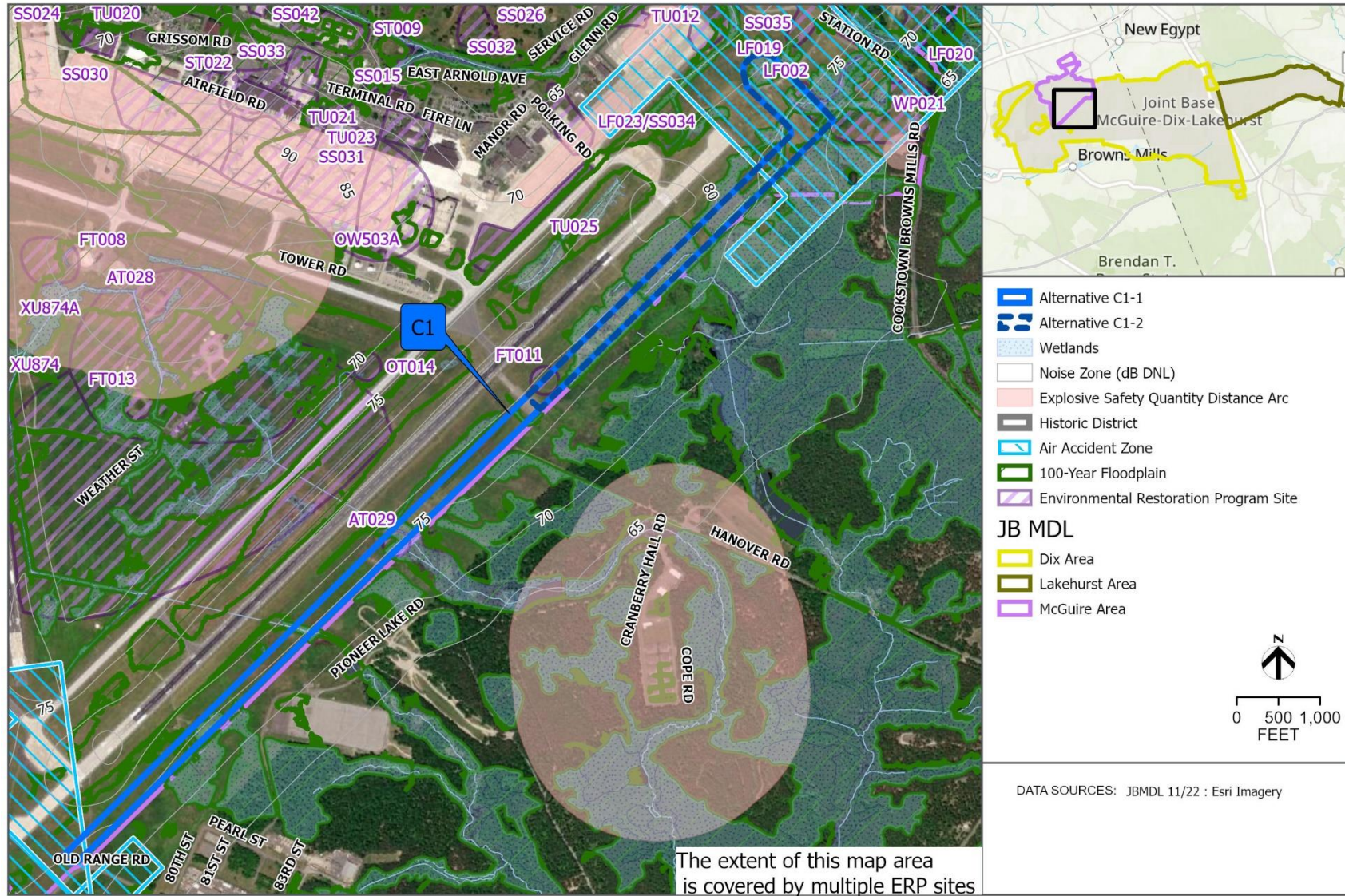


Figure 2.3.1-2: Proposed Location of the Lakehurst Air Traffic Control Tower

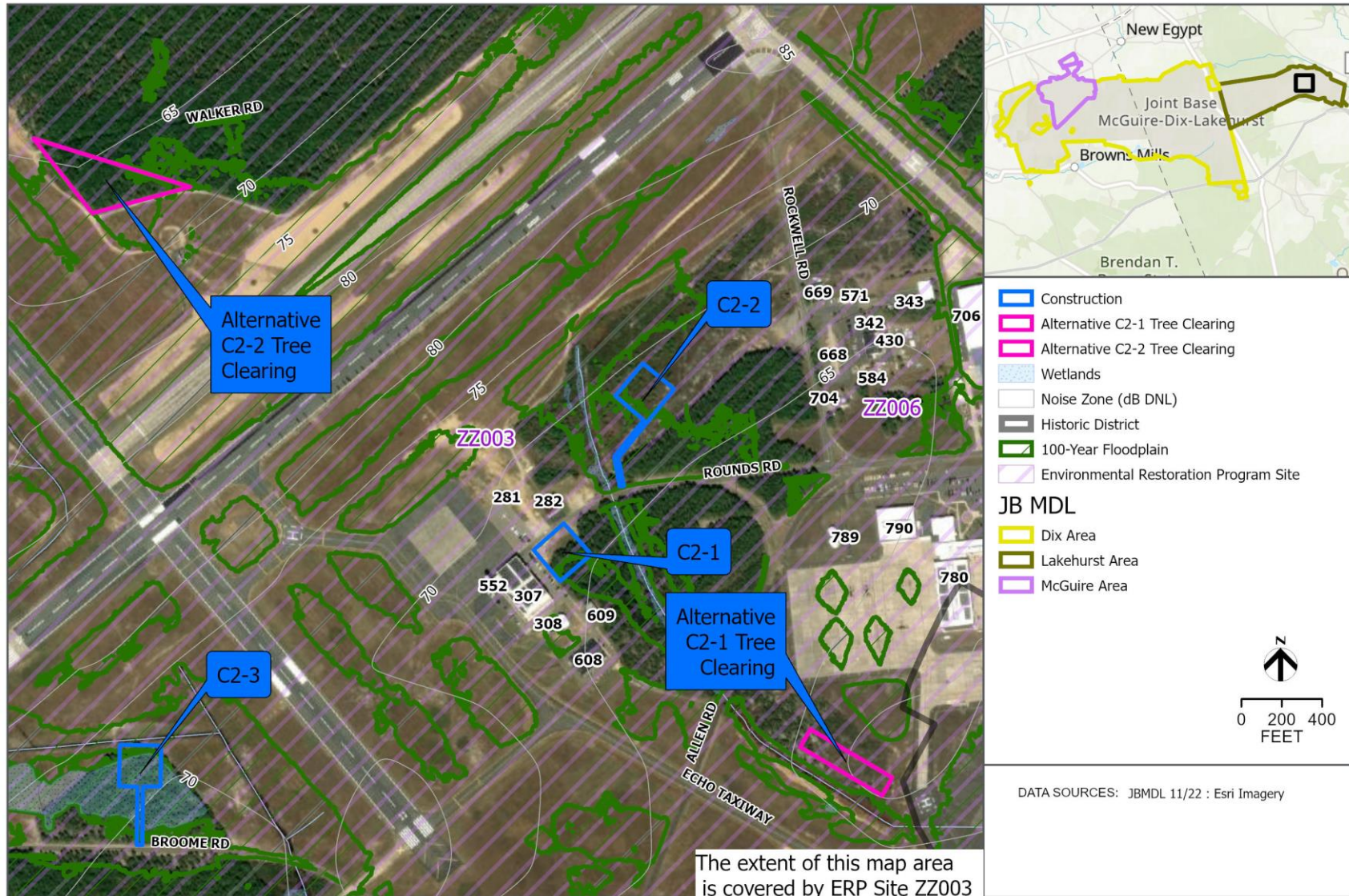
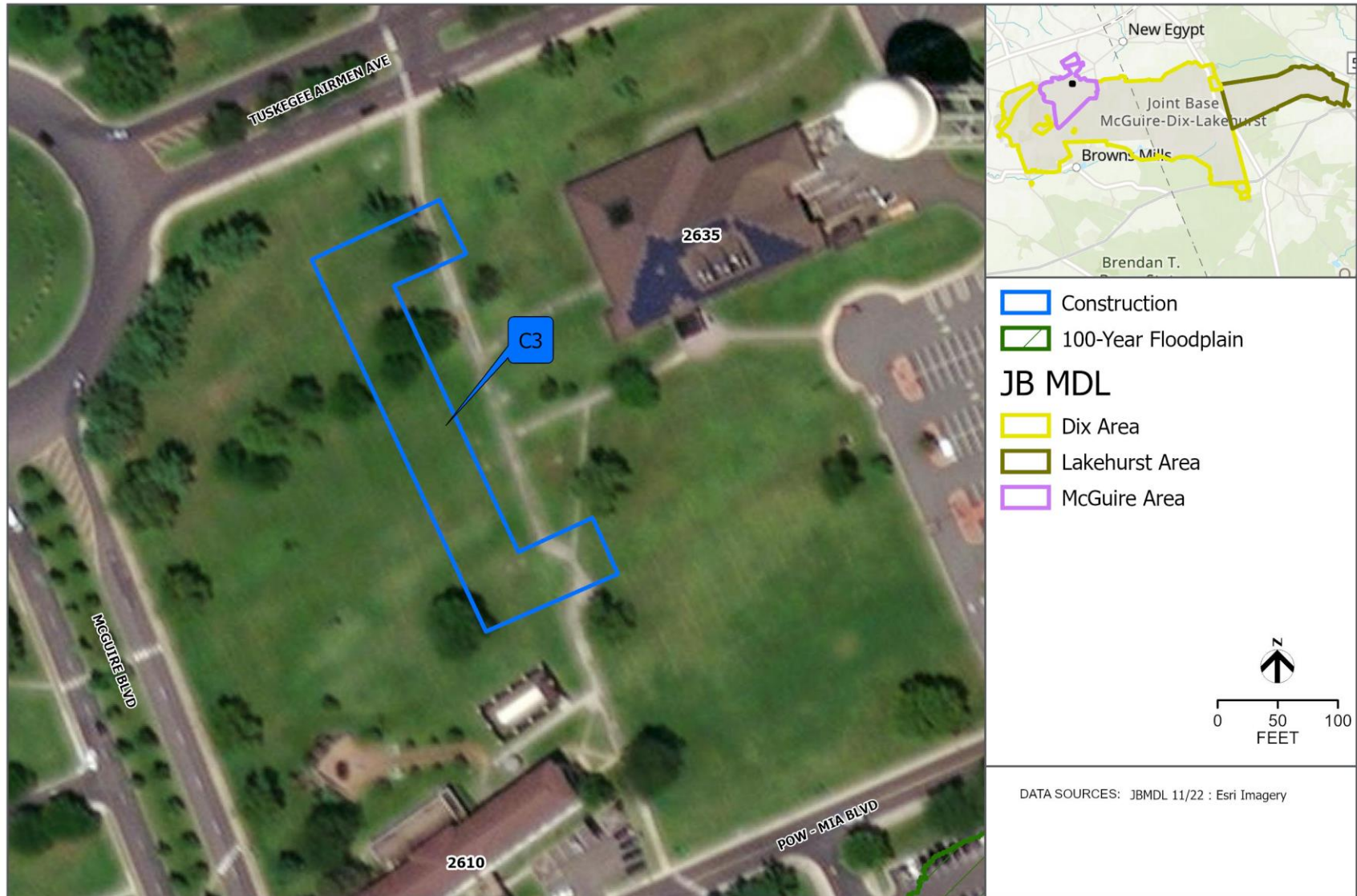
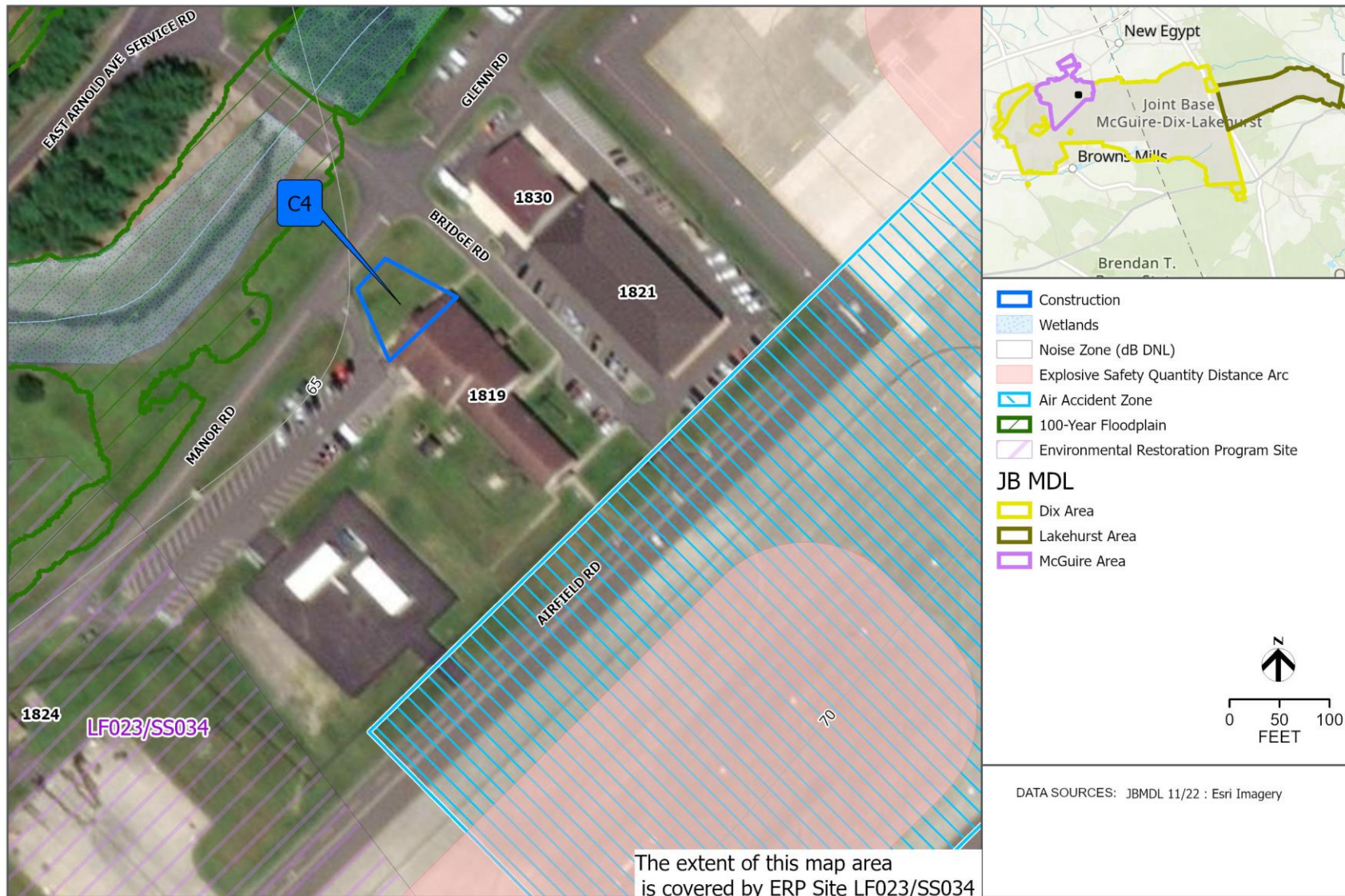


Figure 2.3.1-3: Proposed New 144-Bed Dorm



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.3.1-4: Addition to CATM Facility



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.3.1-5: Proposed Location of New Wells

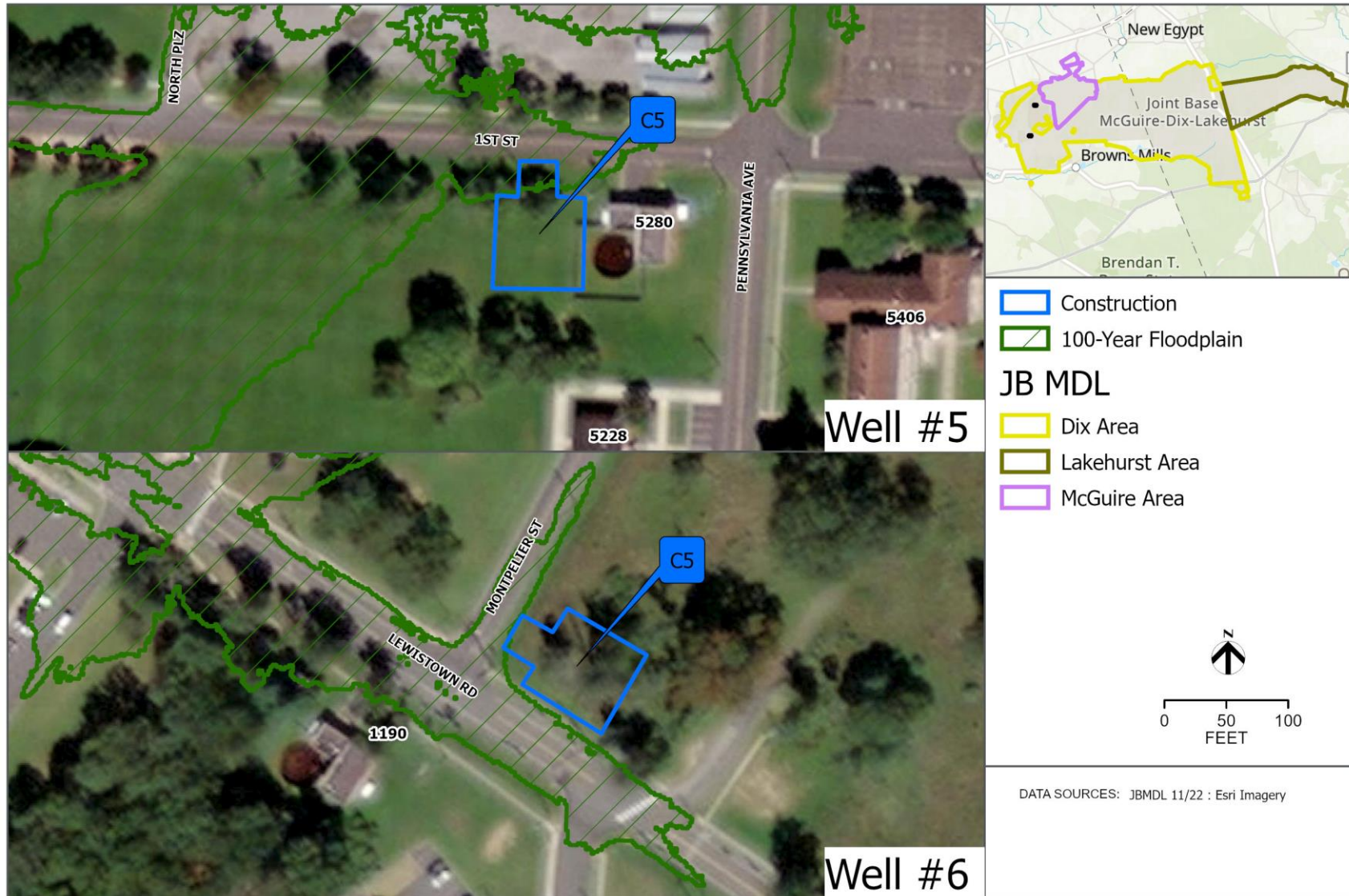
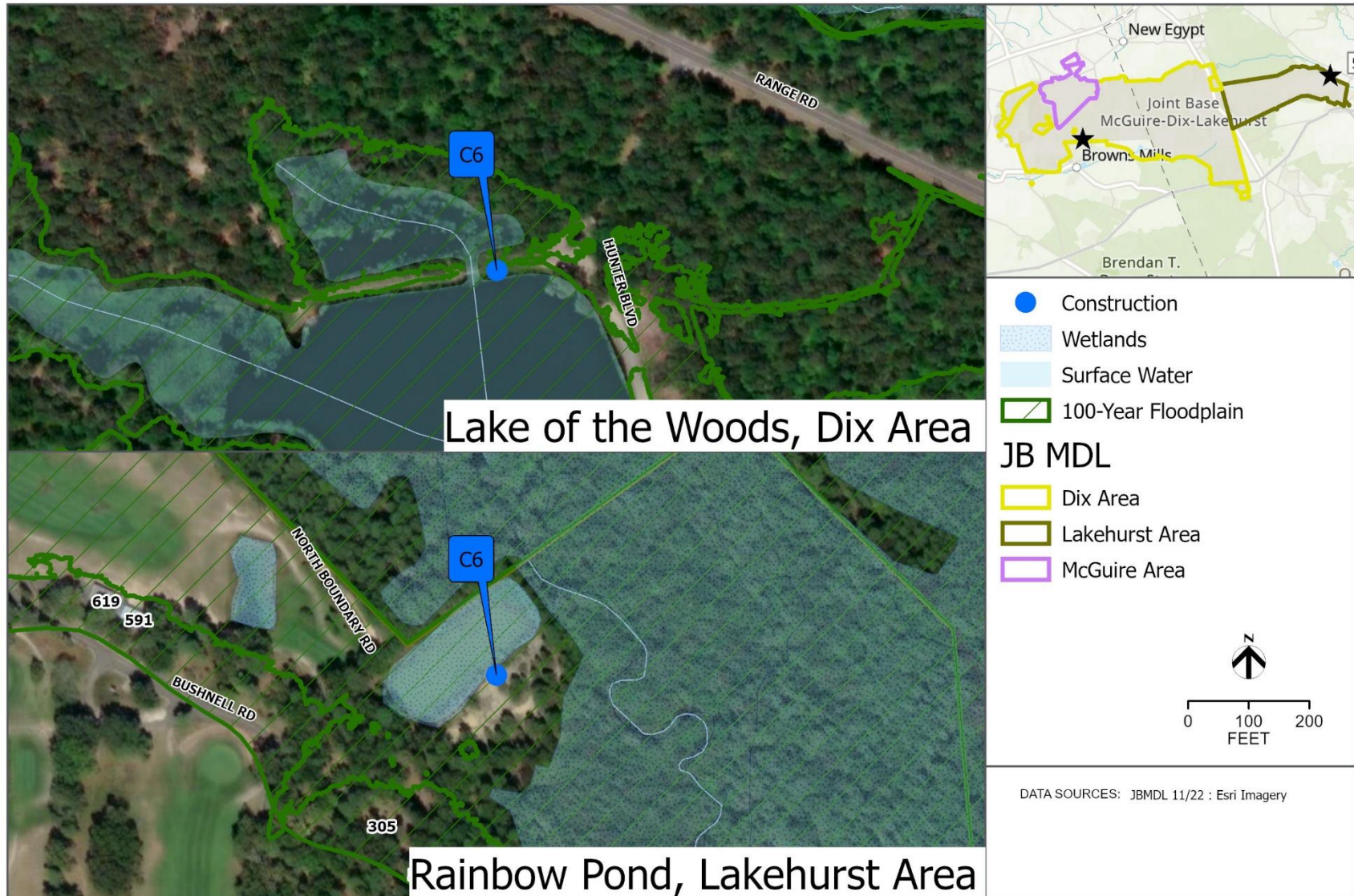


Figure 2.3.1-6: Proposed Location of Installation of Aerators in Ponds



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.3.1-7: Proposed Location of Septic System



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.3.2-1: Demolition of Air Traffic Control Facility Building 552



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 2.3.2-2: Location of the Proposed Demolition of Well Facilities Building 1190 and Building 5280

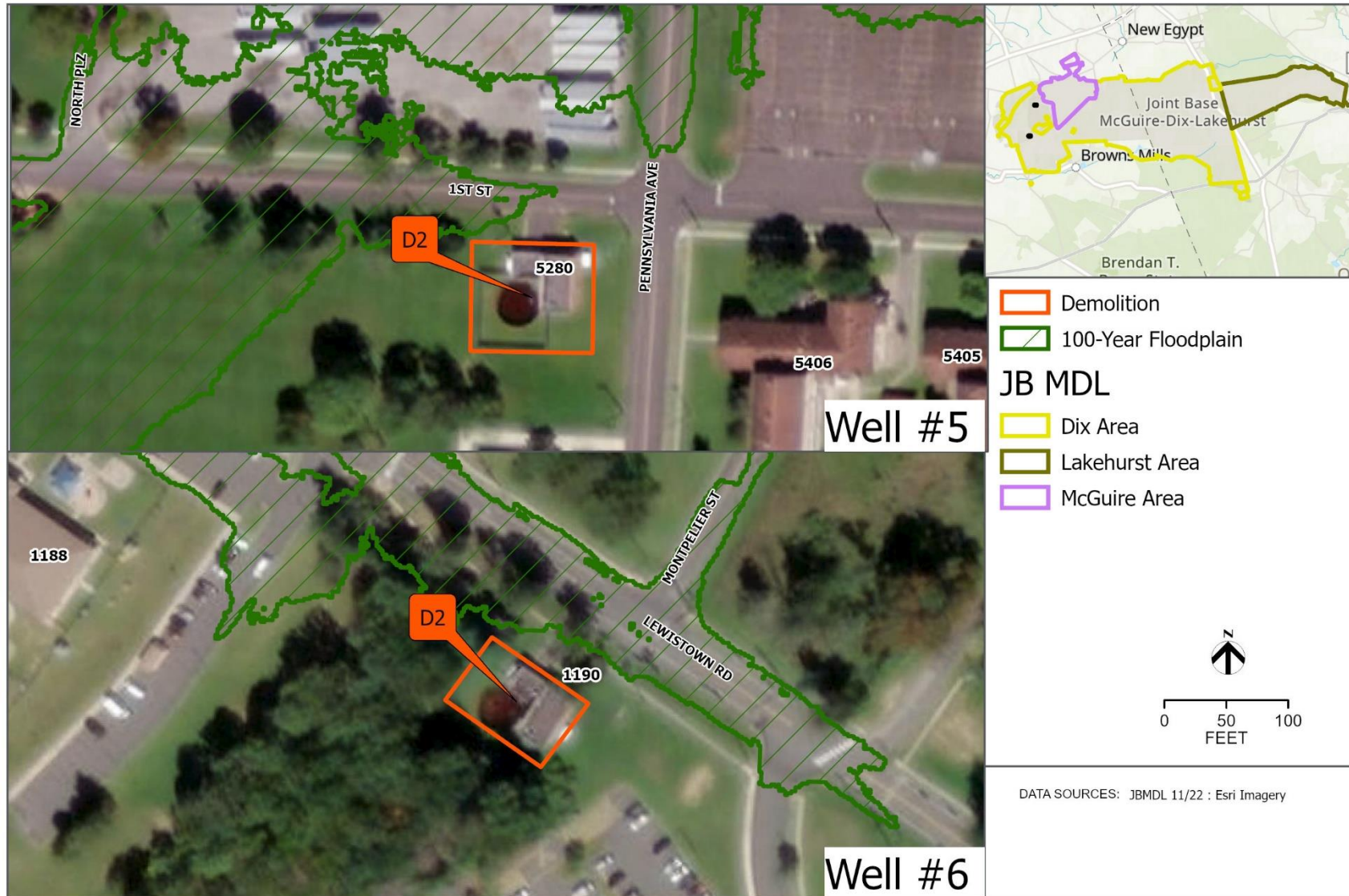


Figure 2.3.3-1: Location of Lakehurst Main Gate Security Improvements

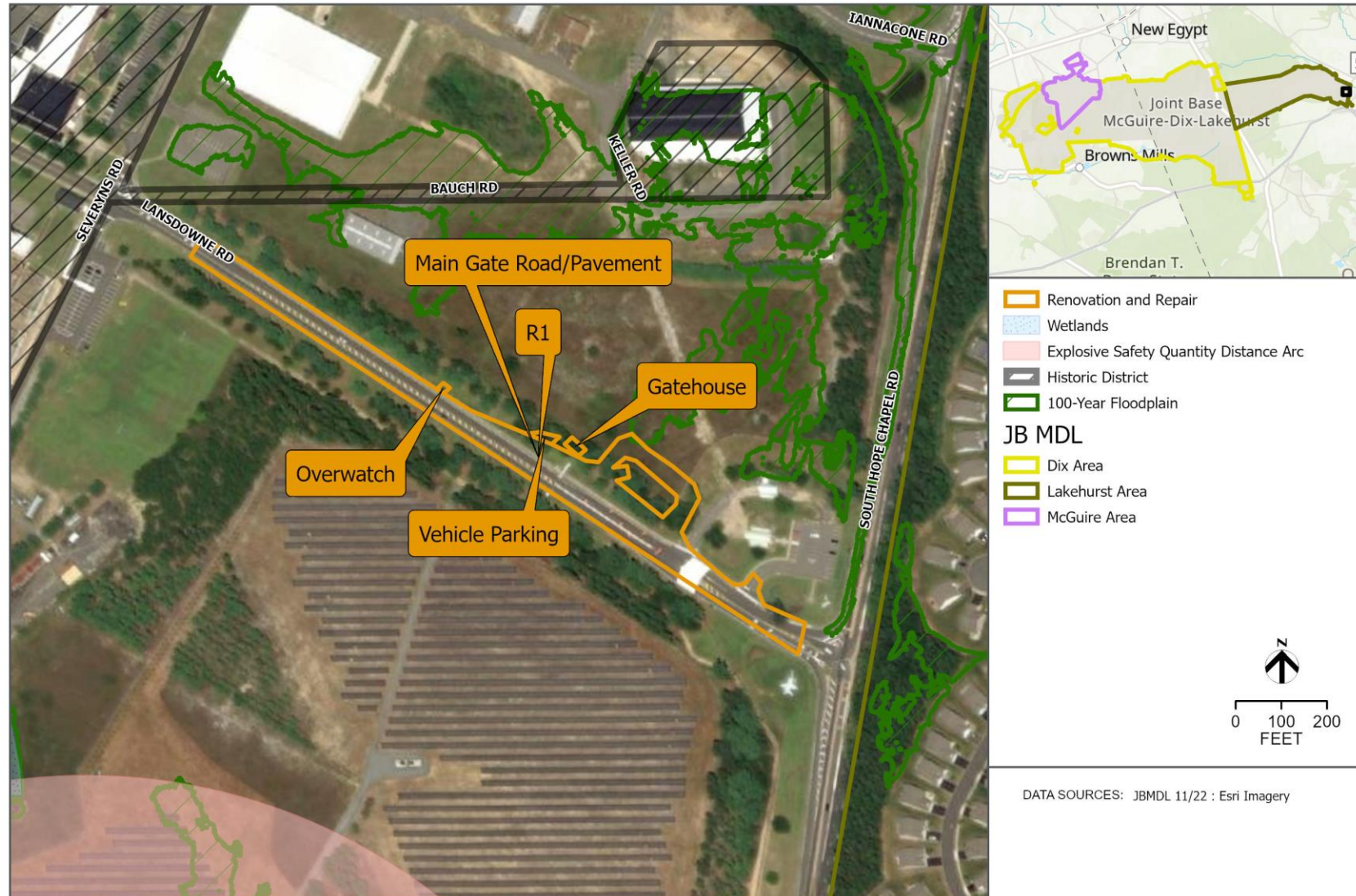
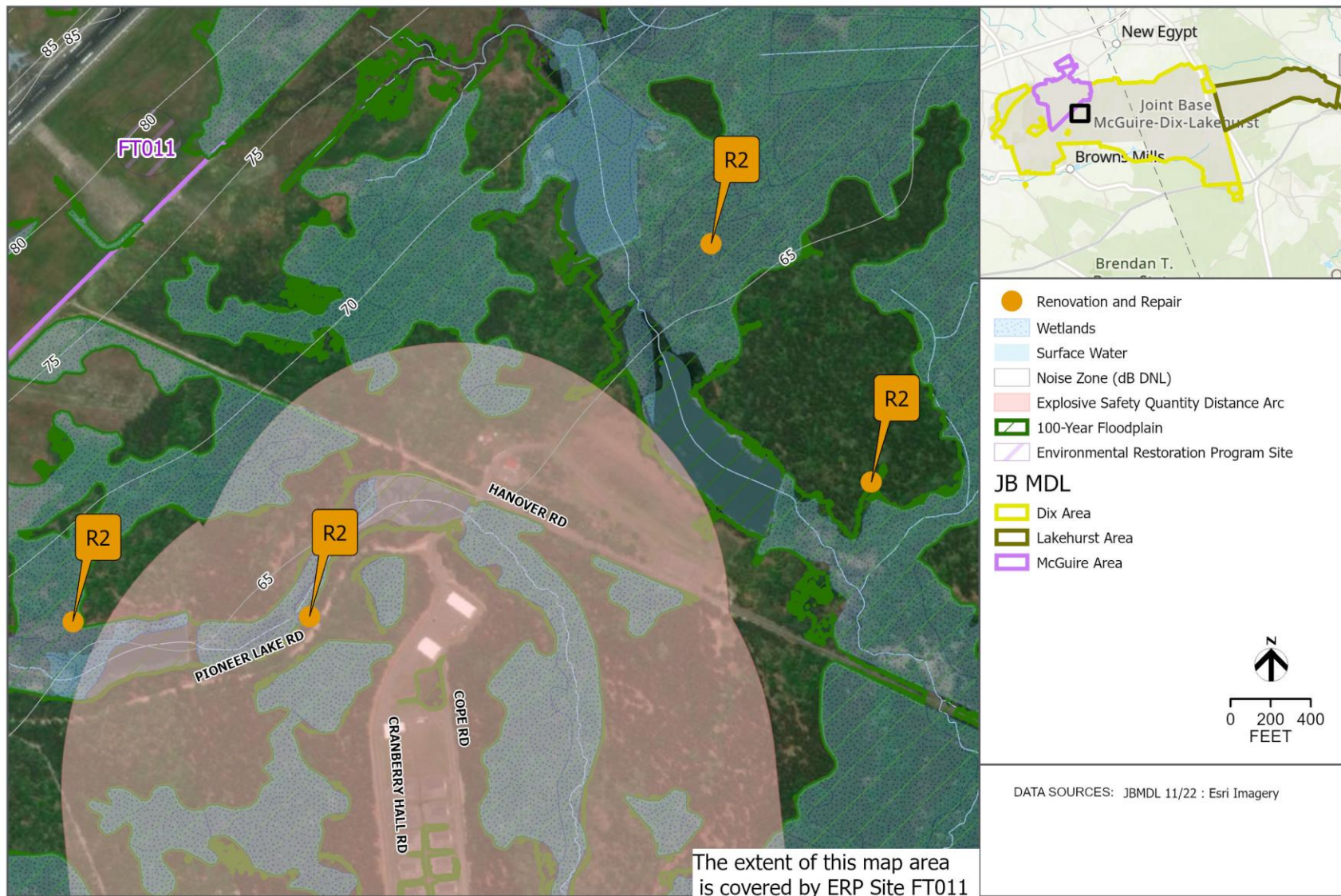
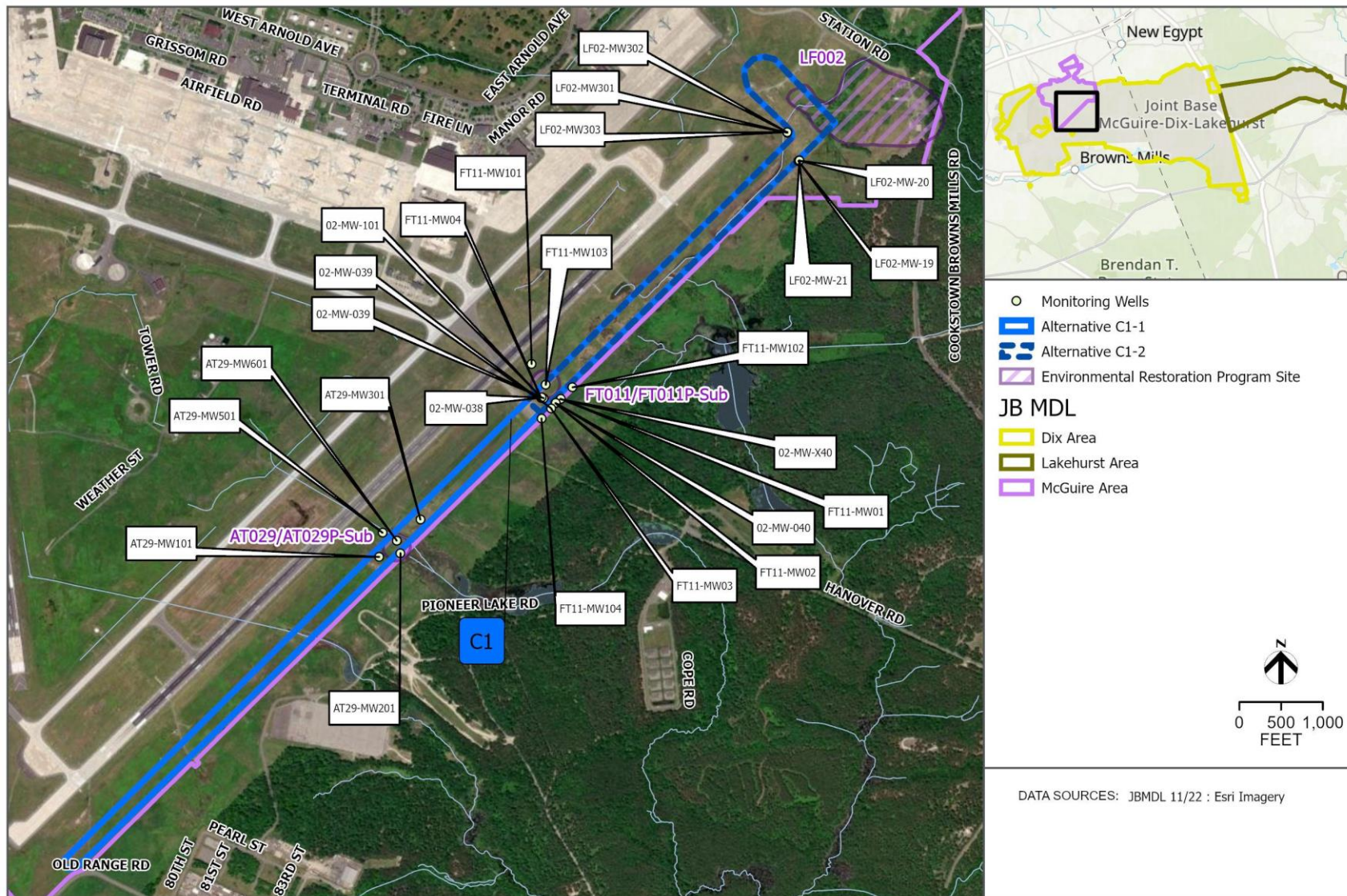


Figure 2.3.3-2: Proposed Berm Removal



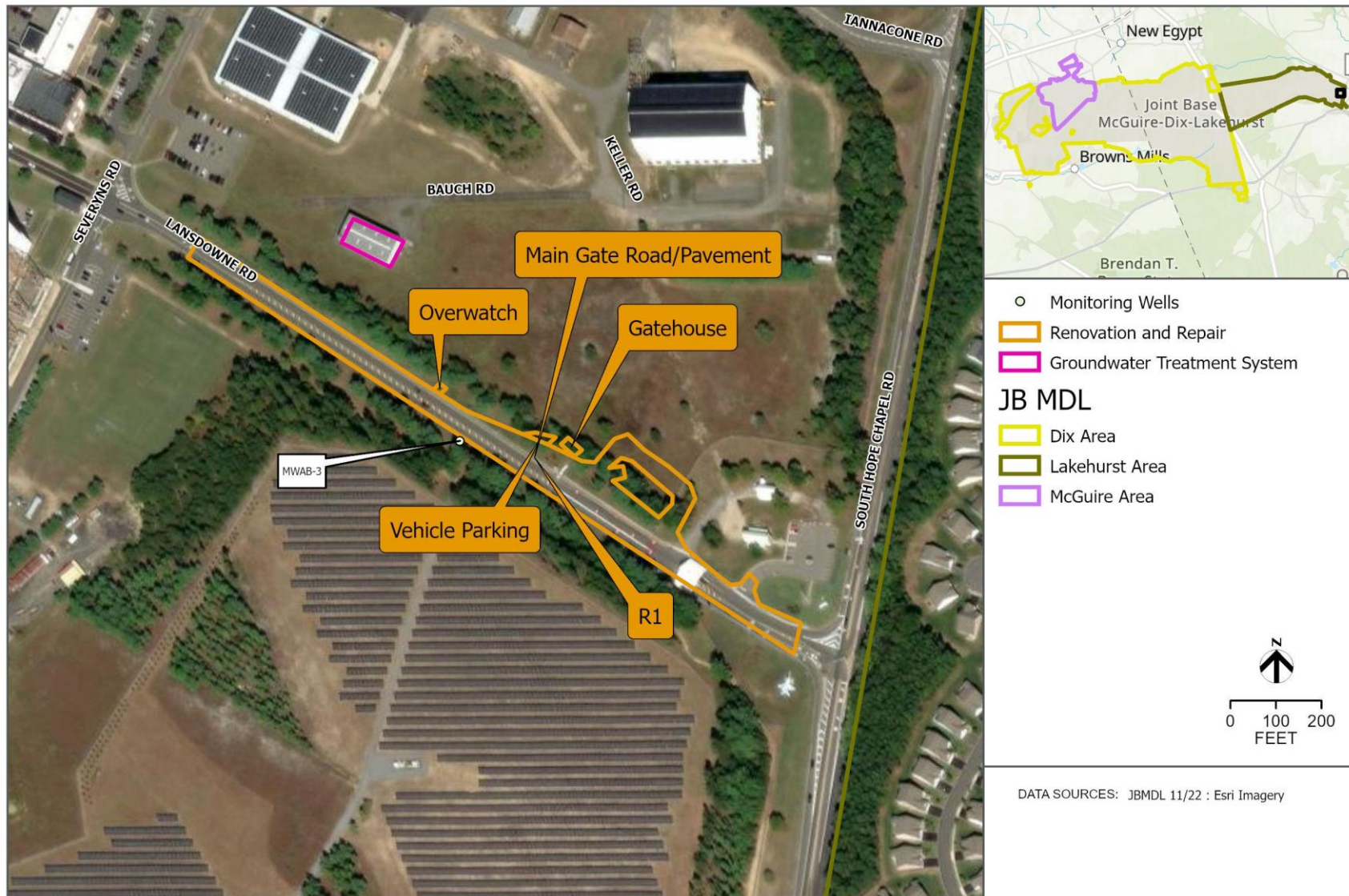
APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 3.10.2-1: Groundwater Monitoring Well (C1)



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Figure 3.10.2-2: Groundwater Monitoring Well (R1)



APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Air Quality

Regulatory Setting

Under the Clean Air Act (42 USC Chapter 85), USEPA has established National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for criteria pollutants. Areas that are and have historically been in compliance with the NAAQS or have not been evaluated for NAAQS compliance are designated as attainment areas. Areas that violate a federal air quality standard are designated as nonattainment areas. Areas that have transitioned from nonattainment to attainment are designated as maintenance areas. Nonattainment and maintenance areas are required to adhere to a State Implementation Plan to reach attainment or ensure continued attainment.

The USEPA General Conformity Rule applies to federal actions occurring in nonattainment or maintenance areas. When the total emissions of nonattainment and maintenance pollutants (or their precursors) exceed specified thresholds, a general conformity determination is required. The emissions thresholds that trigger requirements for a conformity determination are called *de minimis* levels (in tons per year [tpy]) and are specified at 40 CFR § 93.153. Compliance with General Conformity requirements also can be achieved by demonstrating the total net direct and indirect emissions increase from a proposed action are already accounted for in a State Implementation Plan emissions budget.

Climate Change and GHGs. EO 13990, *Protecting the Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, signed January 20, 2021, reinstated the *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, issued on August 5, 2016, by CEQ that required federal agencies to consider GHG emissions and the effects of climate change in NEPA reviews, and directs federal agencies to determine an appropriate method for analyzing such emissions (CEQ 2016). The CEQ *National Environmental Policy Act Interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, issued January 9, 2023, recommends quantifying a proposed action's GHG emissions in appropriate context (CEQ 2023). In accordance with the 2016 Final Guidance and the 2023 Interim Guidance, estimated CO_{2e} emissions associated with the Proposed Action are provided in this EA for informative purposes. Per the 2023 Interim Guidance, "Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an on-going NEPA process." DAF guidance on applying and conducting a social cost of GHG analysis is under development. DAF guidance will be released soon and will provide specifics on applying social cost of GHG analyses and ensuring standardization across DAF. Therefore, no social cost of GHG analysis has been prepared for this EA, which was ongoing when the CEQ's interim guidance was issued.

EO 14008, *Tackling the Climate Crisis at Home and Abroad*, further strengthens EO 13990 by implementing objectives to reduce GHG emissions and bolster resilience to the impacts of climate change and requiring federal agencies to develop and implement climate action plans. The *DAF Climate Action Plan* recognizes the department's role in contributing to climate change and aims to address the challenges and risks posed by climate change through the implementation of climate priorities including making climate-informed decisions and optimizing energy use and pursuing alternative energy sources (DAF SAF/IE 2022). DAF also follows the *DoD Climate Adaptation Plan* and considers the *DoD Climate Risk Analysis* for climate change planning. *The Long-Term Strategy of*

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050 sets target benchmarks to achieve net-zero GHG emissions by no later than 2050 through emission-reducing investments such as carbon-free power generation, zero-emission vehicles, energy-efficient buildings, and expansion and protection of forest areas (DOS and EOP 2021).

USEPA implements the GHG Reporting Program, requiring certain facilities to report GHG emissions from stationary sources, if such emissions exceed 25,000 metric tons of CO_{2e} per year (40 CFR Part 98).

Table 3.1.1-1: Applicable *de minimis* Level Thresholds for the Proposed Actions

County	Project ID	<i>De minimis</i> Level Threshold	
Burlington County	C1, C3, C4, C5, C6, R2, D2	VOC	50 tpy
		NO _x	100 tpy
		PM _{2.5}	100 tpy
		SO _x	100 tpy
		NH ₃	100 tpy
Ocean County	C2, C6, C7, R1, D1	VOC	50 tpy
		NO _x	100 tpy

Source: 40 CFR § 93.153(b)

Table 3.1.3-1: Estimated Annual Construction Air Emissions from Implementing the Preferred Alternatives

Year: Project ID	VOC (tpy)	NO _x (tpy)	CO (tpy)	SO _x (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	Lead (tpy)	NH ₃ (tpy)	CO _{2e} (tpy)
2024: C2-1	0.347	1.392	2.158	0.005	1.448	0.051	<0.001	0.002	493.4
2024: C3	2.144	1.328	1.821	0.004	0.586	0.049	<0.001	0.001	392.0
2024: C6	0.010	0.050	0.082	<0.001	0.002	0.002	<0.001	<0.001	19.1
2024: C7	0.261	1.404	1.871	0.005	0.058	0.053	<0.001	0.001	488.3
2024: R2	0.245	1.189	1.985	0.005	0.080	0.044	<0.001	0.001	487.8
Total Emissions for 2024	3.007	5.363	7.917	0.019	2.174	0.199	<0.001	0.005	1,880.6
2025: C5	0.356	1.320	2.17	0.005	0.224	0.046	<0.001	0.001	513.2
2025: D2	0.275	1.584	2.482	0.005	0.160	0.056	<0.001	0.001	509.2
Total Emissions for 2025	0.631	2.904	4.652	0.01	0.384	0.102	<0.001	0.002	1,022.4
2027: C1-1	0.765	3.858	4.214	0.011	121.491	0.166	<0.001	0.002	1,146.7
2027: C4	0.127	0.583	0.969	0.002	0.028	0.019	<0.001	0.001	234.2
2027: D1	0.132	0.781	1.192	0.002	0.044	0.029	<0.001	0.001	234.5
2027: R1	0.257	0.923	1.322	0.003	2.66	0.036	<0.001	0.001	299.1
Total Emissions for 2027	1.281	6.145	7.697	0.018	124.223	0.250	<0.001	0.005	1,914.5

Note: No Preferred Alternative is proposed for 2026.

Key: N/A = not applicable

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Table 3.1.3-2: Estimated Annual Net Change in Operational Air Emissions from Implementing the Preferred Alternatives

Project ID	VOC (tpy)	NO _x (tpy)	CO (tpy)	SO _x (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	Lead (tpy)	NH ₃ (tpy)	CO _{2e} (tpy)
C2-1	0.002	0.03	0.025	<0.001	0.002	0.002	<0.001	<0.001	36.4
C3	0.014	0.256	0.215	0.002	0.019	0.019	<0.001	<0.001	307.7
C4	<0.001	0.005	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	5.9
D1	-0.028	-0.026	-0.018	-0.005	-0.005	-0.005	<0.001	<0.001	-6.3
D2	-0.117	-0.047	-0.031	-0.010	-0.010	-0.010	<0.001	<0.001	-5.4
Total Net Change	-0.129	0.218	0.195	-0.013	0.006	0.006	<0.001	<0.001	338.3

Note: Projects C1, C5, C6, C7, R1, and R2 would not result in a net change of operational air emissions and therefore are not included in this table.

Table 3.1.4-1: Estimated Annual Air Emissions from Alternative C1-2

Year	VOC (tpy)	NO _x (tpy)	CO (tpy)	SO _x (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	Lead (tpy)	NH ₃ (tpy)	CO _{2e} (tpy)
2027 (construction)	0.533	2.733	3.286	0.008	62.514	0.121	<0.001	0.002	812.3
Applicable <i>de minimis</i> Level or PSD Threshold	50	100	250	100	250	100	25	100	N/A
Exceeds Threshold?	No	No	No	No	No	No	No	No	N/A

Key: N/A = not applicable

Table 3.1.4-2: Estimated Annual Air Emissions from Alternative C2-2

Year	VOC (tpy)	NO _x (tpy)	CO (tpy)	SO _x (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	Lead (tpy)	NH ₃ (tpy)	CO _{2e} (tpy)
2024 (Construction)	0.355	1.441	2.214	0.005	2.779	0.053	<0.001	0.002	506.8
2025 and Later (Operations)	0.002	0.030	0.025	<0.001	0.002	0.002	<0.001	<0.001	36.4
Applicable <i>de minimis</i> Level or PSD Threshold	50	100	250	250	250	250	25	N/A	N/A
Exceeds Threshold?	No	No	No	No	No	No	No	N/A	N/A

Key: N/A = not applicable

Table 3.1.4-3: Estimated Annual Air Emissions from Alternative C2-3

Year	VOC (tpy)	NO _x (tpy)	CO (tpy)	SO _x (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	Lead (tpy)	NH ₃ (tpy)	CO _{2e} (tpy)
2024 (Construction)	0.347	1.393	2.158	0.005	1.135	0.051	<0.001	0.002	493.5
2025 and Later (Operations)	0.002	0.030	0.025	<0.001	0.002	0.002	<0.001	<0.001	36.4
Applicable <i>de minimis</i> Level or PSD Threshold	50	100	250	250	250	250	25	N/A	N/A
Exceeds Threshold?	No	No	No	No	No	No	No	N/A	N/A

Key: N/A = not applicable

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

3.2 Water Resources

Regulatory Setting

"Waters of the United States" are regulated under Sections 401 (33 United States Code [USC] 1341) and 404 (33 USC 1344) of the Federal Clean Water Act. The primary federal regulations and guidance that govern water resources development, usage, and discharge at federal sites, or sites affected by federal activities, include the following:

- Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977 and 1987 (33 USC 1251 et seq.)
- Land and Water Conservation Act of 1976 (16 USC 460)
- National Pollutant Discharge Elimination System Wastewater Permits (33 USC 1342)
- Pollution Prevention Act of 1990 (42 USC 13101-13109)
- Safe Drinking Water Act of 1974 (42 USC 300f et seq.)
- Soil and Water Resources Conservation Act of 1977 (16 USC 2001)
- Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; 40 CFR § 300)
- Emergency Planning and Community Right-to-Know Act of 1986 (42 USC 11011)
- Water quality programs in general (33 USC 1160 et seq. and 1251 et seq., 42 USC 300f et seq., and 6901 et seq.)
- Water Resources Development Act of 1990 (33 USC 2309a, 2316, and 2320)
- Wild and Scenic Rivers Act of 1968 (16 USC 1271 et seq.)
- Energy Independence and Security Act of 2007, Section 438 Stormwater Management
- AFMAN 32-1067, Water and Fuel Systems
- AFMAN 32-7003, Environmental Conservation, April 20, 2020
- EO 11988, Floodplain Management, May 24, 1977
- EO 12856, Federal Facilities Compliance with the Toxic Release Inventory requirements of Title III, Section 313 of Superfund Amendments and Reauthorization Act, August 3, 1993.

Water resources at JB MDL are also regulated under the jurisdiction of the NJDEP. The NJDEP has the primary responsibility for protecting New Jersey's surface and ground waters from pollution caused by improperly treated wastewater and its residuals, as well as the destruction of watersheds from development. The relevant New Jersey regulations and guidance for water resources within JB MDL include the following:

- New Jersey Water Pollution Control Act (New Jersey Statutes Annotated (N.J.S.A.) 58:10A-1 et seq.)
- Stormwater Management (New Jersey Administrative Code (N.J.A.C.) 7:8)
- Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.)
- Spill Compensation and Control Act (N.J.S.A. 58:10-23.11 et seq.)
- Safe Drinking Water Act (N.J.S.A. 58:4A-4.1 et seq.)
- New Jersey Ground Water Quality Standards (N.J.S.A. 58:12A-1 et seq.)
- Water Pollution Control Act (N.J.A.C. 7:14)
- Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.)
- Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq.)
- Pinelands Comprehensive Management Plan (N.J.S.A. 13:18A-1 et seq., N.J.A.C. 7:50 et seq.)

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

NJDEP established the New Jersey Ground Water Quality Standards (GWQS) in accordance with the Ground Water Quality Standards rules (N.J.A.C. 7:9C). These rules establish classification for groundwater according to the hydrogeologic characteristics and designated uses of the groundwater.

As detailed in the NJDEP-Division of Water Monitoring and Standards (state.nj.us), major aquifers of the Pinelands are designated as Class I Ground Water of Special Ecological Significance. The primary designated use for Class I groundwater is the maintenance of special ecological resources supported by the groundwater. Secondary designated uses include potable water, agricultural and industrial uses. However, the Class I ground water criteria is non-degradation, so these uses cannot impair the primary use by altering the groundwater quality.

The Clean Water Act (CWA) (33 U.S.C. § 1251 et. seq., as amended) establishes federal limits on the amounts of specific pollutants that are discharged to surface waters that are administered in New Jersey through the New Jersey Pollutant Discharge Elimination System (NJPDES). Discharging no more than these limits is necessary to restore and maintain the chemical, physical, and biological integrity of the water. The NJDEP administers the NJPDES program under the New Jersey Water Pollution Control Act. Stormwater runoff for construction activities that disturb one acre or more of land requires a NJDEP Construction Activity Stormwater General Permit (NJPDES Permit No. NJ0088323). Section 438 of the Energy Independence and Security Act (EISA) (42 U.S.C. § 17094) establishes stormwater design requirements for federal construction projects that disturb a footprint greater than 5,000 square feet of land.

Water quality standards at JB MDL are regulated by the NJDEP, Bureau of Water Quality Standards and Assessment under New Jersey Administrative Code (N.J.A.C.) 7:9B, Surface Water Quality Standards (SWQS), and N.J.A.C. 7:9C, Ground Water Quality Standards, as well as USEPA, under the Federal Safe Drinking Water Act and the CWA. SWQS outlines the designated use, use classifications, antidegradation categories, and water quality criteria for the State's waters. In addition, surface water quality classifications are assigned by NJDEP and apply to waters that have the same designated uses and water quality criteria.

3.3 Geology, Topography and Soils

Regulatory Setting

Approval and certification of a Soil Erosion and Sediment Control (SESC) Plan is required when a proposed project would result in the disturbance of 5,000 ft² or more of land in New Jersey. Site-specific SESC Plans must be submitted to the Burlington and Ocean Counties Soil Conservation Districts for review and approval prior to initiating construction. Additionally, the NJDEP regulates stormwater runoff from construction activities under its New Jersey Pollutant Discharge Elimination System (NJPDES) General Permit for Construction Activities (5G3) (NJPDES Permit No. NJ0088323). This general permit is issued subsequent to receipt of SESC certification and ensures that stormwater discharges to surface waters from general construction activities that disturb 1 acre or more of land are compliant with NJPDES.

Per the Farmland Protection Policy Act, classification of soil as unique or of statewide importance does not imply that those soils are currently being used for cropland; it can be forest land, pastureland, cropland or other land, but not water or urban build up land (USDA/NRCS 2017).

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Soils Descriptions

The Natural Resources Conservation Service’s (NRCS) Soil Survey Geographic (SSURGO) database identifies the soils present within the proposed project areas as members of the Atsion, Downer, Evesboro, Fluvaquents, Galloway, Lakehurst, Lakewood, Manahawkin, Pemberton, Psammaquents, Sassafras, and Udorthents series (NRCS, 2023). The tables below list the soil series mapped within the individual project areas, their drainage class and farmland designation.

Below are **Tables 3.3.1-1 to 3.3.1-20** listing the soils across all project areas and the soils specific to each site.

Table 3.3.1-1: Soil Types Across All Project Areas

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
AtsAO	Atsion sand, 0-2% slopes, Northern Tidewater Area	Poorly drained	Farmland of unique importance
AttA	Atsion fine sand, 0-2% slopes	Poorly drained	Farmland of unique importance
DocB	Downer loamy sand, 0-5% slopes, Northern Coastal	Well drained	Farmland of statewide importance
DocBO	Downer loamy sand, 0-5% slopes, Northern Tidewater	Well drained	Farmland of statewide importance
EvfB	Evesboro fine sand, 0-5% slopes	Excessively drained	Not prime farmland
FmgAt	Fluvaquents, sandy, 0-3% slopes, frequently flooded	Very poorly drained	Farmland of unique importance
GahB	Galloway sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
GakB	Galloway fine sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
LakB	Lakehurst sand, 0-5% slopes	Moderately well drained	Farmland of local importance
LamB	Lakehurst fine sand, 0-5% slopes	Moderately well drained	Not prime farmland
LanB	Lakehurst-Lakewood sands, 0-5% slopes	Moderately well drained	Not prime farmland
LasB	Lakewood sand, 0-5% slopes	Excessively drained	Farmland of local importance
LasC	Lakewood sand, 5-10% percent slopes	Excessively drained	Not prime farmland
MakAt	Manahawkin muck, 0-2% slopes, frequently flooded	Very poorly drained	Farmland of unique importance
PefB	Pemberton sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
PstAt	Psammaquents, sulfidic substratum, 0-2% slopes, frequently flooded	Very poorly drained	Not prime farmland

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

SacA	Sassafras sandy loam, 0-2% slopes, Northern Coastal	Well drained	All areas are prime farmland
SacB	Sassafras sandy loam, 2-5% slopes, Northern Coastal	Well drained	All areas are prime farmland
UdauB	Udorthents-Urban land complex, 0-8% slopes	Well drained	Not prime farmland
UdrB	Udorthents, refuse substratum, 0-8% slopes	Well drained	Not prime farmland
UdwB	Udorthents, wet substratum, 0-8% slopes	Moderately well drained	Not prime farmland
UR	Urban Land	None	Not prime farmland
USCOLB	Urban land-Collington complex, 0-5% slopes	Well to excessively drained	Not prime farmland

**Table 3.3.1-2: Soil Types Within Alternative C1-1 (Preferred Alternative) Project Area:
Construct Airfield Perimeter Road**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
GahB	Galloway sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
UdwB	Udorthents, wet substratum, 0-8% slopes	Moderately well drained	Not prime farmland
AttA	Atsion fine sand, 0-2% slopes	Poorly drained	Farmland of unique importance
PefB	Pemberton sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
EvfB	Evesboro fine sand, 0-5% slopes	Excessively drained	Not prime farmland
UdauB	Udorthents-Urban land complex, 0-8% slopes	Well drained	Not prime farmland
FmgAt	Fluvaquents, sandy, 0-3% slopes, frequently flooded	Very poorly drained	Farmland of unique importance
UdrB	Udorthents, refuse substratum, 0-8% slopes	Well drained	Not prime farmland
GakB	Galloway fine sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
LamB	Lakehurst fine sand, 0-5% slopes	Moderately well drained	Not prime farmland
DocB	Downer loamy sand, 0-5% slopes, Northern Coastal	Well drained	Farmland of statewide importance
SacB	Sassafras sandy loam, 2-5% slopes, Northern Coastal	Well drained	All areas are prime farmland

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

**Table 3.3.1-3: Soil Types Within Alternative C1-2 Project Area:
Construct Airfield Perimeter Road**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
GahB	Galloway sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
UdwB	Udorthents, wet substratum, 0-8% slopes	Moderately well drained	Not prime farmland
AttA	Atsion fine sand, 0-2% slopes	Poorly drained	Farmland of unique importance
PefB	Pemberton sand, 0-5% slopes	Moderately well drained	Farmland of statewide importance
EvfB	Evesboro fine sand, 0-5% slopes	Excessively drained	Not prime farmland

**Table 3.3.1-4: Soil Types Within Alternative C2-1 (Preferred Alternative) Project Area:
Construct Lakehurst ATCT**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
UR	Urban Land	None	Not prime farmland
LasB	Lakewood sand, 0-5% slopes	Excessively drained	Farmland of local importance

**Table 3.3.1-5: Soil Types Within Alternative Project C2-2 Project Area:
Construct Lakehurst ATCT**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
LasB	Lakewood sand, 0-5% slopes	Excessively drained	Farmland of local importance

Table 3.3.1-6: Soil Types Within Alternative C2-3 Project Area: Construct Lakehurst ATCT

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
PstAt	Psammaquents, sulfidic substratum, 0-2% slopes, frequently flooded	Very poorly drained	Not prime farmland
AtsAO	Atsion sand, 0-2% slopes, Northern Tidewater Area	Poorly drained	Farmland of unique importance

**Table 3.3.1-7: Soil Types Within Preferred Alternative Project Area Project C3:
Construct New 144-Bed Dorm**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
USCOLB	Urban land-Collington complex, 0-5% slopes	Well to excessively drained	Not prime farmland

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

**Table 3.3.1-8: Soil Types Within Preferred Alternative Project Area C4:
Addition to CATM Facility**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
USCOLB	Urban land-Collington complex, 0-5% slopes	Well to excessively drained	Not prime farmland

Table 3.3.1-9: Soil Types Within Well 5 Project Area C5: Construct New Wells

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
UdwB	Udorthents, wet substratum, 0-8% slopes	Moderately well drained	Not prime farmland
SacB	Sassafras sandy loam, 2-5% slopes, Northern Coastal	Well drained	All areas are prime farmland

Table 3.3.1-10: Soil Types Within Well 6 Project Area C5: Construct New Wells

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
LasC	Lakewood sand, 5-10% percent slopes	Excessively drained	Not prime farmland
SacA	Sassafras sandy loam, 0-2% slopes, Northern Coastal	Well drained	All areas are prime farmland

**Table 3.3.1-11: Soil Types Within Project C6: Installation of Aerators in Ponds
Preferred Alternative Project Area**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
LakB	Lakehurst sand, 0-5% slopes	Moderately well drained	Farmland of local importance
LasB	Lakewood sand, 0-5% slopes	Excessively drained	Farmland of local importance
MakAt	Manahawkin muck, 0-2% slopes, frequently flooded	Very poorly drained	Farmland of unique importance

**Table 3.3.1-12: Soil Types Within Project C7: Installation of a Septic System
Preferred Alternative Project Area**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
AtsAO	Atsion sand, 0-2% slopes, Northern Tidewater Area	Poorly drained	Farmland of unique importance

**Table 3.3.1-13: Soil Types Within Project D1: Demolish Air Traffic Control Facility Building
552 Preferred Alternative Project Area**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
UR	Urban Land	None	Not prime farmland

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Table 3.3.1-14: Soil Types Within Project D2: Demolish Well Facilities Building 1190 and Building 5280 Well 5 Preferred Alternative Project Area

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
FUdwB	Udorthents, wet substratum, 0-8% slopes	Moderately well drained	Not prime farmland
SacB	Sassafras sandy loam, 2-5% slopes, Northern Coastal	Well drained	All areas are prime farmland

Table 3.3.1-15: Soil Types Within Project D2: Demolish Well Facilities Building 1190 and Building 5280 Well 6 Preferred Alternative Project Area

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
LasC	Lakewood sand, 5-10% percent slopes	Excessively drained	Not prime farmland
SacA	Sassafras sandy loam, 0-2% slopes, Northern Coastal	Well drained	All areas are prime farmland

Table 3.3.1-16: Soil Types Within Project R1: Lakehurst Main Gate Security Improvements Preferred Alternative Project Area

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
DocBO	Downer loamy sand, 0-5% slopes, Northern Tidewater	Well drained	Farmland of statewide importance

Table 3.3.1-17: Soil Types within Project R2: Berm Removal Berm 1 Preferred Alternative Project Area

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
MakAt	Manahawkin muck, 0-2% slopes, frequently flooded	Very poorly drained	Farmland of unique importance
AttA	Atsion fine sand, 0-2% slopes	Poorly drained	Farmland of unique importance
LamB	Lakehurst fine sand, 0-5% slopes	Moderately well drained	Not prime farmland
LanB	Lakehurst-Lakewood sands, 0-5% slopes	Moderately well drained	Not prime farmland

Table 3.3.1-18: Soil Types Within Project R2: Berm Removal Berm 2 Preferred Alternative Project Area

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
AttA	Atsion fine sand, 0-2% slopes	Poorly drained	Farmland of unique importance
LamB	Lakehurst fine sand, 0-5% slopes	Moderately well drained	Not prime farmland

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

**Table 3.3.1-19: Soil Types Within Project R2: Berm Removal
Berm 3 Preferred Alternative Project Area**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
FmgAt	Fluvaquents, sandy, 0-3% slopes, frequently flooded	Very poorly drained	Farmland of unique importance
EvfB	Evesboro fine sand, 0-5% slopes	Excessively drained	Not prime farmland
LakB	Lakehurst sand, 0-5% slopes	Moderately well drained	Not prime farmland

**Table 3.3.1-20: Soil Types Within Project R2: Berm Removal
Berm 4 Preferred Alternative Project Area**

Map Unit Symbol	Map Unit Name	Drainage Class	Farmland Class
FmgAt	Fluvaquents, sandy, 0-3% slopes, frequently flooded	Very poorly drained	Farmland of unique importance
EvfB	Evesboro fine sand, 0-5% slopes	Excessively drained	Not prime farmland

3.4 Cultural Resources

Regulatory Setting

Cultural resources that are listed in or eligible for listing in the NRHP are known as historic properties. Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires federal agencies to assess the impacts of their undertakings on historic properties in the undertaking's Area of Potential Effects (APE). The APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR Part 800.16[d]).

Additional federal laws and EOs that pertain to cultural resources management include the Archaeological and Historic Preservation Act (1974), the American Indian Religious Freedom Act (1978), the Archaeological Resources Protection Act (1979), and the Native American Graves Protection and Repatriation Act (1990). JB MDL are required to comply with DAF regulations and instructions, including AFMAN 32-7003, *Environmental Conservation*, and AFI 90-2002, *Interactions with Federally Recognized Tribes*. The *Integrated Cultural Resources Management Plan for Joint Base McGuire Dix Lakehurst* (ICRMP) is the guidance document for cultural resources for planning and proposed activities at JB MDL.

[[Preparer's Note: At the time of the public comment period, we have not received any response from the federally recognized Tribes under Section 106 of the NHPA.]]

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

**Table 3.4-1: Previously Identified Historic Districts and Built Resources
Listed in/Eligible for Listing in the NRHP**

Building	Description	NRHP Status	In Project APE?
N/A	Lighter-Than-Air Historic District	Eligible	Yes, C2-1, R1
N/A	McGuire BOMARC-SAGE Historic District	Eligible	No
N/A	Pointville Archaeological Historic District	Eligible	No
N/A	Scott Plaza Family Housing Area Historic District	Eligible	No
1	Hangar No. 1	Listed	Yes, R1
120	Lighter-Than-Air Administration Building	Eligible	No
3135	Locomotive House	Eligible	No
3209	Maintenance Hangar	Eligible	No
5353	Dix Fire Headquarters	Eligible	No
Quarters 1	World War I-era Building	Potentially Eligible	No
Quarters 2	World War I-era Building	Potentially Eligible	No

Source: JB MDL 2019a

Key: N/A = not applicable

3.5 Biological Resources

Regulatory Setting

Protection and management of biological resources at JB MDL is mandated by several laws, regulations, and guidance documents including the JB MDL INRMP. The primary statutes, regulations, EOs, and guidance that direct, and apply to, the management of biological resources at the installation include the following:

- Endangered Species Act of 1973 (16 USC 1531 et seq.)
- Endangered Species Preservation Act of 1966 (16 USC 1531)
- Engle Act of 1958 (10 USC 2671)
- Federal Insecticide, Fungicide, and Rodenticide Act of 1947 (7 USC 136)
- Federal Noxious Weed Act of 1975 (7 USC 2801)
- Fresh Water Pollution Control Act, as amended by the Clean Water Act (33 USC 1251 et seq.)
- Fish and Wildlife Conservation Act of 1980 (16 USC 2901 et seq.)
- Fish and Wildlife Coordination Act of 1934 (16 USC 661 et seq.)
- Joint Base McGuire-Dix-Lakehurst. 2021. Integrated Natural Resources Management Plan. December 2021.
- Migratory Bird Conservation Act of 1966 (16 USC 715)
- Migratory Bird Treaty Act of 1918 (16 USC 703-711)
- Sikes Act of 1960 (16 USC 670 et seq.), as amended
- Air Force Manual 32-7003, Environmental Conservation
- EO 11987, Exotic Organisms, May 24, 1977
- EO 11988, Floodplain Management, May 24, 1977

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

- EO 11990, Protection of Wetlands, May 24, 1977
- EO 11991, Protection and Enhancement of Environmental Quality, May 24, 1977
- Pinelands Comprehensive Management Plan (N.J.S.A. 13:18A-1 et seq., N.J.A.C. 7:50 et seq.)
- NJDEP Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.)
- NJDEP Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq.)

Table 3.5.1-1: Threatened and Endangered Species Requiring Further Investigations Per Project

Species	USFWS IPAC Review Determination of Projects that Require Further Coordination
<i>Swamp pink</i>	C1-1, C1-2, and R2 (all berms)
<i>American chaffseed</i> <i>Knieskern's beaked rush</i>	C2-3 and C7

3.6 Land Use

Regulatory Setting

Land use and management on JB MDL is driven by the UFC 2-100-01, *Installation Master Planning with Change 1*, which provides criteria for planning design, construction, sustainment, and modernization on installations, and the 2015 JB MDL IDP, which summarizes and compiles various resource plans, land use and management goals, and the framework for implementation to achieve those goals. Area Development Plans guide uses and planning objectives for particular areas on the installation and were used to guide land use planning and development in the 12 land use planning districts at JB MDL. In accordance with these policies, installations typically consolidate land uses that are compatible and alike, and separate other land uses that would be incompatible. The separation of conflicting uses supports safety, identifies and supports avoidance of impacts on natural and protected resources, and supports maximized operational and mission efficiency.

Table 3.6.1-1: Planning Districts for the Proposed Actions

Project ID	JB MDL Planning District	Compatible Land Uses
C1, C4	Aviation Industrial Complex District	Airfield, Industrial, Operations: Airfield, RDT&E
C2, D1	Testing and Training District	Airfield, Industrial, Operations: Airfield, Open Space, Outdoor Recreation, Operations: Training
C3	The Quad District	Community Support, Mission Support Administrative, Open Space, Outdoor Recreation
C5, D2	Academic Training District (Well #5)	Community Support, Open Space, Outdoor Recreation, Operations: Training
	Military Family Housing District (Well #6)	Accompanied Housing, Community Support, Open Space, Outdoor Recreation

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

C6 (Lake of the Woods), R2, C7	Dix Range	Ranges consist of maneuver areas, outdoor firing ranges, bombing ranges, firing points, and the impact area.
C6 (Rainbow Pond), R1	Joint Base Support District	Community Support, Mission Support Administrative, Open Space, Industrial, Outdoor Recreation

Key: RDT&E = research, development, testing, and evaluation

Source: JB MDL 2015a

Table 3.6.3-1: Land Use Compatibility for the Proposed Actions

Proposed Zoning Designation	Zoning Designation Description	Project ID	Existing Planning District	Compatibility (Yes/No)
Airfield	Includes airfield clear zones, ramps, taxiways, and runways.	C1	Aviation Industrial Complex District	Yes
Operations: Airfield	Supports airfield functions, such as hangars and the passenger terminal, and restricts non-airfield facility encroachment.	C2, D1	Testing and Training District	Yes
Community Support	Commercial and service community functions reflecting a mixed-used district strategy and campus-style development goals. Includes functions such as schools, adult education facilities, libraries, worship and religious education spaces, childcare, youth centers, dormitories, and bachelor officer housing.	C3	The Quad District	Yes
Operations: Training	Training areas are found throughout JB MDL and are mixed use non-airfield and non-RDT&E training areas. In the cantonment areas, includes campus-style development with dormitories, dining, classrooms, and outdoor training and recreation areas. Dormitories are incorporated to allow military personnel to walk to classes in a campus-like atmosphere.	C4	Aviation Industrial Complex District	Yes
Industrial	Dedicated to logistics, transportation, maintenance, utilities functions, supply, fuel facilities, open storage, vehicle maintenance, weapons storage areas, general storage, and other similar functions.	C5, D2	Academic Training District (Well #5)	No
			Military Family Housing District (Well #6)	No
		C7	Dix Range	Yes
		R1	Joint Base Support District	Yes

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Open Space	Open space is reserved or retained in a generally undeveloped or natural condition. This category includes natural bodies of water, wetlands, cemeteries, and landscaped areas.	C6	Dix Range (Lake of the Woods)	Yes
			Joint Base Support District (Rainbow Pond)	Yes
		R2	Dix Range	Yes

Source: JB MDL 2015a

3.7 Noise

Regulatory Setting

The federal government has established noise guidelines and regulations for the purpose of protecting citizens from potential hearing damage and from various other adverse physiological, psychological, and social effects associated with noise. According to DAF, FAA, and U.S. Department of Housing and Urban Development criteria, residential units and other noise-sensitive land uses are “clearly unacceptable” in areas where the DNL noise exposure exceeds 75 dBA, and “normally acceptable” in areas exposed to noise levels of 65 dBA or less (24 CFR Part 51). Areas that experience noise levels above 65 dBA and below 75 dBA are identified as “normally unacceptable.”

Under the Noise Control Act of 1972, the Occupational Safety and Health Administration (OSHA) established workplace standards for noise. The minimum requirement states that constant noise exposure must not exceed 90 dBA over an 8-hour period. The highest allowable sound level to which workers can be constantly exposed is 115 dBA, and exposure to this level must not exceed 15 minutes within an 8-hour period. Additionally, the standards limit instantaneous exposure, such as impact noise, to 140 dBA. If noise levels exceed these standards, employers are required to provide hearing protection equipment that reduces sound levels to acceptable limits (29 CFR Part 1910.95).

DoD Instruction 4715.13, *DoD Operational Noise Program*, establishes policy, assigns responsibilities, and prescribes procedures for administering the DoD Operational Noise Program and managing military noise. DAF is the lead agency at JB MDL. Therefore, noise levels and land use compatibility at JB MDL applied at both the McGuire and Lakehurst airfields are maintained in accordance with the DAF Air Installation Compatible Use Zone (AICUZ) program. Guidance for the AICUZ program is contained in DAF Instruction 32-1015, *Integrated Installation Planning*, which implements DoD Instruction 4165.57, *Air Installations Compatible Use Zones*.

Table 3.7-1: Common Sound Levels

Common Noise Sources	Sound Level (dBA)
<i>Household/Outdoor</i>	
Refrigerator	50
Doorbell	80
Car Horn	110
Rock Band	110
Ambulance Siren	120
Airplane Taking Off	140
Handgun	166

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

<i>Construction Equipment (at 50 feet)</i>	
Concrete Mixer	74-88
Paver	86-88
Dozer/Tractor/Front Loader	75-80
Grader	80-93
Truck	83-94
Backhoe	72-93

Source: FAA 2022, CHC 2022, USEPA 1971

Table 3.7-1-1: Noise Sensitive Receptors Near the Proposed Actions

Project ID	Nearest Noise Sensitive Receptor to the Proposed Actions	Distance from Project (Feet)	Ambient Noise Level at Receptor (dB DNL)
C1	On-Installation: Building 5652 Dormitory	2,600	65-70
	Off-Installation: Pemberton Township residential homes	>9,000	<65
C2	On-Installation: family housing on Lansdowne Road	5,000-7,800	<65
	Off-Installation: residential home along County Route 571	>7,000	<65
C3	On-Installation: Building 2610, Air Advisory Academy	138	<65
	Off-Installation: residential home on Norlaine Drive	>2,500	<65
C4	On-installation: Building 1903, flight training classroom	1,754	<65
	Off-installation: residential home on Norlaine Drive	>3,000	<65
C5	On-installation: Building 5228, police/security force training classroom	111 (distance from proposed Well #5)	<65
	On-installation: Fort Dix Elementary School	260 (distance from proposed Well #6)	<65
	Off-installation: residential home off State Route 68	>7,500	<65
C6	On-installation Lakehurst Child Development Center	1,173 (distance from Rainbow Pond)	<65
	On-installation: Building 5652 Dormitory	9,840 (distance from Lake of the Woods)	<65
	Off-installation: residential home along County Route 571	>900	<65
C7	On-installation: family housing on Lansdowne Road	10,000	<65
	Off-installation: Lakehurst residential neighborhood	>8,500	<65

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

D1	On-installation: family housing on Lansdowne Road	6,000	<65
	Off-installation: Proving Ground Church in Lakehurst	>8,500	<65
D2	On-installation: Building 5406 LTC Mark P. Phelan member barracks	111 (distance from Well #5)	<65
	On-installation: Dix Child Development Center	300 (distance from Well #6)	<65
	Off-installation: residential home off State Route 68	>7,500	<65
R1	On-installation: DAF-Navy Lodging	2,553	<65
	Off-installation: residential homes within the River Pointe neighborhood	300	<65
R2	On-installation: Building 1903, flight training classroom	6,241	<65
	Off-installation: residential homes in Pemberton Township	>7,000	<65

Source: JB MDL 2013a

3.8 Infrastructure and Transportation

Regulatory Setting

Infrastructure and transportation at JB MDL require adherence to all existing permits and regulations at the federal, state, and local levels for current mission actions and future mission requirements. Selection criteria specifying planning constraints, installation capacity opportunities, and sustainability development indicators regarding infrastructure and transportation actions require compliance to ensure all built infrastructure as well as natural resources are evaluated.

Table 3.8.3-1: Solid Waste Generation from the Proposed Actions

Proposed Action	Approximate Solid Waste Generation (Metric Tons)
Construction (C1-C7)	223
Demolition (D1 & D2)	385
Renovation (R1 & R2)	705
All Proposed Actions	Total: 1,313

Source: USEPA 2003

Note: All calculations made using each proposed action's Preferred Alternative.

Table 3.8.3-2: Potential Long-Term Impacts from the Proposed Actions

Project ID	Utilities Affected Long-term	Other Infrastructure Affected Long Term	Long-term Impacts
C1: Construct Airfield Perimeter Road	None.	Stormwater and Transportation.	Negligible beneficial impact on transportation and circulation. Minor adverse impacts to stormwater infrastructure.

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

C2: Construct Lakehurst Air Traffic Control Tower (ATCT)	Electrical, water supply, wastewater, natural gas, communications.	Stormwater.	Minor adverse impact on utilities infrastructure. Negligible adverse impact to stormwater infrastructure.
C3: Construct New 144-Bed Dorm	Electrical, water supply, wastewater, natural gas, communications, solid waste.	Stormwater and Transportation.	Minor adverse impact on utilities infrastructure. Minor adverse impacts to stormwater and transportation infrastructure.
C4: Addition to Combat Arm Training and Maintenance (CATAM) Facility	Electrical, natural gas, communications.	Stormwater.	Minor adverse impact on utilities infrastructure. Negligible adverse impact to stormwater infrastructure.
C5: Construct New Wells	Water supply, electrical, natural gas.	None.	Moderate, beneficial impacts on potable water supply.
C6: Installation of Aerators in Ponds	None.	None.	None.
C7: Installation of a Septic System	Wastewater.	None.	Negligible beneficial impact on wastewater infrastructure.
D1: Demolish ATCT Facility Building 552	None.	None.	None.
D2: Demolish Well Facility Building 552 (Building 552)	None.	None.	None.
R1: Lakehurst Main Gate Security Improvements	Electrical, communications.	Transportation.	Negligible adverse impacts on utilities. Negligible to minor beneficial impacts on transportation infrastructure.
R2: Berm Removal	None.	Stormwater.	Minor beneficial impacts to stormwater infrastructure.

3.9 Health and Safety

Regulatory Setting

Safety measures are considered to prevent danger to contractors, the public, and personnel by following occupational standards and reporting accidents. The health and safety of on-site military and civilian workers is safeguarded by numerous DoD and DAF regulations designed to comply with standards issued by the Occupation Safety and Health Administration (OSHA), USEPA, and State occupational safety and health agencies. DAF Instruction 91-202, *The US Air Force Mishap Prevention Program* and DAF Manual 91-203, *Air Force Occupational Safety, Fire, and Health Standards* provide guidance for implementing the safety program for all activities that occur on DAF installations.

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

AT/FP is a security program designed to protect U.S. military personnel, civilian employees, dependents, and facilities and equipment on military installations. UFC 4-010-01 establishes building requirements for attaining the goals of the AT/FP program, which includes minimum standoff distances for new construction. UFC 4-022-01 provides planning and design criteria for entry control facilities, including minimum standards for effective visitor processing, vehicle registration, and vehicle inspections. UFC 4-022-01 notes that the objective of an entry control facility is to secure an installation from unauthorized access and intercept contraband, while maximizing vehicular traffic flow and maintaining security, safety, capacity, and sustainability standards.

3.10 Hazardous Materials and Wastes

Regulatory Setting

AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, establishes guidance and procedures for DAF-wide environmental compliance and pollution prevention management. Compliance with this manual ensures uninterrupted access to the air, land, and water assets needed to conduct the DAF mission.

Air Force Policy Directive 32-70, *Environmental Considerations in Air Force Programs and Activities*, establishes policy to address environmental considerations in all DAF programs and activities using a management system framework. The directive also assigns duties and responsibilities, and establishes long-term goals and objectives, with specific programs in support of those objectives.

DAF Instruction 32-7020, *Environmental Restoration Program*, applies to all ERP activities regardless of timing of the release of contaminants or the legal authority driving the activity. This instruction provides guidance on 1) addressing releases of hazardous substances, pollutants, or contaminants to the environment to protect human health and the environment, and 2) correcting other environmental damage (such as damage caused by detection and disposal of unexploded ordnance (UXO) on other than operations ranges) that creates an imminent and substantial endangerment to public health or welfare or to the environment.

3.11 Environmental Justice

Regulatory Setting

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations.

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, states that each federal agency “(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.” Children might be more susceptible than adults to certain environmental effects and risks. Therefore, activities occurring near areas that could have higher concentrations of

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

children during any given time, such as schools and childcare facilities, might further intensify potential impacts on children.

EO 14008, *Tackling the Climate Crisis at Home and Abroad* (January 27, 2021), amends EO 12898 to create, within the Executive Office of the President, a White House Environmental Justice Interagency Council (Interagency Council) and called for the Interagency Council to provide recommendations for further updating EO 12898.

EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* (20 January 2021), directs agencies to evaluate whether their policies generate racially inequitable results when implemented and to make necessary changes to ensure underserved communities are properly supported. In acknowledgement that this work would require multi-generational commitment and whole-of-government.

2022 *Department of Defense Equity Action Plan*, pursuant to EO 13985, includes a strategy to advance equity and rectify past harms resulting from environmental and other impacts from defense activities on ancestral lands.

EO 14031, *Advancing Equity, Justice, and Opportunity for Asian Americans, Native Hawaiians, and Pacific Islanders* (May 28, 2021), seeks to eliminate barriers to equity and justice for these populations.

EO 14091, *Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* (February 16, 2023), builds on EO 13985 by mandating a whole-of-government, multi-generational commitment to extending and strengthening equity-advancing requirements to support underserved community workforces, economy, housing, equity in health (including mental and behavioral health), civil rights, and equal justice under law.

EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All* (April 21, 2023), affirms that environmental justice is central to the implementation of our civil rights and environmental laws. It directs all agencies to consider measures to address and prevent disproportionate and adverse environmental and health impacts on communities, including the cumulative impacts on pollution and other burdens like climate change. The EO establishes the White House Office of Environmental Justice, which is led by the Federal Chief Environmental Justice Officer, and tasks it with coordinating the implementation of environmental justice policy across the Federal Government, ensuring that federal efforts evolve alongside our understanding of environmental justice.

Table 3.11.1-1: Environmental Justice Populations in Project Area and Surrounding Geographies

Area	Total Population	Percent Minority	Median Income	Persons Below Poverty Level
New Hanover Township	7,282	46%	\$108,636	6.6%
North Hanover Township	7,918	24%	\$79,000	6.1%
Pemberton Township	26,926	36%	\$70,874	9.4%
Springfield Township	3,248	8%	\$126,997	5.0%
Wrightstown Borough	581	42%	\$49,250	2.2%
Jackson Township	58,101	16%	\$100,759	6.2%
Manchester Township	44,780	10%	\$51,081	8.1%

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

Lakehurst Borough	2,629	30.4%	\$31,184	10.7%
Ocean County	648,998	16%	\$75,719	12.2%
Burlington County	464,269	35%	\$94,397	7.9%
New Jersey	9,267,130	45%	\$89,296	10.2%

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

Table 3.11.1-2: Overburdened Communities and/or Adjacent Block Group Locations in the Region of Influence

Block Group County	Block Group Township	Classification	Classifying Criteria
Burlington	Pemberton Township	OBC	Low income & Minority
	New Hanover Township	OBC & ABG	Minority
	North Hanover Township	OBC	Low-income
	Wrightstown Borough	OBC & ABG	Low-income
	Springfield Township	ABG	Adjacent to an OBC
Ocean	Lakehurst Borough	OBC	Low income & Minority
	Manchester Township	OBC	Low-income
	Jackson Township	N/A	N/A

Source: New Jersey Department of Environmental Justice, 2022

Table 3.11.2-1 summarizes the population of children in Burlington and Ocean County versus New Jersey.

Table 3.11.1-3: Population of Children

Area	Total Population	Population under 18	% Population under 18
Burlington County	464,269	95,480	20.6
Ocean County	648,998	160,601	24.7
New Jersey	9,267,130	2,020,876	21.8

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

3.12 Airspace

Regulatory Setting

The FAA secures specific airspace and zones at and around airports through Federal Aviation Regulation Part 77 (14 CFR § 77), *Safe, Efficient Use, and Preservation of the Navigable Airspace*, and FAA Advisory Circular 50/5300-13A, *Airport Design*. The areas defined in these documents protect specific airspace and ground areas at and near airports. In addition, airfield facility and infrastructure siting must comply with UFC 3-260-01, *Airfield and Heliport Planning and Design*.

DAF Manual 32-1084, *Standard Facility Requirements*, provides guidance on the planning, design, and construction of DAF infrastructure and defines the types and dimensions of navigable airspace, or imaginary surfaces. Imaginary surfaces are theoretical planes used to define the airspace around an airfield, which help ensure the safe operation of aircraft and prevent obstructions from interfering with flight paths. These include the approach-departure surfaces, transitional surfaces, inner horizontal surfaces, and outer horizontal surfaces. The most critical of these imaginary surfaces is the approach-departure surface, which must be clear of all objects to ensure safe landing. DAF Manual 32-1084

APPENDIX A – TABLES, FIGURES AND REGULATORY SETTING

describes the specific height requirement and dimensions for these imaginary surfaces, including their slopes, heights, and clearance zones.

DAF Instruction 91-202, *The US Air Force Mishap Prevention Program*, establishes mishap prevention program requirements (including those for BASH), assigns responsibilities for program elements, and contains program management information. DoD Instruction 4165.57 established the Air Installation Compatible Use Zone (AICUZ) program. Land use restrictions identified through the AICUZ program are intended to protect the public from exposure to aircraft mishaps and other aircraft operation hazards. Each DAF installation's AICUZ plan identifies CZs and APZs to protect the public from aircraft mishaps. Land use restrictions are placed on CZs and APZs, where the greatest potential for aircraft accidents exists, and are determined through the AICUZ program. Land use restrictions are discussed further in **Section 3.6**.

Obstructions to flights, which include tall buildings and power transmission lines, represent safety concerns for aircrews, especially those engaged in low-altitude (below 10,000 feet above ground level) flight training. The avoidance of obstructions and obstruction analysis is guided by 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*.

APPENDIX B

Intergovernmental Coordination for Draft EA

Distribution List for Environmental Planning Letters & Public Draft EA

INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING LETTERS AND PUBLIC DRAFT EA DISTRIBUTION LIST

Federal and Regional Agencies

United States Fish and Wildlife Service
New Jersey Field Office, Ecological Services
4 East Jimmie Leeds Road, Unit 4
Galloway, NJ 08205
Attn: Endangered Species Act Consultation

United States Environmental Protection Agency
Region 2 Office
Environmental Review Section
290 Broadway
New York, NY 10007-1866
Attn: Chief of Environmental Review

USDA - Natural Resources Conservation Service
220 Davidson Avenue, 4th Floor
Somerset, NJ 08873-4115
Attn: Edwin Muniz, State Soil Scientist

State and Local Agencies

New Jersey Office of Permitting and Project Navigation
401 East State Street
Mail Code 401-07J
PO Box 420
Trenton, NJ 08625
Attn: Dave Pepe <david.pepe@dep.nj.gov> and Katie Nolan <Katherine.nolan@dep.nj.gov>

New Jersey Department of Environmental Protection
Historic Preservation Office
PO Box 420
Trenton, NJ 08625-0420
Attn: Katherine Marcopul, Administrator

New Jersey Historical Commission
225 West State Street
PO Box 305
Trenton, NJ 08625
Attn: Sara Cureton, Executive Director

New Jersey Division of Fish and Wildlife
Endangered and Nongame Species Office

Mail Code 501-03
PO Box 420
Trenton, NJ 08625-0420
Attn: Endangered and Nongame Species Program Consultation

New Jersey Pinelands Commission
PO Box 359
15 Springfield Road
New Lisbon, NJ 08064
Attn: Susan Grogan, Executive Director

Burlington County Soil Conservation District
1971 Jacksonville-Jobstown Road
Columbus, NJ 08022
Attn: Robert Reitmeyer, District Manager

Burlington Department of Planning
49 Rancocas Road
P.O. Box 6000
Mount Holly, NJ 08060
Attn: Joseph Brickley, Director of Public Works

Burlington County Department of Resource Conservation
PO Box 6000
Mount Holly, NJ 08060
Attn: Mary Pat Robbie, Director

Ocean County Soil Conservation District
714 Lacey Road
Forked River, NJ 08731
Attn: Christine Raabe, Director

Ocean County Department of Planning
129 Hooper Avenue
PO Box 2191
Toms River, NJ 08754-2191
Attn: Anthony Agliata, Planning Director

Federally Recognized Tribes

Ms. Carissa Speck
Historic Preservation Director
Delaware Nation
PO Box 825
Anadarko, OK 73005
<cspeck@delawarenation-nsn.gov>

Ms. Katelyn Lucas

Historic Preservation Assistant
Delaware Nation Historic Preservation Office
2825 Fish Hatchery Road
Allentown, PA 18103
<delawarenationsection106@gmail.com> (cc: Katelyn Lucas <klucas@delawarenation-
nsn.gov>)

Mr. Larry Heady
Tribal Historic Preservation Officer
Delaware Tribe of Indians
DTHPO Midwest Office, 1929 E. 6th Street
Duluth, MN 55812
<lheady@delawaretribe.org>

Ms. Susan Bachor
Delaware Tribe Historic Preservation
Pennsylvania Office
PO Box 64
Pocono Lake, PA 1834
<sbachor@DelawareTribe.onmicrosoft.com> (cc: <sbachor@delawaretribe.org>;
<lheady@delawaretribe.org>)

Responses to Environmental Planning Letters



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Jersey Field Office
4 East Jimmie Leeds Road, Suite 4
Galloway, New Jersey 08205
(609) 646-9310



In Reply Refer To:
2023-0091489

June 16, 2023

Catherine Brunson
NEPA/EIAP Project Manager
Department of the Air Force
784 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

Dear Ms. Brunson:

The U.S. Fish and Wildlife Service (Service) New Jersey Ecological Services Field Office has reviewed the final description of proposed action and alternatives for the Department of the Air Force (DAF) installation development plan at Joint Base McGuire-Dix-Lakehurst (JBMDL), New Jersey. The proposed installation development plan includes 11 projects throughout JBMDL to support the needs of DAF. They include the construction of a new airfield perimeter road at the southern perimeter of the McGuire Airfield (Project C1), a new air traffic control tower at Lakehurst Airfield (Project C2), a new 144-bed dormitory (Project C3), addition to a combat arms training and maintenance facility (Project C4), new wells (Project C5), installation of aerators in two ponds (Project C6), a new septic system for Building 696 (Project C7), demolition of the existing Lakehurst air traffic control tower Building 552 (Project D1), demolition of well facilities (Project D2), improving security at the Lakehurst main gate (Project R1), and berm removal to drain approximately 20 acres of surface water (Project R2). The projects will involve tree clearing and other impacts to vegetated areas; impacts to watercourses, floodplains, and wetlands; and impacts to the fish and wildlife that may utilize those areas.

AUTHORITIES

The following comments are provided pursuant to the National Environmental Policy Act (83 Stat. 852, as amended; 42 U.S.C. 4321 *et seq.*); the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA); Executive Order (EO) 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (January 10, 2001; 66 *Federal Register* (FR) 3853); and the Migratory Bird Treaty Act of 1918 (40. Stat 755, as amended; 16 U.S.C. Section 703-712) (MBTA). Comments provided do not preclude additional comments on future phases of the project, including potential consultation on effects to federally listed species pursuant to

Section 7 of ESA.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES

Please ensure that the Service's Information for Planning and Consultation (IPaC) tool (at: <https://ipac.ecosphere.fws.gov/>) is utilized to request/obtain an official species list. Additionally, once enough project information is available, please utilize the Service's Northeast Endangered Species Determination Key and Northern Long-eared Bat Range Wide Determination Key on the IPaC website to evaluate species effects further. The results to the determination keys may direct you to consult with us in a standard ESA Section 7 consultation, but they may also result in a completed consultation. The determination keys also ask for information that the Service would likely request during a standard ESA Section 7 consultation. The keys were developed to streamline projects and will make obtaining project concurrence easier. Thus, answering the keys will save time for both of our agencies.

The Service will require adequate project information to officially review and provide our concerns and concurrence if the DAF initiates standard ESA Section 7 consultation. A step-by-step process of what to include with project review requests can be found at: <https://www.fws.gov/office/new-jersey-ecological-services/new-jersey-field-office-project-review-guide>. The information below is limited to the figures and information received thus far. As additional project information is received, the Service will be able to better articulate our concerns and recommend conservation recommendations for federally listed, proposed, and candidate species.

Proposed work should ensure that the species below are conserved to the maximum extent practicable. Any future ESA Section 7 consultation should ensure that impacts (indirect and direct) to suitable habitat and species are identified/explained and that conservation measures are utilized as necessary to avoid adverse effects. The Service may have additional recommendations once the proposed project area and activities are further refined and once/if the DAF initiates Section 7 consultation.

Northern long-eared bat (*Myotis septentrionalis*, endangered) and tricolored bat (*Perimyotis subflavus*, proposed endangered)

During the summer, the northern long-eared bat (NLEB) typically roosts singly or in colonies underneath bark, crevices, or hollows of both live and dead trees and/or snags (typically greater than or equal to 3 inches diameter at breast height (DBH)). The NLEB is opportunistic in selecting roosts, selecting varying roost tree species throughout its range. NLEBs are also known to roost in artificial structures such as buildings, bridges, barns, sheds, and under window eaves. During the winter, NLEBs predominately hibernate in caves and abandoned mine portals. NLEBs engage in swarming activities within 5 miles from a hibernaculum. Threats to the NLEB include disease, such as white-nose syndrome (*Pseudogymnoascus destructans*), improper closure at hibernacula, degradation and destruction of summer habitat, and exposure to pesticides or other environmental contaminants.

The tricolored bat (TCB) is a small insectivorous bat that typically overwinters in caves,

abandoned mines and tunnels, and road-associated culverts (southern portion of the range). They spend the rest of the year in a wide variety of forested/wooded habitats where they roost and forage, including adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields, and pastures. This also includes forests and woodlots containing trees with potential roost substrate (i.e., live and dead leaf clusters of live and recently dead deciduous trees, Spanish moss (*Tillandsia usneoides*), and beard lichen (*Usnea trichodea*)), as well as linear features such as fencerows, riparian forests, and other wooded corridors. TCBs will roost in a variety of tree species, especially oaks (*Quercus spp.*), and often select roosts in tall, large diameter trees, but will roost in smaller diameter trees when potential roost substrate is present (e.g., 4-inch [10-centimeter]; Leput 2004). They may also roost in human-made structures, such as bridges and culverts, and occasionally in barns or the underside of open-sided shelters (e.g., porches, pavilions).

On September 14, 2022, the Service published a proposal in the FR to list the TCB as endangered under the ESA (FR Vol. 87 (177): 56381-56393). The Service has up to 12-months from the date the proposal was published to make a final determination, either to list the TCB under the ESA or to withdraw the proposal. The Service determined this bat species faces extinction primarily due to the range wide impacts of white-nose syndrome, a deadly fungal disease affecting cave dwelling bats across North America. Because TCB populations have been greatly reduced due to white-nose syndrome, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss.

The TCB has begun appearing on Official Species Lists requested from the Service. Species proposed for listing are afforded limited protections under the ESA and the “conference” provisions of Section 7 apply to them. While consultation under Section 7 of the ESA is required when a proposed action “may affect” a listed species, a conference is only required if the proposed action is likely to jeopardize the continued existence of a proposed species. However, informal Service review may be requested for actions that may affect a proposed species. The Service encourages that project impacts are analyzed to ensure that effects to proposed species are reviewed if/when they are officially listed. This is also beneficial to the project proponent since it will help to prevent potential future delays or complications to project construction. Therefore, the Service recommends that the effects of the proposed project on TCB and their habitat is analyzed and minimized.

The project is entirely within the range of potential summer habitat for the NLEB and likely within summer habitat for TCB as well. As such, the bats may be present within the action area from April 1 to September 30. Additionally, NLEB has been found at JBMDL within the vicinity of many of the proposed installation locations. The proposed work includes tree removal, which could destroy and/or degrade NLEB and TCB summer habitat. Additionally, expansion and/or demolition of buildings where NLEB and TCB could be roosting, may also affect these species. The Service recommends that the DAF initiate informal ESA Section 7 consultation with the Service to further discuss habitat conditions, potential species surveys, species effects, and conservation measures for NLEB and TCB. We recommend that the Northern Long-eared Bat Range Wide Determination Key referenced above is completed before initiating consultation, as this will provide us with necessary information or result in a completed consultation for NLEB.

Bog turtle (*Glyptemys muhlenbergii*, threatened)

The project's action area may contain suitable habitat for bog turtles. At approximately 4 inches long, the bog turtle is one of North America's smallest turtles. This species typically shows a bright yellow, orange, or red blotch on each side of the head. The nearly parallel sides of the carapace (upper shell) gives bog turtles an oblong appearance when viewed from above. Bog turtles inhabit open, unpolluted emergent and scrub/shrub wetlands such as shallow spring-fed fens, sphagnum bogs, swamps, marshy meadows, and wet pastures. Bog turtles are also known to use forested wetlands during the active and inactive seasons. These habitats are characterized by soft, muddy (often "mucky") bottoms, interspersed wet and dry pockets, vegetation dominated by low grasses and sedges, and a low volume of standing or slow-moving water, which often forms a network of shallow pools and rivulets. Bog turtles prefer areas with ample sunlight, high evaporation rates, high humidity in the near-ground microclimate, and perennial saturation of portions of the ground. Indirect threats to bog turtles include habitat loss from wetland alteration, invasive species, and natural vegetation succession, whereas direct threats include illegal collection for the commercial pet trade and injury/mortality by motorized vehicles and equipment.

All the proposed installation development areas except for the Fort Dix portion of Project C6, and portions of Project C1 are within the potential range of bog turtle habitat. The majority of Project C1 is outside of the potential range of bog turtle habitat. However, the northern portions of C1 are within the range.

The proposed installation development areas involve direct and indirect impacts to wetlands and watercourses. A bog turtle species distribution model that the Service utilizes displays the northern portions of project C1 and the Lakehurst portion of Project C6 as areas bog turtle may inhabit. None of the other installation development areas appear to contain suitable bog turtle habitat. However, the Service requests that the DAF further analyze the installation development areas within the potentially suitable habitat range of bog turtle to determine presence/absence of suitable habitat. If suitable bog turtle habitat may be impacted, please initiate informal ESA Section 7 consultation (if the Northeast Endangered Species Determination Key does not already complete consultation) with the Service to discuss existing habitat conditions, potential species surveys, species effects, and conservation measures.

Swamp pink (*Helonias bullata*, threatened)

The project action area may contain suitable habitat for swamp pink. Swamp pink is an obligate wetland species that occurs in a variety of palustrine forested wetlands in New Jersey, including forested wetlands bordering meandering streamlets, headwater wetlands, Atlantic white cedar (*Chamaecyparis thyoides*) swamps, and spring seepage areas. Threats to swamp pink include habitat loss from development, hydrologic modification, and other wetland alterations; trampling; herbivore damage; and collection.

The proposed installation development areas involve direct and indirect impacts to wetlands and watercourses that may affect swamp pink. A swamp pink species distribution model that the Service utilizes displays Projects C1, C2 (only alternative C2-3), C6, C7, and R2 as areas that

may contain swamp pink habitat. None of the other installation development areas appear as though they contain suitable swamp pink habitat. However, the Service requests that the DAF further analyze installation development areas to determine presence/absence of suitable habitat. Please note the action area for swamp pink habitat should include any areas where hydrological impacts, with or without suitable habitat, may affect areas of suitable swamp pink habitat. If swamp pink habitat may be impacted, please initiate informal ESA Section 7 consultation (if the Northeast Endangered Species Determination Key does not already complete consultation) with the Service to discuss existing habitat conditions, potential species surveys, species effects, and conservation measures.

American chaffseed (*Schwalbea americana*)

The project's action area may contain suitable habitat for American chaffseed. This species occurs in early successional, damp, sandy (sandy peat, sandy loam) sites. American chaffseed is generally found in habitats described as open, moist pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and dry sandy soils, bog borders, and other open grass-sedge systems. American chaffseed is dependent on factors such as fire, mowing, or fluctuating water tables to maintain the open to partly open conditions it requires. This species appears to be shade intolerant and occurs in species-rich plant communities where grasses, sedges, and other savanna plants are numerous. Threats to this species include collecting, excessive disturbance, and loss of open habitat due to development and natural vegetation succession.

Project's C2, C7, D1, R1, the Lakehurst area for Project C6, and Well # 6 for Project D2 are within the potential range of suitable American chaffseed habitat. The Service requests that the DAF further analyze installation development areas to determine presence/absence of suitable habitat. If American chaffseed habitat may be impacted, please initiate informal ESA Section 7 consultation (if the Northeast Endangered Species Determination Key does not already complete consultation) with the Service to discuss existing habitat conditions, potential species surveys, species effects, and conservation measures.

Knieskern's beaked-rush (*Rhynchospora knieskernii*, threatened)

The project's action area may contain suitable habitat for Knieskern's beaked-rush. This species is found only in (endemic to) New Jersey. An obligate wetland species, knieskern's beaked-rush occurs in early successional wetland habitats, often on bog-iron substrates adjacent to slow moving streams in the Pinelands region. In the past, fire may have played an important role in creating and maintaining suitable habitat for Knieskern's beaked-rush. This species is also found in human-disturbed wet areas that exhibit similar early successional stages due to water fluctuation or periodic disturbance from vehicles, mowing, or fire. These human-influenced habitats include abandoned borrow pits, clay pits, ditches, rights-of-way, and unimproved roads. Knieskern's beaked-rush is often associated with other sedge and grass species. However, it is intolerant of shade and competition, especially from woody species, and is sometimes found on relatively unvegetated substrates. Threats to Knieskern's beaked-rush include habitat loss from development, agriculture, hydrologic modification, and other wetland alterations; excessive disturbance from vehicle-use, trash dumping, and other activities; and natural vegetative succession of the open, sparsely vegetated substrate preferred by this species.

Project's C2, C7, D1, R1, and Lakehurst area for Project C6 are within the potential range of suitable Knieskern's beaked-rush habitat. The Service requests that the installation development areas within the potential range are further analyzed by the DAF to determine if suitable habitat may be present. If Knieskern's beaked-rush habitat may be impacted, please initiate informal ESA Section 7 consultation (if the Northeast Endangered Species Determination Key doesn't already complete consultation) with the Service to discuss existing habitat conditions, potential species surveys, species effects, and conservation measures.

Monarch butterfly (*Danaus plexippus*, candidate)

The monarch butterfly was added to the list of Federal candidate species in 2020. Candidate species are those that the Service has determined warrant listing under the ESA and await formal listing. Although these species receive no substantive or procedural protection under the ESA until formal listing, the Service encourages consideration of candidate species in project planning and opportunities that may aid in their conservation. A listing determination for this species is expected in Fiscal Year 2024. The Service recommends including the monarch butterfly in any future Biological Assessments and effects analyses, to help avoid or minimize project delays if the species is listed before or during project construction.

Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Adult monarch butterflies are sexually dimorphic, with males having narrower wing venation and scent patches. Each spring, monarch butterflies disperse from overwintering grounds to areas across the United States, including New Jersey. During the breeding season, monarch butterflies lay eggs on their obligate milkweed host plant (primarily *Asclepias spp.*), and larvae emerge after 2 to 5 days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarch butterflies produced during the breeding season, with most adult butterflies living approximately 2 to 5 weeks; overwintering adults enter reproductive diapause (suspended reproduction) and live 6 to 9 months.

Within the proposed project area, monarch butterflies may be present during migration and breeding from April 1 to October 31 (Monarch Joint Venture 2019). Monarch butterfly habitat requires suitable shelter from poor weather such as fallen logs and leaf litter; food from plants such as milkweed and other nectar plants to support them throughout the breeding season; and water within brief flying range (New Jersey Department of Environmental Protection 2017). Suitable breeding habitat requires all the same conditions but also their obligate milkweed host plant. In the fall, surviving monarch butterflies migrate from and through New Jersey to their respective overwintering sites which is generally in the mountains of central Mexico.

The Service recommends the following for monarch butterfly:

1. Avoid removing of or impacting suitable monarch habitat. If avoiding impacts to suitable monarch habitat is not possible, avoid impacts during times of year monarch's may be present from April 1 to October 31. Review the "Mowing and Management: Best Practices for Monarch's" handout at: <https://monarchjointventure.org/blog/revised-handout-mowing-and-management-best-practices-for-monarchs> to see if any other conservation measures are applicable to this project/can be implemented.
2. Review the conservation measures and descriptions included in Section VII of the "Monarch CCAA Application" that can be found at: <https://rightofway.erc.uic.edu/working-group-access/monarchccaatoolkit>. Although the Candidate Conservation Agreement for monarch butterfly is not applicable for this project, we recommend reviewing the application to help aid in the development of possible conservation measures.
3. Review the Services website at: <https://www.fws.gov/initiative/pollinators/monarchs> and the New Jersey Department of Environmental Protection's (NJDEP) (2017) Monarch Butterfly Conservation Guide for possible conservation measures to implement.

If future listing of the monarch butterfly occurs before or during project construction, the Service will likely recommend additional conservation measures.

SPECIES UNDER REVIEW FOR ENDANGERED SPECIES ACT LISTING

The little brown bat (*Myotis lucifugus*), wood turtle (*Glyptemys insculpta*) and spotted turtle (*Clemmys guttata*) are under review for listing per the ESA and may be present in the action area. Species under reviewed for listing do not receive any protections under the ESA, and the Service has not yet determined if listing for these three species is warranted. If these species are proposed for or listed per the ESA before or during project construction, potential delays/additional consultations may occur. As such, the DAF may wish to include them in any future effects analyses, to help avoid or minimize project delays if they are listed before or during project construction.

Since these species are not currently listed or proposed per the ESA, additional conservation measures may be recommended by the Service as more information is developed in the future. The National Listing workplan for Fiscal Years 2023-2027 can be found at: <https://www.fws.gov/project/national-listing-workplan> for more information on species listing timelines.

Little brown bat

The Service is reviewing the little brown bat to determine if the species warrants protections under the ESA, with a decision expected during Fiscal Years 2023 or 2024. The range of this species possibly includes the project area. To conserve the little brown bat, the Service will likely recommend similar/the same conservation measures for NLEB and TCB. Information about the little brown bat can be found on the Services website at: <https://www.fws.gov/species/little-brown-bat-myotis-lucifugus>.

Wood Turtle and Spotted Turtle

The Service is reviewing the wood turtle and spotted turtle to determine if the species warrant protections under the ESA, with a decision expected during Fiscal Year 2024. Potential habitat for these species may be present within the action area. The Service recommends that the DAF review the action area to determine if there is suitable habitat present. The Service recommends the following for these species:

1. For wood turtle: refer to “A guide to Habitat Management for Wood Turtles” document at <https://www.northeastturtles.org/wood-turtle.html>. The document provides a description of wood turtles and their habitat, as well as management guidelines/conservation measures if habitat is present. We recommend reviewing this document and any other applicable information to determine if suitable habitat is present and, if necessary, to develop conservation measures.
2. For spotted turtle: refer to the “Status Assessment and Conservation Plan for the Spotted Turtle in the Eastern United States” document at: <https://www.northeastturtles.org/spotted-turtle.html>. The document provides a description of spotted turtle and their habitat. We recommend reviewing this document and any other applicable information to determine if suitable habitat is present and, if necessary, to develop conservation measures.

MIGRATORY BIRD TREATY ACT

Native migratory birds are a Federal trust responsibility and are afforded protection under the MBTA. Currently, the MBTA has no provisions for allowing unauthorized take and there are no special permits for take of migratory birds available pursuant to 50 CFR Part 21. The proposed project includes installations that will likely introduce new lighting into areas where birds may be present. As such, the Service recommends that the DAF uses (as applicable) lighting that reduces adverse effects to migratory birds at night. For more information, please refer to Enclosure A – Beneficial Practices to Reduce the Potential Impact of Lighting on Migratory Birds.

Breeding birds may be present within the proposed installation development areas at the time of construction. Nests, eggs, and chicks are most at risk of being impacted by the proposed project since they are unable or unlikely to fly away from activities such as the proposed tree clearing. Birds such as the upland sandpiper (*Bartramia longicauda*) may also be breeding and nesting within grasslands, fields, and meadows that may be impacted by the proposed installations. The Service recommends that the DAF identifies project areas that have the potential to contain nests, eggs, and flightless migratory birds and develops conservation measures that protect them from being adversely impacted during March 15 to September 10. This may include conducting nest clearance surveys no more than five days prior to the proposed activities to ensure recently constructed nests, eggs, and flightless birds are identified. If present, the Service recommends avoiding work that could cause actions prohibited under the MBTA (such as the wounding, killing, trapping, capturing, or collecting of migratory birds and their nests or eggs) without prior

authorization by the Service. Additionally, regardless of time of year, if native migratory birds are present at the time of the proposed work, the Service recommends providing an opportunity for those birds to leave the area before work occurs.

The Service appreciates the opportunity to provide comments on the DAF's Installation Development Plan at JBMDL. We look forward to the opportunity to comment on documentation for further phases of the project. For further assistance or questions, please contact Michael Ciappi at michael_ciappi@fws.gov.

Sincerely,

Eric Schrading
Field Supervisor

Enclosures:

Enclosure A – Beneficial Practices to Reduce the Potential Impact of Lighting on Migratory Birds

cc:

Ross Conover, USFWS

Marc Virgilio, USFWS

REFERENCES:

Leput, D.W. 2004. Eastern red bat (*Lasiurus borealis*) and eastern pipistrelle (*Pipistrellus subflavus*) maternal roost selection: Implications for forest management. Master's Thesis Clemson University, Clemson, South Carolina.

Monarch Joint Venture. 2019. Mowing and Management: Best Practices for Monarchs. Available at: <https://monarchjointventure.org/blog/revised-handout-mowing-and-management-best-practices-for-monarchs>.

New Jersey Department of Environmental Protection. 2017. New Jersey Monarch Butterfly Conservation Guide. Available at: <https://www.nj.gov/dep/docs/monarch-guide.pdf>.

Enclosure A

**Beneficial Practices to Reduce the Potential Impact of Lighting on
Migratory Birds**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Migratory Bird Program

<https://www.fws.gov/program/migratory-birds>



May 12, 2023

Subject: Beneficial practices to reduce the potential impact of lighting on migratory birds

To Whom It May Concern:

The enclosed document identifies beneficial practices to reduce the potential adverse effects of artificial light at night on migratory birds. The U.S. Fish and Wildlife Service (Service) is the Federal agency delegated with the primary responsibility for managing migratory birds. Our authority derives from the Migratory Bird Treaty Act of 1918, as amended (MBTA; 16 U.S.C. 703 et seq.), which implements treaties with Canada, Mexico, Japan, and the Russian Federation. Migratory bird in 50 CFR 10.12 means “any bird, whatever its origin and whether or not raised in captivity, which belongs to a species listed in 50 CFR 10.13, or which is a mutation or a hybrid of any such species, including any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof.” The list of protected birds is maintained in regulation at 50 CFR 10.13 and includes over 1,000 species.

The Service interprets MBTA to prohibit incidental take of migratory birds and will enforce the statute accordingly (see <https://www.fws.gov/policy-library/do225>). Incidental take means the taking or killing of migratory birds that results from, but is not the purpose of, an activity. The Service recognizes that a wide range of activities may result in incidental take of migratory birds. Pursuing enforcement for all these activities would not be an effective or judicious use of our law enforcement resources. For that reason, the Service will focus our enforcement efforts on specific types of activities that both foreseeably cause incidental take and where the proponent fails to implement known beneficial practices to avoid or minimize incidental take. Our intention through this policy is to apply a transparent and consistent approach to managing and prioritizing our enforcement of incidental take, taking into account the case law applicable in a given jurisdiction and the facts and circumstances of each case.

- a. The following types of conduct are not a priority for enforcement:
 - (1) A member of the general public conducting otherwise legal activities that incidentally take migratory birds;
 - (2) A Federal agency conducting activities in accordance with a signed memorandum of understanding with the Service developed under Executive Order 13186 for the conservation of migratory birds; or
 - (3) A public- or private-sector entity conducting activities in accordance with applicable beneficial practices for avoiding and minimizing incidental take.

- b. The Service prioritizes the following types of conduct for enforcement:
 - (1) Incidental take that is the result of an otherwise illegal activity; or
 - (2) Incidental take that:
 - (i) results from activities by a public- or private-sector entity that are otherwise legal;
 - (ii) is foreseeable; and
 - (iii) occurs where known general or activity-specific beneficial practices were not implemented.

To better protect migratory bird populations and provide more certainty for the regulated public, the Service seeks to address human-caused mortality by providing information on beneficial practices to avoid and minimize the incidental injury and killing of migratory birds. Beneficial practice means an action implemented to avoid or minimize the incidental take of migratory birds. We also refer to beneficial practices as best management practices, conservation measures, best practices, mitigation measures, etc.

Artificial light at night can attract and disorient migratory birds, leading to exhaustion and collisions with humanmade structures such as buildings and communications towers. Under certain circumstances (*e.g.*, low cloud ceiling, precipitation, high migration passage rate), artificial light at night may contribute to mass mortality of nocturnally migrating birds. This risk may be significantly reduced or eliminated through informed design and operation of artificial lighting. Effective interventions include modifying lighting's angle/direction, timing, and color/wavelength. Please use the attached Service-provided beneficial practices as your guide for reducing risk of incidental take from lighting.

Attachment:

Incidental Take Beneficial Practices: Lighting

PROTECT OUR NIGHT SKIES

Using Bird-Conscious Lighting

Why We Should Protect Our Night Skies

The night sky is a resource that all people and wildlife, including birds, share. The cycle of day and night is important for the natural rhythms of all living things, promoting natural behavior, health, and well-being. For example, a dark sky is important for billions of birds to properly navigate their nighttime migrations. Artificial lighting at night (lighting), meaning light from sources created by people, may be helpful for security and increasing visibility when it is used well, to the extent it is needed, and when it illuminates only what is intended. However, lighting can attract large numbers of night-migrating birds from as far as 5 kilometers away. Birds can become entrapped in these areas of bright lights, circling endlessly, depleting energy stores needed for migration, and colliding with buildings and infrastructure. This phenomenon can be exaggerated on nights with low-cloud ceilings or foggy weather, when birds tend to migrate at lower altitudes and light reflecting on clouds is disorienting. Multiple mass-mortality events involving hundreds of birds have been documented associated with lighting at substations and other towers, buildings, and construction sites on foggy nights during migration.

Bird-conscious lighting is using lighting only where and when it is necessary and illuminating only the intended area. When lighting is necessary, the direction of the light, how long the light is on, the color of the light, and restricting light to the minimum required for safety can all help reduce lighting's negative effects. Below are voluntary approaches to reduce lighting, and we recommend special attention to reduce lighting on foggy nights at substations and other towers, buildings, and construction sites.

Spotlight on Practical and Easy Solutions

Use this step-by-step guide to adopt bird-conscious lighting and make our skies safer for birds.

Turn It Off

- If the lighting is not needed, consider turning it off permanently or see "Timing" below.
- Birds are at greater risk from lighting during spring and fall migration on cloudy nights. Consider if lighting can be temporarily turned off on cloudy nights April-May and August-October.
- If birds become entrapped in an area of bright light that cannot be turned off permanently, turning lights off for 15 to 20 minutes can allow birds to escape the disorienting light and return to normal behavior. If you are unsure whether birds are or will be entrapped, plan regular breaks in the lighting or implement timers (see below) to allow an opportunity for birds to escape.



Migrating birds become disoriented by lights and drawn into brightly lit areas where they can easily collide with structures, injuring or killing them.

To the left, you see an example of a shielded light, using amber light, which is less impactful to birds.



Timing

- Limit lighting to necessary times only.
- Use timers, dimmers, or motion sensors to turn lights on and off automatically and as needed.

Direction

- Turn off lights that face up into the sky or lights that illuminate the surrounding landscape.
- Avoid upward light scatter by shielding, selecting, or positioning lights where light is not emitted above the horizontal plane.
- Keep lighting as low to ground as possible, only illuminating necessary structures.



Illuminate paths as close to the ground as possible with shielded amber or red lights.

Color and Brightness

- Use amber, or "warmer", light that is less harmful for most species.
 - Warmer colors have longer wavelengths (≥ 560 nm) and lower correlated color temperatures ($\text{CCT} \leq 3000$ Kelvin degrees)
- Avoid using blue, white, or "cooler", light that is least favorable for birds and other wildlife.
 - Cooler colors have short wavelengths (< 560 nm) and higher correlated color temperatures ($\text{CCT} > 3000$ Kelvin degrees)
- Keep light as dim as possible or is necessary.

Benefits Of Bird-Consconscious Lighting

- Immediately effective
- Saves money through less infrastructure and lower energy consumption
- Increases visibility of night skies
- Helps preserve natural cycles important to the health of people, birds, and other wildlife

Additional Resources To Help You Preserve The Night Sky

- Learn when seasonal lighting restrictions can be most helpful to migrating birds: <https://birdcast.info/>
- More information about requirements to light tall structures is here: <https://www.faa.gov/faq/what-are-requirements-aircraft-warning-lights-tall-structures>, and Communication Tower lighting recommendations are here: <https://www.fws.gov/sites/default/files/documents/usfws-communication-tower-guidance.pdf>
- Illuminating Engineering Society. 2020. Lighting Practice: Environmental Considerations for Outdoor Lighting, An American National Standard. Illuminating Engineering Society, 120 Wall Street, New York, New York 10005.
- Guide for parking lot lighting: [ParkingLotLightingGuide.pdf \(rpi.edu\)](https://www.rpi.edu/ParkingLotLightingGuide.pdf)
- States with laws to reduce light pollution: <https://www.ncsl.org/environment-and-natural-resources/states-shut-out-light-pollution>
- Night sky friendly products (*these products can be considered bird-conscious when the voluntary approaches described above are used*): <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/>

Questions? Please contact your local Ecological Services Field Office or Regional Migratory Birds office for more information.

Using timers to turn lights off in office buildings is an effective and easy solution to keeping our night skies dark.

HOW TO IMPROVE YOUR LIGHTS

1. To adopt bird-conscious lighting, first evaluate individual or groups of lights wherever they occur, for example: buildings, parking lots, roadways, walkways, nighttime projects and construction, towers, and any supporting infrastructure. Evaluate lights for whether they are required, useful, or aesthetic. If you are in the design phase of the project, consider the questions below for outdoor and indoor lighting; if your project is already constructed, visit lit areas at nighttime and include visible indoor lighting in the evaluation. Below is an example data sheet for conducting an evaluation.

Location	Interior or Exterior	# of lights	Required or Useful (Y or N)	Aesthetic (Y or N)	Illuminating more than intended area (Y or N)	Steady burning (Y or N)	Color	Direction

2. Review the results of the evaluation using the if/then table below, create an action plan, and then implement the action plan.

if:	and:	then you should:
lighting is not required, useful, or aesthetic		turn the lighting off
lighting is required or useful	illuminating more than the intended area	physically adjust, shield, or lower exterior lighting and block interior lighting with blinds to only illuminate desired areas or switch to lower intensity or dimmer lighting
lighting is required or useful	steady-burning	use timers, dimmers, or motion sensors to turn lighting on/off as needed and turn lights off during spring and fall migration
lighting is required or useful	a 'colder' color (e.g., blue or white)	switch to warmer amber lighting (wavelength > 560 nm, color temperature < 3000 K)
lighting is required or useful	pointing upward (i.e., uplighting)	turn the lighting off during spring and fall migration or if this is not feasible, turn it off intermittently and during bad weather/low cloud ceiling
lighting is not required or useful but is aesthetic		discuss with the people using the lighting whether it can be turned off when not in use or made unnecessary by shifting activity from night to day



APPENDIX C
**Early Notice of Project Execution/
Agency Responses, NOA and Public/
Agency Responses**

Notice for Early Public Review of Proposed Actions in Wetlands and Floodplains

To: All Interested Agencies, Groups, and Individuals

The Department of the Air Force (DAF) proposes to conduct several projects that will involve disturbances in wetlands or floodplains at Joint Base McGuire-Dix-Lakehurst. The names and purposes are as follows:

- Construct Airfield Perimeter Road – ensure security, maintenance, and Bird/Animal Strike Hazard vehicles can safely drive along the perimeter fence
- Septic Tank Installation – support recreational activities in the hunting shacks by providing more sustainable sewage services at B696
- Construct Lakehurst Air Traffic Control Tower – provide the Lakehurst Airfield with an Air Traffic Control Tower that meets DAF standards
- Install Aerators in Two Ponds – reduce the effects of eutrophication to Lake of the Woods and Rainbow Pond
- Construct New Wells – support the full potable water needs for Joint Base McGuire-Dix-Lakehurst
- Berm Removal – restore previously existing habitat
- Lakehurst Main Gate Security Improvements – update the Lakehurst Main Gate to modern safety and security standards and to comply with antiterrorism/force protection standards

The projects are subject to the requirements and objectives of Executive Order (EO) 11990, Protection of Wetlands, and EO 11988, Floodplain Management, because they involve action in a floodplain or new construction in a wetland. This notice is required by EO 11990 and EO 11988 and has been prepared and made available to the public by the DAF in accordance with 32 Code of Federal Regulations Part 989.24(c) and Air Force Manual 32-7003, Environmental Conservation, for actions proposed in wetlands and floodplains. The DAF is preparing an Environmental Assessment in accordance with the National Environmental Policy Act and the DAF's Environmental Impact Analysis Process. The DAF will contact the U.S. Fish and Wildlife Service and the New Jersey Historic Preservation Officer, amongst other agencies, for their input on the Proposed Actions during the preparation of the Environmental Assessment as a part of the National Environmental Policy Act review process.

The Proposed Actions could disturb or be located within wetlands and floodplains. Under the proposed conditions, implementation of the projects have the following anticipated impacts to wetlands and/or floodplains:

- Construct Airfield Perimeter Road – Approximately 2 acres of permanent wetland impact and 2 acres of floodplain impact
- Septic Tank Installation – Approximately 20 square feet of permanent floodplain impact
- Construct Lakehurst Air Traffic Control Tower – based on the chosen alternative, there is the potential for up to 0.9 acres of permanent wetland impact and up to 1.1 acres of floodplain impact
- Install Aerators in Two Ponds – Approximately 40 square feet of permanent open water wetland impact
- Construct New Wells – Approximately 0.01 acres of permanent floodplain impact
- Berm Removal – Approximately 7 acres of temporary freshwater wetland impact and 8 acres of permanent state open water impact
- Lakehurst Main Gate Security Improvements – Approximately 140 square feet of permanent floodplain impact

The proposed projects would be designed to avoid and minimize wetland and floodplain impacts to the extent possible and are not expected to have an effect on flooding potential.

The DAF requests public comments to determine if there are any public concerns regarding the potential of the Proposed Actions to impact wetland and floodplains. The public comment period is from December 24, 2023 to January 23, 2024. Submit written comments to the 87th Air Base Wing Public Affairs Office, 2901 Falcon Lane, Suite 235, Joint Base McGuire-Dix-Lakehurst, New Jersey 08641 or via email at 87.abw.pa@us.af.mil.

Agency Responses to Early Notice of Project Execution

SCOTT K. TIRELLA, CHAIRMAN
EARL F. SUTTON, JR., VICE CHAIRMAN
JOSEPH H. VICARI, COMMISSIONER DIRECTOR
BARBARA JO CREA, COMMISSIONER
JOHN N. ERNST, COUNTY ENGINEER
JOSEPH BILOTTA
DENNIS LIBERATORE
ELAINE MCCRYSTAL
JOSEPH H. MARRA
JOHN P. KELLY, COMMISSIONER ALTERNATE
MARK JEHNKE, ENGINEERING ALTERNATE
ALAN W. AVERY, JR., ALTERNATE
DEBBIE BEYMAN, ALTERNATE



OCEAN COUNTY PLANNING BOARD

P O Box 2191
Toms River, New Jersey 08754-2191
Telephone (732) 929-2054
Fax (732) 244-8396

ANTHONY M. AGLIATA
PLANNING DIRECTOR

JOHN C. SAHRADNIK
COUNSEL

VERONICA TOMPKINS
ACTING SECRETARY

May 18, 2023

Ms. Christine Brunson
NEPA/EIAP Project Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

Re: Installation Development Projects at JBMDL

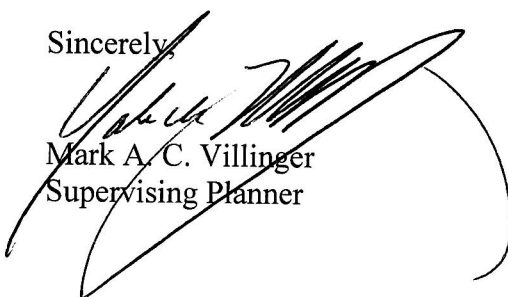
Dear Ms. Brunson,

Thank you for your letter and attached Final DOPAA for an Installation Development Plan (IDP) that is proposing 11 development projects which were identified as priorities for installation development in the 2014 IDP. The County is actively engaged in matters concerning the Joint Base and supporting its missions.

The County fully supports the improvement of the physical infrastructure of the Joint Base as it will support successful missions and allow for more economic opportunities. These projects will bring minimal negative impacts to the environment while improving the quality of life for our service members.

Based on our initial review of the IDP, we believe that the benefits from these development projects will outweigh any minimal impacts on the human environment, whether that be the natural or physical environment. If there is anything we can do to assist with this project, please contact me at (732) 929-2054.

Sincerely,


Mark A. C. Villinger
Supervising Planner

MVC/tpg

Printed on  Recycled Paper



SPECIAL ASSISTANCE/ACCOMMODATIONS UPON REQUEST.



PHILIP D. MURPHY
Governor
SHEILA Y. OLIVER
Lt. Governor

State of New Jersey
THE PINELANDS COMMISSION
PO Box 359
NEW LISBON, NJ 08064
(609) 894-7300
www.nj.gov/pinelands



LAURA E. MATOS
Chair
SUSAN R. GROGAN
Executive Director

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

May 25, 2023

Catherine Brunson (via email)
Department of the Air Force
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst NJ 08641

Re: Application # 1991-0820.129
Block 14, Lot 1
Block 15, Lot 1
Block 21, Lot 1
New Hanover Township
Block 23601, Lot 1
Jackson Township
Block 70, Lot 18
Manchester Township

Dear Ms. Brunson:

We have reviewed your May 1, 2023 letter regarding an Environmental Assessment for eleven individual development projects at Joint Base McGuire-Dix-Lakehurst.

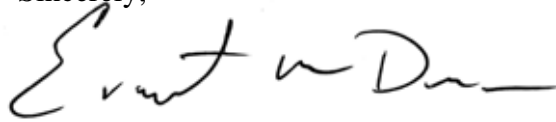
The Pinelands Comprehensive Management Plan (CMP) contains many land use and environmental standards. For example, the land use standards of the CMP require that, where feasible, development at military installations be located in that portion of the installation located within the Pinelands Protection Area and avoid the Pinelands Preservation Area District and Forest Area. Examples of CMP environmental standards include a prohibition on most development in wetlands and a required buffer to wetlands, the protection of threatened and endangered plants and animals, and stormwater management.

To discuss how these standards may relate to the proposed development, you may wish schedule a pre-application conference with our staff. During this conference, we can discuss the proposed development and advise of the specific standards of the CMP that appear to be of concern. There is no fee required for a pre-application conference.

Please note that the last development project listed in your letter, the removal of four berms to drain approximately 20 acres of surface water and restore native grasslands would be a violation of the wetland protection standards of the Pinelands Comprehensive Management Plan.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ernest M. Deman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Ernest M. Deman, CPM
Supervising Environmental Specialist

From: West-Rosenthal, Jesse [DEP] <Jesse.West-Rosenthal@dep.nj.gov>
Sent: Tuesday, July 11, 2023 10:36 AM
To: WHITE, SHARON D CIV USAF AMC 787 CES/CEIEA
Subject: [URL Verdict: Neutral][Non-DoD Source] Installation Development - Joint Base McGuire-Dix Lakehurst (HPO Project # 23-1249)

HPO Project # 23-1249-1
HPO-G2023-072

**Burlington and Ocean Counties
11 Installation Development Projects
Joint Base McGuire-Dix Lakehurst
United States Department of the Air Force**

Good Morning Sharon,

Thank you for providing the Historic Preservation Office (HPO) the opportunity to review and comment on the documentation prepared in support of the Environmental Assessment for 11 installation development projects at Joint Base McGuire-Dix-Lakehurst. According to the documentation submitted, each of the 11 proposed project will be analyzed as a discrete proposed action and as part of a larger Proposed Action of installation development at the facility. As a result, the HPO looks forward to further consultation with the Department of the Air Force, as each of the projects proceed, for the identification, evaluation, and treatment of historic properties within each project's area of potential effects, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and it's implementing regulations, 36 CFR § 800.

For future reference, the HPO has established a process by which external customers can submit review requests and documentation digitally to HPO staff via e-mail. Please note, this is the HPO's preferred method for receiving review requests. Current submission instructions and the required e-submittal form can be found at:

<https://www.nj.gov/dep/hpo/4sustain/info.htm>

Thank you again for providing this opportunity for review and comment on the potential for this project to affect historic and archaeological resources. Please reference the HPO project number **23-1249** in any future calls, emails, or written correspondence to help expedite your review and response. If you have any questions regarding archaeology please contact me at jesse.west-rosenthal@dep.nj.gov.

Take Care,
Jesse

Jesse West-Rosenthal, Ph.D.
Program Specialist 2
Historic Preservation Office
NJ Department of Environmental Protection
501 East State Street, Trenton, NJ 08625
jesse.west-rosenthal@dep.nj.gov
T (609) 984-6019 | F (609) 984-0578



**NEW JERSEY
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION**



NOTE: This E-mail is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521. This E-Mail and its contents, may be Privileged & Confidential due to the Attorney-Client Privilege, Attorney Work Product, and Deliberative Process or under the New Jersey Open Public Records Act. If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

Draft EA NOA/Public and Agency Responses



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Ms. Katelyn Lucas
 Historic Preservation Assistant
 Delaware Nation Historic Preservation Office
 2825 Fish Hatchery Road
 Allentown, PA 18103

FROM: Mr. Carl Champion
 Installation Tribal Liaison Officer
 Environmental Supervisor, 787th CES/CEIE
 Civil Engineering Squadron, Environmental Office
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development Environmental Assessment at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Ms. Lucas,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the DAF NEPA regulations, and conducting investigations pursuant to 54 United States Code (USC) § 306108 of the National Historic Preservation Act (NHPA) and 36 Code of Federal Regulations (CFR) Part 800 (Protection of Historic Properties). The purpose of the EA and cultural resources assessment is to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan, as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). NHPA consultation is being coordinated with the NEPA process. This letter serves to request your review of the Draft EA with appendices, and Draft Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA); give you an opportunity to review and comment on the project; and continue consultation with your office under 54 USC § 306108.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation activities. Each of the 11 proposed projects is analyzed as a discrete proposed action and as part of a larger Proposed Action of installation development at JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL..

LET'S GO!

- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.
- Demolish Air Traffic Control Facility B552: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities B1190 and B5280: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

Draft EA Review

The Draft EA describes the Proposed Action and alternatives, including the No-Action Alternative, and includes an analysis of potential environmental effects related to the action and alternatives. The Draft EA also includes a Proposed Action Location Map (Figure 2.1-1 of the Draft EA) and a set of figures that covers each of the 11 individual projects (Figures 2.3.1-1 to 2.3.1-7; Figures 2.3.2-1 and 2.3.2-2; and Figures 2.3.3-1 and 2.3.3-2 of the Draft EA).

Cultural Resources Recommendations

Pursuant to 54 USC § 306108 of the NHPA and in accordance with 36 CFR Part 800 (Protection of Historic Properties), the DAF would like to conduct government-to-government consultation to allow you or your designee the opportunity to identify any areas of religious and/or cultural significance that may be affected by this Proposed Action. This information will be used to determine whether there are any cultural resources present that are of tribal significance or that are eligible for listing in the National Register of Historic Places, and if so, whether the Proposed Action would cause adverse effects that must be addressed. As noted, the proposed Areas of Potential Effect (APE) include a 300-foot buffer to take into account potential visual effects. The APEs are further defined in Section 3.4 of the Draft EA. A breakdown of recommendations related to the disposition of potential historic properties as defined by the NHPA is as follows:

- Construct Airfield Perimeter Road Alternative C1-1 (Preferred): There are no known historic properties within the APE for Alternative C1-1. Much of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Airfield Perimeter Road Alternative C1-2: There are no known historic properties within the APE for Alternative C1-2. The northern portion of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct Lakehurst Air Traffic Control Tower Alternative C2-1 (Preferred): Alternative C2-1 proposes construction in a partially wooded area adjacent to a waterway. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. In addition, this alternative proposes tree clearing adjacent to the Lighter Than Air Historic District, which would require further architectural investigation to assess potential visual impacts to the district.

Construct Lakehurst Air Traffic Control Tower Alternative C2-2: Alternative C2-2 proposes construction in a partially wooded area and tree clearing. Portions of the project area have been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Lakehurst Air Traffic Control Tower Alternative C2-3: Alternative C2-3 proposes construction in a partially wooded, undisturbed area. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct New 144-Bed Dormitory Preferred Alternative C3: There are no known historic properties within the APE or within 0.5 miles (mi) for Project C3. The proposed building is in a developed area with a low probability for intact archaeological deposits, as the location had multiple buildings on site as recently as 2013. No impacts to historic properties are anticipated.
- Addition to Combat Arms Training and Maintenance Facility Preferred Alternative C4: There are no known historic properties within the APE for Project C4. While in a developed area, the project is located in a High Archaeological Sensitivity Area, according to JB MDL data. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.
- Construct New Wells Preferred Alternative C5: Project C5 proposes construction in two grass-covered locations in the Dix area, one south of 1st Street West near Pennsylvania Avenue and another north of Lewistown Road at Montpelier Street. The Lewistown Road location has been previously surveyed for archaeology. Both are in developed areas and neither is located in a High Archaeological Sensitivity Area, according to JB MDL data. No impacts to historic properties are anticipated.

- Installation of Aerators in Ponds Preferred Alternative C6: There are no known historic properties within the APE for Project C6. The Dix area pond location has been previously surveyed for archaeology. The Lakehurst area pond location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within those areas identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Installation of a Septic System Preferred Alternative C7: There are no known historic properties within the APE for Project C7. The location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Demolish Air Traffic Control Facility B552 Preferred Alternative D1: There are no known historic properties within the APE for Project D1. The proposed demolition is in a developed, concrete-paved area. No impacts to historic properties are anticipated.
- Demolish Well Facilities B1190 and B5280 Preferred Alternative D2: There are no known historic properties within the APE for Project D2. The proposed demolition is in a developed, disturbed area. No impacts to historic properties are anticipated.
- Lakehurst Main Gate Security Improvements Preferred Alternative R1: Project R1 is in a developed, largely concrete-paved area with a low probability for intact archaeological deposits. The project area has been previously surveyed for built resources. Hangar No.1, a National Historic Landmark and NRHP-listed historic property, is adjacent to Project R1, as is the Lighter-Than-Air Historic District. Therefore, the project would require further architectural investigation to assess potential visual impacts.
- Berm Removal Preferred Alternative R2: Due to the nature of the berms (artificial landforms installed in the late 1970s), no impacts to historic properties are anticipated.

In each case, even if no further cultural resources-related work is recommended, in the event that archaeological deposits are inadvertently discovered during construction, DAF would suspend work, secure the site, and notify the New Jersey Historic Preservation Office and federally recognized Tribes, as applicable.

Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Electronic versions of the documents for your review are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

Please be assured that, in accordance with confidentiality and disclosure stipulations in 54 USC § 307103 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties. We also will continue to consult with your office under 54 USC § 306108 of the NHPA if project parameters change in a manner that may impact cultural resources. Your feedback is important and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation.

If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at carl.champion.1@us.af.mil. Thank you in advance for your participation.

Sincerely,

CHAMPION.CARL
.E.JR.1186038602

Digitally signed by
CHAMPION.CARL.E.JR.1186038
602
Date: 2023.12.15 08:33:05
-05'00'

CARL CHAMPION, DAF
Installation Tribal Liaison Officer



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Ms. Carissa Speck
 Historic Preservation Director
 Delaware Nation
 PO Box 825
 Anadarko, OK 73005

FROM: Mr. Carl Champion
 Installation Tribal Liaison Officer
 Environmental Supervisor, 787th CES/CEIE
 Civil Engineering Squadron, Environmental Office
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development Environmental Assessment at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Ms. Speck,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the DAF NEPA regulations, and conducting investigations pursuant to 54 United States Code (USC) § 306108 of the National Historic Preservation Act (NHPA) and 36 Code of Federal Regulations (CFR) Part 800 (Protection of Historic Properties). The purpose of the EA and cultural resources assessment is to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan, as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). NHPA consultation is being coordinated with the NEPA process. This letter serves to request your review of the Draft EA with appendices, and Draft Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA); give you an opportunity to review and comment on the project; and continue consultation with your office under 54 USC § 306108.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation activities. Each of the 11 proposed projects is analyzed as a discrete proposed action and as part of a larger Proposed Action of installation development at JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL..

LET'S GO!

- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.
- Demolish Air Traffic Control Facility B552: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities B1190 and B5280: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

Draft EA Review

The Draft EA describes the Proposed Action and alternatives, including the No-Action Alternative, and includes an analysis of potential environmental effects related to the action and alternatives. The Draft EA also includes a Proposed Action Location Map (Figure 2.1-1 of the Draft EA) and a set of figures that covers each of the 11 individual projects (Figures 2.3.1-1 to 2.3.1-7; Figures 2.3.2-1 and 2.3.2-2; and Figures 2.3.3-1 and 2.3.3-2 of the Draft EA).

Cultural Resources Recommendations

Pursuant to 54 USC § 306108 of the NHPA and in accordance with 36 CFR Part 800 (Protection of Historic Properties), the DAF would like to conduct government-to-government consultation to allow you or your designee the opportunity to identify any areas of religious and/or cultural significance that may be affected by this Proposed Action. This information will be used to determine whether there are any cultural resources present that are of tribal significance or that are eligible for listing in the National Register of Historic Places, and if so, whether the Proposed Action would cause adverse effects that must be addressed. As noted, the proposed Areas of Potential Effect (APE) include a 300-foot buffer to take into account potential visual effects. The APEs are further defined in Section 3.4 of the Draft EA. A breakdown of recommendations related to the disposition of potential historic properties as defined by the NHPA is as follows:

- Construct Airfield Perimeter Road Alternative C1-1 (Preferred): There are no known historic properties within the APE for Alternative C1-1. Much of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Airfield Perimeter Road Alternative C1-2: There are no known historic properties within the APE for Alternative C1-2. The northern portion of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct Lakehurst Air Traffic Control Tower Alternative C2-1 (Preferred): Alternative C2-1 proposes construction in a partially wooded area adjacent to a waterway. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. In addition, this alternative proposes tree clearing adjacent to the Lighter Than Air Historic District, which would require further architectural investigation to assess potential visual impacts to the district.

Construct Lakehurst Air Traffic Control Tower Alternative C2-2: Alternative C2-2 proposes construction in a partially wooded area and tree clearing. Portions of the project area have been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Lakehurst Air Traffic Control Tower Alternative C2-3: Alternative C2-3 proposes construction in a partially wooded, undisturbed area. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct New 144-Bed Dormitory Preferred Alternative C3: There are no known historic properties within the APE or within 0.5 miles (mi) for Project C3. The proposed building is in a developed area with a low probability for intact archaeological deposits, as the location had multiple buildings on site as recently as 2013. No impacts to historic properties are anticipated.
- Addition to Combat Arms Training and Maintenance Facility Preferred Alternative C4: There are no known historic properties within the APE for Project C4. While in a developed area, the project is located in a High Archaeological Sensitivity Area, according to JB MDL data. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.
- Construct New Wells Preferred Alternative C5: Project C5 proposes construction in two grass-covered locations in the Dix area, one south of 1st Street West near Pennsylvania Avenue and another north of Lewistown Road at Montpelier Street. The Lewistown Road location has been previously surveyed for archaeology. Both are in developed areas and neither is located in a High Archaeological Sensitivity Area, according to JB MDL data. No impacts to historic properties are anticipated.

- Installation of Aerators in Ponds Preferred Alternative C6: There are no known historic properties within the APE for Project C6. The Dix area pond location has been previously surveyed for archaeology. The Lakehurst area pond location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within those areas identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Installation of a Septic System Preferred Alternative C7: There are no known historic properties within the APE for Project C7. The location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Demolish Air Traffic Control Facility B552 Preferred Alternative D1: There are no known historic properties within the APE for Project D1. The proposed demolition is in a developed, concrete-paved area. No impacts to historic properties are anticipated.
- Demolish Well Facilities B1190 and B5280 Preferred Alternative D2: There are no known historic properties within the APE for Project D2. The proposed demolition is in a developed, disturbed area. No impacts to historic properties are anticipated.
- Lakehurst Main Gate Security Improvements Preferred Alternative R1: Project R1 is in a developed, largely concrete-paved area with a low probability for intact archaeological deposits. The project area has been previously surveyed for built resources. Hangar No.1, a National Historic Landmark and NRHP-listed historic property, is adjacent to Project R1, as is the Lighter-Than-Air Historic District. Therefore, the project would require further architectural investigation to assess potential visual impacts.
- Berm Removal Preferred Alternative R2: Due to the nature of the berms (artificial landforms installed in the late 1970s), no impacts to historic properties are anticipated.

In each case, even if no further cultural resources-related work is recommended, in the event that archaeological deposits are inadvertently discovered during construction, DAF would suspend work, secure the site, and notify the New Jersey Historic Preservation Office and federally recognized Tribes, as applicable.

Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Electronic versions of the documents for your review are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

Please be assured that, in accordance with confidentiality and disclosure stipulations in 54 USC § 307103 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties. We also will continue to consult with your office under 54 USC § 306108 of the NHPA if project parameters change in a manner that may impact cultural resources. Your feedback is important and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation.

If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at carl.champion.1@us.af.mil. Thank you in advance for your participation.

Sincerely,

CHAMPION.CARL
.EJR.1186038602

Digitally signed by
CHAMPION.CARL.EJR.11860386
02
Date: 2023.12.15 08:38:55
-05'00'

CARL CHAMPION, DAF
Installation Tribal Liaison Officer



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Ms. Susan Bachor
 Delaware Tribe Historic Preservation
 Pennsylvania Office
 PO Box 64
 Pocono Lake, PA 1834

FROM: Mr. Carl Champion
 Installation Tribal Liaison Officer
 Environmental Supervisor, 787th CES/CEIE
 Civil Engineering Squadron, Environmental Office
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development Environmental Assessment at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Ms. Bachor,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the DAF NEPA regulations, and conducting investigations pursuant to 54 United States Code (USC) § 306108 of the National Historic Preservation Act (NHPA) and 36 Code of Federal Regulations (CFR) Part 800 (Protection of Historic Properties). The purpose of the EA and cultural resources assessment is to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan, as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). NHPA consultation is being coordinated with the NEPA process. This letter serves to request your review of the Draft EA with appendices, and Draft Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA); give you an opportunity to review and comment on the project; and continue consultation with your office under 54 USC § 306108.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation activities. Each of the 11 proposed projects is analyzed as a discrete proposed action and as part of a larger Proposed Action of installation development at JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL..

LET'S GO!

- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.
- Demolish Air Traffic Control Facility B552: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities B1190 and B5280: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

Draft EA Review

The Draft EA describes the Proposed Action and alternatives, including the No-Action Alternative, and includes an analysis of potential environmental effects related to the action and alternatives. The Draft EA also includes a Proposed Action Location Map (Figure 2.1-1 of the Draft EA) and a set of figures that covers each of the 11 individual projects (Figures 2.3.1-1 to 2.3.1-7; Figures 2.3.2-1 and 2.3.2-2; and Figures 2.3.3-1 and 2.3.3-2 of the Draft EA).

Cultural Resources Recommendations

Pursuant to 54 USC § 306108 of the NHPA and in accordance with 36 CFR Part 800 (Protection of Historic Properties), the DAF would like to conduct government-to-government consultation to allow you or your designee the opportunity to identify any areas of religious and/or cultural significance that may be affected by this Proposed Action. This information will be used to determine whether there are any cultural resources present that are of tribal significance or that are eligible for listing in the National Register of Historic Places, and if so, whether the Proposed Action would cause adverse effects that must be addressed. As noted, the proposed Areas of Potential Effect (APE) include a 300-foot buffer to take into account potential visual effects. The APEs are further defined in Section 3.4 of the Draft EA. A breakdown of recommendations related to the disposition of potential historic properties as defined by the NHPA is as follows:

- Construct Airfield Perimeter Road Alternative C1-1 (Preferred): There are no known historic properties within the APE for Alternative C1-1. Much of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Airfield Perimeter Road Alternative C1-2: There are no known historic properties within the APE for Alternative C1-2. The northern portion of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct Lakehurst Air Traffic Control Tower Alternative C2-1 (Preferred): Alternative C2-1 proposes construction in a partially wooded area adjacent to a waterway. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. In addition, this alternative proposes tree clearing adjacent to the Lighter Than Air Historic District, which would require further architectural investigation to assess potential visual impacts to the district.

Construct Lakehurst Air Traffic Control Tower Alternative C2-2: Alternative C2-2 proposes construction in a partially wooded area and tree clearing. Portions of the project area have been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Lakehurst Air Traffic Control Tower Alternative C2-3: Alternative C2-3 proposes construction in a partially wooded, undisturbed area. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct New 144-Bed Dormitory Preferred Alternative C3: There are no known historic properties within the APE or within 0.5 miles (mi) for Project C3. The proposed building is in a developed area with a low probability for intact archaeological deposits, as the location had multiple buildings on site as recently as 2013. No impacts to historic properties are anticipated.
- Addition to Combat Arms Training and Maintenance Facility Preferred Alternative C4: There are no known historic properties within the APE for Project C4. While in a developed area, the project is located in a High Archaeological Sensitivity Area, according to JB MDL data. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.
- Construct New Wells Preferred Alternative C5: Project C5 proposes construction in two grass-covered locations in the Dix area, one south of 1st Street West near Pennsylvania Avenue and another north of Lewistown Road at Montpelier Street. The Lewistown Road location has been previously surveyed for archaeology. Both are in developed areas and neither is located in a High Archaeological Sensitivity Area, according to JB MDL data. No impacts to historic properties are anticipated.

- Installation of Aerators in Ponds Preferred Alternative C6: There are no known historic properties within the APE for Project C6. The Dix area pond location has been previously surveyed for archaeology. The Lakehurst area pond location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within those areas identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Installation of a Septic System Preferred Alternative C7: There are no known historic properties within the APE for Project C7. The location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Demolish Air Traffic Control Facility B552 Preferred Alternative D1: There are no known historic properties within the APE for Project D1. The proposed demolition is in a developed, concrete-paved area. No impacts to historic properties are anticipated.
- Demolish Well Facilities B1190 and B5280 Preferred Alternative D2: There are no known historic properties within the APE for Project D2. The proposed demolition is in a developed, disturbed area. No impacts to historic properties are anticipated.
- Lakehurst Main Gate Security Improvements Preferred Alternative R1: Project R1 is in a developed, largely concrete-paved area with a low probability for intact archaeological deposits. The project area has been previously surveyed for built resources. Hangar No.1, a National Historic Landmark and NRHP-listed historic property, is adjacent to Project R1, as is the Lighter-Than-Air Historic District. Therefore, the project would require further architectural investigation to assess potential visual impacts.
- Berm Removal Preferred Alternative R2: Due to the nature of the berms (artificial landforms installed in the late 1970s), no impacts to historic properties are anticipated.

In each case, even if no further cultural resources-related work is recommended, in the event that archaeological deposits are inadvertently discovered during construction, DAF would suspend work, secure the site, and notify the New Jersey Historic Preservation Office and federally recognized Tribes, as applicable.

Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Electronic versions of the documents for your review are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

Please be assured that, in accordance with confidentiality and disclosure stipulations in 54 USC § 307103 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties. We also will continue to consult with your office under 54 USC § 306108 of the NHPA if project parameters change in a manner that may impact cultural resources. Your feedback is important and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation.

If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at carl.champion.1@us.af.mil. Thank you in advance for your participation.

Sincerely,

CHAMPION.CARL
.E.JR.1186038602



Digitally signed by
CHAMPION.CARL.E.JR.1186038
602
Date: 2023.12.15 08:40:04
-05'00'

CARL CHAMPION, DAF
Installation Tribal Liaison Officer



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Katherin Marcopul, Administrator
New Jersey Department of Environmental Protection
Historic Preservation Office
PO Box 420
Trenton, NJ 08625-0420

FROM: Dr. Sharon D. White
JB MDL Cultural Resources Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development Environmental Assessment at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Dr. Marcopul,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the DAF NEPA regulations, and conducting investigations pursuant to 54 United States Code (USC) § 306108 of the National Historic Preservation Act (NHPA) and 36 Code of Federal Regulations (CFR) Part 800 (Protection of Historic Properties). The purpose of the EA and cultural resources assessment is to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan, as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). NHPA consultation is being coordinated with the NEPA process. This letter serves to request your review of the Draft EA with appendices, and Draft Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA); give you an opportunity to review and comment on the project; and continue consultation with your office under 54 USC § 306108.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation activities. Each of the 11 proposed projects is analyzed as a discrete proposed action and as part of a larger Proposed Action of installation development at JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.

LET'S GO!

- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.
- Demolish Air Traffic Control Facility B552: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities B1190 and B5280: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

Draft EA Review

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and the DAF's decision on whether to sign the FONSI/FONPA.

The Draft EA describes the Proposed Action and alternatives, including the No-Action Alternative, and includes an analysis of potential environmental effects related to the action and alternatives. The Draft EA also includes a Proposed Action Location Map (Figure 2.1-1 of the Draft EA) and a set of figures that covers each of the 11 individual projects, including the proposed project area and locations of historic districts, where applicable (Figures 2.3.1-1 to 2.3.1-7; Figures 2.3.2-1 and 2.3.2-2; and Figures 2.3.3-1 and 2.3.3-2 of the Draft EA).

Cultural Resources Recommendations

Pursuant to 54 USC § 306108 of the NHPA and in accordance with 36 CFR Part 800 (Protection of Historic Properties), the DAF would like to initiate consultation concerning the Proposed Action and individual projects to allow you the opportunity to provide comments, concerns, and/or suggestions you might have. As noted, the proposed Areas of Potential Effect (APE) include a 300-foot buffer to take into account potential visual effects. The APEs are further defined in Section 3.4 of the Draft EA. A breakdown of recommendations related to the disposition of potential historic properties as defined by the NHPA is as follows:

- Construct Airfield Perimeter Road Alternative C1-1 (Preferred): There are no known historic properties within the APE for Alternative C1-1. Much of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High

Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Airfield Perimeter Road Alternative C1-2: There are no known historic properties within the APE for Alternative C1-2. The northern portion of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct Lakehurst Air Traffic Control Tower Alternative C2-1 (Preferred): Alternative C2-1 proposes construction in a partially wooded area adjacent to a waterway. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. In addition, this alternative proposes tree clearing adjacent to the Lighter Than Air Historic District, which would require further architectural investigation to assess potential visual impacts to the district.

Construct Lakehurst Air Traffic Control Tower Alternative C2-2: Alternative C2-2 proposes construction in a partially wooded area and tree clearing. Portions of the project area have been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Lakehurst Air Traffic Control Tower Alternative C2-3: Alternative C2-3 proposes construction in a partially wooded, undisturbed area. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct New 144-Bed Dormitory Preferred Alternative C3: There are no known historic properties within the APE or within 0.5 miles (mi) for Project C3. The proposed building is in a developed area with a low probability for intact archaeological deposits, as the location had multiple buildings on site as recently as 2013. No impacts to historic properties are anticipated.
- Addition to Combat Arms Training and Maintenance Facility Preferred Alternative C4: There are no known historic properties within the APE for Project C4. While in a developed area, the project is located in a High Archaeological Sensitivity Area, according to JB MDL data. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.
- Construct New Wells Preferred Alternative C5: Project C5 proposes construction in two grass-covered locations in the Dix area, one south of 1st Street West near Pennsylvania Avenue and another north of Lewistown Road at Montpelier Street. The Lewistown Road location has been previously surveyed for archaeology. Both are in developed areas and neither is located in a High

Archaeological Sensitivity Area, according to JB MDL data. No impacts to historic properties are anticipated.

- Installation of Aerators in Ponds Preferred Alternative C6: There are no known historic properties within the APE for Project C6. The Dix area pond location has been previously surveyed for archaeology. The Lakehurst area pond location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Installation of a Septic System Preferred Alternative C7: There are no known historic properties within the APE for Project C7. The location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within those areas identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Demolish Air Traffic Control Facility B552 Preferred Alternative D1: There are no known historic properties within the APE for Project D1. The proposed demolition is in a developed, concrete-paved area. No impacts to historic properties are anticipated.
- Demolish Well Facilities B1190 and B5280 Preferred Alternative D2: There are no known historic properties within the APE for Project D2. The proposed demolition is in a developed, disturbed area. No impacts to historic properties are anticipated.
- Lakehurst Main Gate Security Improvements Preferred Alternative R1: Project R1 is in a developed, largely concrete-paved area with a low probability for intact archaeological deposits. The project area has been previously surveyed for built resources. Hangar No.1, a National Historic Landmark and NRHP-listed historic property, is adjacent to Project R1, as is the Lighter-Than-Air Historic District. Therefore, the project would require further architectural investigation to assess potential visual impacts.
- Berm Removal Preferred Alternative R2: Due to the nature of the berms (artificial landforms installed in the late 1970s), no impacts to historic properties are anticipated.

In each case, even if no further cultural resources-related work is recommended, in the event that archaeological deposits are inadvertently discovered during construction, DAF would suspend work, secure the site, and notify the New Jersey Historic Preservation Office and federally recognized Tribes, as applicable.

Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Electronic versions of the documents for your review are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

Please be assured that, in accordance with confidentiality and disclosure stipulations in 54 USC § 307103 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties. We also will continue to consult with your office under 54 USC § 306108 of the NHPA if project parameters change in a manner that may impact cultural resources. Your feedback is important and a

response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation.

If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at sharon.white.7@us.af.mil. Thank you in advance for your participation.

Sincerely,

WHITE.SHARON
.D.1567708388

Digitally signed by
WHITE.SHARON.D.1567708388
Date: 2023.12.15 10:30:18
-05'00'

DR. SHARON D. WHITE, DAF
JB MDL, Cultural Resources Manager



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Sara Cureton, Executive Director
New Jersey Historical Commission
225 West State Street
PO Box 305
Trenton, NJ 08625

FROM: Dr. Sharon D. White
JB MDL Cultural Resources Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development Environmental Assessment at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Ms. Cureton,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the DAF NEPA regulations, and conducting investigations pursuant to 54 United States Code (USC) § 306108 of the National Historic Preservation Act (NHPA) and 36 Code of Federal Regulations (CFR) Part 800 (Protection of Historic Properties). The purpose of the EA and cultural resources assessment is to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan, as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). NHPA consultation is being coordinated with the NEPA process. This letter serves to request your review of the Draft EA with appendices, and Draft Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA); give you an opportunity to review and comment on the project; and continue consultation with your office under 54 USC § 306108.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation activities. Each of the 11 proposed projects is analyzed as a discrete proposed action and as part of a larger Proposed Action of installation development at JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.

LET'S GO!

- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.
- Demolish Air Traffic Control Facility B552: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities B1190 and B5280: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

Draft EA Review

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and the DAF's decision on whether to sign the FONSI/FONPA.

The Draft EA describes the Proposed Action and alternatives, including the No-Action Alternative, and includes an analysis of potential environmental effects related to the action and alternatives. The Draft EA also includes a Proposed Action Location Map (Figure 2.1-1 of the Draft EA) and a set of figures that covers each of the 11 individual projects, including the proposed project area and locations of historic districts, where applicable (Figures 2.3.1-1 to 2.3.1-7; Figures 2.3.2-1 and 2.3.2-2; and Figures 2.3.3-1 and 2.3.3-2 of the Draft EA).

Cultural Resources Recommendations

Pursuant to 54 USC § 306108 of the NHPA and in accordance with 36 CFR Part 800 (Protection of Historic Properties), the DAF would like to initiate consultation concerning the Proposed Action and individual projects to allow you the opportunity to provide comments, concerns, and/or suggestions you might have. As noted, the proposed Areas of Potential Effect (APE) include a 300-foot buffer to take into account potential visual effects. The APEs are further defined in Section 3.4 of the Draft EA. A breakdown of recommendations related to the disposition of potential historic properties as defined by the NHPA is as follows:

- Construct Airfield Perimeter Road Alternative C1-1 (Preferred): There are no known historic properties within the APE for Alternative C1-1. Much of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High

Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Airfield Perimeter Road Alternative C1-2: There are no known historic properties within the APE for Alternative C1-2. The northern portion of the project area has been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct Lakehurst Air Traffic Control Tower Alternative C2-1 (Preferred): Alternative C2-1 proposes construction in a partially wooded area adjacent to a waterway. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. In addition, this alternative proposes tree clearing adjacent to the Lighter Than Air Historic District, which would require further architectural investigation to assess potential visual impacts to the district.

Construct Lakehurst Air Traffic Control Tower Alternative C2-2: Alternative C2-2 proposes construction in a partially wooded area and tree clearing. Portions of the project area have been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

Construct Lakehurst Air Traffic Control Tower Alternative C2-3: Alternative C2-3 proposes construction in a partially wooded, undisturbed area. The location has not been previously surveyed for archaeology. JB MDL data indicate portions of the project are located in High Archaeological Sensitivity Areas. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.

- Construct New 144-Bed Dormitory Preferred Alternative C3: There are no known historic properties within the APE or within 0.5 miles (mi) for Project C3. The proposed building is in a developed area with a low probability for intact archaeological deposits, as the location had multiple buildings on site as recently as 2013. No impacts to historic properties are anticipated.
- Addition to Combat Arms Training and Maintenance Facility Preferred Alternative C4: There are no known historic properties within the APE for Project C4. While in a developed area, the project is located in a High Archaeological Sensitivity Area, according to JB MDL data. Based on design plans, further archaeological investigation would be required within those areas identified as High Archaeological Sensitivity Areas. No impacts to architectural historic properties are anticipated.
- Construct New Wells Preferred Alternative C5: Project C5 proposes construction in two grass-covered locations in the Dix area, one south of 1st Street West near Pennsylvania Avenue and another north of Lewistown Road at Montpelier Street. The Lewistown Road location has been previously surveyed for archaeology. Both are in developed areas and neither is located in a High

Archaeological Sensitivity Area, according to JB MDL data. No impacts to historic properties are anticipated.

- Installation of Aerators in Ponds Preferred Alternative C6: There are no known historic properties within the APE for Project C6. The Dix area pond location has been previously surveyed for archaeology. The Lakehurst area pond location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within the area identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Installation of a Septic System Preferred Alternative C7: There are no known historic properties within the APE for Project C7. The location has not been previously surveyed for archaeology and is within a High Archaeological Sensitivity Area, according to JB MDL data. Based on the proposed work, further archaeological investigation would be required within those areas identified as a High Archaeological Sensitivity Area. No impacts to architectural historic properties are anticipated.
- Demolish Air Traffic Control Facility B552 Preferred Alternative D1: There are no known historic properties within the APE for Project D1. The proposed demolition is in a developed, concrete-paved area. No impacts to historic properties are anticipated.
- Demolish Well Facilities B1190 and B5280 Preferred Alternative D2: There are no known historic properties within the APE for Project D2. The proposed demolition is in a developed, disturbed area. No impacts to historic properties are anticipated.
- Lakehurst Main Gate Security Improvements Preferred Alternative R1: Project R1 is in a developed, largely concrete-paved area with a low probability for intact archaeological deposits. The project area has been previously surveyed for built resources. Hangar No.1, a National Historic Landmark and NRHP-listed historic property, is adjacent to Project R1, as is the Lighter-Than-Air Historic District. Therefore, the project would require further architectural investigation to assess potential visual impacts.
- Berm Removal Preferred Alternative R2: Due to the nature of the berms (artificial landforms installed in the late 1970s), no impacts to historic properties are anticipated.

In each case, even if no further cultural resources-related work is recommended, in the event that archaeological deposits are inadvertently discovered during construction, DAF would suspend work, secure the site, and notify the New Jersey Historic Preservation Office and federally recognized Tribes, as applicable.

Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Pursuant to 36 CFR § 800.3, DAF is seeking your input on this project. Electronic versions of the documents for your review are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

Please be assured that, in accordance with confidentiality and disclosure stipulations in 54 USC § 307103 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties. We also will continue to consult with your office under 54 USC § 306108 of the NHPA if project parameters change in a manner that may impact cultural resources. Your feedback is important and a

response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation.

If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at sharon.white.7@us.af.mil. Thank you in advance for your participation.

Sincerely,

WHITE.SHARON
.D.1567708388

Digitally signed by
WHITE.SHARON.D.1567708388
Date: 2023.12.15 10:30:46
-05'00'

DR. SHARON D. WHITE, DAF
JB MDL, Cultural Resources Manager



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Mary Pat Robbie, Director
 Burlington County Department of Resource Conservation
 PO Box 6000
 Mount Holly, NJ 08060

FROM: Ms. Catherine Brunson
 NEPA/EIAP Project Manager
 787 CES/CEIEA
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean
 Counties, New Jersey

Dear Ms. Robbie,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C
ATHERINE.E
1091059890
CATHERINE BRUNSON, DAF
JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
.E.1091059890
Date: 2023.12.15
09:26:48 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Joseph Brickley, Director of Public Works
Burlington Department of Planning
49 Rancocas Road
PO Box 6000
Mount Holly, NJ 08060

FROM: Ms. Catherine Brunson
NEPA/EIAP Project Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Mr. Brickley,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C
ATHERINE.E
1091059890
CATHERINE BRUNSON, DAF
JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
.E.1091059890
Date: 2023.12.15
09:30:03 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Robert Reitmeyer, District Manager
 Burlington County Soil Conservation District
 1971 Jacksonville-Jobstown Road
 Columbus, NJ 08022

FROM: Ms. Catherine Brunson
 NEPA/EIAP Project Manager
 787 CES/CEIEA
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean
 Counties, New Jersey

Dear Mr. Reitmeyer,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C Digitally signed by
ATHERINE.E. BRUNSON.CATHERIN
1091059890 E.E.1091059890
 Date: 2023.12.15
 09:30:31 -05'00'

CATHERINE BRUNSON, DAF
 JB MDL, NEPA/EIAP Project Manager



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR New Jersey Division of Fish and Wildlife
 Endangered and Nongame Species Office
 Mail Code 501-03
 PO Box 420
 Trenton, NJ 08625-0420

FROM: Ms. Catherine Brunson
 NEPA/EIAP Project Manager
 787 CES/CEIEA
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean
 Counties, New Jersey

Attn: Endangered and Nongame Species Program Consultation,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C
ATHERINE.E
1091059890
CATHERINE BRUNSON, DAF
JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
E.E.1091059890
Date: 2023.12.15
09:31:02 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Susan Grogan, Executive Director
New Jersey Pinelands Commission
PO Box 359
15 Springfield Road
New Lisbon, NJ 08064

FROM: Ms. Catherine Brunson
NEPA/EIAP Project Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Ms. Grogan,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C
ATHERINE.E.
1091059890

Digitally signed by
BRUNSON.CATHERIN
E.E.1091059890
Date: 2023.12.15
09:31:32 -05'00'

CATHERINE BRUNSON, DAF
JB MDL, NEPA/EIAP Project Manager



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Dave Pepe and Katie Nolan
New Jersey Office of Permitting and Navigation
401 East State Street
Mail Code 401-07J
PO Box 420
Trenton, NJ 08625

FROM: Ms. Catherine Brunson
NEPA/EIAP Project Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Mr. Pepe and Ms. Nolan,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C

ATHERINE.E.

1091059890

CATHERINE BRUNSON, DAF

JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
E.E.1091059890
Date: 2023.12.15
09:32:14 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Anthony Agliata, Planning Director
 Ocean County Department of Planning
 129 Hooper Avenue
 PO Box 2191
 Tons River, NJ 08754-2191

FROM: Ms. Catherine Brunson
 NEPA/EIAP Project Manager
 787 CES/CEIEA
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean
 Counties, New Jersey

Dear Mr. Agliata,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C

ATHERINE.E

1091059890

CATHERINE BRUNSON, DAF

JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERI
NE.E.1091059890
Date: 2023.12.15
09:32:46 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Christine Raabe, Director
 Ocean County Soil Conservation District
 714 Lacey Road
 Forked River, NJ 08731

FROM: Ms. Catherine Brunson
 NEPA/EIAP Project Manager
 787 CES/CEIEA
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean
 Counties, New Jersey

Dear Ms. Raabe,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C

ATHERINE.E.

1091059890

CATHERINE BRUNSON, DAF

JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
E.E.1091059890
Date: 2023.12.15
09:33:24 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR Edwin Muniz, State Soil Scientist
USDA - Natural Resources Conservation Service
220 Davidson Avenue, 4th Floor
Somerset, NJ 08873-4115

FROM: Ms. Catherine Brunson
NEPA/EIAP Project Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Dear Mr. Muniz,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C
ATHERINE.E
1091059890
CATHERINE BRUNSON, DAF
JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
E.E.1091059890
Date: 2023.12.15
09:33:53 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR United States Environmental Protection Agency
 Region 2 Office
 Environmental Review Section
 290 Broadway
 New York, NY 10007-1866

FROM: Ms. Catherine Brunson
 NEPA/EIAP Project Manager
 787 CES/CEIEA
 2404 Vandenberg Avenue
 Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean
 Counties, New Jersey

Attn: Chief of Environmental Review,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.

LET'S GO!

- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).
- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.C

ATHERINE.E

1091059890

CATHERINE BRUNSON, DAF

JB MDL, NEPA/EIAP Project Manager

Digitally signed by
BRUNSON.CATHERINE
E.E.1091059890
Date: 2023.12.15
09:34:26 -05'00'



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
JOINT BASE MCGUIRE-DIX-LAKEHURST**

MEMORANDUM FOR United States Fish and Wildlife Service
New Jersey Field Office, Ecological Services
4 East Jimmie Leeds Road, Unit 4
Galloway, NJ 08205

FROM: Ms. Catherine Brunson
NEPA/EIAP Project Manager
787 CES/CEIEA
2404 Vandenberg Avenue
Joint Base McGuire-Dix-Lakehurst, NJ 08641

SUBJECT: Installation Development at Joint Base McGuire-Dix-Lakehurst, Burlington and Ocean Counties, New Jersey

Attn: Endangered Species Act Consultation,

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations, and the Department of the Air Force (DAF) NEPA regulations, DAF is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing projects planned for development as described in the Installation Development Plan as well as additional natural resources projects over the next five years (Fiscal Years 2023-2027) at Joint Base McGuire-Dix-Lakehurst (JB MDL). This letter serves to request your review of the Draft EA, including appendices and Draft Finding of No Significant Impacts (FONSI)/Finding of No Practicable Alternative (FONPA), to give you an opportunity to review and comment.

The proposed installation development and natural resource projects would provide infrastructure and functionality improvements necessary to support the mission of the 87th Air Base Wing. The EA analyzes 11 individual projects involving facility and infrastructure construction, demolition, and renovation throughout JB MDL. These projects are as follows:

- Construct Airfield Perimeter Road: Construct a one-lane, asphalt or concrete road along the length of the McGuire airfield to the southeast.
- Construct Lakehurst Air Traffic Control Tower: Construct a modern air traffic control tower to replace the existing tower in the Lakehurst Area of JB MDL.
- Construct New 144-Bed Dormitory: Construct a three-story, 144-Bed, 54,000 square foot (SF) dormitory within the McGuire Area of JB MDL.
- Addition to Combat Arms Training and Maintenance Facility: Construct a 900 SF addition to the northwest side of Building 1819 within the McGuire Area of JB MDL.
- Construct New Wells: Construct two 4,050 SF wells with filter buildings and sedimentation basins to replace Wells #5 and #6, servicing the Dix Area of JB MDL.
- Installation of Aerators in Ponds: Install solar-powered aerators in Lake of the Woods within the Dix Area of JB MDL and Rainbow Pond within the Lakehurst Area of JB MDL.
- Installation of a Septic System: Construct an aboveground septic tank for sanitary water adjacent to Building 696 in the Lakehurst Area of JB MDL.
- Demolish Air Traffic Control Facilities: Demolish Building 552, the existing Lakehurst air traffic control tower (approximately 550 SF).

LET'S GO!

- Demolish Well Facilities: Demolish existing Well #5 (Building 5280; approximately 2,736 SF) and Well #6 (Building 1190; approximately 2,627 SF) within the Dix Area of JB MDL.
- Lakehurst Main Gate Security Improvements: Upgrade the Lakehurst Main Gate off of South Hope Chapel Road to accommodate three entry lanes, one exit lane, one inspection lane, one rejection lane, a gatehouse, overwatch, and parking for four government vehicles.
- Berm Removal: Remove four berms originally installed in the late 1970s within the Dix portion of JB MDL to drain approximately 20 acres of surface water and restore native grasslands.

The purpose of the Proposed Action is to provide infrastructure and functionality improvements to ensure successful base operations, adequate support capacity, and continued ability of the base to support its assigned mission sets. The Proposed Action is needed to provide and maintain facilities and infrastructure that are adequate to support the needs of the DAF and its tenant units. The installation development projects would meet all applicable NEPA regulations; meet all applicable Department of Defense installation master planning criteria; and support the DAF mission requirements, future mission capabilities requirements, and quality of life for units and Airmen hosted by the installation.

No Native American Traditional Cultural Properties, protected tribal resources, treaty rights, sacred sites, or Indian lands are known to be present within the project areas. The 11 projects would involve disturbing up to approximately 150 acres in total. Approximately nine acres of wetlands, three acres of floodplains, and 10 acres of open water would be impacted.

In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title, we request your participation and comments on the attached Draft EA and Draft FONSI/FONPA. Your feedback will be considered and incorporated into the preparation of the Final EA and DAF's decision on whether to sign the FONSI/FONPA.

Electronic versions of the Draft EA and Draft FONSI/FONPA are available on the JB MDL website at <https://www.jbmdl.jb.mil/Home/Public-Affairs/>.

The Draft EA describes each Proposed Action and alternatives, including the No-Action Alternatives, and includes an analysis of the potential environmental effects. The Draft EA also includes a map of the proposed actions (Figure 2.1-1 of the Draft EA).

There are four projects which resulted in a "May Effect" determination for a threatened or endangered species. The projects are C1 and R2, where the Swamp Pink may be present, and C2-3 and C7, where American chaffseed and Knieskern's beaked-rush may be present. The IPaC's are located in Appendix E of the Draft EA. Neither informal nor formal consultation has been initiated for these projects since surveys for the species have not yet been conducted.

Your feedback is important, and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation. If we can provide any assistance or additional information that would aid in your review, please feel free to contact me via email at catherine.brunson@us.af.mil. Thank you in advance for your participation.

Sincerely,

BRUNSON.CATH
ERINE.E.1091059
890

Digitally signed by
BRUNSON.CATHERINE.E.109
1059890
Date: 2023.12.15 09:34:54
-05'00'

CATHERINE BRUNSON, DAF
JB MDL, NEPA/EIAP Project Manager

APPENDIX D

ACAM Models

**PRELIMINARY DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Air Quality Analysis Supporting Documentation and Record of Conformity Analysis

Appendix D: Air Quality Analysis Supporting Documentation and Record of Non-Applicability

The Air Conformity Applicability Model (ACAM) version 5.0.18a was used to perform an analysis to assess the potential air quality impacts associated with the Proposed Actions and their alternatives in accordance with Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 Code of Federal Regulations [CFR] Part 989) and the General Conformity Rule (40 Code of Federal Regulations Part 93, Subpart B). This appendix provides the ACAM Report and ACAM Detail Report for the Proposed Action. Because the emissions from the Proposed Action would not exceed the General Conformity Rule de minimis level thresholds for nonattainment or maintenance pollutants, the General Conformity Rule is not applicable to the Proposed Action and a general conformity determination is not required. The ACAM Report serves as the Record of Conformity Analysis.

Each Proposed Action and alternative was analyzed separately using ACAM. Under the No Action Alternatives, the Proposed Actions would not be implemented and no emissions would be produced; therefore, the No Action Alternatives were not analyzed using ACAM. This appendix is organized as follows. The ACAM Report and ACAM Detail Report are included with each of the projects identified below:

1. Project C1-1: Construct Airfield Perimeter Road (Preferred Alternative) (FY 2027)
2. Project C1-2: Construct Airfield Perimeter Road (Alternative C1-2) (FY 2027)
3. Project C2-1: Construct Lakehurst ATCT (Site 1 – Preferred Alternative) (FY 2024)
4. Project C2-2: Construct Lakehurst ATCT (Site 2) (FY 2024)
5. Project C2-3: Construct Lakehurst ATCT (Site 3) (FY 2024)
6. Project C3: Construct New 144-Bed Dormitory (Preferred Alternative) (FY 2024-2028)
7. Project C4: Addition to Combat Arms Training and Maintenance (CATM) Facility (Preferred Alternative) (FY 2027)
8. Project C5: Construct New Wells (Preferred Alternative) (FY 2025)
9. Project C6: Installation of Aerators in Ponds (Preferred Alternative) (FY 2024)
10. Project C7: Installation of a Septic System (Preferred Alternative) (FY 2024)
11. Project D1: Demolish ATCT Facility Building 552 (B552) (Preferred Alternative) (FY 2027)
12. Project D2: Demolish Well Facilities B1190 and B5280 (Preferred Alternative) (FY 2025)
13. Project R1: Lakehurst Main Gate Security Improvements (Preferred Alternative) (FY 2027)
14. Project R2: Berm Removal (Preferred Alternative) (FY 2024)

The following assumptions were made for the ACAM analyses:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.

**PRELIMINARY DRAFT EA FOR
AN INSTALLATION DEVELOPMENT PLAN AT JB MDL, NEW JERSEY**

Air Quality Analysis Supporting Documentation and Record of Conformity Analysis

3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

Project C1-1

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C1-1: Construct Airfield Perimeter Road (Preferred Alternative) (FY 2027)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2027

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

_____ applicable
__X__ not applicable

Project C1-1

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2027

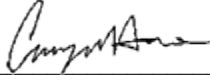
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.765	100	No
NOx	3.858	100	No
CO	4.214		
SOx	0.011	100	No
PM 10	121.491		
PM 2.5	0.166	100	No
Pb	0.000		
NH3	0.002	100	No
CO2e	1146.7		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.765	50	No
NOx	3.858	100	No
CO	4.214		
SOx	0.011		
PM 10	121.491		
PM 2.5	0.166		
Pb	0.000		
NH3	0.002		
CO2e	1146.7		

2028 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	0.0		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

Project C1-1
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C1-1: Construct Airfield Perimeter Road (Preferred Alternative) (FY 2027)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2027

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C1-1: Construct Airfield Perimeter Road (Preferred Alternative)

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- **Activity Title:** Project C1-1: Construct Airfield Perimeter Road (Preferred Alternative)

- **Activity Description:**

It was assumed the Airfield Perimeter Road would be constructed over a 1-year period from January 2027 through December 2027.

Site grading would occur on the entire site, approximately 70 acres (3,049,000 SF). Site grading would begin in January 2027 and last approximately 4 months.

Paving for the Airfield perimeter road would occur on approximately 3,049,000 SF. Paving would begin in May 2027 and last approximately 8 months.

- **Activity Start Date**

Start Month: 1

Start Month: 2027

- **Activity End Date**

Indefinite: False

End Month: 12

End Month: 2027

- **Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	0.765236
SO _x	0.011222
NO _x	3.857711
CO	4.213514
PM 10	121.491143

Pollutant	Total Emissions (TONs)
PM 2.5	0.165615
Pb	0.000000
NH ₃	0.002429
CO ₂ e	1146.7

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- **Phase Start Date**

Start Month: 1

Start Quarter: 1

Start Year: 2027

- **Phase Duration**

Number of Month: 4

Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- **General Site Grading Information**

Area of Site to be Graded (ft²): 3049000

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- **Site Grading Default Settings**

Default Settings Used: Yes

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	2	8
Other Construction Equipment Composite	2	8
Rollers Composite	1	8
Rubber Tired Dozers Composite	2	8
Scrapers Composite	5	8
Tractors/Loaders/Backhoes Composite	2	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rollers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0409	0.0007	0.2500	0.3762	0.0122	0.0122	0.0036	67.123
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
 0.002205: Conversion Factor grams to pounds
 EF_{POL}: Emission Factor for Pollutant (grams/mile)
 VM: Worker Trips On Road Vehicle Mixture (%)
 2000: Conversion Factor pounds to tons

2.2 Paving Phase

2.2.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 5
 Start Quarter: 1
 Start Year: 2027

- Phase Duration

Number of Month: 8
 Number of Days: 0

2.2.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 3049000

- Paving Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	8
Rollers Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rollers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0409	0.0007	0.2500	0.3762	0.0122	0.0122	0.0036	67.123
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

Project C1-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$\text{VMT}_{\text{WT}} = \text{WD} * \text{WT} * 1.25 * \text{NE}$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{WT}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$\text{VOC}_p = (2.62 * \text{PA}) / 43560$$

VOC_p : Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft²)

43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

Project C1-2

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C1-2: Construct Airfield Perimeter Road (Alternative C1-2) (FY 2027)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2027

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

_____ applicable
__X__ not applicable

Project C1-2

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2027

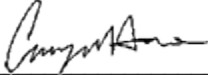
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.533	100	No
NOx	2.733	100	No
CO	3.286		
SOx	0.008	100	No
PM 10	62.514		
PM 2.5	0.121	100	No
Pb	0.000		
NH3	0.002	100	No
CO2e	812.3		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.533	50	No
NOx	2.733	100	No
CO	3.286		
SOx	0.008		
PM 10	62.514		
PM 2.5	0.121		
Pb	0.000		
NH3	0.002		
CO2e	812.3		

2028 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	0.0		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

Project C1-2
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C1-2: Construct Airfield Perimeter Road (Alternative C1-2) (FY 2027)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2027

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C1-2: Construct Airfield Perimeter Road (Alternative C1-2)

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C1-2: Construct Airfield Perimeter Road (Alternative C1-2)

- Activity Description:

It was assumed the Airfield Perimeter Road would be constructed over a 1-year period from January 2027 through December 2027.

Site grading would occur on the entire site, approximately 36 acres (1,568,000 SF). Site grading would begin in January 2027 and last approximately 4 months.

Paving for the Airfield perimeter road would occur on approximately 1,568,000 SF. Paving would begin in May 2027 and last approximately 8 months.

- Activity Start Date

Start Month: 1

Start Month: 2027

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2027

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.533321
SO _x	0.008053
NO _x	2.733123
CO	3.285614
PM 10	62.514350

Pollutant	Total Emissions (TONs)
PM 2.5	0.120629
Pb	0.000000
NH ₃	0.001707
CO ₂ e	812.3

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 4

Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 1568000

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	3	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Excavators Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
 0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
 VM: Worker Trips On Road Vehicle Mixture (%)
 2000: Conversion Factor pounds to tons

2.2 Paving Phase

2.2.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 5
 Start Quarter: 1
 Start Year: 2027

- Phase Duration

Number of Month: 8
 Number of Days: 0

2.2.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 1568000

- Paving Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	8
Rollers Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Excavators Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

Project C1-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560$$

VOC_P : Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft²)
43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

Project C2-1

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAKEHURST NAVAL STATION

State: New Jersey

County(s): Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C2-1: Construct Lakehurst ATCT (Site 1 – Preferred Alternative) (FY 2024)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the “worst-case” and “steady state” (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project C2-1

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.347	50	No
NOx	1.392	100	No
CO	2.158		
SOx	0.005		
PM 10	1.448		
PM 2.5	0.051		
Pb	0.000		
NH3	0.002		
CO2e	493.4		

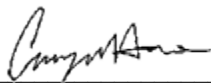
2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.002	50	No
NOx	0.030	100	No
CO	0.025		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	36.4		

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.002	50	No
NOx	0.030	100	No
CO	0.025		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	36.4		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: LAKEHURST NAVAL STATION
State: New Jersey
County(s): Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C2-1: Construct Lakehurst ATCT (Site 1 – Preferred Alternative) (FY 2024)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein
Title: Contractor
Organization: HDR
Email:
Phone Number:

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Project C2-1: Construct ATCT and Parking
3.	Construction / Demolition	Project C2-1: Construct ATCT Support Facility
4.	Heating	Project C2-1: Add Heating for ATCT and Support Facility

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-1: Construct ATCT and Parking

- Activity Description:

It was assumed the Lakehurst ATCT would be constructed over a 1-year period from January 2024 through December 2024.

Site grading would occur on the entire site, approximately 1 acre (43,560 SF). In addition, site grading would include 1.1 acres (47,916 SF) required for tree clearing, for a total grading area of 91,476 SF. Site grading would begin in January 2024 and last approximately 1 month.

Trenching would be required for the perimeter fence, at a length of approximately 1,000 linear feet. A 1-foot trench width for fencing was assumed. It was assumed the tree clearing area would be trenched to remove tree stumps and other rooted vegetation. Therefore, the total trenched area was estimated at 48,916 SF. Trenching would begin in February 2024 and last approximately 1 month.

Construction would include the ATCT (1,000 SF). Building height was assumed to be 133 feet. Construction would begin in March 2024 and last approximately 9 months.

Architectural coatings would be applied to the new facility for a total of 1,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

Paving for the parking area would occur on approximately 13,000 SF. Paving would begin in October 2024 and last approximately 3 months.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.188749
SO _x	0.003269
NO _x	0.935855
CO	1.408969
PM 10	1.432582

Pollutant	Total Emissions (TONs)
PM 2.5	0.035935
Pb	0.000000
NH ₃	0.001050
CO ₂ e	316.8

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2024

- Phase Duration

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Number of Month: 1
 Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 91476
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 2
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 48916
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 9
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 1000
Height of Building (ft): 133
Number of Units: N/A

- Building Construction Default Settings

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 1

Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential

Total Square Footage (ft²): 1000

Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 10

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 3

Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 13000

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$\text{VMT}_{\text{VE}} = \text{PA} * 0.25 * (1 / 27) * (1 / \text{HC}) * \text{HT}$$

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft^2)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)

HC: Average Hauling Truck Capacity (yd^3)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{VE}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$\text{VMT}_{\text{WT}} = \text{WD} * \text{WT} * 1.25 * \text{NE}$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{WT}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$\text{VOC}_p = (2.62 * \text{PA}) / 43560$$

VOC_p : Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft^2)

43560: Conversion Factor square feet to acre ($(43560 \text{ ft}^2 / \text{acre})^2 / \text{acre}$)

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Ocean

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-1: Construct ATCT Support Facility

- Activity Description:

Construction for the ATCT support facility was assumed to occur concurrently with ATCT construction. Construction would include the support facility (6,000 SF). Building height was assumed to be 20 feet. Construction would begin in March 2024 and last approximately 9 months.

Architectural coatings would be applied to the new facility for a total of 6,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

- Activity Start Date

Start Month: 3

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.158269
SO _x	0.001817
NO _x	0.456634
CO	0.748823
PM 10	0.015196

Pollutant	Total Emissions (TONs)
PM 2.5	0.015174
Pb	0.000000
NH ₃	0.000605
CO ₂ e	176.5

3.1 Building Construction Phase

3.1.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 9

Number of Days: 0

3.1.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial

Area of Building (ft²): 6000

Height of Building (ft): 20

Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

3.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$\text{VMT}_{\text{VE}} = \text{BA} * \text{BH} * (0.42 / 1000) * \text{HT}$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{VE}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$\text{VMT}_{\text{WT}} = \text{WD} * \text{WT} * 1.25 * \text{NE}$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{WT}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$\text{VMT}_{\text{VT}} = \text{BA} * \text{BH} * (0.38 / 1000) * \text{HT}$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{VT}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3.2 Architectural Coatings Phase

3.2.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

3.2.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
Total Square Footage (ft²): 6000
Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.2.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.2.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$VMT_{WT} = (1 * WT * PA) / 800$

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM_{TWT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft²)
800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VM_{TWT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VM_{TWT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft²)
2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
0.0116: Emission Factor (lb/ft²)
2000: Conversion Factor pounds to tons

4. Heating

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-1: Add Heating for ATCT and Support Facility

- Activity Description:

Heating would be required for the new ATCT (1,000 SF) and support facility (6,000 SF), for a total of 7,000 SF. It was assumed natural gas-fired boilers would be installed to provide heat. Heating for the facilities would begin following the construction period, or January 2025, and would continue indefinitely.

- Activity Start Date

Start Month: 1

Start Year: 2025

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.001663

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.002298

Project C2-1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

SO _x	0.000181
NO _x	0.030233
CO	0.025396
PM 10	0.002298

Pb	0.000000
NH ₃	0.000000
CO ₂ e	36.4

4.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 7000
 Type of fuel: Natural Gas
 Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)
 Heat Value (MMBtu/ft³): 0.00105
 Energy Intensity (MMBtu/ft²): 0.0907

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

4.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
5.5	0.6	100	84	7.6	7.6			120390

4.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

Project C2-2

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAKEHURST NAVAL STATION

State: New Jersey

County(s): Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C2-2: Construct Lakehurst ATCT (Site 2) (FY 2024)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project C2-2

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.355	50	No
NOx	1.441	100	No
CO	2.214		
SOx	0.005		
PM 10	2.779		
PM 2.5	0.053		
Pb	0.000		
NH3	0.002		
CO2e	506.8		

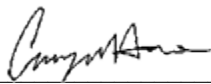
2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.002	50	No
NOx	0.030	100	No
CO	0.025		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	36.4		

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.002	50	No
NOx	0.030	100	No
CO	0.025		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	36.4		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: LAKEHURST NAVAL STATION
State: New Jersey
County(s): Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C2-2: Construct Lakehurst ATCT (Site 2) (FY 2024)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein
Title: Contractor
Organization: HDR
Email:
Phone Number:

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Project C2-2: Construct ATCT and Parking
3.	Construction / Demolition	Project C2-2: Construct ATCT Support Facility
4.	Heating	Project C2-2: Add Heating for ATCT and Support Facility

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-2: Construct ATCT and Parking

- Activity Description:

It was assumed the Lakehurst ATCT would be constructed over a 1-year period from January 2024 through December 2024.

Site grading would occur on the entire site, approximately 1.2 acres (52,272 SF). In addition, site grading would include 2.5 acres (108,900 SF) required for tree clearing, for a total grading area of 161,172 SF. Site grading would begin in January 2024 and last approximately 1 month.

Trenching would be required for the perimeter fence, at a length of approximately 1,000 linear feet. A 1-foot trench width for fencing was assumed. A 3-foot trench width was assumed for the 987-foot utility extension. It was assumed the tree clearing area would be trenched to remove tree stumps and other rooted vegetation. Therefore, the total trenched area was estimated at 112,861 SF. Trenching would begin in February 2024 and last approximately 1 month.

Construction would include the ATCT (1,000 SF). Building height was assumed to be 133 feet. Construction would begin in March 2024 and last approximately 9 months.

Architectural coatings would be applied to the new facility for a total of 1,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

Paving for the parking area (13,000 SF) and ATCT access road (7,500 SF) would occur on approximately 20,500 SF. Paving would begin in October 2024 and last approximately 3 months.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.197083
SO _x	0.003406
NO _x	0.984539
CO	1.465364
PM 10	2.763906

Pollutant	Total Emissions (TONs)
PM 2.5	0.037803
Pb	0.000000
NH ₃	0.001067
CO ₂ e	330.3

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 161172
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Tractors/Loaders/Backhoes Composite	2	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 2

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 1

Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 112861

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 9

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
 Area of Building (ft²): 1000
 Height of Building (ft): 133
 Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875
------------------	--------	--------	--------	--------	--------	--------	--------	--------

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VM_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VM_{VT} = BA * BH * (0.38 / 1000) * HT$$

VM_{VT} : Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VM_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VM_{VT} : Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
Total Square Footage (ft²): 1000
Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 10

Start Quarter: 1

Start Year: 2024

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Phase Duration

Number of Month: 3

Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 20500

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
--	-----	-----------------	-----------------	----	-------	--------	----	-----------------	------------------

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$\text{VOC}_p = (2.62 * \text{PA}) / 43560$$

VOC_p: Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft²)

43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-2: Construct ATCT Support Facility

- Activity Description:

Construction for the ATCT support facility was assumed to occur concurrently with ATCT construction. Construction would include the support facility (6,000 SF). Building height was assumed to be 20 feet. Construction would begin in March 2024 and last approximately 9 months.

Architectural coatings would be applied to the new facility for a total of 6,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

- Activity Start Date

Start Month: 3

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.158269
SO _x	0.001817
NO _x	0.456634
CO	0.748823
PM 10	0.015196

Pollutant	Total Emissions (TONs)
PM 2.5	0.015174
Pb	0.000000
NH ₃	0.000605
CO ₂ e	176.5

3.1 Building Construction Phase

3.1.1 Building Construction Phase Timeline Assumptions

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Phase Start Date

Start Month: 3
 Start Quarter: 1
 Start Year: 2024

- Phase Duration

Number of Month: 9
 Number of Days: 0

3.1.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
 Area of Building (ft²): 6000
 Height of Building (ft): 20
 Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

3.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3.2 Architectural Coatings Phase

3.2.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

3.2.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
Total Square Footage (ft²): 6000
Number of Units: N/A

- Architectural Coatings Default Settings

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.2.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.2.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

4. Heating

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-2: Add Heating for ATCT and Support Facility

- Activity Description:

Heating would be required for the new ATCT (1,000 SF) and support facility (6,000 SF), for a total of 7,000 SF. It was assumed natural gas-fired boilers would be installed to provide heat. Heating for the facilities would begin following the construction period, or January 2025, and would continue indefinitely.

- Activity Start Date

Start Month: 1

Start Year: 2025

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.001663
SO _x	0.000181
NO _x	0.030233
CO	0.025396
PM 10	0.002298

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.002298
Pb	0.000000
NH ₃	0.000000
CO ₂ e	36.4

4.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 7000

Type of fuel: Natural Gas

Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)

Heat Value (MMBtu/ft³): 0.00105

Energy Intensity (MMBtu/ft²): 0.0907

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

4.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

Project C2-2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
5.5	0.6	100	84	7.6	7.6			120390

4.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

Project C2-3

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAKEHURST NAVAL STATION

State: New Jersey

County(s): Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C2-3: Construct Lakehurst ATCT (Site 3) (FY 2024)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project C2-3

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.347	50	No
NOx	1.393	100	No
CO	2.158		
SOx	0.005		
PM 10	1.135		
PM 2.5	0.051		
Pb	0.000		
NH3	0.002		
CO2e	493.5		

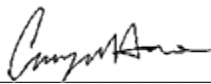
2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.002	50	No
NOx	0.030	100	No
CO	0.025		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	36.4		

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.002	50	No
NOx	0.030	100	No
CO	0.025		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	36.4		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: LAKEHURST NAVAL STATION
State: New Jersey
County(s): Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C2-3: Construct Lakehurst ATCT (Site 3) (FY 2024)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein
Title: Contractor
Organization: HDR
Email:
Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C2-3: Construct ATCT and Parking
3.	Construction / Demolition	Project C2-3: Construct ATCT Support Facility
4.	Heating	Project C2-3: Add Heating for ATCT and Support Facility

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-3: Construct ATCT and Parking

- Activity Description:

It was assumed the Lakehurst ATCT would be constructed over a 1-year period from January 2024 through December 2024.

Site grading would occur on the entire site, approximately 1.2 acres (52,272 SF). Site grading would begin in January 2024 and last approximately 1 month.

Trenching would be required for the perimeter fence, at a length of approximately 1,000 linear feet. A 1-foot trench width for fencing was assumed. A 3-foot trench width was assumed for the 1,120-foot utility extension. Because Site 3 is in a forested area, it was assumed the entire site would be trenched to remove all existing tree stumps and other rooted vegetation. Therefore, the total trenched area was estimated at 56,632 SF. Trenching would begin in February 2024 and last approximately 1 month.

Construction would include the ATCT (1,000 SF). Building height was assumed to be 133 feet. Construction would begin in March 2024 and last approximately 9 months.

Architectural coatings would be applied to the new facility for a total of 1,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

Paving for the parking area (13,000 SF) and ATCT access road (8,000 SF) would occur on approximately 21,000 SF. Paving would begin in October 2024 and last approximately 3 months.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.189001
SO _x	0.003270
NO _x	0.936074
CO	1.409104
PM 10	1.119345

Pollutant	Total Emissions (TONs)
PM 2.5	0.035939
Pb	0.000000
NH ₃	0.001052
CO ₂ e	317.0

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2024

- Phase Duration

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Number of Month: 1
 Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 52272
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 2
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 56632
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 9
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 1000
Height of Building (ft): 133
Number of Units: N/A

- Building Construction Default Settings

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 1

Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential

Total Square Footage (ft²): 1000

Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 10

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 3

Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 21000

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$\text{VMT}_{\text{VE}} = \text{PA} * 0.25 * (1 / 27) * (1 / \text{HC}) * \text{HT}$$

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft^2)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)

HC: Average Hauling Truck Capacity (yd^3)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{VE}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$\text{VMT}_{\text{WT}} = \text{WD} * \text{WT} * 1.25 * \text{NE}$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{WT}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$\text{VOC}_p = (2.62 * \text{PA}) / 43560$$

VOC_p : Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft^2)

43560: Conversion Factor square feet to acre ($(43560 \text{ ft}^2 / \text{acre})^2 / \text{acre}$)

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Ocean

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-3: Construct ATCT Support Facility

- Activity Description:

Construction for the ATCT support facility was assumed to occur concurrently with ATCT construction. Construction would include the support facility (6,000 SF). Building height was assumed to be 20 feet. Construction would begin in March 2024 and last approximately 9 months.

Architectural coatings would be applied to the new facility for a total of 6,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

- Activity Start Date

Start Month: 3
Start Month: 2024

- Activity End Date

Indefinite: False
End Month: 12
End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.158269
SO _x	0.001817
NO _x	0.456634
CO	0.748823
PM 10	0.015196

Pollutant	Total Emissions (TONs)
PM 2.5	0.015174
Pb	0.000000
NH ₃	0.000605
CO ₂ e	176.5

3.1 Building Construction Phase

3.1.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 9
Number of Days: 0

3.1.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 6000
Height of Building (ft): 20
Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

3.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3.2 Architectural Coatings Phase

3.2.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1
Number of Days: 0

3.2.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
Total Square Footage (ft²): 6000
Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.2.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.2.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft²)
800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft²)
2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
0.0116: Emission Factor (lb/ft²)
2000: Conversion Factor pounds to tons

4. Heating

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C2-3: Add Heating for ATCT and Support Facility

- Activity Description:

Heating would be required for the new ATCT (1,000 SF) and support facility (6,000 SF), for a total of 7,000 SF. It was assumed natural gas-fired boilers would be installed to provide heat. Heating for the facilities would begin following the construction period, or January 2025, and would continue indefinitely.

- Activity Start Date

Start Month: 1
Start Year: 2025

- Activity End Date

Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
-----------	---------------------------

Pollutant	Emissions Per Year (TONs)
-----------	---------------------------

Project C2-3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VOC	0.001663
SO _x	0.000181
NO _x	0.030233
CO	0.025396
PM 10	0.002298

PM 2.5	0.002298
Pb	0.000000
NH ₃	0.000000
CO ₂ e	36.4

4.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 7000
 Type of fuel: Natural Gas
 Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)
 Heat Value (MMBtu/ft³): 0.00105
 Energy Intensity (MMBtu/ft²): 0.0907

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

4.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
5.5	0.6	100	84	7.6	7.6			120390

4.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

Project C3

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C3: Construct New 144-Bed Dormitory (FY2024-2028)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project C3

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	2.144	100	No
NOx	1.328	100	No
CO	1.821		
SOx	0.004	100	No
PM 10	0.586		
PM 2.5	0.049	100	No
Pb	0.000		
NH3	0.001	100	No
CO2e	392.0		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	2.144	50	No
NOx	1.328	100	No
CO	1.821		
SOx	0.004		
PM 10	0.586		
PM 2.5	0.049		
Pb	0.000		
NH3	0.001		
CO2e	392.0		

2025

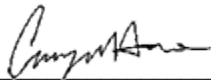
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.014	100	No
NOx	0.256	100	No
CO	0.215		
SOx	0.002	100	No
PM 10	0.019		
PM 2.5	0.019	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	307.7		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.014	50	No
NOx	0.256	100	No
CO	0.215		
SOx	0.002		
PM 10	0.019		
PM 2.5	0.019		
Pb	0.000		
NH3	0.000		
CO2e	307.7		

Project C3
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.014	100	No
NOx	0.256	100	No
CO	0.215		
SOx	0.002	100	No
PM 10	0.019		
PM 2.5	0.019	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	307.7		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.014	50	No
NOx	0.256	100	No
CO	0.215		
SOx	0.002		
PM 10	0.019		
PM 2.5	0.019		
Pb	0.000		
NH3	0.000		
CO2e	307.7		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C3: Construct New 144-Bed Dormitory (FY2024-2028)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C3: Construct New 144-Bed Dormitory
3.	Heating	Project C3: Add Heating for Dormitory

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C3: Construct New 144-Bed Dormitory

- Activity Description:

It was assumed the dormitory would be constructed over a 1-year period from January 2024 through December 2024. Although this project likely would be constructed over multiple years, a 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year.

Site grading would occur on the entire site, 54,000 SF. Site grading would begin in January 2024 and last approximately 1 month.

Construction would include the new dormitory (54,000 SF). Building height was assumed to be 50 feet. Construction would begin in February 2024 and last approximately 10 months.

Architectural coatings would be applied to the new facility for a total of 54,000 SF. Architectural coating application would begin in December 2024 and last approximately 1 month.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	2.144152
SO _x	0.004067
NO _x	1.327843
CO	1.820884
PM 10	0.586112

Pollutant	Total Emissions (TONs)
PM 2.5	0.048889
Pb	0.000000
NH ₃	0.001301
CO ₂ e	392.0

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 1

Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 54000

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276
----	---------	---------	---------	---------	---------	---------	--	---------	-----------

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Building Construction Phase

2.2.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 2
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 10
Number of Days: 0

2.2.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Multi-Family
Area of Building (ft²): 54000
Height of Building (ft): N/A
Number of Units: 144

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	6
Forklifts Composite	2	6
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.2.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Generator Sets Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0303	0.0006	0.2464	0.2674	0.0091	0.0091	0.0027	61.061
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875
Welders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0227	0.0003	0.1427	0.1752	0.0059	0.0059	0.0020	25.653

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.2.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = NU * 0.36 * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

NU: Number of Units

0.36: Conversion Factor units to trips

HT: Average Hauling Truck Round Trip Commute (mile/trip)

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = NU * 0.11 * HT$$

VMT_{VT} : Vender Tips Vehicle Miles Travel (miles)
NU: Number of Units
0.11: Conversion Factor units to trips
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Architectural Coatings Phase

2.3.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 1

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Number of Days: 0

2.3.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Multi-Family
 Total Square Footage (ft²): N/A
 Number of Units: 144

- Architectural Coatings Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.3.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (NU * 850 * 2.7 * 0.0116) / 2000.0$$

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
NU: Number of Units
850: Conversion Factor units to square feet (850 ft² / unit)
2.7: Conversion Factor total area to coated area (2.7 ft² coated area / total area)
0.0116: Emission Factor (lb/ft²)
2000: Conversion Factor pounds to tons

3. Heating

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C3: Add Heating for Dormitory

- Activity Description:

Heating would be required for the new dormitory (54,000 SF). It was assumed natural gas-fired boilers would be installed to provide heat. Heating for the facilities would begin following the construction period, or January 2025, and would continue indefinitely.

- Activity Start Date

Start Month: 1

Start Year: 2025

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.014058
SO _x	0.001534
NO _x	0.255600
CO	0.214704
PM 10	0.019426

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.019426
Pb	0.000000
NH ₃	0.000000
CO ₂ e	307.7

3.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 54000

Type of fuel: Natural Gas

Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)

Heat Value (MMBtu/ft³): 0.00105

Energy Intensity (MMBtu/ft²): 0.0994

Project C3

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

3.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
5.5	0.6	100	84	7.6	7.6			120390

3.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

Project C4

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C4: Addition to Combat Arms Training and Maintenance (CATM) Facility (FY 2027)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2027

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

_____ applicable
__X__ not applicable

Project C4

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2027

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.127	100	No
NOx	0.583	100	No
CO	0.969		
SOx	0.002	100	No
PM 10	0.028		
PM 2.5	0.019	100	No
Pb	0.000		
NH3	0.001	100	No
CO2e	234.2		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.127	50	No
NOx	0.583	100	No
CO	0.969		
SOx	0.002		
PM 10	0.028		
PM 2.5	0.019		
Pb	0.000		
NH3	0.001		
CO2e	234.2		

2028

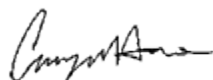
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.005	100	No
CO	0.004		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	5.9		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.005	100	No
CO	0.004		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	5.9		

Project C4
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2029 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.005	100	No
CO	0.004		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	5.9		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.005	100	No
CO	0.004		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	5.9		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: MCGUIRE AFB

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C4: Addition to Combat Arms Training and Maintenance (CATM) Facility (FY 2027)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2027

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C4: Addition to CATM Facility
3.	Heating	Project C4: Add Heating for CATM Addition

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C4: Addition to CATM Facility

- Activity Description:

It was assumed the dormitory would be constructed over a 1-year period from January 2027 through December 2027.

Site grading would occur on the site of the addition, 900 SF. Site grading would begin in January 2027 and last approximately 1 month.

Construction of the CATM addition would total approximately 900 SF. The height of the addition was assumed to be 15 feet. Construction would begin in February 2027 and last approximately 10 months.

Architectural coatings would be applied to the addition for a total of 900 SF. Architectural coating application would begin in December 2027 and last approximately 1 month.

- Activity Start Date

Start Month: 1

Start Month: 2027

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2027

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.126674
SO _x	0.002422
NO _x	0.583210
CO	0.969237
PM 10	0.028272

Pollutant	Total Emissions (TONs)
PM 2.5	0.019305
Pb	0.000000
NH ₃	0.000676
CO ₂ e	234.2

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 1

Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 900

Amount of Material to be Hauled On-Site (yd³): 0

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Building Construction Phase

2.2.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 2
Start Quarter: 1
Start Year: 2027

- Phase Duration

Number of Month: 10
Number of Days: 0

2.2.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 900
Height of Building (ft): 15
Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
--	------	------	------	------	------	------	----

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

POVs	0	0	0	0	0	100.00	0
------	---	---	---	---	---	--------	---

2.2.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.3 Architectural Coatings Phase

2.3.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 12

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 1

Number of Days: 0

2.3.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential

Total Square Footage (ft²): 900

Number of Units: N/A

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Architectural Coatings Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.3.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft²)
800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft²)
2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
0.0116: Emission Factor (lb/ft²)
2000: Conversion Factor pounds to tons

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

3. Heating

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C4: Add Heating for CATM Addition

- Activity Description:

Additional heating output would be required for the CATM addition (900 SF). It was assumed natural gas-fired boilers would provide heat. Heating for the facilities would begin following the construction period, or January 2028, and would continue indefinitely.

- Activity Start Date

Start Month: 1

Start Year: 2028

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.000271
SO _x	0.000030
NO _x	0.004933
CO	0.004144
PM 10	0.000375

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.000375
Pb	0.000000
NH ₃	0.000000
CO ₂ e	5.9

3.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 900

Type of fuel: Natural Gas

Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)

Heat Value (MMBtu/ft³): 0.00105

Energy Intensity (MMBtu/ft²): 0.1151

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

3.3 Heating Emission Factor(s)

Project C4

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Heating Emission Factors (lb/1000000 scf)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
5.5	0.6	100	84	7.6	7.6			120390

3.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

Project C5

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: FORT DIX

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C5: Construct New Wells (FY 2025)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2025

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

_____ applicable
__X__ not applicable

Project C5

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2025

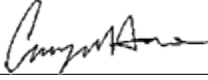
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.356	100	No
NOx	1.320	100	No
CO	2.170		
SOx	0.005	100	No
PM 10	0.224		
PM 2.5	0.046	100	No
Pb	0.000		
NH3	0.001	100	No
CO2e	513.2		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.356	50	No
NOx	1.320	100	No
CO	2.170		
SOx	0.005		
PM 10	0.224		
PM 2.5	0.046		
Pb	0.000		
NH3	0.001		
CO2e	513.2		

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	0.0		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

Project C5
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: FORT DIX

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- **Action Title:** Project C5: Construct New Wells (FY 2025)

- **Project Number/s (if applicable):**

- **Projected Action Start Date:** 1 / 2025

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C5: Construct New Well #5
3.	Construction / Demolition	Project C5: Construct New Well #6

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C5: Construct New Well #5

- Activity Description:

It was assumed Well #5 would be constructed over a 1-year period from January 2025 through December 2025.

Site grading would occur on the entire site, approximately 6,500 SF. Site grading would begin in January 2025 and last approximately 1 month.

Trenching would be required for the perimeter fence, at a length of 639 linear feet. A 1-foot trench width for fencing was assumed. In addition, trenching would be required for extension of utilities, installation of the well, and excavation of the sedimentation basin, estimated at 1,800 SF. Therefore, the total trenched area was estimated at 2,439 SF. Trenching would begin in February 2025 and last approximately 1 month.

Construction would include the filter building (3,250 SF) and sedimentation basin (800 SF) for a total of 4,050 SF. Construction height was assumed to be 15 feet. Construction would begin in March 2025 and last approximately 8 months.

Architectural coatings would be applied to the new facilities for a total of 4,050 SF. Architectural coating application would begin in November 2025 and last approximately 1 month.

Paving for the access driveway (approx. 1,000 SF) and parking area (250 SF) would occur on a total of approximately 1,250 SF. Paving would begin in December 2025 and last approximately 1 month.

- Activity Start Date

Start Month: 1

Start Month: 2025

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2025

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.178196
SO _x	0.002657
NO _x	0.660220
CO	1.085038
PM 10	0.112060

Pollutant	Total Emissions (TONs)
PM 2.5	0.023117
Pb	0.000000
NH ₃	0.000742
CO ₂ e	256.6

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2025

- Phase Duration

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Number of Month: 1
 Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 6500
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 2
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 1
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 2439
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 8
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 4050
Height of Building (ft): 15
Number of Units: N/A

- Building Construction Default Settings

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 11

Start Quarter: 1

Start Year: 2025

- Phase Duration

Number of Month: 1

Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential

Total Square Footage (ft²): 4050

Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 12

Start Quarter: 1

Start Year: 2025

- Phase Duration

Number of Month: 1

Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 1250

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$\text{VMT}_{\text{VE}} = \text{PA} * 0.25 * (1 / 27) * (1 / \text{HC}) * \text{HT}$$

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft^2)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)

HC: Average Hauling Truck Capacity (yd^3)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{VE}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$\text{VMT}_{\text{WT}} = \text{WD} * \text{WT} * 1.25 * \text{NE}$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$\text{V}_{\text{POL}} = (\text{VMT}_{\text{WT}} * 0.002205 * \text{EF}_{\text{POL}} * \text{VM}) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$\text{VOC}_p = (2.62 * \text{PA}) / 43560$$

VOC_p : Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft^2)

43560: Conversion Factor square feet to acre ($(43560 \text{ ft}^2 / \text{acre})^2 / \text{acre}$)

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Burlington

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Croject C5: Construct New Well #6

- Activity Description:

It was assumed Well #6 would be constructed over a 1-year period from January 2025 through December 2025. Site grading would occur on the entire site, approximately 6,500 SF. Site grading would begin in January 2025 and last approximately 1 month.

Trenching would be required for the perimeter fence, at a length of 639 linear feet. A 1-foot trench width for fencing was assumed. In addition, trenching would be required for extension of utilities, installation of the well, and excavation of the sedimentation basin, estimated at 1,800 SF. Therefore, the total trenched area was estimated at 2,439 SF. Trenching would begin in February 2025 and last approximately 1 month.

Construction would include the filter building (3,250 SF) and sedimentation basin (800 SF) for a total of 4,050 SF. Construction height was assumed to be 15 feet. Construction would begin in March 2025 and last approximately 8 months.

Architectural coatings would be applied to the new facilities for a total of 4,050 SF. Architectural coating application would begin in November 2025 and last approximately 1 month.

Paving for the access driveway (approx. 1,000 SF) and parking area (250 SF) would occur on a total of approximately 1,250 SF. Paving would begin in December 2025 and last approximately 1 month.

- Activity Start Date

Start Month: 1
Start Month: 2025

- Activity End Date

Indefinite: False
End Month: 12
End Month: 2025

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.178196
SO _x	0.002657
NO _x	0.660220
CO	1.085038
PM 10	0.112060

Pollutant	Total Emissions (TONs)
PM 2.5	0.023117
Pb	0.000000
NH ₃	0.000742
CO ₂ e	256.6

3.1 Site Grading Phase

3.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 1
Number of Days: 0

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

3.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 6500
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
 0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
 VM: Worker Trips On Road Vehicle Mixture (%)
 2000: Conversion Factor pounds to tons

3.2 Trenching/Excavating Phase

3.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 2
 Start Quarter: 1
 Start Year: 2025

- Phase Duration

Number of Month: 1
 Number of Days: 0

3.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 2439
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

3.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

3.3 Building Construction Phase

3.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3

Start Quarter: 1

Start Year: 2025

- Phase Duration

Number of Month: 8

Number of Days: 0

3.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial

Area of Building (ft²): 4050

Height of Building (ft): 15

Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

3.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
 0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
 VM : Worker Trips On Road Vehicle Mixture (%)
 2000: Conversion Factor pounds to tons

3.4 Architectural Coatings Phase

3.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 11
 Start Quarter: 1
 Start Year: 2025

- Phase Duration

Number of Month: 1
 Number of Days: 0

3.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
 Total Square Footage (ft²): 4050
 Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$VMT_{WT} = (1 * WT * PA) / 800$

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft²)
800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft²)
2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
0.0116: Emission Factor (lb/ft²)
2000: Conversion Factor pounds to tons

3.5 Paving Phase

3.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 1
Number of Days: 0

3.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 1250

- Paving Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

Project C5

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft²)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VM T_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VM T_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VM T_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560$$

VOC_P: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft²)
43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

Project C6

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: FORT DIX

State: New Jersey

County(s): Burlington; Ocean

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE; Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C6: Installation of Aerators in Ponds (FY 2024)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project C6

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.010	100	No
NOx	0.050	100	No
CO	0.082		
SOx	0.000	100	No
PM 10	0.002		
PM 2.5	0.002	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	19.1		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.010	50	No
NOx	0.050	100	No
CO	0.082		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	19.1		
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.010	50	No
NOx	0.050	100	No
CO	0.082		
SOx	0.000		
PM 10	0.002		
PM 2.5	0.002		
Pb	0.000		
NH3	0.000		
CO2e	19.1		

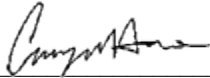
2025 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	0.0		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No

Project C6
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: FORT DIX

State: New Jersey

County(s): Burlington; Ocean

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE; Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Action Title: Project C6: Installation of Aerators in Ponds (FY 2024)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Project C6: Installation of Aerators in Lake of the Woods (Dix Area)
3.	Construction / Demolition	Project C6: Installation of Aerators in Rainbow Pond (Lakehurst Area)

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C6: Installation of Aerators in Lake of the Woods (Dix Area)

- Activity Description:

It was assumed aerators would be installed over a 30-day period starting in January 2024.

Project C6 would not require construction or earth moving activities. Aerators would be pre-assembled and placed in the middle of each body of water: Lake of the Woods and Rainbow Pond. Each aerator would be solar-powered and would not require connection to an electric distribution line. The solar panels would be pole mounted on the edge of each body of water, resulting in minimal disturbance. The line from the solar panel would be mostly underwater and would be secured in place on the ground near the solar panel. Air emissions from installation of the aerators would occur only from installation crews traveling to and from the project sites.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 1

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.009711
SO _x	0.000199
NO _x	0.049554
CO	0.081904
PM 10	0.001658

Pollutant	Total Emissions (TONs)
PM 2.5	0.001656
Pb	0.000000
NH ₃	0.000059
CO ₂ e	19.1

2.1 Building Construction Phase

2.1.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 0

Number of Days: 30

2.1.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial

Area of Building (ft²): 5

Height of Building (ft): 0.5

Number of Units: N/A

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C6: Installation of Aerators in Rainbow Pond (Lakehurst Area)

- Activity Description:

It was assumed aerators would be installed over a 30-day period starting in January 2024.

Project C6 would not require construction or earth moving activities. Aerators would be pre-assembled and placed in the middle of each body of water: Lake of the Woods and Rainbow Pond. Each aerator would be solar-powered and would not require connection to an electric distribution line. The solar panels would be pole mounted on the edge of each body of water, resulting in minimal disturbance. The line from the solar panel would be mostly underwater and would be secured in place on the ground near the solar panel. Air emissions from installation of the aerators would occur only from installation crews traveling to and from the project sites.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 1

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.009711
SO _x	0.000199
NO _x	0.049554
CO	0.081904
PM 10	0.001658

Pollutant	Total Emissions (TONs)
PM 2.5	0.001656
Pb	0.000000
NH ₃	0.000059
CO ₂ e	19.1

3.1 Building Construction Phase

3.1.1 Building Construction Phase Timeline Assumptions

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Phase Start Date

Start Month: 1
 Start Quarter: 1
 Start Year: 2024

- Phase Duration

Number of Month: 0
 Number of Days: 30

3.1.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
 Area of Building (ft²): 5
 Height of Building (ft): 0.5
 Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

3.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

3.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

Project C6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

Project C7

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: FORT DIX

State: New Jersey

County(s): Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project C7: Installation of a Septic System (FY 2024)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: ☐ applicable
☒ not applicable

Project C7

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

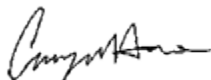
2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.261	50	No
NOx	1.404	100	No
CO	1.871		
SOx	0.005		
PM 10	0.058		
PM 2.5	0.053		
Pb	0.000		
NH3	0.001		
CO2e	488.3		

2025 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: FORT DIX
State: New Jersey
County(s): Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- **Action Title:** Project C7: Installation of a Septic System (FY 2024)

- **Project Number/s (if applicable):**

- **Projected Action Start Date:** 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein
Title: Contractor
Organization: HDR
Email:
Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project C7: Installation of a Septic System

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project C7: Installation of a Septic System

- Activity Description:

It was assumed the septic system would be installed over a 1-year period from January 2024 through December 2024.

The septic tank would be a pre-constructed tank that would be installed aboveground; however a portion of the tank would be placed underground to secure it in place. Site grading for the septic tank would occur on 40 SF. Site grading would begin in January 2024 and last approximately 6 months. Trenching for the aboveground tank would occur on 40 SF. Trenching would begin in July 2024 and last approximately 6 months.

- Activity Start Date

Start Month: 1

Start Month: 2024

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.261462
SO _x	0.005044
NO _x	1.403962
CO	1.870615
PM 10	0.058127

Pollutant	Total Emissions (TONs)
PM 2.5	0.053338
Pb	0.000000
NH ₃	0.000717
CO ₂ e	488.3

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2024

- Phase Duration

Number of Month: 6

Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 40

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.1.4 Site Grading Phase Formula(s)

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 7
Start Quarter: 1
Start Year: 2024

- Phase Duration

Number of Month: 6
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 40
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH₃	CO_{2e}
LDGV	000.200	000.002	000.112	002.952	000.004	000.004		000.024	00314.664
LDGT	000.224	000.003	000.191	003.350	000.006	000.005		000.026	00409.301
HDGV	000.902	000.006	000.953	014.411	000.026	000.023		000.052	00918.541
LDDV	000.079	000.001	000.086	003.152	000.003	000.002		000.008	00321.586
LDDT	000.089	000.001	000.132	002.202	000.003	000.003		000.009	00368.668
HDDV	000.142	000.004	002.691	001.651	000.053	000.048		000.032	01260.516
MC	002.489	000.003	000.656	012.112	000.022	000.019		000.052	00389.276

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

Project C7

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VM_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

Project D1
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.132	50	No
NOx	0.781	100	No
CO	1.192		
SOx	0.002		
PM 10	0.044		
PM 2.5	0.029		
Pb	0.000		
NH3	0.001		
CO2e	234.5		

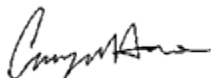
2028

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	-0.028	50	No
NOx	-0.026	100	No
CO	-0.018		
SOx	-0.005		
PM 10	-0.005		
PM 2.5	-0.005		
Pb	0.000		
NH3	0.000		
CO2e	-6.3		

2029 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	-0.028	50	No
NOx	-0.026	100	No
CO	-0.018		
SOx	-0.005		
PM 10	-0.005		
PM 2.5	-0.005		
Pb	0.000		
NH3	0.000		
CO2e	-6.3		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/28/2023

DATE

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: LAKEHURST NAVAL STATION
State: New Jersey
County(s): Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Action Title: Project D1: Demolish ATCT Facility Building 552 (B552) (FY 2027)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2027

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein
Title: Contractor
Organization: HDR
Email:
Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project D1: Demolish ATCT Facility Building 552 (B552)
3.	Heating	Project D1: Remove Heating for ATCT
4.	Tanks	Project D1: Removal of Diesel Storage Tank and B552
5.	Emergency Generator	Project D1: Removal of Emergency Generator at B552

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D1: Demolish ATCT Facility Building 552 (B552)

- Activity Description:

It was assumed demolition of the existing ATCT (B552) would occur over a 1-year period from January 2027 through December 2027.

Demolition would total 550 SF. The height of the existing ATCT is 83 feet. Demolition would begin in January 2027 and last approximately 10 months.

Site grading would occur on the site following demolition, for a total area of 550 SF. It was assumed 1,200 cubic yards of demolition debris would be hauled off-site. Site grading would begin in November 2027 and last approximately 1 month.

It was assumed the footprint of the demolished ATCT would be paved to match the surrounding airfield pavement. Pavement would occur on a 550-SF area. Paving would begin in December 2027 and last approximately 1 month.

- Activity Start Date

Start Month: 1

Start Month: 2027

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2027

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.132085
SO _x	0.002370
NO _x	0.780949
CO	1.192467
PM 10	0.043665

Pollutant	Total Emissions (TONs)
PM 2.5	0.028585
Pb	0.000000
NH ₃	0.000819
CO ₂ e	234.5

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 10

Number of Days: 0

2.1.2 Demolition Phase Assumptions

- General Demolition Information

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Area of Building to be demolished (ft²): 550

Height of Building to be demolished (ft): 83

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.1.4 Demolition Phase Formula(s)

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft³)

BA: Area of Building to be demolished (ft²)

BH: Height of Building to be demolished (ft)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft²)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 11

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 1

Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 550

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 1200

- Site Grading Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Paving Phase

2.3.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2027

- Phase Duration

Number of Month: 1
Number of Days: 0

2.3.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 550

- Paving Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.3.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM_{TVE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft²)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VM_{TVE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VM_{TVE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VM_{WT} = WD * WT * 1.25 * NE$$

VM_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VM_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VM_{TVE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560$$

VOC_P: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft²)
43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

3. Heating

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- **Activity Title:** Project D1: Remove Heating for ATCT

- **Activity Description:**

Following demolition, heating would no longer be required for the ATCT (550 SF). It was assumed heating would stop following the construction period, or January 2028.

- **Activity Start Date**

Start Month: 1

Start Year: 2028

- **Activity End Date**

Indefinite: Yes

End Month: N/A

End Year: N/A

- **Activity Emissions:**

Pollutant	Emissions Per Year (TONs)
VOC	-0.000166
SO _x	-0.000018
NO _x	-0.003015
CO	-0.002532
PM 10	-0.000229

Pollutant	Emissions Per Year (TONs)
PM 2.5	-0.000229
Pb	0.000000
NH ₃	0.000000
CO _{2e}	-3.6

3.2 Heating Assumptions

- **Heating**

Heating Calculation Type: Heat Energy Requirement Method

- **Heat Energy Requirement Method**

Area of floorspace to be heated (ft²): 550

Type of fuel: Natural Gas

Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)

Heat Value (MMBtu/ft³): 0.00105

Energy Intensity (MMBtu/ft²): 0.1151

- **Default Settings Used:** Yes

- **Boiler/Furnace Usage**

Operating Time Per Year (hours): 900 (default)

3.3 Heating Emission Factor(s)

- **Heating Emission Factors (lb/1000000 scf)**

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
5.5	0.6	100	84	7.6	7.6			120390

3.4 Heating Formula(s)

- **Heating Fuel Consumption ft³ per Year**

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL} : Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL} : Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

4. Tanks

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D1: Removal of Diesel Storage Tank and B552

- Activity Description:

Following demolition, the 362-gallon diesel fuel storage tank at B552 would be removed.

- Activity Start Date

Start Month: 1

Start Year: 2028

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.022199
SO _x	0.000000
NO _x	0.000000
CO	0.000000
PM 10	0.000000

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.000000
Pb	0.000000
NH ₃	0.000000
CO ₂ e	0.0

4.2 Tanks Assumptions

- Chemical

Chemical Name: Gasoline (RVP 6)

Chemical Category: Petroleum Distillates

Chemical Density: 5.6

Vapor Molecular Weight (lb/lb-mole): 69

Stock Vapor Density (lb/ft³): 0.0365053508591625

Vapor Pressure (psia): 2.9335

Vapor Space Expansion Factor (dimensionless): 0.073

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Tank

Type of Tank:	Horizontal Tank
Tank Length (ft):	8
Tank Diameter (ft):	4
Annual Net Throughput (gallon/year):	362

4.3 Tank Formula(s)

- Vapor Space Volume

$$VSV = (PI / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft³)

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

- Vented Vapor Saturation Factor

$$VVSF = 1 / (1 + (0.053 * VP * L / 2))$$

VVSF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

- Standing Storage Loss per Year

$$SSL_{VOC} = 365 * VSV * SVD * VSEF * VVSF / 2000$$

SSL_{VOC}: Standing Storage Loss Emissions (TONs)

365: Number of Daily Events in a Year (Constant)

VSV: Vapor Space Volume (ft³)

SVD: Stock Vapor Density (lb/ft³)

VSEF: Vapor Space Expansion Factor (dimensionless)

VVSF: Vented Vapor Saturation Factor (dimensionless)

2000: Conversion Factor pounds to tons

- Number of Turnovers per Year

$$NT = (7.48 * ANT) / ((PI / 4.0) * D * L)$$

NT: Number of Turnovers per Year

7.48: Constant

ANT: Annual Net Throughput

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

- Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year

18: Constant

NT: Number of Turnovers per Year

6: Constant

- Working Loss per Year

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$WL_{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000$$

0.0010: Constant

VMW: Vapor Molecular Weight (lb/lb-mole)

VP: Vapor Pressure (psia)

ANT: Annual Net Throughput

WLSF: Working Loss Turnover (Saturation) Factor

2000: Conversion Factor pounds to tons

5. Emergency Generator

5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D1: Removal of Emergency Generator at B552

- Activity Description:

Following demolition, the diesel powered emergency generator at B552 would no longer be needed.

- Activity Start Date

Start Month: 1

Start Year: 2028

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.005650
SO _x	-0.004759
NO _x	-0.023288
CO	-0.015552
PM 10	-0.005083

Pollutant	Emissions Per Year (TONs)
PM 2.5	-0.005083
Pb	0.000000
NH ₃	0.000000
CO ₂ e	-2.7

5.2 Emergency Generator Assumptions

- Emergency Generator

Type of Fuel used in Emergency Generator: Diesel

Number of Emergency Generators: 1

- Default Settings Used: Yes

- Emergency Generators Consumption

Emergency Generator's Horsepower: 135 (default)

Average Operating Hours Per Year (hours): 30 (default)

Project D1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

5.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251			1.33

5.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

AE_{POL}: Activity Emissions (TONs per Year)

NGEN: Number of Emergency Generators

HP: Emergency Generator's Horsepower (hp)

OT: Average Operating Hours Per Year (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)

Project D2

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: FORT DIX

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project D2: Demolish Well Facilities B1190 and B5280 (FY 2025)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2025

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: ☐ applicable
☒ not applicable

Conformity Analysis Summary:

Project D2
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.275	100	No
NOx	1.584	100	No
CO	2.482		
SOx	0.005	100	No
PM 10	0.160		
PM 2.5	0.056	100	No
Pb	0.000		
NH3	0.001	100	No
CO2e	509.2		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.275	50	No
NOx	1.584	100	No
CO	2.482		
SOx	0.005		
PM 10	0.160		
PM 2.5	0.056		
Pb	0.000		
NH3	0.001		
CO2e	509.2		

2026

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	-0.117	100	No
NOx	-0.047	100	No
CO	-0.031		
SOx	-0.010	100	No
PM 10	-0.010		
PM 2.5	-0.010	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	-5.4		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	-0.117	50	No
NOx	-0.047	100	No
CO	-0.031		
SOx	-0.010		
PM 10	-0.010		
PM 2.5	-0.010		
Pb	0.000		
NH3	0.000		
CO2e	-5.4		

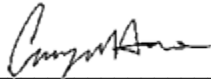
2027 - (Steady State)

2024 (Steady State)			
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			

Project D2
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

VOC	-0.117	100	No
NOx	-0.047	100	No
CO	-0.031		
SOx	-0.010	100	No
PM 10	-0.010		
PM 2.5	-0.010	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	-5.4		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	-0.117	50	No
NOx	-0.047	100	No
CO	-0.031		
SOx	-0.010		
PM 10	-0.010		
PM 2.5	-0.010		
Pb	0.000		
NH3	0.000		
CO2e	-5.4		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/28/2023

DATE

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: FORT DIX

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Action Title: Project D2: Demolish Well Facilities B1190 and B5280 (FY 2025)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2025

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Project D2: Demolition of B5280 (Well #5)
3.	Construction / Demolition	Project D2: Demolition of B1190 (Well #6)
4.	Tanks	Project D2: Removal of Well #5 1,000-Gallon Diesel Aboveground Storage Tank
5.	Tanks	Project D2: Removal of Well #5 1,000-Gallon No.2 Fuel Oil Aboveground Storage Tank
6.	Tanks	Project D2: Removal of Well #6 1,000-Gallon Diesel Aboveground Storage Tank
7.	Tanks	Project D2: Removal of Well #6 1,000-Gallon No.2 Fuel Oil Aboveground Storage Tank
8.	Emergency Generator	Project D2: Removal of Well #5 Emergency Generator

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

9.	Emergency Generator	Project D2: Removal of Well #6 Emergency Generator
----	---------------------	--

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Demolition of B5280 (Well #5)

- Activity Description:

It was assumed demolition of the current Well #5 (B5280) would occur over a 1-year period from January 2025 through December 2025.

Demolition would include the filter building (1,660 SF) and the sedimentation building (1,076 SF) for a total of 2,736 SF. The height of the existing facilities was assumed to be 15 feet. Demolition would begin in January 2025 and last approximately 10 months.

Site grading would occur on the site following demolition, for a total area of 2,736 SF. It was assumed 500 cubic yards of demolition debris would be hauled off-site. Site grading would occur in November 2025 and last approximately 1 month.

Trenching would be required for removal of the existing fence, at 175 linear feet, and removal of existing utility lines, estimated at 500 linear feet. A 1-foot trench width for fencing removal and a 3-foot trench width for utility line removal was assumed. Therefore, trenching would occur on a total of 1,675 SF. Trenching would begin in December 2025 and last approximately 1 month.

- Activity Start Date

Start Month: 1

Start Month: 2025

- Activity End Date

Indefinite: False

End Month: 12

End Month: 2025

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.137379
SO _x	0.002594
NO _x	0.792113
CO	1.241074
PM 10	0.080635

Pollutant	Total Emissions (TONs)
PM 2.5	0.028118
Pb	0.000000
NH ₃	0.000748
CO ₂ e	254.6

2.1 Demolition Phase

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
 Start Quarter: 1
 Start Year: 2025

- Phase Duration

Number of Month: 10
 Number of Days: 0

2.1.2 Demolition Phase Assumptions

- General Demolition Information

Area of Building to be demolished (ft²): 2736
 Height of Building to be demolished (ft): 15

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft³)

BA: Area of Building to be demolished (ft²)

BH: Height of Building to be demolished (ft)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft²)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 11

Start Quarter: 1

Start Year: 2025

- Phase Duration

Number of Month: 1

Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 2736

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 500

- Site Grading Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.3 Trenching/Excavating Phase

2.3.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 12

Start Quarter: 1

Start Year: 2025

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Phase Duration

Number of Month: 1

Number of Days: 0

2.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 1675

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM_{TWT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VM_{TWT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VM_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Burlington
Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Demolition of B1190 (Well #6)

- Activity Description:

It was assumed demolition of the current Well #6 (B1190) would occur over a 1-year period from January 2025 through December 2025.

Demolition would include the filter building (1,617 SF) and the sedimentation building (1,010 SF) for a total of 2,627 SF. The height of the existing facilities was assumed to be 15 feet. Demolition would begin in January 2025 and last approximately 10 months.

Site grading would occur on the site following demolition, for a total area of 2,627 SF. It was assumed 500 cubic yards of demolition debris would be hauled off-site. Site grading would occur in November 2025 and last approximately 1 month.

Trenching would be required for removal of the existing fence, at 175 linear feet, and removal of existing utility lines, estimated at 500 linear feet. A 1-foot trench width for fencing removal and a 3-foot trench width for utility line removal was assumed. Therefore, trenching would occur on a total of 1,675 SF. Trenching would begin in December 2025 and last approximately 1 month.

- Activity Start Date

Start Month: 1
Start Month: 2025

- Activity End Date

Indefinite: False
End Month: 12
End Month: 2025

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.137377
SO _x	0.002594
NO _x	0.792071
CO	1.241047
PM 10	0.079206

Pollutant	Total Emissions (TONs)
PM 2.5	0.028117
Pb	0.000000
NH ₃	0.000747
CO ₂ e	254.6

3.1 Demolition Phase

3.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
 Start Quarter: 1
 Start Year: 2025

- Phase Duration

Number of Month: 10
 Number of Days: 0

3.1.2 Demolition Phase Assumptions

- General Demolition Information

Area of Building to be demolished (ft²): 2627
 Height of Building to be demolished (ft): 15

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

3.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft³)

BA: Area of Building to be demolished (ft²)

BH: Height of Building to be demolished (ft)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft²)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3.2 Site Grading Phase

3.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 11
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 1
Number of Days: 0

3.2.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft ²):	2627
Amount of Material to be Hauled On-Site (yd ³):	0
Amount of Material to be Hauled Off-Site (yd ³):	500

- Site Grading Default Settings

Default Settings Used: Yes

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.2.4 Site Grading Phase Formula(s)

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2000: Conversion Factor pounds to tons

3.3 Trenching/Excavating Phase

3.3.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 12
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 1
Number of Days: 0

3.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 1675
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.3.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH₃	CO_{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

3.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VM_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VM_{VE} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

4. Tanks

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Removal of Well #5 1,000-Gallon Diesel Aboveground Storage Tank

- Activity Description:

Following demolition, the 1,000-gallon diesel aboveground storage tank at Well #5 (B5280) would be removed.

- Activity Start Date

Start Month: 1

Start Year: 2026

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Pollutant	Emissions Per Year (TONs)
VOC	-0.052323
SO _x	0.000000
NO _x	0.000000
CO	0.000000
PM 10	0.000000

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.000000
Pb	0.000000
NH ₃	0.000000
CO ₂ e	0.0

4.2 Tanks Assumptions

- Chemical

Chemical Name:	Gasoline (RVP 6)
Chemical Category:	Petroleum Distillates
Chemical Density:	5.6
Vapor Molecular Weight (lb/lb-mole):	69
Stock Vapor Density (lb/ft³):	0.0365053508591625
Vapor Pressure (psia):	2.9335
Vapor Space Expansion Factor (dimensionless):	0.073

- Tank

Type of Tank:	Horizontal Tank
Tank Length (ft):	15
Tank Diameter (ft):	5
Annual Net Throughput (gallon/year):	1000

4.3 Tank Formula(s)

- Vapor Space Volume

$$VSV = (PI / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft³)

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

- Vented Vapor Saturation Factor

$$VVSF = 1 / (1 + (0.053 * VP * L / 2))$$

VVSF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

- Standing Storage Loss per Year

$$SSL_{VOC} = 365 * VSV * SVD * VSEF * VVSF / 2000$$

SSL_{VOC}: Standing Storage Loss Emissions (TONs)

365: Number of Daily Events in a Year (Constant)

VSV: Vapor Space Volume (ft³)

SVD: Stock Vapor Density (lb/ft³)

VSEF: Vapor Space Expansion Factor (dimensionless)

VVSF: Vented Vapor Saturation Factor (dimensionless)

2000: Conversion Factor pounds to tons

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Number of Turnovers per Year

$$NT = (7.48 * ANT) / ((PI / 4.0) * D * L)$$

NT: Number of Turnovers per Year

7.48: Constant

ANT: Annual Net Throughput

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

- Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year

18: Constant

NT: Number of Turnovers per Year

6: Constant

- Working Loss per Year

$$WL_{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000$$

0.0010: Constant

VMW: Vapor Molecular Weight (lb/lb-mole)

VP: Vapor Pressure (psia)

ANT: Annual Net Throughput

WLSF: Working Loss Turnover (Saturation) Factor

2000: Conversion Factor pounds to tons

5. Tanks

5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Removal of Well #5 1,000-Gallon No.2 Fuel Oil Aboveground Storage Tank

- Activity Description:

Following demolition, the 1,000-gallon fuel oil no. 2 aboveground storage tank at Well #5 (B5280) would be removed.

- Activity Start Date

Start Month: 1

Start Year: 2026

- Activity End Date

Indefinite: Yes

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.000379
SO _x	0.000000
NO _x	0.000000
CO	0.000000
PM 10	0.000000

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.000000
Pb	0.000000
NH ₃	0.000000
CO ₂ e	0.0

5.2 Tanks Assumptions

- Chemical

Chemical Name: Fuel oil no. 2
Chemical Category: Petroleum Distillates
Chemical Density: 7.1
Vapor Molecular Weight (lb/lb-mole): 130
Stock Vapor Density (lb/ft³): 0.000152397573635847
Vapor Pressure (psia): 0.0065
Vapor Space Expansion Factor (dimensionless): 0.073

- Tank

Type of Tank: Horizontal Tank
Tank Length (ft): 15
Tank Diameter (ft): 5
Annual Net Throughput (gallon/year): 1000

5.3 Tank Formula(s)

- Vapor Space Volume

$$VSV = (PI / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft³)

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

- Vented Vapor Saturation Factor

$$VVSF = 1 / (1 + (0.053 * VP * L / 2))$$

VVSF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

- Standing Storage Loss per Year

$$SSL_{VOC} = 365 * VSV * SVD * VSEF * VVSF / 2000$$

SSL_{VOC}: Standing Storage Loss Emissions (TONs)

365: Number of Daily Events in a Year (Constant)

VSV: Vapor Space Volume (ft³)

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

SVD: Stock Vapor Density (lb/ft³)
VSEF: Vapor Space Expansion Factor (dimensionless)
VVSF: Vented Vapor Saturation Factor (dimensionless)
2000: Conversion Factor pounds to tons

- Number of Turnovers per Year

$$NT = (7.48 * ANT) / ((PI / 4.0) * D * L)$$

NT: Number of Turnovers per Year
7.48: Constant
ANT: Annual Net Throughput
PI: PI Math Constant
D²: Tank Diameter (ft)
L: Tank Length (ft)

- Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year
18: Constant
NT: Number of Turnovers per Year
6: Constant

- Working Loss per Year

$$WL_{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000$$

0.0010: Constant
VMW: Vapor Molecular Weight (lb/lb-mole)
VP: Vapor Pressure (psia)
ANT: Annual Net Throughput
WLSF: Working Loss Turnover (Saturation) Factor
2000: Conversion Factor pounds to tons

6. Tanks

6.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Removal of Well #6 1,000-Gallon Diesel Aboveground Storage Tank

- Activity Description:

Following demolition, the 1,000-gallon diesel aboveground storage tank at Well #6 (B1190) would be removed.

- Activity Start Date

Start Month: 1

Start Year: 2026

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity End Date

Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.052323
SO _x	0.000000
NO _x	0.000000
CO	0.000000
PM 10	0.000000

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.000000
Pb	0.000000
NH ₃	0.000000
CO ₂ e	0.0

6.2 Tanks Assumptions

- Chemical

Chemical Name: Gasoline (RVP 6)
Chemical Category: Petroleum Distillates
Chemical Density: 5.6
Vapor Molecular Weight (lb/lb-mole): 69
Stock Vapor Density (lb/ft³): 0.0365053508591625
Vapor Pressure (psia): 2.9335
Vapor Space Expansion Factor (dimensionless): 0.073

- Tank

Type of Tank: Horizontal Tank
Tank Length (ft): 15
Tank Diameter (ft): 5
Annual Net Throughput (gallon/year): 1000

6.3 Tank Formula(s)

- Vapor Space Volume

$$VSV = (PI / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft³)

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

- Vented Vapor Saturation Factor

$$VVSF = 1 / (1 + (0.053 * VP * L / 2))$$

VVSF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

- Standing Storage Loss per Year

$$SSL_{VOC} = 365 * VSV * SVD * VSEF * VVSF / 2000$$

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

SSL_{VOC}: Standing Storage Loss Emissions (TONs)
365: Number of Daily Events in a Year (Constant)
VSV: Vapor Space Volume (ft³)
SVD: Stock Vapor Density (lb/ft³)
VSEF: Vapor Space Expansion Factor (dimensionless)
VVSF: Vented Vapor Saturation Factor (dimensionless)
2000: Conversion Factor pounds to tons

- Number of Turnovers per Year

$$NT = (7.48 * ANT) / ((PI / 4.0) * D * L)$$

NT: Number of Turnovers per Year
7.48: Constant
ANT: Annual Net Throughput
PI: PI Math Constant
D²: Tank Diameter (ft)
L: Tank Length (ft)

- Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year
18: Constant
NT: Number of Turnovers per Year
6: Constant

- Working Loss per Year

$$WL_{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000$$

0.0010: Constant
VMW: Vapor Molecular Weight (lb/lb-mole)
VP: Vapor Pressure (psia)
ANT: Annual Net Throughput
WLSF: Working Loss Turnover (Saturation) Factor
2000: Conversion Factor pounds to tons

7. Tanks

7.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Removal of Well #6 1,000-Gallon No.2 Fuel Oil Aboveground Storage Tank

- Activity Description:

Following demolition, the 1,000-gallon fuel oil no. 2 aboveground storage tank at Well #6 (B1190) would be removed.

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Start Date

Start Month: 1
Start Year: 2026

- Activity End Date

Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.000379
SO _x	0.000000
NO _x	0.000000
CO	0.000000
PM 10	0.000000

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.000000
Pb	0.000000
NH ₃	0.000000
CO ₂ e	0.0

7.2 Tanks Assumptions

- Chemical

Chemical Name: Fuel oil no. 2
Chemical Category: Petroleum Distillates
Chemical Density: 7.1
Vapor Molecular Weight (lb/lb-mole): 130
Stock Vapor Density (lb/ft³): 0.000152397573635847
Vapor Pressure (psia): 0.0065
Vapor Space Expansion Factor (dimensionless): 0.073

- Tank

Type of Tank: Horizontal Tank
Tank Length (ft): 15
Tank Diameter (ft): 5
Annual Net Throughput (gallon/year): 1000

7.3 Tank Formula(s)

- Vapor Space Volume

$$VSV = (PI / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft³)

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

- Vented Vapor Saturation Factor

$$VVSF = 1 / (1 + (0.053 * VP * L / 2))$$

VVSF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Standing Storage Loss per Year

$$SSL_{VOC} = 365 * VSV * SVD * VSEF * VVSF / 2000$$

SSL_{VOC}: Standing Storage Loss Emissions (TONs)

365: Number of Daily Events in a Year (Constant)

VSV: Vapor Space Volume (ft³)

SVD: Stock Vapor Density (lb/ft³)

VSEF: Vapor Space Expansion Factor (dimensionless)

VVSF: Vented Vapor Saturation Factor (dimensionless)

2000: Conversion Factor pounds to tons

- Number of Turnovers per Year

$$NT = (7.48 * ANT) / ((PI / 4.0) * D * L)$$

NT: Number of Turnovers per Year

7.48: Constant

ANT: Annual Net Throughput

PI: PI Math Constant

D²: Tank Diameter (ft)

L: Tank Length (ft)

- Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year

18: Constant

NT: Number of Turnovers per Year

6: Constant

- Working Loss per Year

$$WL_{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000$$

0.0010: Constant

VMW: Vapor Molecular Weight (lb/lb-mole)

VP: Vapor Pressure (psia)

ANT: Annual Net Throughput

WLSF: Working Loss Turnover (Saturation) Factor

2000: Conversion Factor pounds to tons

8. Emergency Generator

8.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Removal of Well #5 Emergency Generator

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Description:

Following demolition, the emergency generator at Well #5 would no longer be needed.

- Activity Start Date

Start Month: 1
Start Year: 2026

- Activity End Date

Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.005650
SO _x	-0.004759
NO _x	-0.023288
CO	-0.015552
PM 10	-0.005083

Pollutant	Emissions Per Year (TONs)
PM 2.5	-0.005083
Pb	0.000000
NH ₃	0.000000
CO ₂ e	-2.7

8.2 Emergency Generator Assumptions

- Emergency Generator

Type of Fuel used in Emergency Generator: Diesel
Number of Emergency Generators: 1

- Default Settings Used: Yes

- Emergency Generators Consumption

Emergency Generator's Horsepower: 135 (default)
Average Operating Hours Per Year (hours): 30 (default)

8.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251			1.33

8.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

AE_{POL}: Activity Emissions (TONs per Year)
NGEN: Number of Emergency Generators
HP: Emergency Generator's Horsepower (hp)
OT: Average Operating Hours Per Year (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)

9. Emergency Generator

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

9.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Remove

- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project D2: Removal of Well #6 Emergency Generator

- Activity Description:

Following demolition, the emergency generator at Well #6 would no longer be needed.

- Activity Start Date

Start Month: 1

Start Year: 2026

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	-0.005650
SO _x	-0.004759
NO _x	-0.023288
CO	-0.015552
PM 10	-0.005083

Pollutant	Emissions Per Year (TONs)
PM 2.5	-0.005083
Pb	0.000000
NH ₃	0.000000
CO ₂ e	-2.7

9.2 Emergency Generator Assumptions

- Emergency Generator

Type of Fuel used in Emergency Generator: Diesel

Number of Emergency Generators: 1

- Default Settings Used: Yes

- Emergency Generators Consumption

Emergency Generator's Horsepower: 135 (default)

Average Operating Hours Per Year (hours): 30 (default)

9.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251			1.33

9.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

Project D2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

AE_{POL}: Activity Emissions (TONs per Year)

NGEN: Number of Emergency Generators

HP: Emergency Generator's Horsepower (hp)

OT: Average Operating Hours Per Year (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)

Project R1

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAKEHURST NAVAL STATION

State: New Jersey

County(s): Ocean

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project R1: Lakehurst Main Gate Security Improvements (FY 2027)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2027

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project R1

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

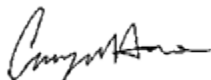
2027

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.257	50	No
NOx	0.923	100	No
CO	1.322		
SOx	0.003		
PM 10	2.660		
PM 2.5	0.036		
Pb	0.000		
NH3	0.001		
CO2e	299.1		

2028 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: LAKEHURST NAVAL STATION
State: New Jersey
County(s): Ocean
Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Action Title: Project R1: Lakehurst Main Gate Security Improvements (FY 2027)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2027

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein
Title: Contractor
Organization: HDR
Email:
Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project R1: Lakehurst Main Gate Security Improvements

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Ocean

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Regulatory Area(s): Philadelphia-Wilmin-Atlantic City, PA-NJ-MD-DE

- Activity Title: Project R1: Lakehurst Main Gate Security Improvements

- Activity Description:

It was assumed the Lakehurst Main Gate Security Improvements would occur over a 1-year construction period, from January 2027 through December 2027.

Demolition of existing pavement would be required, for an estimated 90,000 SF. Depth of demolition was assumed to be 2 feet. Demolition would begin in January 2027 and last approximately 2 months.

Site grading would occur on approximately 130,000 SF. Site grading would begin in March 2027 and last approximately 2 months.

Construction would include the gatehouse (approx. 500 SF), overwatch (approx. 300 SF), and inspection canopy with guard booths (approx. 6,500 SF), for an estimated total of estimated at 7,300 SF. Construction would begin in May 2027 and last approximately 5 months.

Architectural coatings would be applied to all new structures, estimated at 7,300 SF. Architectural coating application would begin in October 2027 and last approximately 1 month.

Paving for new pavement would occur on approximately 180,000 SF. Paving would begin in November 2031 and last approximately 2 months.

- Activity Start Date

Start Month: 1
Start Month: 2027

- Activity End Date

Indefinite: False
End Month: 12
End Month: 2027

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.257280
SO _x	0.003018
NO _x	0.922710
CO	1.321925
PM 10	2.660303

Pollutant	Total Emissions (TONs)
PM 2.5	0.035994
Pb	0.000000
NH ₃	0.000997
CO ₂ e	299.1

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
Start Quarter: 1
Start Year: 2027

- Phase Duration

Number of Month: 2
Number of Days: 0

2.1.2 Demolition Phase Assumptions

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- General Demolition Information

Area of Building to be demolished (ft²): 90000

Height of Building to be demolished (ft): 2

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.1.4 Demolition Phase Formula(s)

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft³)

BA: Area of Building to be demolished (ft²)

BH: Height of Building to be demolished (ft)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft²)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2027

- Phase Duration

Number of Month: 2
Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 130000
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Tractors/Loaders/Backhoes Composite	2	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)
 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)
 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
 EF_{POL} : Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 5
Start Quarter: 1
Start Year: 2027

- Phase Duration

Number of Month: 5
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 7300
Height of Building (ft): 15
Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF_{POL}: Emission Factor for Pollutant (grams/mile)
 VM: Worker Trips On Road Vehicle Mixture (%)
 2000: Conversion Factor pounds to tons

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 10
 Start Quarter: 1
 Start Year: 2027

- Phase Duration

Number of Month: 1
 Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
 Total Square Footage (ft²): 7300
 Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes
 Average Day(s) worked per week: 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$\text{VMT}_{\text{WT}} = (1 * \text{WT} * \text{PA}) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
 1: Conversion Factor man days to trips (1 trip / 1 man * day)

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC} : Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 11

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 2

Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 180000

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Paving Equipment Composite	2	6
Rollers Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.192	000.002	000.097	002.801	000.004	000.004		000.024	00307.111
LDGT	000.212	000.003	000.169	003.164	000.006	000.005		000.026	00401.039
HDGV	000.878	000.006	000.872	013.616	000.025	000.022		000.052	00923.910
LDDV	000.077	000.001	000.080	003.096	000.003	000.002		000.008	00310.104
LDDT	000.086	000.001	000.121	002.131	000.003	000.003		000.009	00362.685
HDDV	000.127	000.004	002.514	001.592	000.044	000.040		000.032	01232.634
MC	002.487	000.003	000.654	011.966	000.022	000.019		000.053	00389.398

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

Project R1

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_p = (2.62 * PA) / 43560$$

VOC_p : Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft²)

43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

Project R2

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: FORT DIX

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

b. Action Title: Project R2: Berm Removal (FY 2024)

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

f. Point of Contact:

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:

☐ applicable
☒ not applicable

Project R2

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Conformity Analysis Summary:

2024

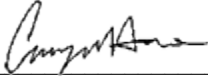
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.245	100	No
NOx	1.189	100	No
CO	1.985		
SOx	0.005	100	No
PM 10	0.080		
PM 2.5	0.044	100	No
Pb	0.000		
NH3	0.001	100	No
CO2e	487.8		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.245	50	No
NOx	1.189	100	No
CO	1.985		
SOx	0.005		
PM 10	0.080		
PM 2.5	0.044		
Pb	0.000		
NH3	0.001		
CO2e	487.8		

2025 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington, PA-NJ-DE			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	0.0		
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

Project R2
AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Carolyn Hein, Contractor

6/22/2023

DATE

Project R2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: FORT DIX

State: New Jersey

County(s): Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Action Title: Project R2: Berm Removal (FY 2024)

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose and need of each Proposed Action are listed in Section 1.6, Table 1.6-1 of the EA.

- Action Description:

The following assumptions were made in the analysis for the Proposed Actions:

1. Construction for each of the IDP projects (except Project C6 [Installation of Aerators]) would occur over a 1-year period. Construction years used for each project are listed in Section 1.4, Table 2-1 of the EA. Instead of construction starting at the beginning of the fiscal year, the calendar year was used for the purposes of the general conformity applicability analysis. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction is likely to be different than what was assumed for the analysis.
2. The construction period for Project C6 (Installation of Aerators) was assumed to be 30 days.
3. The existing emergency generators at current Well #5 and Well #6 would be deactivated and removed under Project D2. The existing emergency generator at the CATM facility would not be affected by the facility addition under Project C4. No new emergency generators would be installed.
4. Except for Project R2 (Berm Removal), Project D1 (Demolish ATCT), and Project D2 (Demolish Wells), no material would be hauled on- or off-site. Excavated fill would be reused in place.

- Point of Contact

Name: Carolyn Hein

Title: Contractor

Organization: HDR

Email:

Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Project R2: Berm Removal

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

Project R2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- **Activity Title:** Project R2: Berm Removal

- **Activity Description:**

It was assumed berm removal would occur over a 1-year construction period, from January 2024 through December 2024.

Excavation for each of the four berms would occur on a 15-foot linear area. Width of excavation was assumed to be 5 feet, for an excavation area of 75 SF (300 SF for all four berms) . Depth of excavation was assumed to be 10 feet. 61 cubic yards of material would be hauled off-site for each berm, for a total of 244 cubic feet.

Excavation would begin in January 2024 and last approximately 12 months.

- **Activity Start Date**

Start Month: 1

Start Month: 2024

- **Activity End Date**

Indefinite: False

End Month: 12

End Month: 2024

- **Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	0.245315
SO _x	0.005169
NO _x	1.189419
CO	1.985024
PM 10	0.079546

Pollutant	Total Emissions (TONs)
PM 2.5	0.043718
Pb	0.000000
NH ₃	0.000725
CO ₂ e	487.8

2.1 Trenching/Excavating Phase

2.1.1 Trenching / Excavating Phase Timeline Assumptions

- **Phase Start Date**

Start Month: 1

Start Quarter: 1

Start Year: 2024

- **Phase Duration**

Number of Month: 12

Number of Days: 0

2.1.2 Trenching / Excavating Phase Assumptions

- **General Trenching/Excavating Information**

Area of Site to be Trenched/Excavated (ft²): 300

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 244

- **Trenching Default Settings**

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

Project R2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.505	000.007	000.596	004.546	000.014	000.013		000.034	00359.320
LDGT	000.642	000.010	000.990	007.023	000.016	000.014		000.034	00482.233
HDGV	001.187	000.015	002.938	023.996	000.040	000.036		000.044	00759.078
LDDV	000.252	000.003	000.321	003.510	000.007	000.006		000.008	00365.676
LDDT	000.550	000.005	000.863	007.157	000.009	000.008		000.008	00571.348
HDDV	001.058	000.014	010.105	003.196	000.375	000.345		000.032	01613.660
MC	002.238	000.008	000.817	014.316	000.028	000.025		000.052	00398.719

2.1.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

Project R2

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

APPENDIX E
USFWS Information and
Planning and Consultation

C1-1 & C1-2 Airfield Perim Road



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0096822

Project Name: JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road" (here forward, Project). This project has been assigned Project Code 2023-0096822 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency

makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road':

Construction of a new perimeter road adjacent to an existing airfield

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0149344,-74.58020069909307,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

Yes

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

Yes

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

Yes

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

Yes

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

41. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

42. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

Yes

43. Has a bog turtle [Phase 1 habitat assessment](#) been conducted?

Yes

44. Was potentially suitable bog turtle habitat identified during the Phase 1 habitat assessment?

No

45. Was the person conducting the Phase 1 habitat assessment a qualified bog turtle surveyor?

Yes

46. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0.5
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
65
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Grassed/herbaceous area adjacent to existing runway, includes wetlands and a tree line
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0096822

Project Name: JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road' (here forward, Project). This project has been assigned Project Code 2023-0096822 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0096822 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road':

Construction of a new perimeter road adjacent to an existing airfield

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0149344,-74.58020069909307,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0096822

Project Name: JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0096822

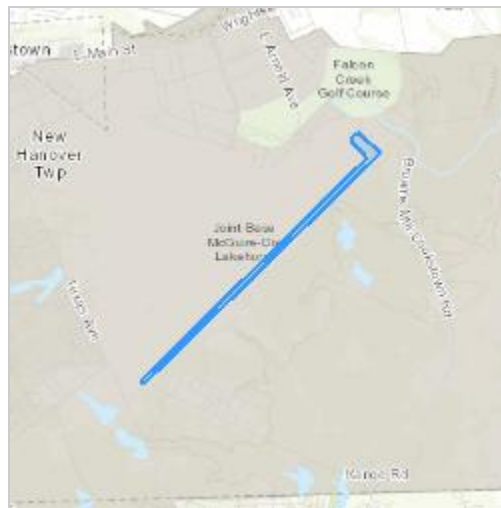
Project Name: JBMDL DAF Installation Development Plan Project C1-1 Airfield
Perimeter Road

Project Type: Military Development

Project Description: Construction of a new perimeter road adjacent to an existing airfield

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0149344,-74.58020069909307,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

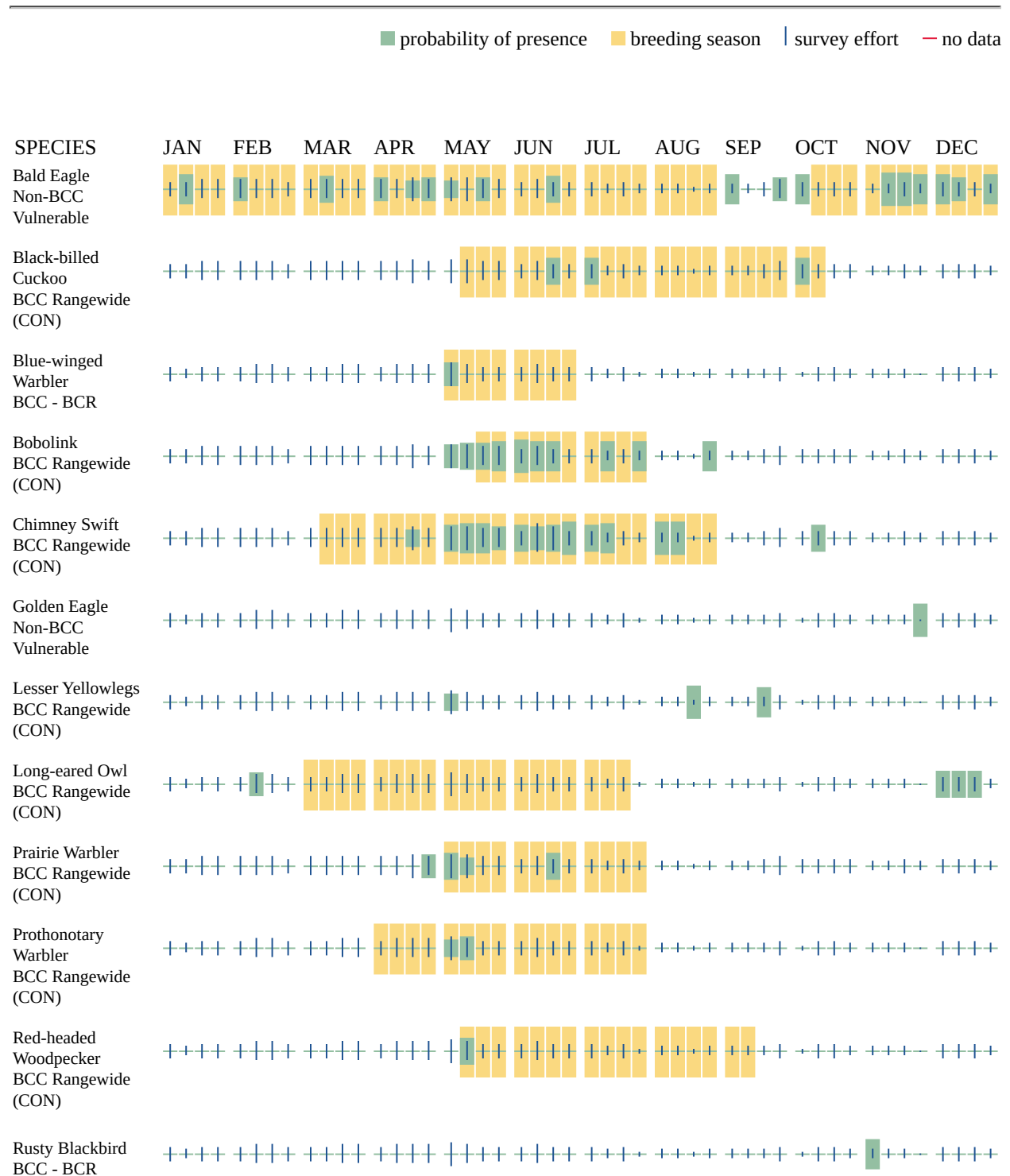
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

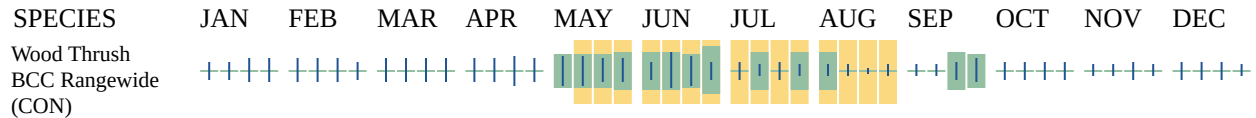
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- [R4SBCx](#)
- [R2UBHx](#)

FRESHWATER EMERGENT WETLAND

- [PEM1E](#)
- [PEM1/SS1D](#)
- [PEM1Cd](#)
- [PEM1D](#)

FRESHWATER POND

- [PUBHh](#)
 - [PUBHx](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 22, 2023

Project Code: 2023-0096822

Project Name: JBMDL DAF Installation Development Plan Project C1-1 Airfield Perimeter Road

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0096822

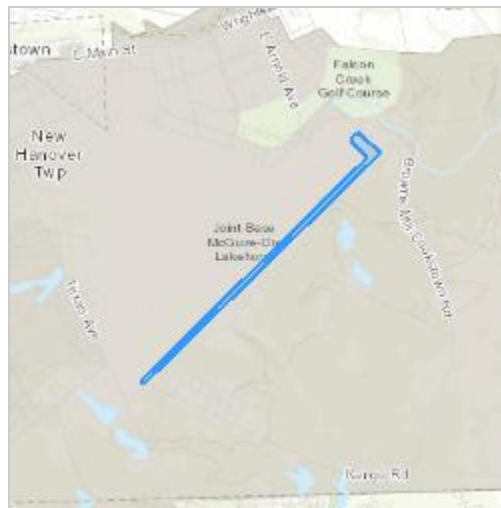
Project Name: JBMDL DAF Installation Development Plan Project C1-1 Airfield
Perimeter Road

Project Type: Military Development

Project Description: Construction of a new perimeter road adjacent to an existing airfield

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0149344,-74.58020078834295,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

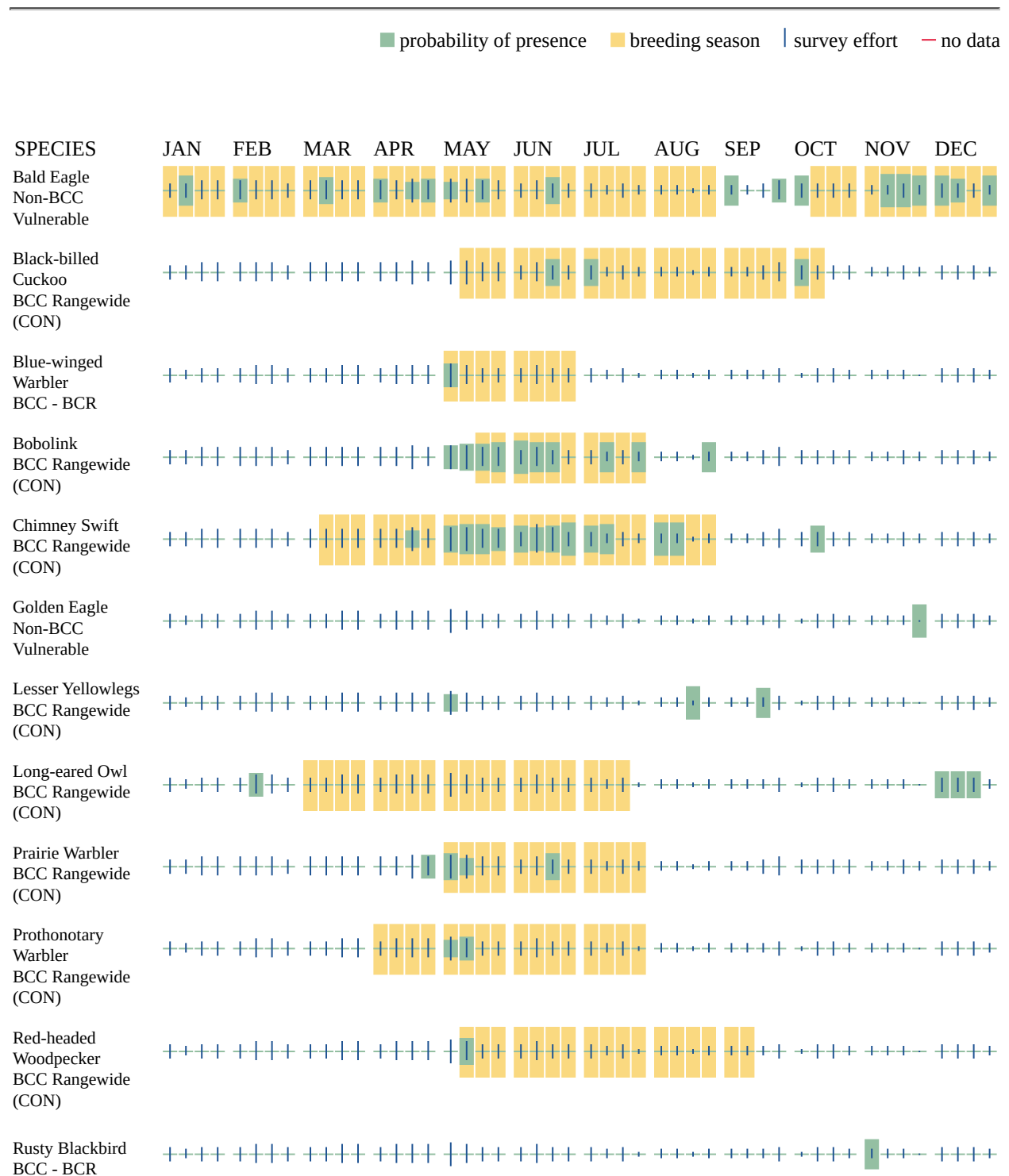
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

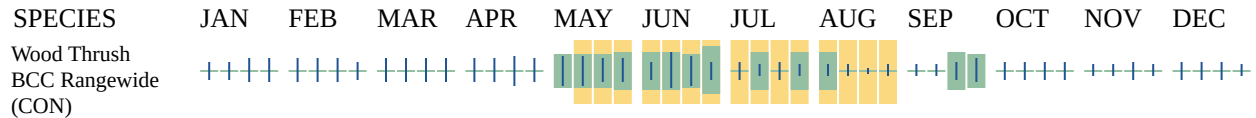
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- [PUBHx](#)
- [PUBHh](#)

RIVERINE

- [R2UBHx](#)
- [R4SBCx](#)

FRESHWATER EMERGENT WETLAND

- [PEM1/SS1D](#)
 - [PEM1Cd](#)
 - [PEM1D](#)
 - [PEM1E](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

C2 Air Traffic Control Tower



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097313

Project Name: JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower" (here forward, Project). This project has been assigned Project Code 2023-0097313 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency

makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	No effect
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower':

Construct a new Air Traffic Control Tower and associated support building, including additional tree clearing for visibility to an existing helipad.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0329677,-74.34644513777594,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

38. Does the project occur within suitable habitat for American chaffseed? American chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. The species is generally found in habitats described as pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric sandy soils, and other open grass-sedge systems.

No

39. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

40. Is the project located within suitable habitat for Knieskern's beaked-rush? (If you are unsure, select "Yes")

Note: Knieskern's beaked-rush habitat consists of groundwater-influenced, constantly fluctuating, successional habitat. Appropriate conditions include sandy loam or clay soils, intermittent soil moisture, relatively open canopy, and repeated disturbance. Habitat also includes human-disturbed wet sites that exhibit similar early successional stages due to water fluctuation or periodic disturbance from vehicles, fire, or mowing. Examples include, but are not limited to, moist sandy road sides, road sides adjacent to wetland complexes, off-road vehicle trails, and/or areas subject to fire maintenance.

No

41. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

42. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

43. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

44. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

45. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

46. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

47. Does the project include activity in or within 300 feet of a freshwater wetland?

Note: Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

48. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

49. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
1.1
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
1.6
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Trees and herbaceous (grass, shrubs) areas adjacent to existing paved areas
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097313

Project Name: JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower' (here forward, Project). This project has been assigned Project Code 2023-0097313 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097313 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower':

Construct a new Air Traffic Control Tower and associated support building, including additional tree clearing for visibility to an existing helipad.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0329677,-74.34644513777594,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097313

Project Name: JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097313

Project Name: JBMDL DAF Installation Development Plan Project C2-1 Air Traffic Control Tower

Project Type: Military Development

Project Description: Construct a new Air Traffic Control Tower and associated support building, including additional tree clearing for visibility to an existing helipad.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0329677,-74.34644513777594,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3280	Threatened
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

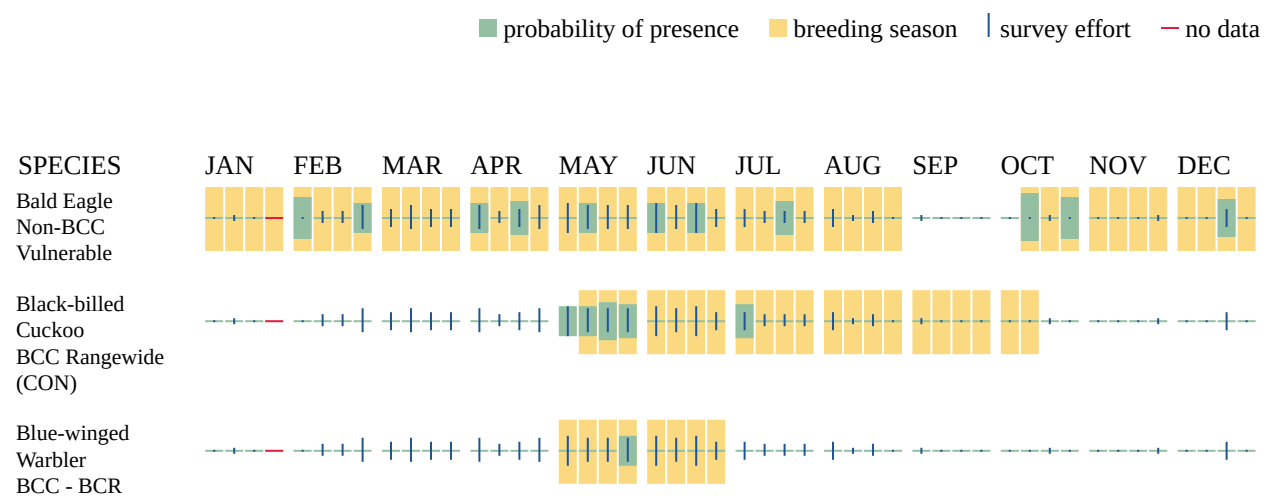
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

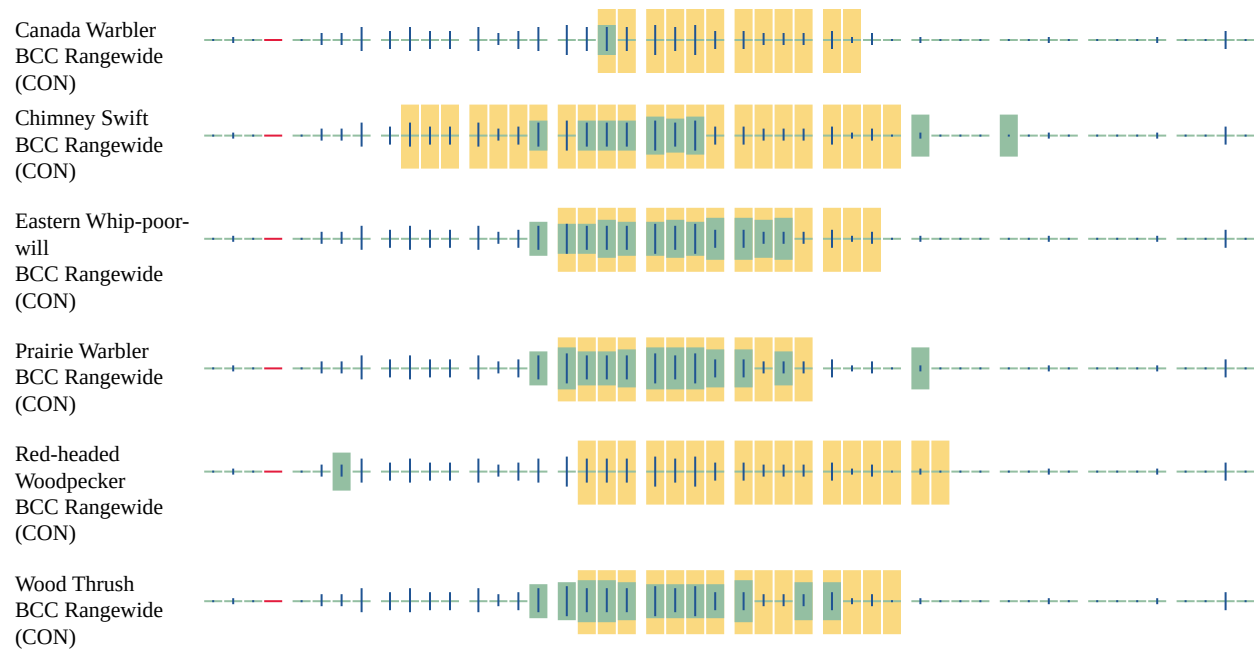
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097342

Project Name: JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower" (here forward, Project). This project has been assigned Project Code 2023-0097342 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency

makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	No effect
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

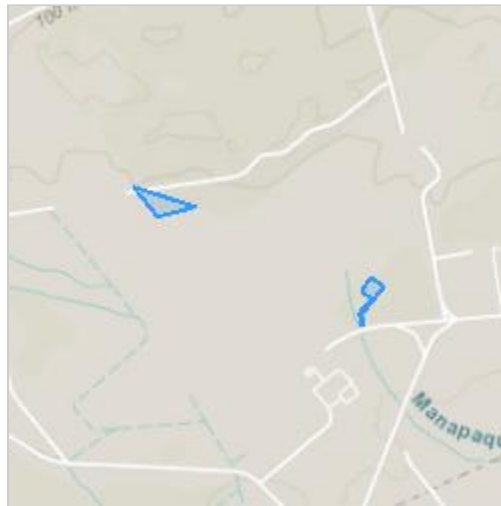
JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower':

Construct new air traffic control tower and clear trees for visibility to an existing runway.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0381462,-74.35446028883764,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

No

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

38. Does the project occur within suitable habitat for American chaffseed? American chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. The species is generally found in habitats described as pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric sandy soils, and other open grass-sedge systems.

No

39. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

40. Is the project located within suitable habitat for Knieskern's beaked-rush? (If you are unsure, select "Yes")

Note: Knieskern's beaked-rush habitat consists of groundwater-influenced, constantly fluctuating, successional habitat. Appropriate conditions include sandy loam or clay soils, intermittent soil moisture, relatively open canopy, and repeated disturbance. Habitat also includes human-disturbed wet sites that exhibit similar early successional stages due to water fluctuation or periodic disturbance from vehicles, fire, or mowing. Examples include, but are not limited to, moist sandy road sides, road sides adjacent to wetland complexes, off-road vehicle trails, and/or areas subject to fire maintenance.

No

41. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

42. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

43. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

44. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

45. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

46. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

47. Does the project include activity in or within 300 feet of a freshwater wetland?

Note: Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

48. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

49. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
2.5
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
3.2
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Trees and grass/shrub areas adjacent to existing runway
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097342

Project Name: JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower' (here forward, Project). This project has been assigned Project Code 2023-0097342 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097342 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

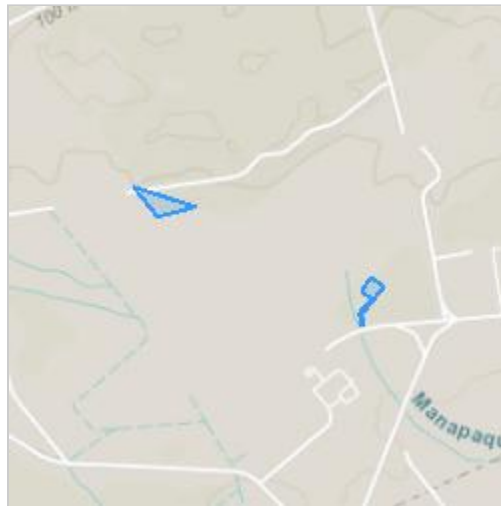
JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower':

Construct new air traffic control tower and clear trees for visibility to an existing runway.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0381462,-74.35446028883764,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097342

Project Name: JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097342

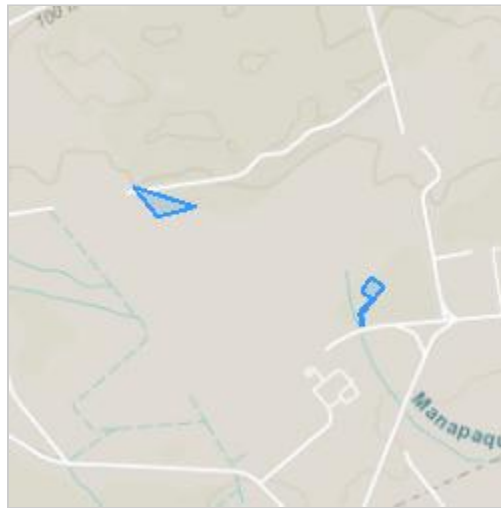
Project Name: JBMDL DAF Installation Development Plan Project C2-2 Air Traffic Control Tower

Project Type: Military Development

Project Description: Construct new air traffic control tower and clear trees for visibility to an existing runway.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0381462,-74.35446028883764,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3280	Threatened
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

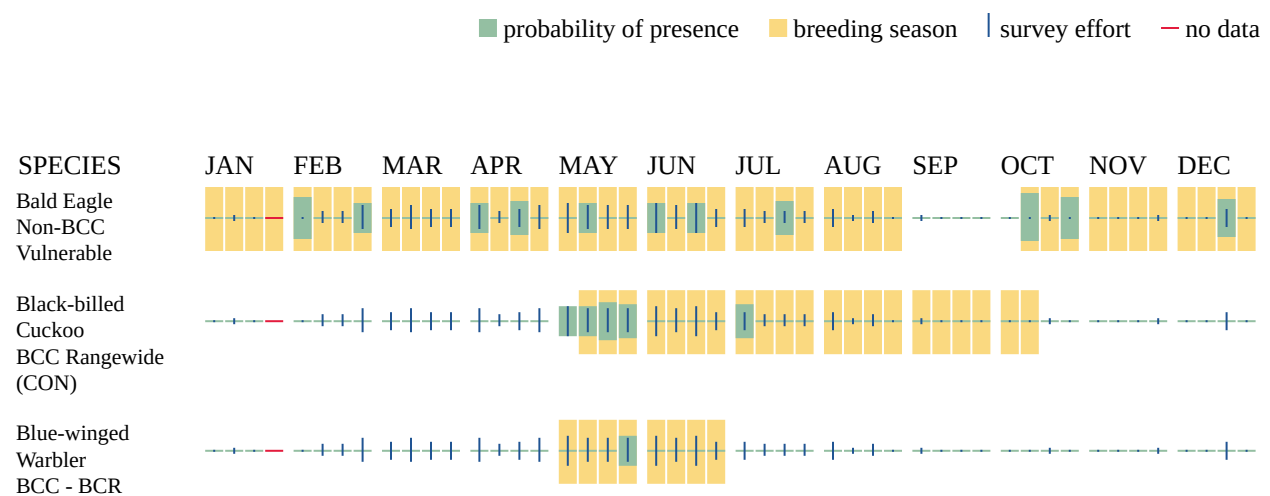
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

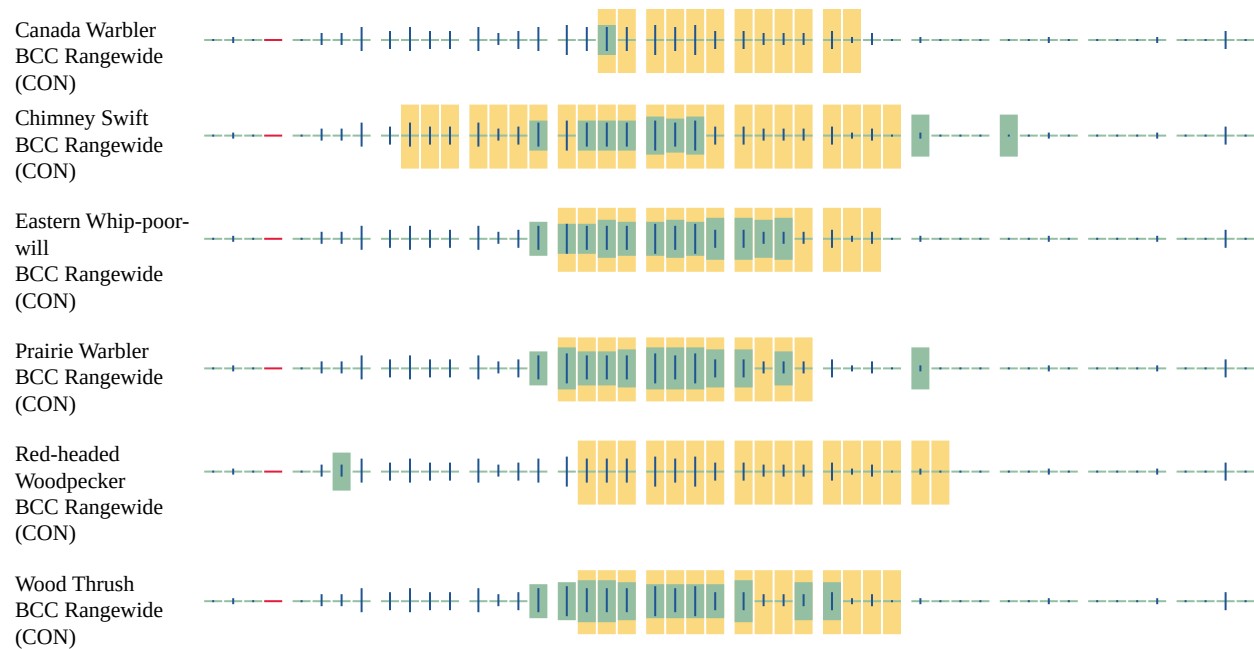
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097350

Project Name: JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower" (here forward, Project). This project has been assigned Project Code 2023-0097350 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency

makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	May affect
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	May affect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower':

Construct a new ATCT and associated support building

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0297054,-74.35396082211764,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

38. Does the project occur within suitable habitat for American chaffseed? American chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. The species is generally found in habitats described as pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric sandy soils, and other open grass-sedge systems.

Yes

39. Is American chaffseed currently known to occur in the action area?

No

40. Did a qualified surveyor conduct a survey within the action area during the time frame when plants are expected to be present and identifiable (May to August, 1 -2 months after a fire)?

No

41. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

42. Is the project located within suitable habitat for Knieskern's beaked-rush? (If you are unsure, select "Yes")

Note: Knieskern's beaked-rush habitat consists of groundwater-influenced, constantly fluctuating, successional habitat. Appropriate conditions include sandy loam or clay soils, intermittent soil moisture, relatively open canopy, and repeated disturbance. Habitat also includes human-disturbed wet sites that exhibit similar early successional stages due to water fluctuation or periodic disturbance from vehicles, fire, or mowing. Examples include, but are not limited to, moist sandy road sides, road sides adjacent to wetland complexes, off-road vehicle trails, and/or areas subject to fire maintenance.

Yes

43. Are Knieskern's beaked-rush locations identified in sufficient detail in available surveys or records within the last five years to facilitate avoidance of Knieskern's beaked-rush by this project? (If you are unsure, select "No").

No

44. Did a qualified surveyor conduct a survey within the action area during the time frame when plants are expected to be present and identifiable (July to September)?

No

45. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

46. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

47. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

48. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

49. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

50. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

51. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

Yes

52. Has a bog turtle [Phase 1 habitat assessment](#) been conducted?

Yes

53. Was potentially suitable bog turtle habitat identified during the Phase 1 habitat assessment?

No

54. Was the person conducting the Phase 1 habitat assessment a qualified bog turtle surveyor?

Yes

55. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
1.5
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.7
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Partially treed and herbaceous (grass/shrubs) area between existing road and runways
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097350

Project Name: JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower' (here forward, Project). This project has been assigned Project Code 2023-0097350 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097350 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower':

Construct a new ATCT and associated support building

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0297054,-74.35396082211764,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097350

Project Name: JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097350

Project Name: JBMDL DAF Installation Development Plan Project C2-3 Air Traffic Control Tower

Project Type: Military Development

Project Description: Construct a new ATCT and associated support building

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0297054,-74.35396082211764,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3280	Threatened
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

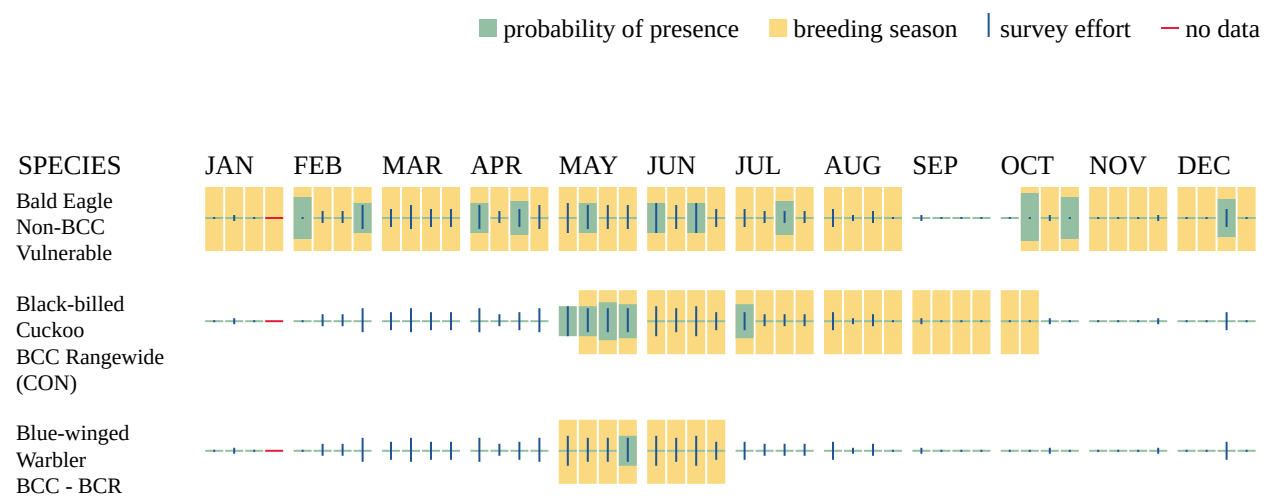
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

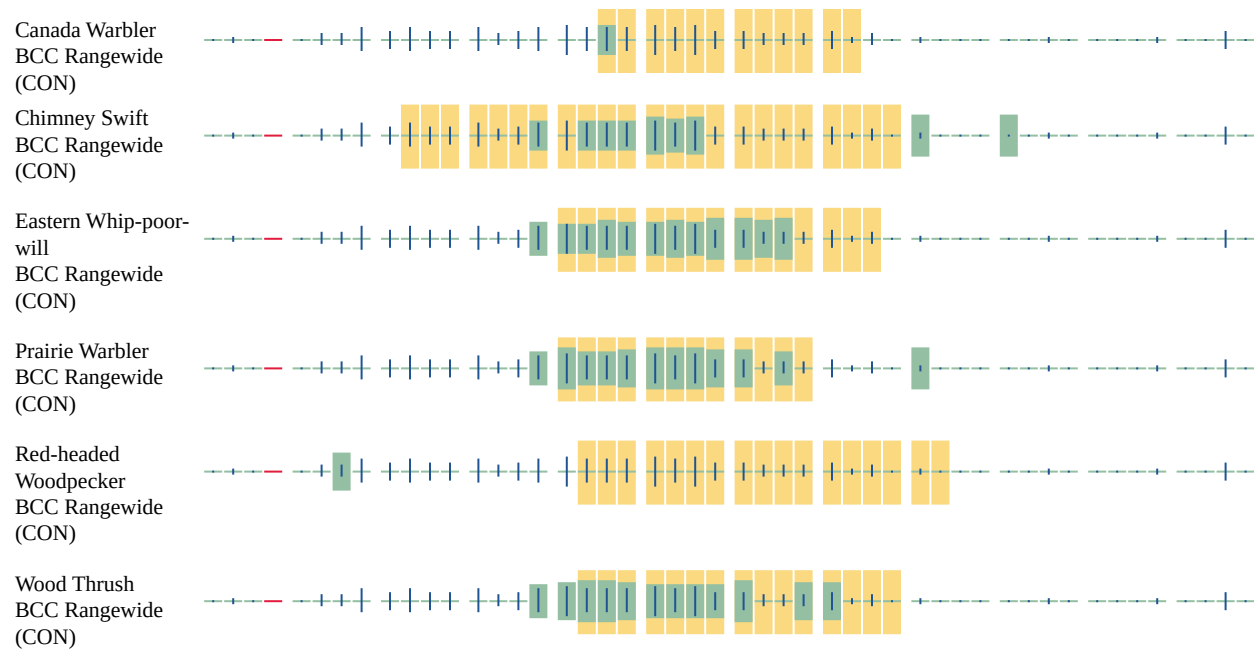
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

C3 Dorm



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 22, 2023

Project code: 2023-0096222

Project Name: JBMDL DAF Installation Development Plan Project C3 Dorm

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C3 Dorm'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 22, 2023, for 'JBMDL DAF Installation Development Plan Project C3 Dorm' (here forward, Project). This project has been assigned Project Code 2023-0096222 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may

include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0096222 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

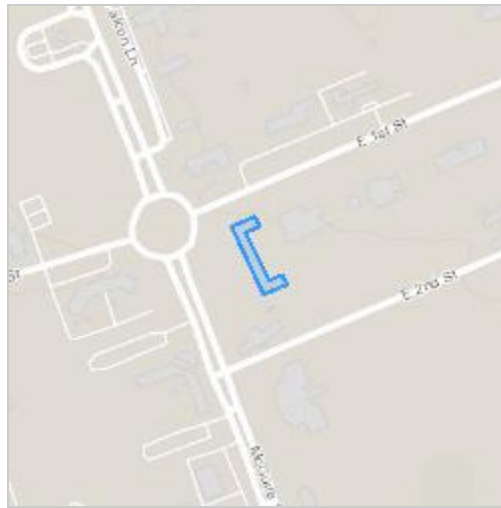
JBMDL DAF Installation Development Plan Project C3 Dorm

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C3 Dorm':

Construction of a new 144-bed dormitory

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.035081,-74.58541378793731,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

11. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

(If unsure, answer "Yes.")

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥ 3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 22, 2023

Project code: 2023-0096222

Project Name: JBMDL DAF Installation Development Plan Project C3 Dorm

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C3 Dorm'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 22, 2023, for "JBMDL DAF Installation Development Plan Project C3 Dorm" (here forward, Project). This project has been assigned Project Code 2023-0096222 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	NLAA

Conclusion

The Service concurs to the above-mentioned determination(s) of may affect, not likely to adversely affect. This concurrence confirms receipt of your agencies coordination required under Section 7(a)(2) of the ESA.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

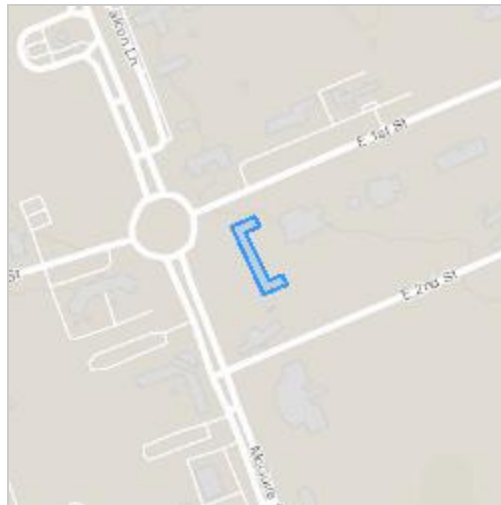
JBMDL DAF Installation Development Plan Project C3 Dorm

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C3 Dorm':

Construction of a new 144-bed dormitory

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.035081,-74.58541378793731,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

Yes

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

Yes

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

41. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

42. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

43. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

44. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0.1
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
3
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Maintained/mowed grass with a few trees
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 21, 2023

Project Code: 2023-0096222

Project Name: JBMDL DAF Installation Development Plan Project C3 Dorm

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0096222

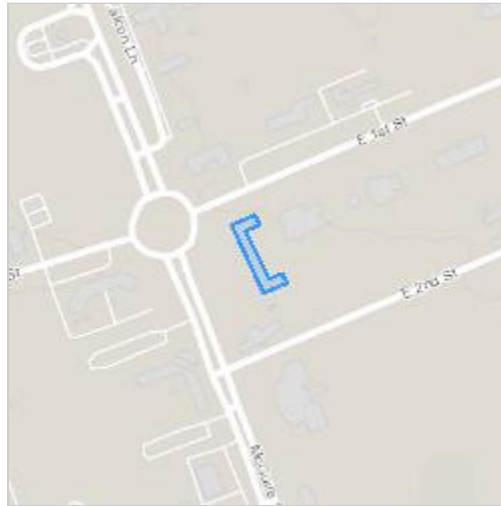
Project Name: JBMDL DAF Installation Development Plan Project C3 Dorm

Project Type: Military Development

Project Description: Construction of a new 144-bed dormitory

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.035081,-74.58541378793731,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

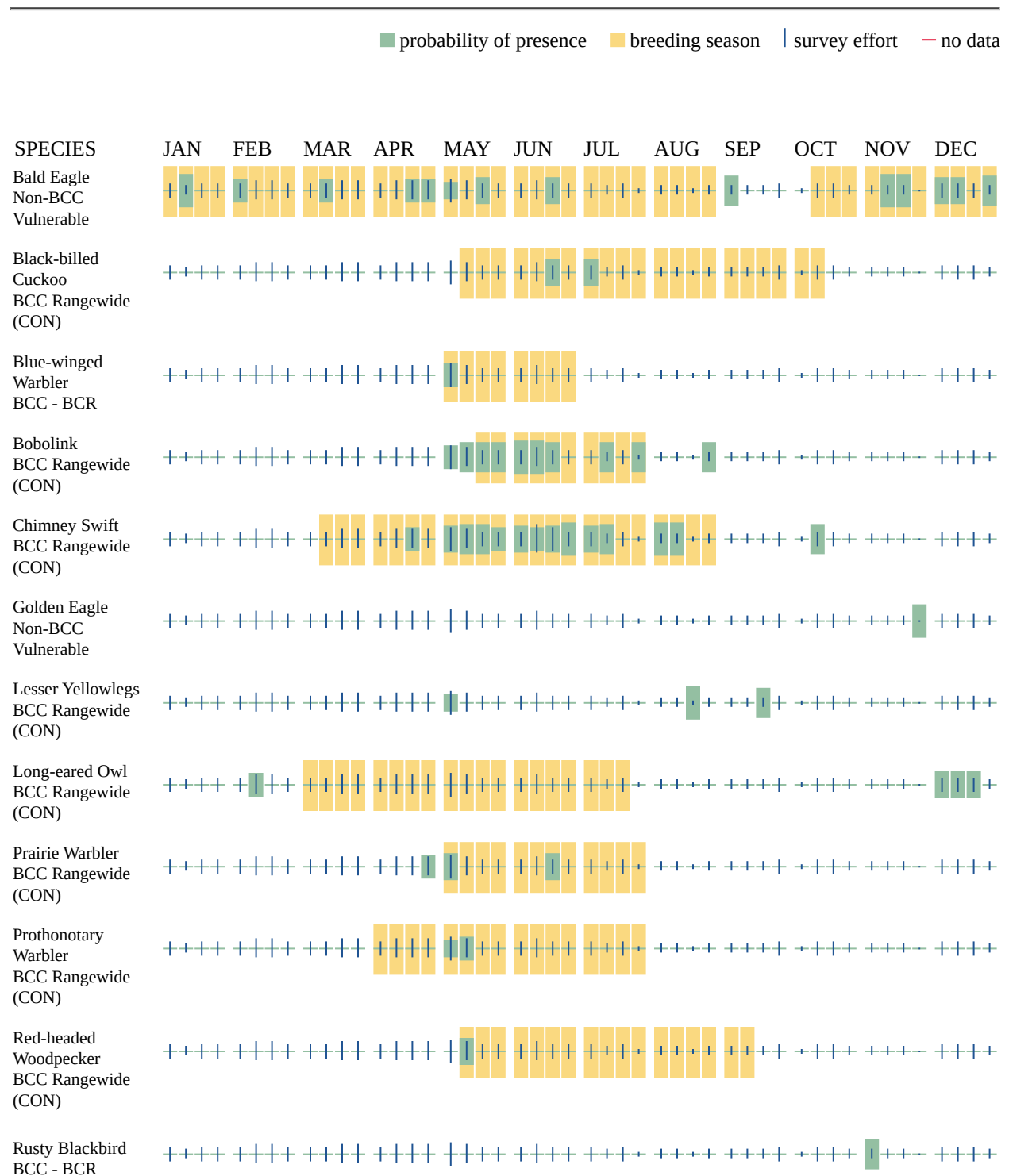
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

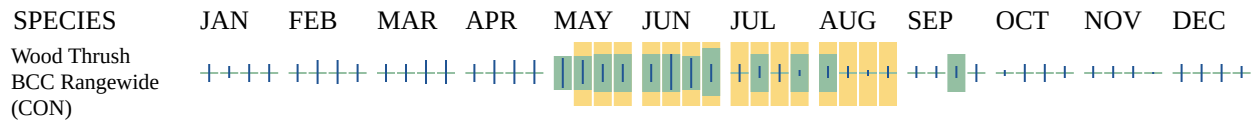
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

C4 Addition to CATM



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097384

Project Name: JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition' (here forward, Project). This project has been assigned Project Code 2023-0097384 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097384 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

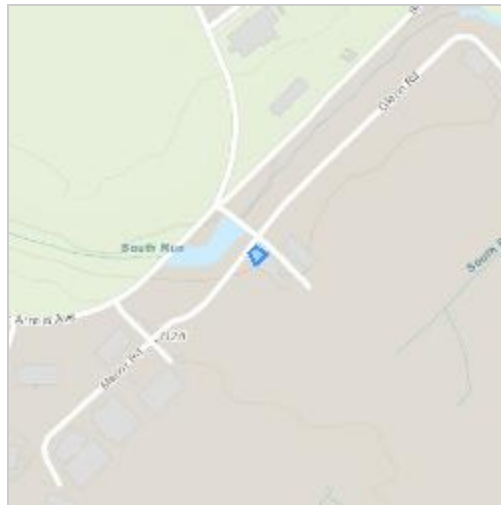
JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition':

Addition to an existing facility/building

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.027680000000004,-74.57552357990681,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097384

Project Name: JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition" (here forward, Project). This project has been assigned Project Code 2023-0097384 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	NLAA

Conclusion

The Service concurs to the above-mentioned determination(s) of may affect, not likely to adversely affect. This concurrence confirms receipt of your agencies coordination required under Section 7(a)(2) of the ESA.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

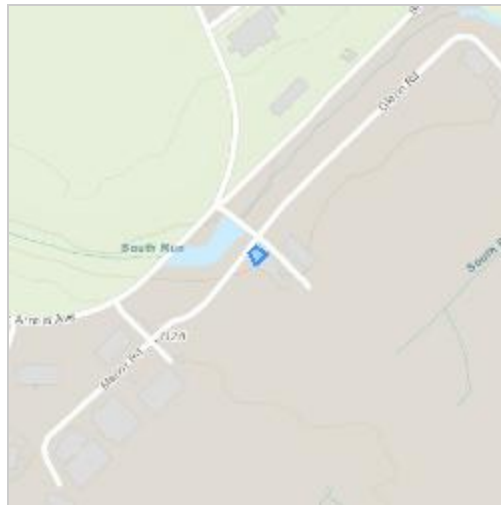
JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition':

Addition to an existing facility/building

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.027680000000004,-74.57552357990681,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

No

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

Yes

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

41. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

42. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

43. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

44. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.15
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Maintained (mowed) grassed area adjacent to an existing building.
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097384

Project Name: JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097384

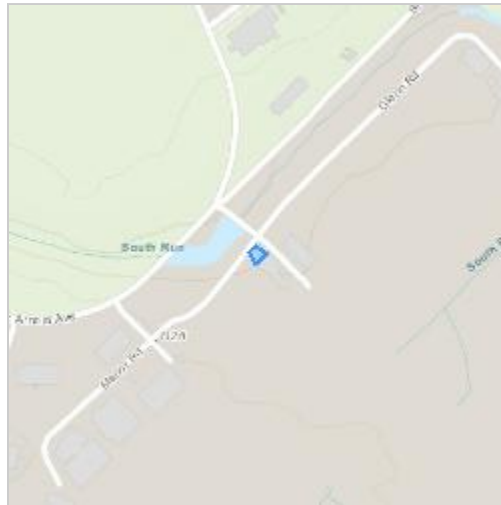
Project Name: JBMDL DAF Installation Development Plan Project C4 CATM Facility Addition

Project Type: Military Development

Project Description: Addition to an existing facility/building

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.027680000000004,-74.57552357990681,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

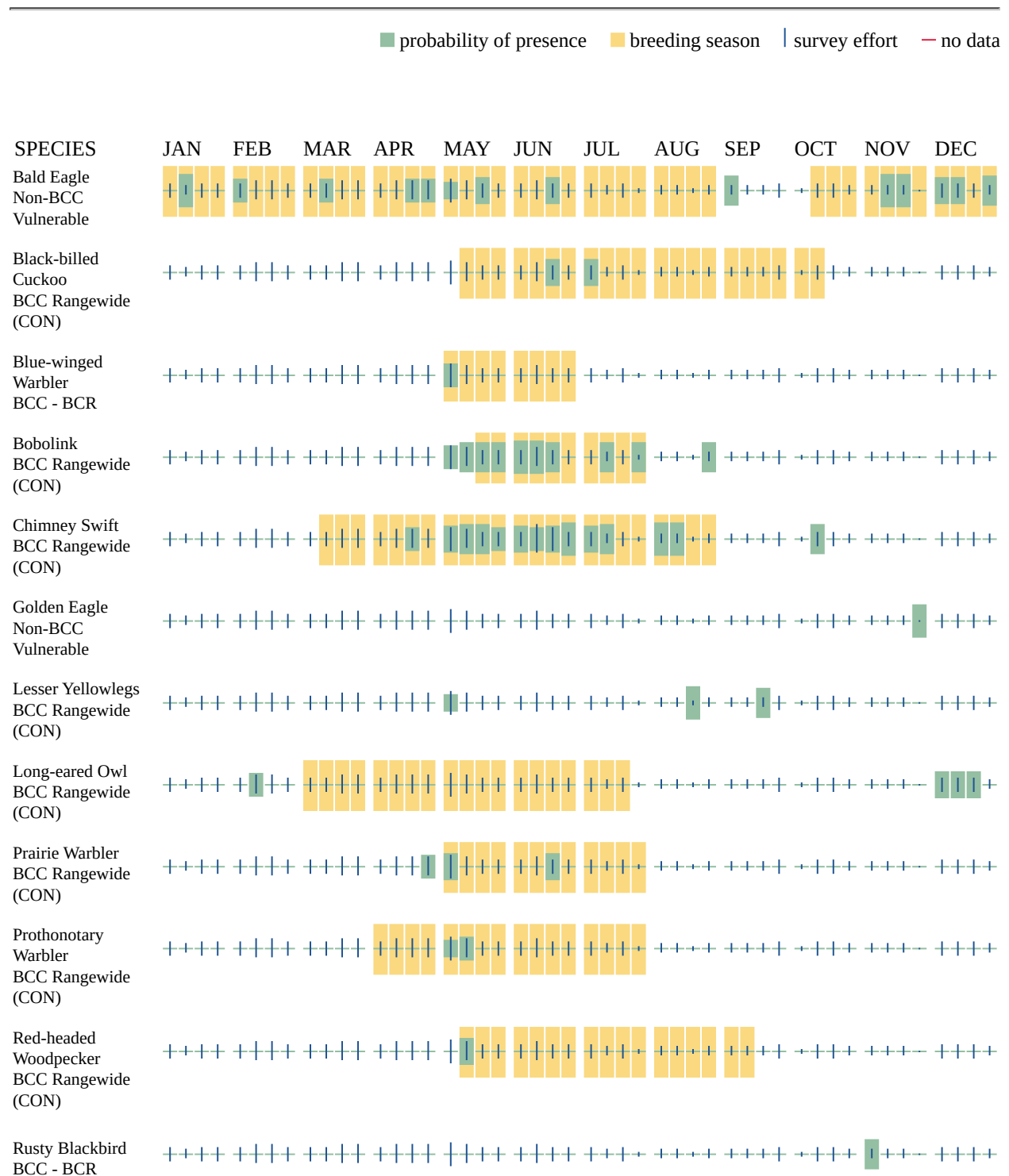
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

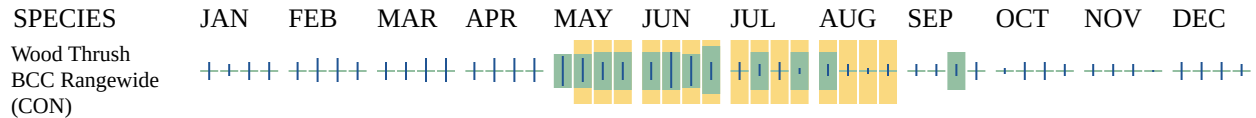
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

C5 Wells



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097368

Project Name: JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells' (here forward, Project). This project has been assigned Project Code 2023-0097368 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097368 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

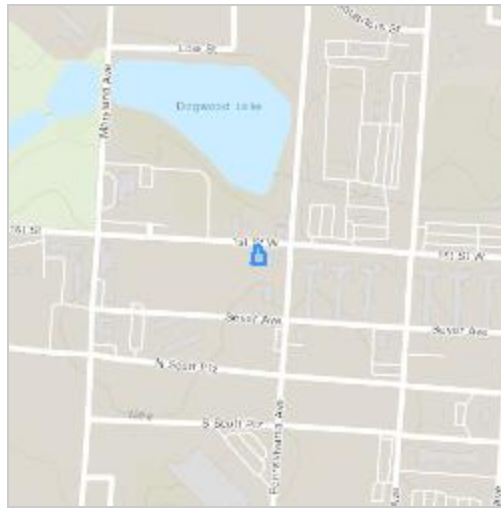
JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells':

Construct a new Well (#5) adjacent to an existing Well (#5)

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.018344299999995,-74.62220099268967,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097368

Project Name: JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells" (here forward, Project). This project has been assigned Project Code 2023-0097368 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

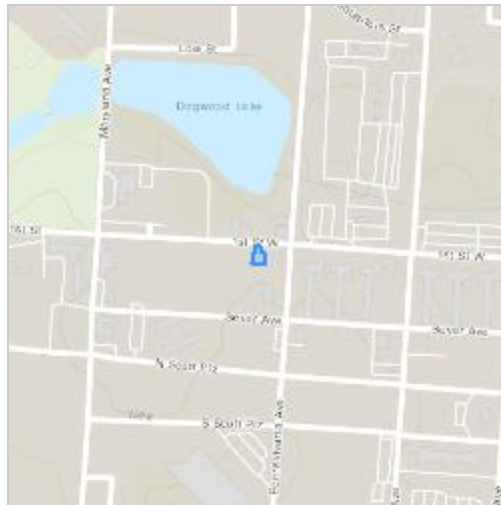
JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells':

Construct a new Well (#5) adjacent to an existing Well (#5)

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.018344299999995,-74.62220099268967,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

41. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

42. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

43. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

44. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

45. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.15
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Maintained (mowed) grassed area adjacent to existing well and road.
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097368

Project Name: JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097368

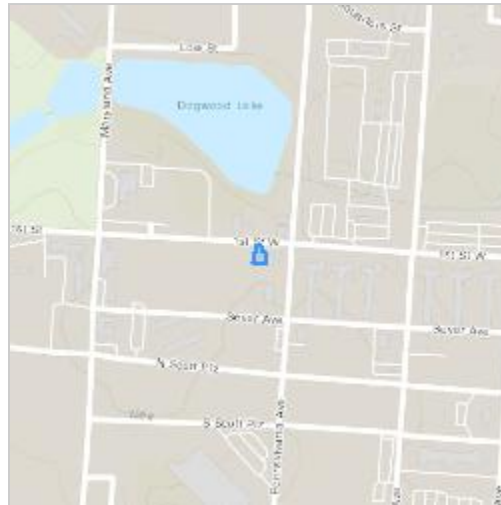
Project Name: JBMDL DAF Installation Development Plan Project C5-Well 5 New Wells

Project Type: Military Development

Project Description: Construct a new Well (#5) adjacent to an existing Well (#5)

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.018344299999995,-74.62220099268967,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097376

Project Name: JBMDL DAF Installation Development Plan Project C5 Well 6

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C5 Well 6'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C5 Well 6' (here forward, Project). This project has been assigned Project Code 2023-0097376 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097376 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

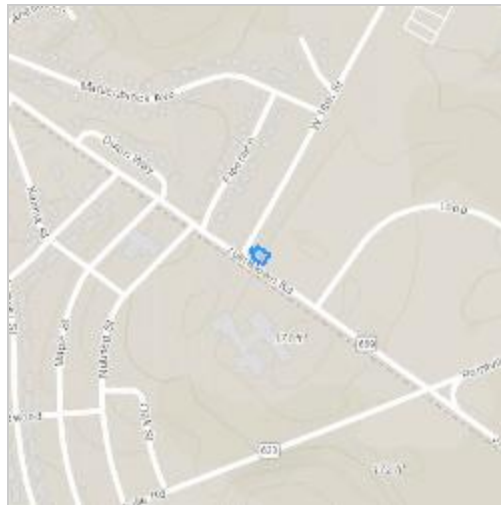
JBMDL DAF Installation Development Plan Project C5 Well 6

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C5 Well 6':

New well to replace existing Well #6

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.9945524,-74.62737510705225,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097376

Project Name: JBMDL DAF Installation Development Plan Project C5 Well 6

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C5 Well 6'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C5 Well 6" (here forward, Project). This project has been assigned Project Code 2023-0097376 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

41. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

42. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

43. Does the project include activity in or within 300 feet of a freshwater wetland?

Note: Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

44. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

45. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.15
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Grassed area with a few nearby trees at the corner of 2 existing roads
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097376

Project Name: JBMDL DAF Installation Development Plan Project C5 Well 6

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097376

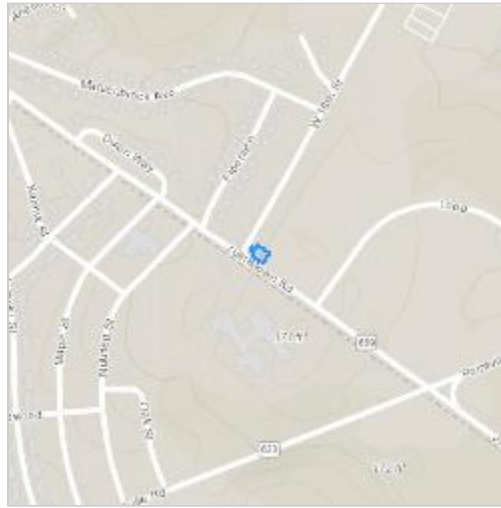
Project Name: JBMDL DAF Installation Development Plan Project C5 Well 6

Project Type: Military Development

Project Description: New well to replace existing Well #6

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.9945524,-74.62737510705225,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

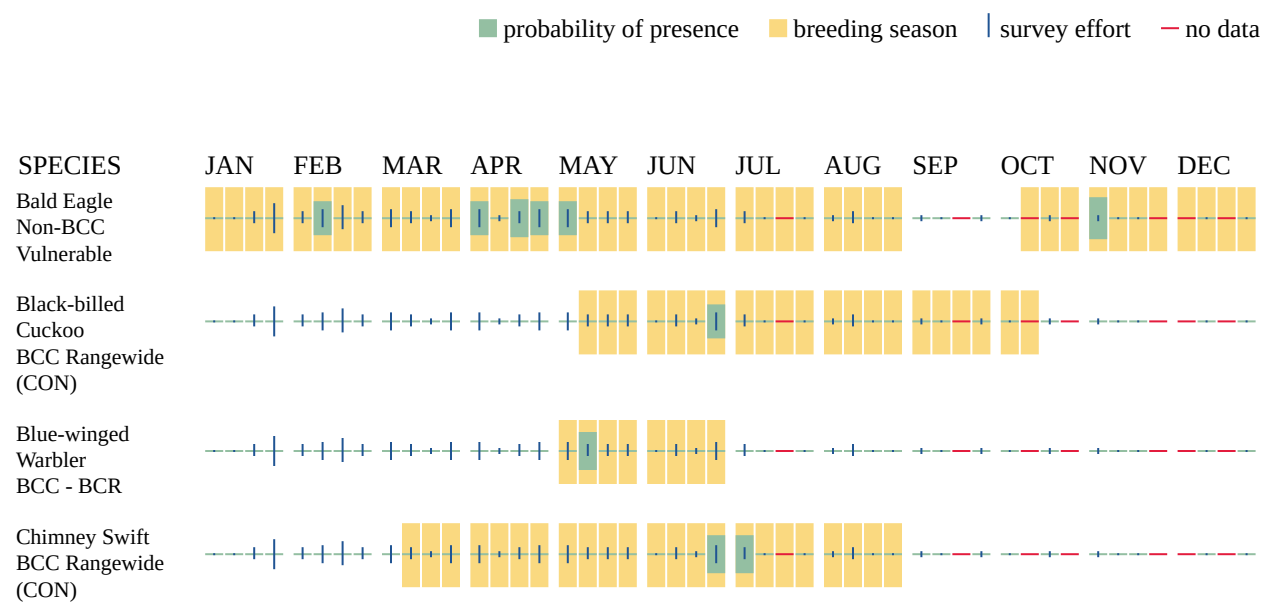
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

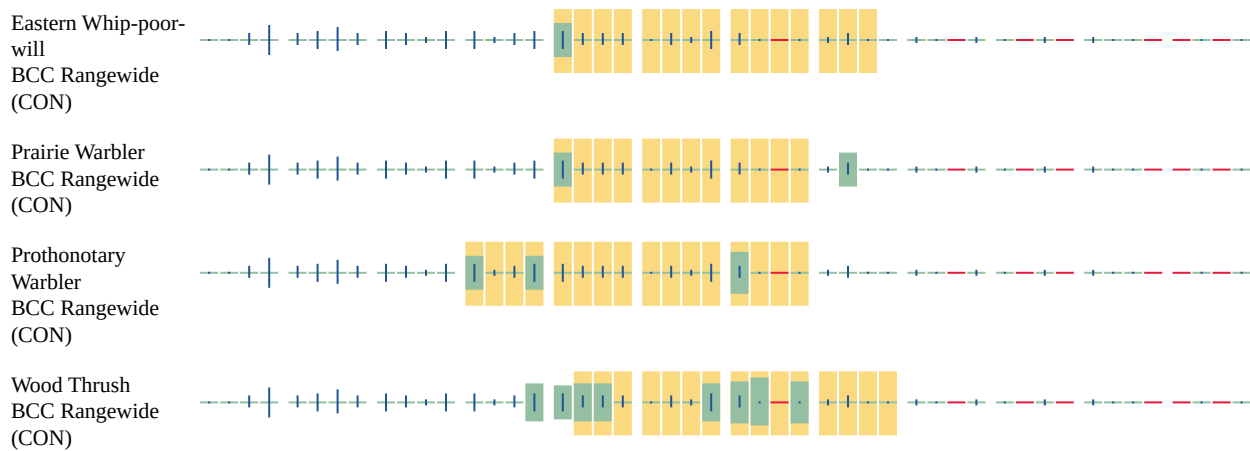
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#)

requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

C6 Pond Aerators



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097397

Project Name: JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator" (here forward, Project). This project has been assigned Project Code 2023-0097397 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area

involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator':

Construct solar-powered aerator in existing pond

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.9915049,-74.57508849581545,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

No

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

No

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

No

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

41. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.001
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Open water/lake
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097397

Project Name: JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator' (here forward, Project). This project has been assigned Project Code 2023-0097397 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097397 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond Aerator':

Construct solar-powered aerator in existing pond

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.9915049,-74.57508849581545,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097397

Project Name: JBMDL DAF Installation Development Plan Project C6 Lake of Woods Pond
Aerator

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097397

Project Name: JBMDL DAF Installation Development Plan Project C6 Lake of Woods
Pond Aerator

Project Type: Military Development

Project Description: Construct solar-powered aerator in existing pond

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.9915049,-74.57508849581545,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

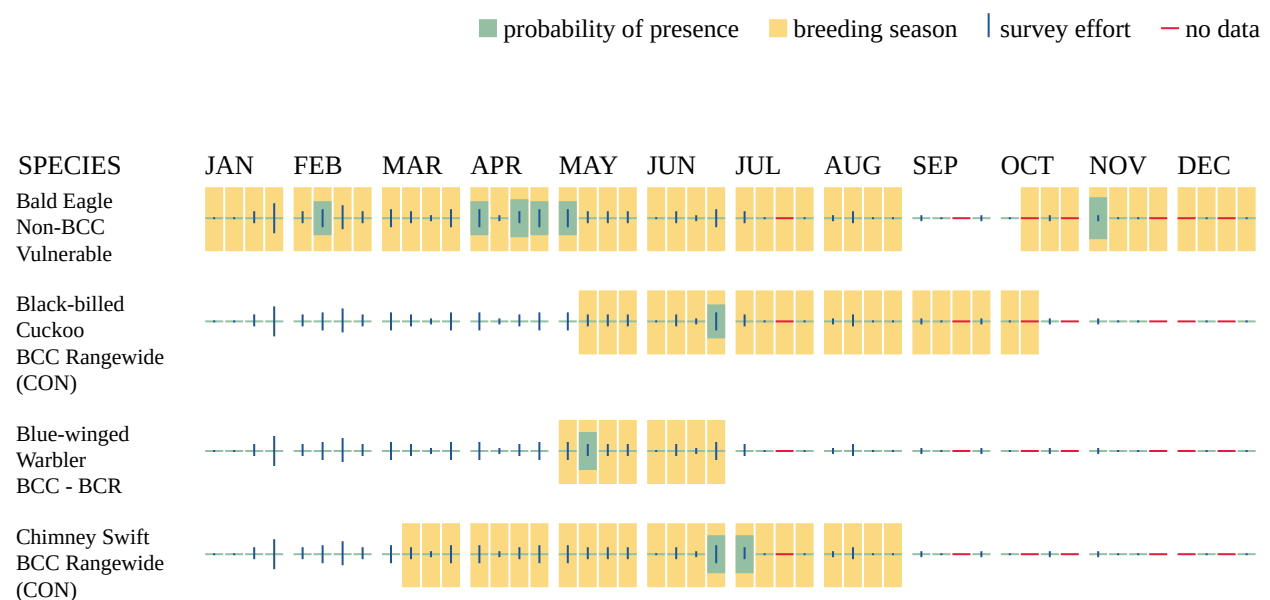
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

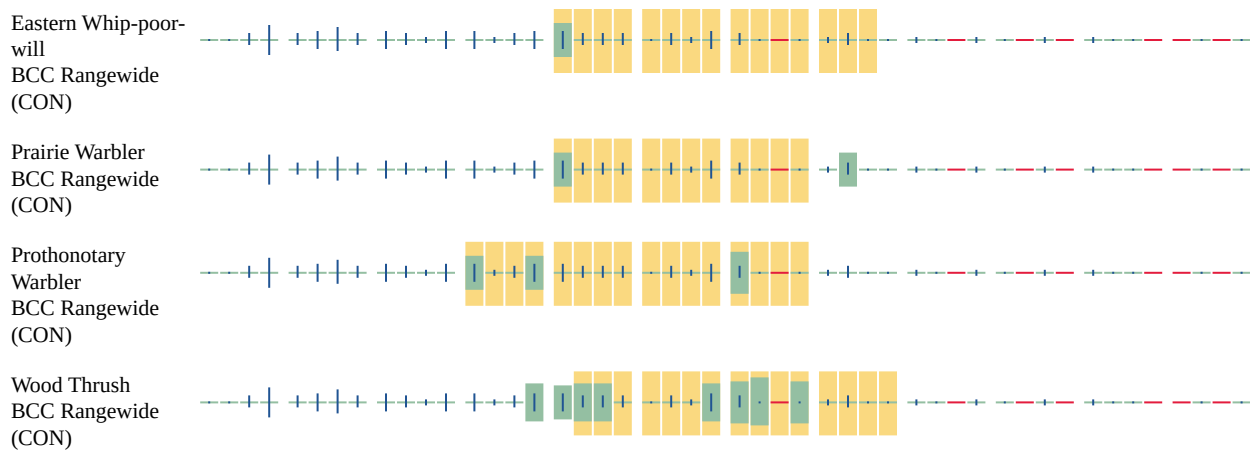
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#)

requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- [PUBHh](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097400

Project Name: JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator" (here forward, Project). This project has been assigned Project Code 2023-0097400 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	No effect
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator':

Construct solar-powered aerator in existing pond

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.040679499999996,-74.32393061021898,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

No

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

No

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

No

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

38. Does the project occur within suitable habitat for American chaffseed? American chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. The species is generally found in habitats described as pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric sandy soils, and other open grass-sedge systems.

No

39. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

40. Is the project located within suitable habitat for Knieskern's beaked-rush? (If you are unsure, select "Yes")

Note: Knieskern's beaked-rush habitat consists of groundwater-influenced, constantly fluctuating, successional habitat. Appropriate conditions include sandy loam or clay soils, intermittent soil moisture, relatively open canopy, and repeated disturbance. Habitat also includes human-disturbed wet sites that exhibit similar early successional stages due to water fluctuation or periodic disturbance from vehicles, fire, or mowing. Examples include, but are not limited to, moist sandy road sides, road sides adjacent to wetland complexes, off-road vehicle trails, and/or areas subject to fire maintenance.

No

41. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

42. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

43. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

44. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

45. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

46. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

47. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

Yes

48. Has a bog turtle [Phase 1 habitat assessment](#) been conducted?

Yes

49. Was potentially suitable bog turtle habitat identified during the Phase 1 habitat assessment?

No

50. Was the person conducting the Phase 1 habitat assessment a qualified bog turtle surveyor?

Yes

51. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.001
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Existing open water pond
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097400

Project Name: JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator' (here forward, Project). This project has been assigned Project Code 2023-0097400 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097400 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator':

Construct solar-powered aerator in existing pond

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.040679499999996,-74.32393061021898,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097400

Project Name: JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond Aerator

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097400

Project Name: JBMDL DAF Installation Development Plan Project C6-2 Rainbow Pond
Aerator

Project Type: Military Development

Project Description: Construct solar-powered aerator to existing pond

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.040679499999996,-74.32393061021898,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3280	Threatened
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

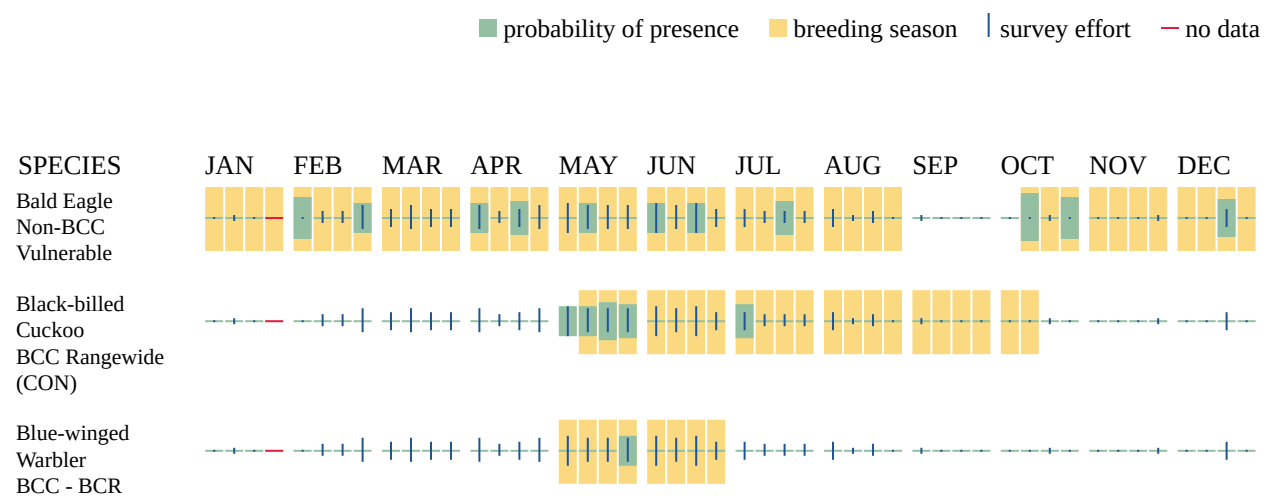
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

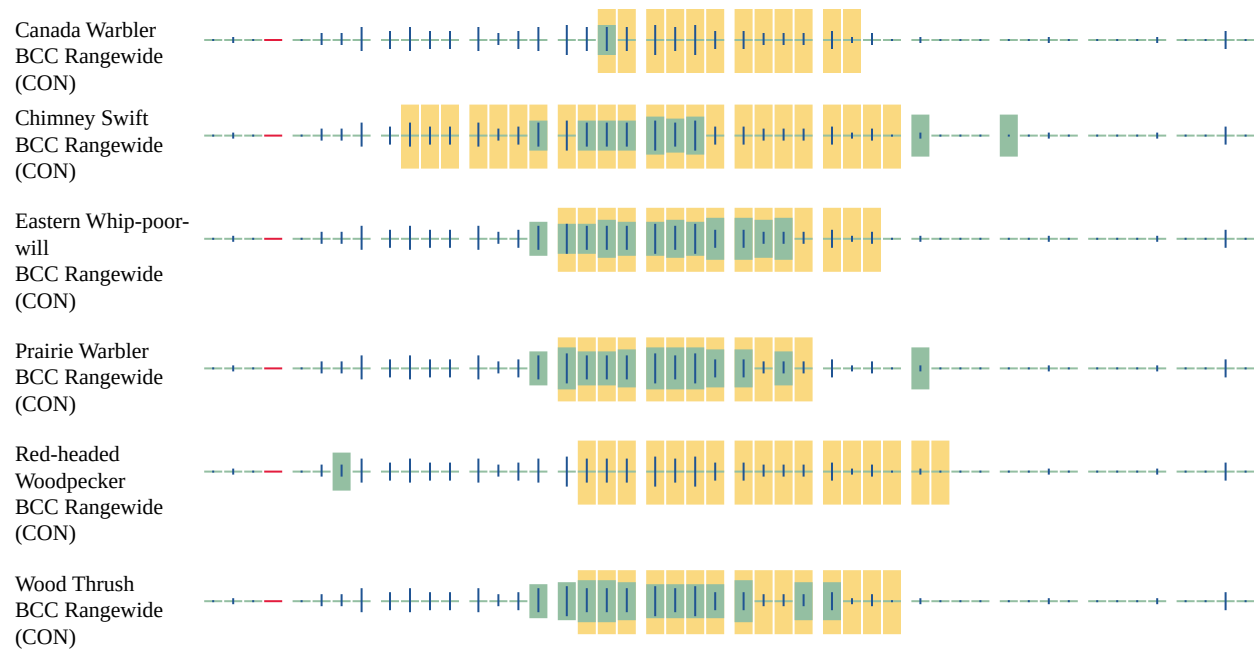
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- [PUBHx](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

C7 Septic System



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097403

Project Name: JBMDL DAF Installation Development Plan Project C7 Septic Tank System

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project C7 Septic Tank System'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project C7 Septic Tank System" (here forward, Project). This project has been assigned Project Code 2023-0097403 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	May affect
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	May affect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	No effect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C7 Septic Tank System

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C7 Septic Tank System':

Construct aboveground septic tank adjacent to an existing building

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0239208,-74.35931184594585,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

Yes

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

Yes

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. Is the project located within suitable habitat for swamp pink?

Note: Swamp pink habitat includes swampy forested wetlands bordering meandering streams; headwater wetlands; sphagnous, hummocky, dense Atlantic white cedar swamps; Blue Ridge swamps; meadows; bogs; and spring seepage areas.

No

37. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

38. Does the project occur within suitable habitat for American chaffseed? American chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. The species is generally found in habitats described as pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric sandy soils, and other open grass-sedge systems.

Yes

39. Is American chaffseed currently known to occur in the action area?

No

40. Did a qualified surveyor conduct a survey within the action area during the time frame when plants are expected to be present and identifiable (May to August, 1 -2 months after a fire)?

No

41. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

42. Is the project located within suitable habitat for Knieskern's beaked-rush? (If you are unsure, select "Yes")

Note: Knieskern's beaked-rush habitat consists of groundwater-influenced, constantly fluctuating, successional habitat. Appropriate conditions include sandy loam or clay soils, intermittent soil moisture, relatively open canopy, and repeated disturbance. Habitat also includes human-disturbed wet sites that exhibit similar early successional stages due to water fluctuation or periodic disturbance from vehicles, fire, or mowing. Examples include, but are not limited to, moist sandy road sides, road sides adjacent to wetland complexes, off-road vehicle trails, and/or areas subject to fire maintenance.

Yes

43. Are Knieskern's beaked-rush locations identified in sufficient detail in available surveys or records within the last five years to facilitate avoidance of Knieskern's beaked-rush by this project? (If you are unsure, select "No").

No

44. Did a qualified surveyor conduct a survey within the action area during the time frame when plants are expected to be present and identifiable (July to September)?

No

45. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

46. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

47. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

48. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

49. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

50. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

51. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

Yes

52. Has a bog turtle [Phase 1 habitat assessment](#) been conducted?

Yes

53. Was potentially suitable bog turtle habitat identified during the Phase 1 habitat assessment?

No

54. Was the person conducting the Phase 1 habitat assessment a qualified bog turtle surveyor?

Yes

55. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?

0

2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?

0.0005

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

Wetland within forested area

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097403

Project Name: JBMDL DAF Installation Development Plan Project C7 Septic Tank System

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project C7 Septic Tank System'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project C7 Septic Tank System' (here forward, Project). This project has been assigned Project Code 2023-0097403 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097403 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project C7 Septic Tank System

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project C7 Septic Tank System':

Construct aboveground septic tank adjacent to an existing building

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0239208,-74.35931184594585,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097403

Project Name: JBMDL DAF Installation Development Plan Project C7 Septic Tank System

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097403

Project Name: JBMDL DAF Installation Development Plan Project C7 Septic Tank System

Project Type: Military Development

Project Description: Construct aboveground septic tank adjacent to an existing building

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0239208,-74.35931184594585,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). <p>Species profile: https://ecos.fws.gov/ecp/species/9743</p>	Candidate

FLOWERING PLANTS

NAME	STATUS
<p>American Chaffseed <i>Schwalbea americana</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/1286</p>	Endangered
<p>Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/3280</p>	Threatened
<p>Swamp Pink <i>Helonias bullata</i></p> <p>Population:</p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/4333</p>	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

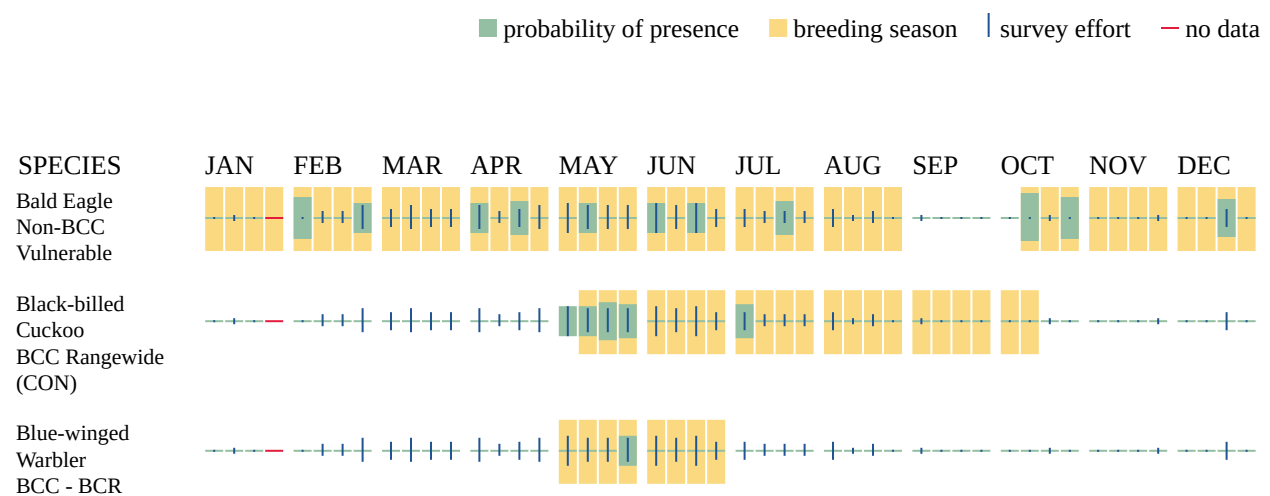
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

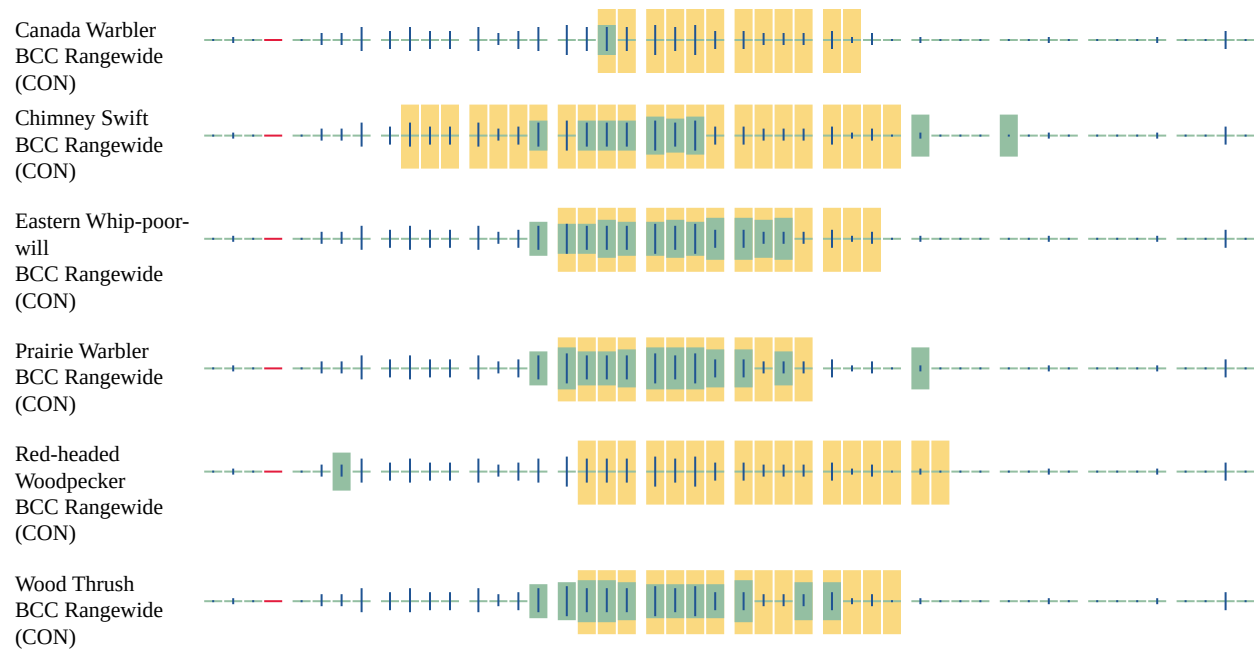
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

D1 Demolish ATC Facility



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097411

Project Name: JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility' (here forward, Project). This project has been assigned Project Code 2023-0097411 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either

positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097411 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

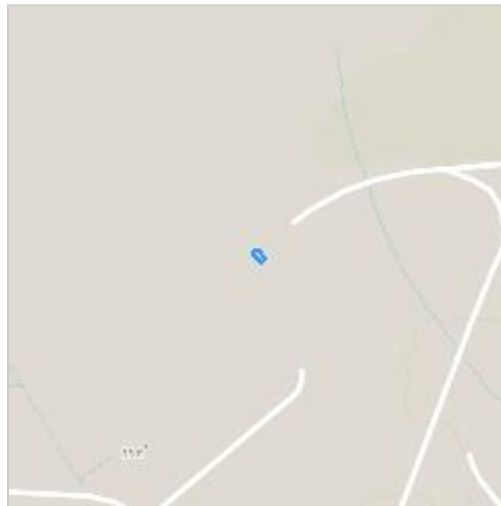
JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility':

Demolition of existing air traffic control facility. Surrounding land use would remain developed with concrete surfaces.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.03253975,-74.34775002657287,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097411

Project Name: JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility" (here forward, Project). This project has been assigned Project Code 2023-0097411 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area

involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	NLAA
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	NLAA
Swamp Pink (<i>Helonias bullata</i>)	Threatened	NLAA

Conclusion

The Service concurs to the above-mentioned determination(s) of may affect, not likely to adversely affect. This concurrence confirms receipt of your agencies coordination required under Section 7(a)(2) of the ESA.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

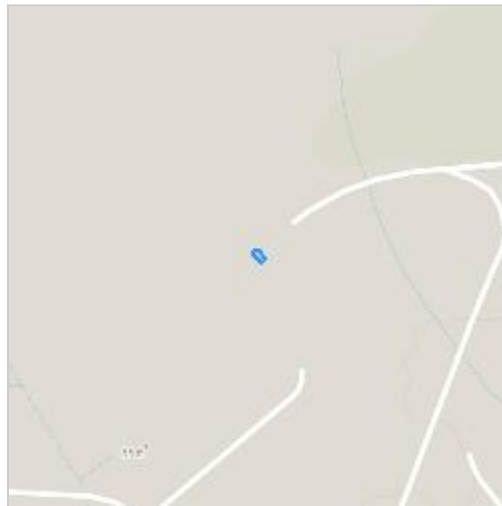
JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility':

Demolition of existing air traffic control facility. Surrounding land use would remain developed with concrete surfaces.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.03253975,-74.34775002657287,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

Yes

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

37. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

38. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

40. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

41. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

42. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

43. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

44. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

45. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

46. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.1
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
No habitat - existing building surrounded by paved/concrete area.
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097411

Project Name: JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097411

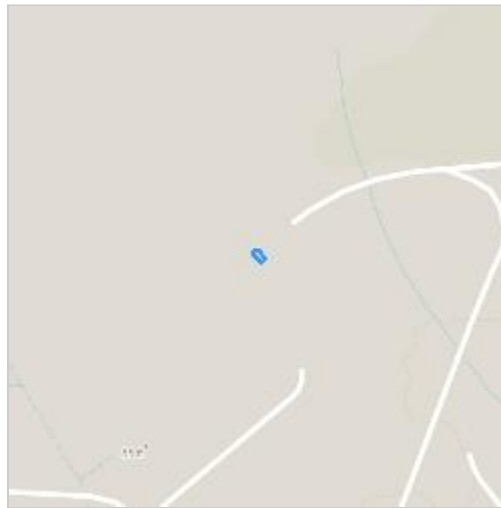
Project Name: JBMDL DAF Installation Development Plan Project D1 Demolish Air Traffic Control Facility

Project Type: Military Development

Project Description: Demolition of existing air traffic control facility. Surrounding land use would remain developed with concrete surfaces.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.03253975,-74.34775002657287,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3280	Threatened
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

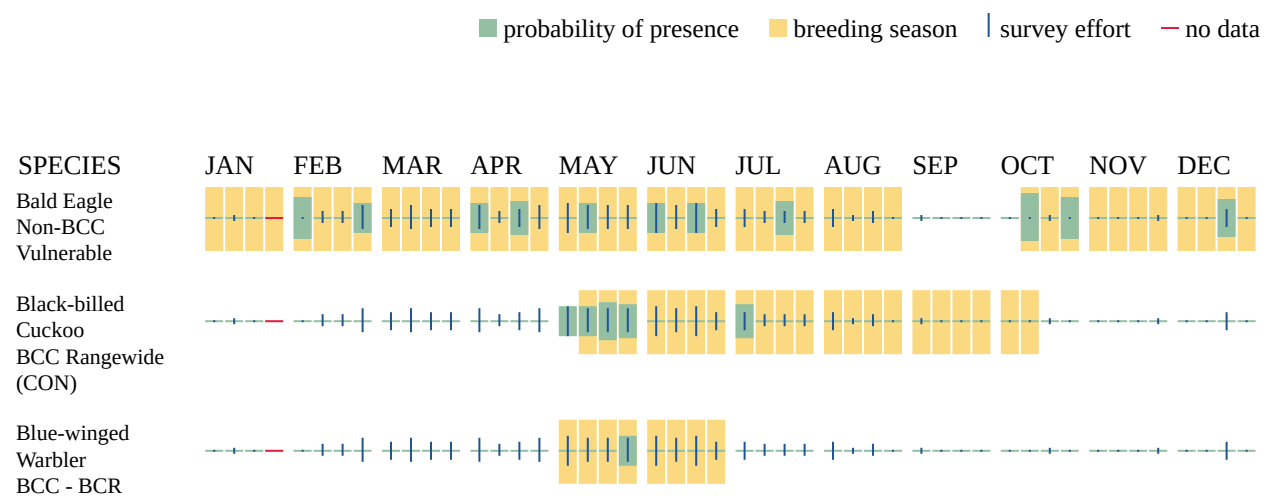
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

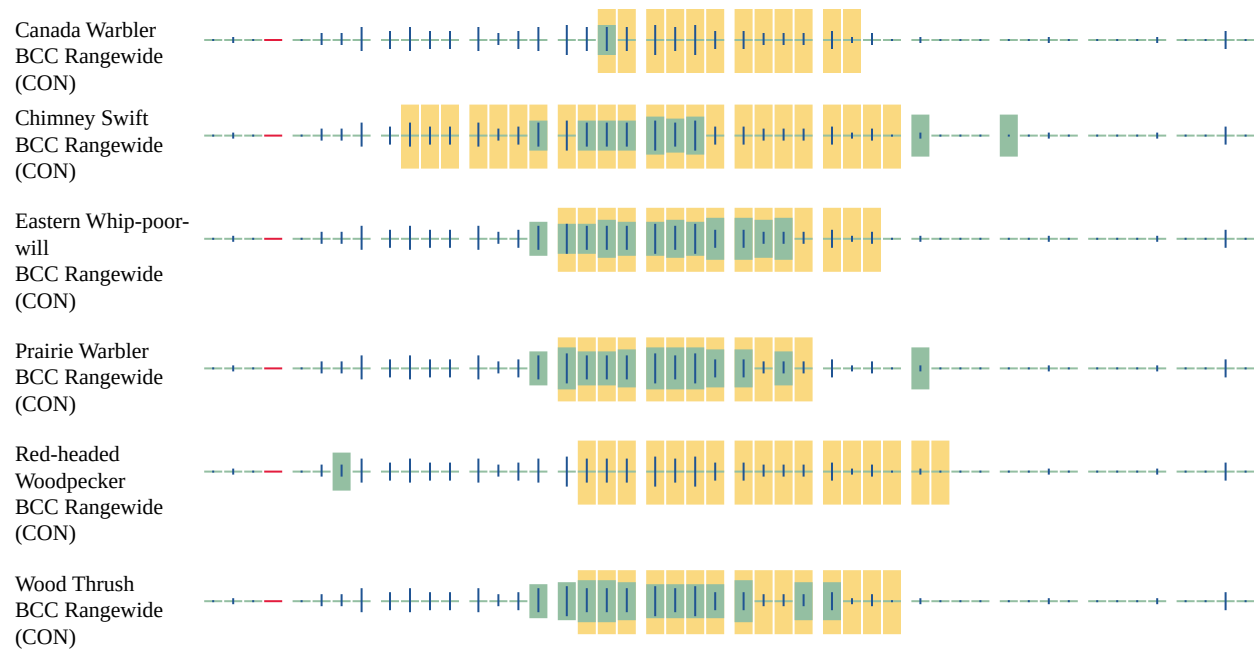
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

D2 Demolish Wells



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097414

Project Name: JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190)
Demolition

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF
Installation Development Plan Project D2 Well 5 (B1190) Demolition'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition' (here forward, Project). This project has been assigned Project Code 2023-0097414 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097414 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

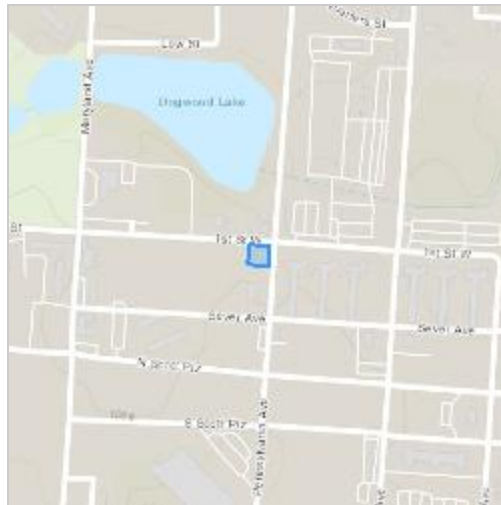
JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition':

Demolish existing well facility B1190

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0183098,-74.62187792863676,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097414

Project Name: JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190)
Demolition

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition" (here forward, Project). This project has been assigned Project Code 2023-0097414 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency

makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	NLAA

Conclusion

The Service concurs to the above-mentioned determination(s) of may affect, not likely to adversely affect. This concurrence confirms receipt of your agencies coordination required under Section 7(a)(2) of the ESA.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

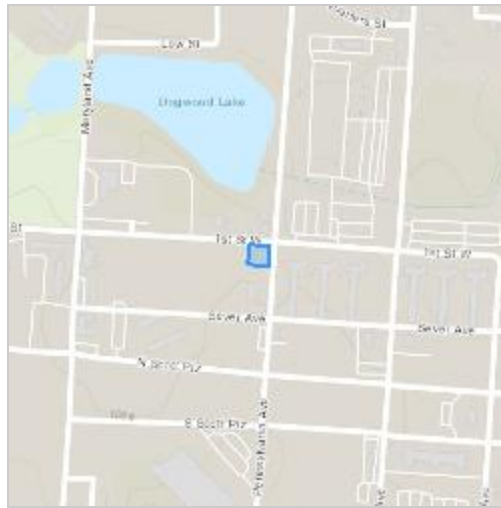
JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190) Demolition':

Demolish existing well facility B1190

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0183098,-74.62187792863676,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

Yes

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

41. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

42. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

43. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

44. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.2
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Existing building surrounded by maintained grass
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097414

Project Name: JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190)
Demolition

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097414

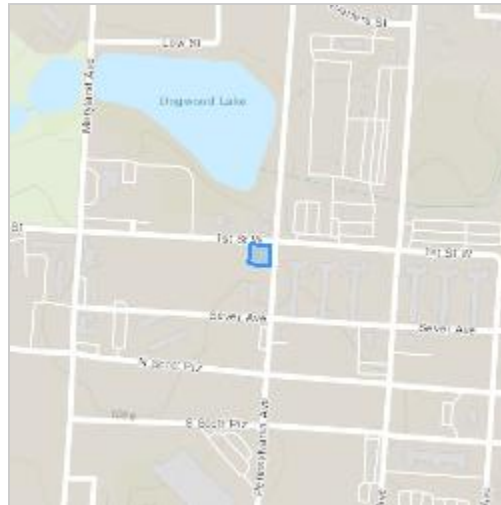
Project Name: JBMDL DAF Installation Development Plan Project D2 Well 5 (B1190)
Demolition

Project Type: Military Development

Project Description: Demolish existing well facility B1190

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0183098,-74.62187792863676,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097416

Project Name: JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280)
Demolition

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF
Installation Development Plan Project D2 Well 6 (B5280) Demolition'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition' (here forward, Project). This project has been assigned Project Code 2023-0097416 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097416 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

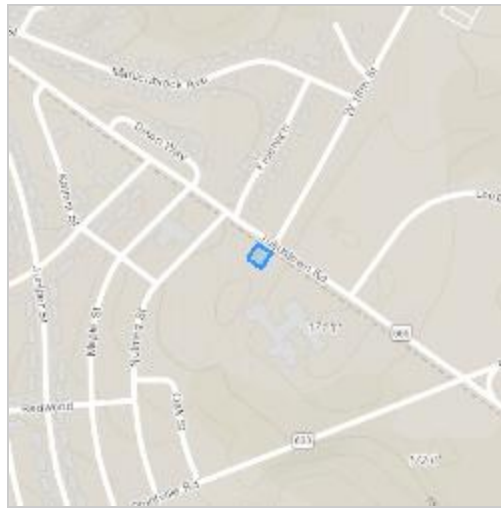
JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition':

Demolish existing well facility

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.994371799999996,-74.62806366085803,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097416

Project Name: JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280)
Demolition

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition" (here forward, Project). This project has been assigned Project Code 2023-0097416 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency

makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	NLAA
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Swamp Pink (<i>Helonias bullata</i>)	Threatened	NLAA

Conclusion

The Service concurs to the above-mentioned determination(s) of may affect, not likely to adversely affect. This concurrence confirms receipt of your agencies coordination required under Section 7(a)(2) of the ESA.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

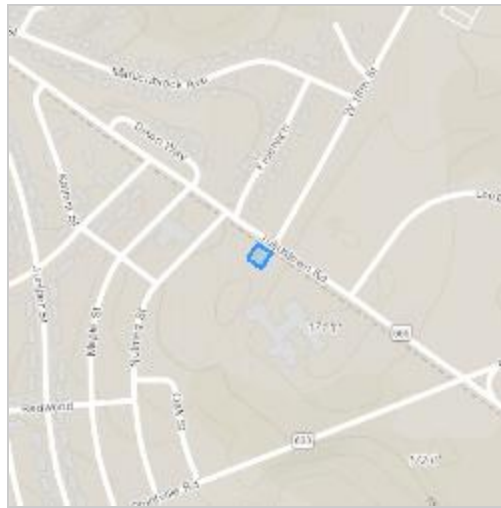
JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280) Demolition':

Demolish existing well facility

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.994371799999996,-74.62806366085803,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

Yes

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

37. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

41. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

42. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

43. Does the project include activity in or within 300 feet of a freshwater wetland?

Note:Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

44. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

45. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.2
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Existing well and facility surrounded by grassed areas
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097416

Project Name: JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280)
Demolition

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097416

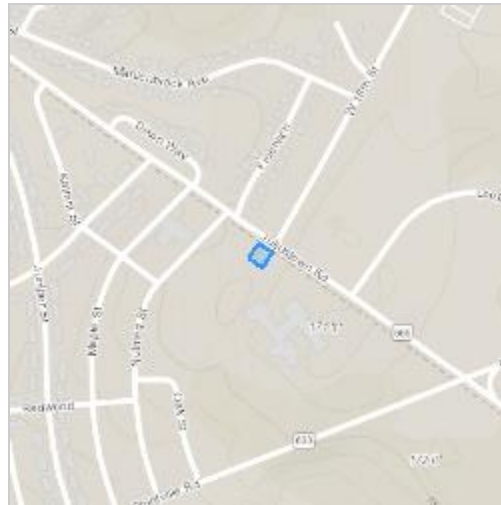
Project Name: JBMDL DAF Installation Development Plan Project D2 Well 6 (B5280)
Demolition

Project Type: Military Development

Project Description: Demolish existing well facility

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.994371799999996,-74.62806366085803,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

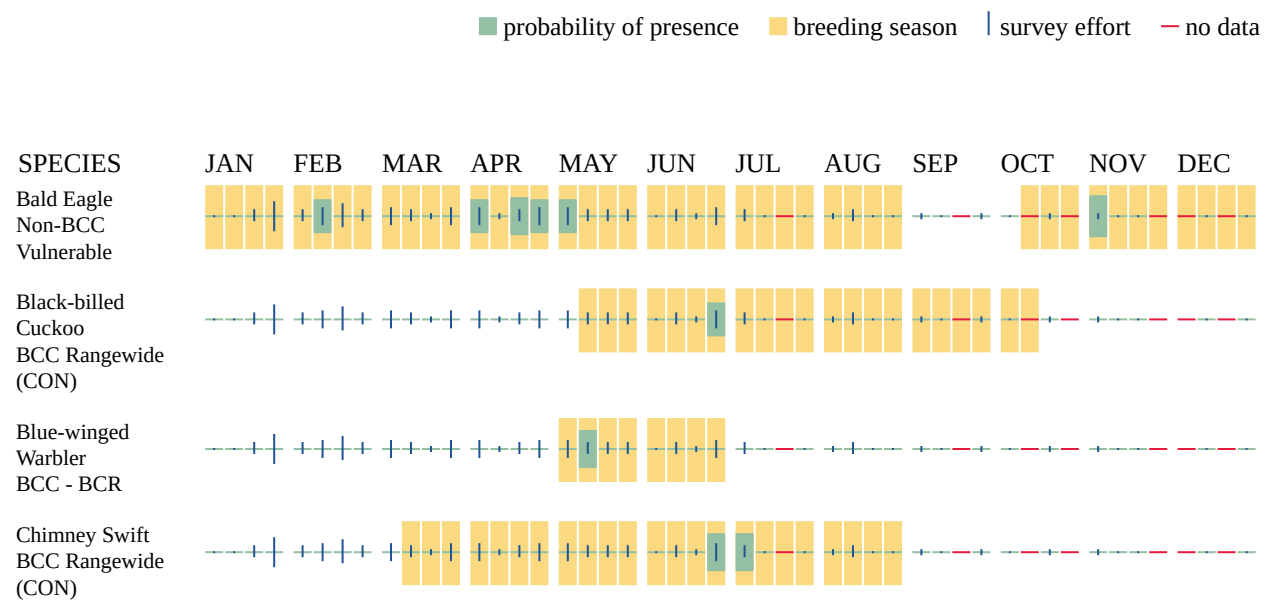
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

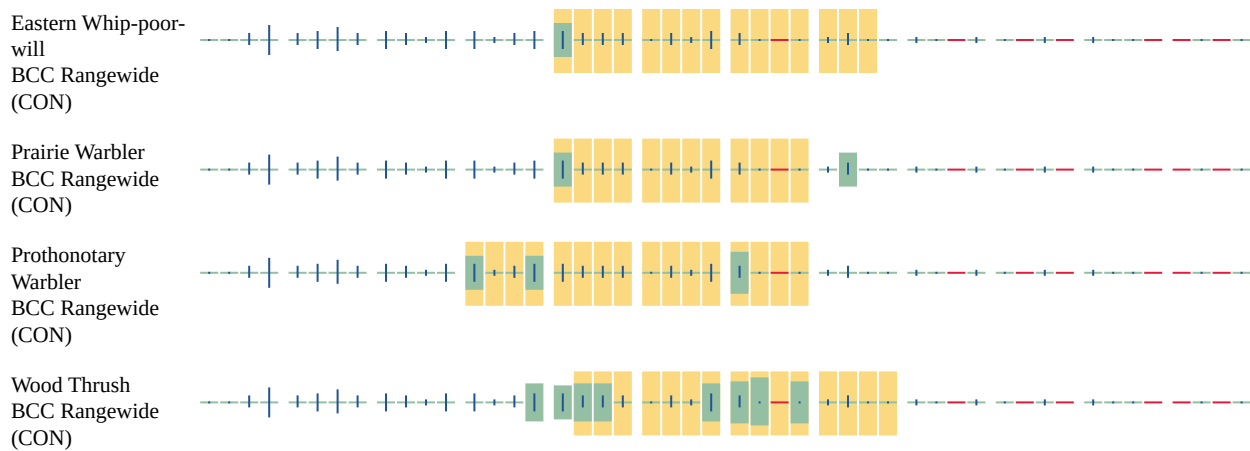
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#)

requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

R1 Main Gate Improvements



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0096943

Project Name: JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements' (here forward, Project). This project has been assigned Project Code 2023-0096943 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either

positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Bog Turtle *Glyptemys muhlenbergii* Threatened
- Knieskern's Beaked-rush *Rhynchospora knieskernii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0096943 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

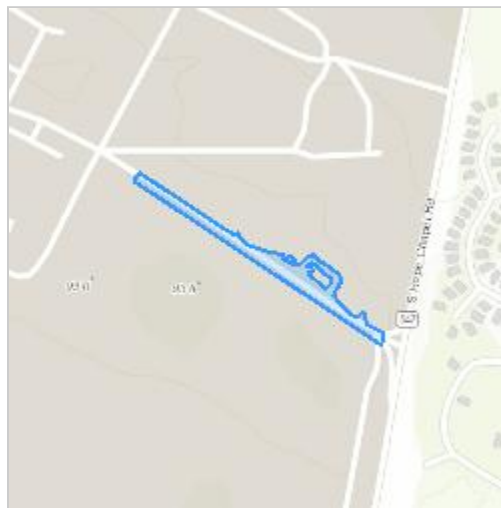
JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements':

Upgrade the Lakehurst Main Gate into a fully functional Entry Control Facility (ECF) that is compliant with the Unified Design Guidance for Entry Control Facilities. Includes construction of a new guardhouse, new configuration of driving lanes, and the demolition of the old guardhouse and driving lanes.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.027533250000005,-74.31071058183818,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0096943

Project Name: JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements" (here forward, Project). This project has been assigned Project Code 2023-0096943 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area

involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	NLAA
Bog Turtle (<i>Glyptemys muhlenbergii</i>)	Threatened	No effect
Knieskern's Beaked-rush (<i>Rhynchospora knieskernii</i>)	Threatened	NLAA
Swamp Pink (<i>Helonias bullata</i>)	Threatened	NLAA

Conclusion

The Service concurs to the above-mentioned determination(s) of may affect, not likely to adversely affect. This concurrence confirms receipt of your agencies coordination required under Section 7(a)(2) of the ESA.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

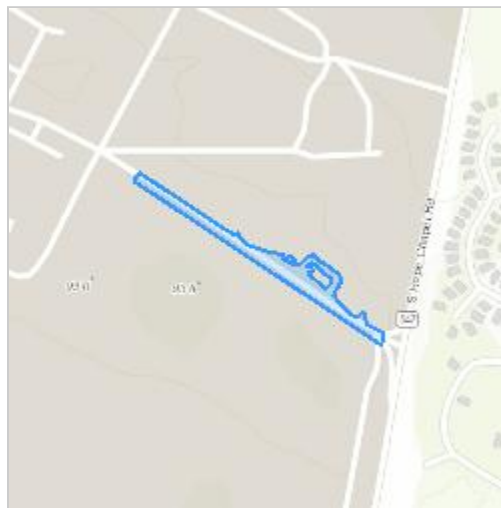
JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements':

Upgrade the Lakehurst Main Gate into a fully functional Entry Control Facility (ECF) that is compliant with the Unified Design Guidance for Entry Control Facilities. Includes construction of a new guardhouse, new configuration of driving lanes, and the demolition of the old guardhouse and driving lanes.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.027533250000005,-74.31071058183818,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

No

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

Yes

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

No

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

Yes

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Hidden Semantic] Does the project intersect the American Chaffseed AOI?

Automatically answered

Yes

37. [Hidden Semantic] Does the project intersect the Knieskern's beaked-rush AOI?

Automatically answered

Yes

38. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

40. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

41. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

42. [Hidden Semantic] Does the project intersect the Bog Turtle AOI?

Automatically answered

Yes

43. Are bog turtles known to occur within the action area?

If unsure, data can be requested from the appropriate state Natural Heritage program.

No

44. Does the project include activity in or within 300 feet of a freshwater wetland?

Note: Activities include, but are not limited to, wetland draining, ditching, tilling, filling, excavating, stream diversion, impoundments; mowing or grazing of vegetation; access roads; detention basins; water or sewer lines; irrigation; increase in impervious surfaces; and application of pesticides, deicing agents or fertilizers.

No

45. Does the project include the following within ½ mile of a known or assumed bog turtle wetland: groundwater withdrawals, wells, water/stream diversions, mining, impoundments, dams or other activities that may impact water levels?

No

46. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0.6
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
2.8
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
*Existing paved road and adjacent grassed area with some previously planted trees along
the road*
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0096943

Project Name: JBMDL DAF Installation Development Plan Project R1 Main Gate Security Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly

affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0096943

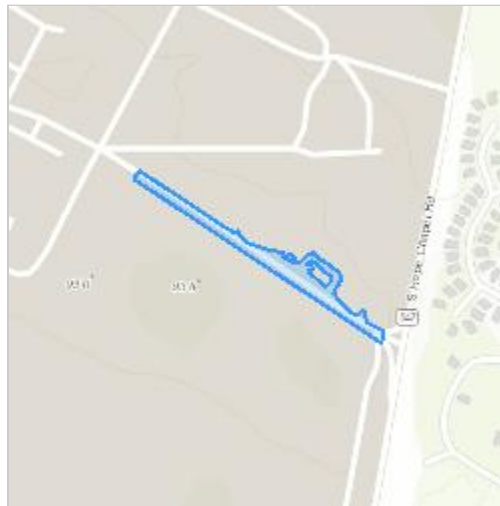
Project Name: JBMDL DAF Installation Development Plan Project R1 Main Gate
Security Improvements

Project Type: Military Development

Project Description: Upgrade the Lakehurst Main Gate into a fully functional Entry Control Facility (ECF) that is compliant with the Unified Design Guidance for Entry Control Facilities. Includes construction of a new guardhouse, new configuration of driving lanes, and the demolition of the old guardhouse and driving lanes.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.027533250000005,-74.31071058183818,14z>



Counties: Ocean County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Activity is in a supporting watershed for known/suspected bog turtle habitat. Consultation recommended only for activities involving significant changes to surface/ground water, including stormwater. See details on FWS NJFO website. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Knieskern's Beaked-rush <i>Rhynchospora knieskernii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3280	Threatened
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

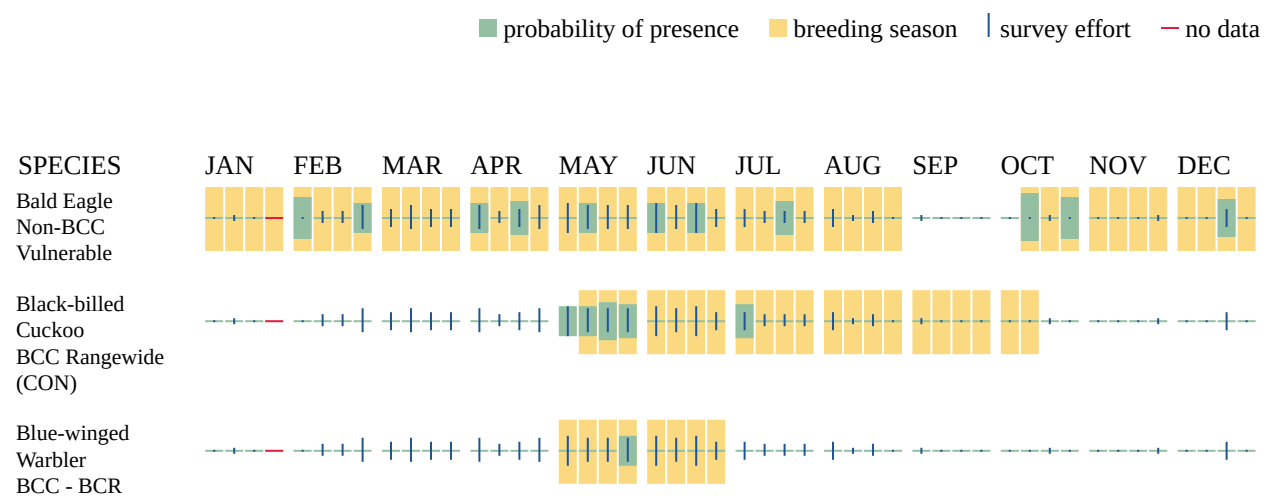
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

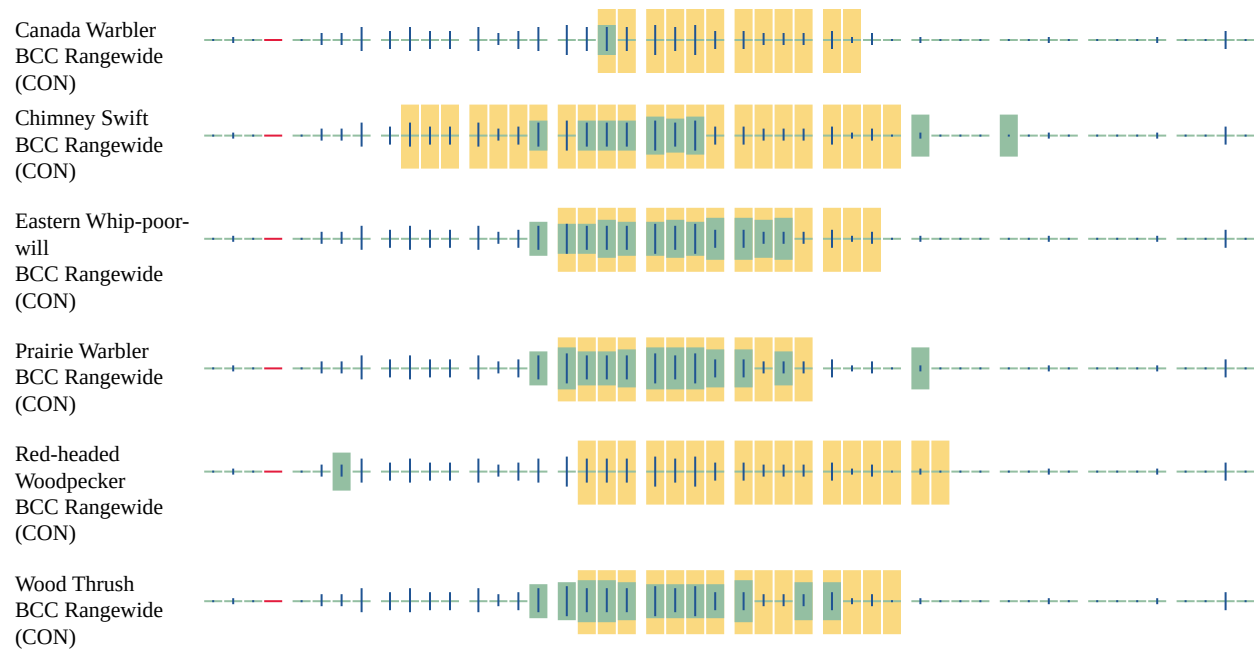
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

R2 Berm 1



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097053

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)" (here forward, Project). This project has been assigned Project Code 2023-0097053 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Swamp Pink (<i>Helonias bullata</i>)	Threatened	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)':

Berm 1 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0124988,-74.5661248,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

Yes

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

Yes

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

Yes

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

Yes

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

Yes

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?

0.1

2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?

0.2

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

Forested area adjacent to a man-made berm

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097053

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)' (here forward, Project). This project has been assigned Project Code 2023-0097053 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097053 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)':

Berm 1 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0124988,-74.5661248,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097053

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097053

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 1)

Project Type: Military Development

Project Description: Berm 1 would be removed, and the land would be allowed to revert back to its natural condition.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0124988,-74.5661248,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO4/1D](#)

FRESHWATER POND

- [PUB/FO5Hh](#)

RIVERINE

- [R2UBH](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

R2 Berm 2



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097064

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)" (here forward, Project). This project has been assigned Project Code 2023-0097064 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Swamp Pink (<i>Helonias bullata</i>)	Threatened	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)':

Berm 2 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0159516,-74.56902439999999,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

Yes

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

Yes

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

Yes

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

Yes

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

Yes

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0.1
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.2
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Trees and wetlands adjacent and/or along the edge of the berm
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097064

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)' (here forward, Project). This project has been assigned Project Code 2023-0097064 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097064 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)':

Berm 2 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0159516,-74.56902439999999,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097064

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097064

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 2)

Project Type: Military Development

Project Description: Berm 2 would be removed, and the land would be allowed to revert back to its natural condition.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.0159516,-74.56902439999999,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- [PEM1Fh](#)

RIVERINE

- [R5UBH](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

R2 Berm 3



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097074

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)" (here forward, Project). This project has been assigned Project Code 2023-0097074 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Swamp Pink (<i>Helonias bullata</i>)	Threatened	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)':

Berm 3 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.010681700000006,-74.57656265,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

Yes

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

Yes

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

Yes

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

Yes

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

Yes

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?

0.1

2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?

0.2

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

Trees and wetlands adjacent to and/or along a man-made berm

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097074

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)' (here forward, Project). This project has been assigned Project Code 2023-0097074 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097074 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)':

Berm 3 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.010681700000006,-74.57656265,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097074

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097074

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 3)

Project Type: Military Development

Project Description: Berm 3 would be removed, and the land would be allowed to revert back to its natural condition.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.010681700000006,-74.57656265,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- [PUBHh](#)

FRESHWATER FORESTED/SHRUB WETLAND

- [PSS1Eh](#)
- [PFO1Ch](#)

RIVERINE

- [R2UBH](#)
- [R5UBH](#)

FRESHWATER EMERGENT WETLAND

- [PEM1/SS1Eh](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

R2 Berm 4



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097080

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Technical assistance for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for "JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)" (here forward, Project). This project has been assigned Project Code 2023-0097080 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Swamp Pink (<i>Helonias bullata</i>)	Threatened	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New Jersey Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)':

Berm 4 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.01063375,-74.580547,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

No

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

Yes

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

Yes

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

Yes

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

Yes

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

Yes

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

Yes

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

30. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

31. Will all activities occur within an area that is paved, graveled, routinely maintained, and/or inside a structure?

No

32. Will the proposed project involve temporary or permanent modification to hydrology, including groundwater recharge, that could result in changes to water quality, water quantity, or timing of water availability in proximity to listed plants?

Yes

33. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in the burning of plants) or mowing?

No

34. Will the proposed project involve ground disturbance?

Yes

35. [Hidden Semantic] Does the project intersect the swamp pink AOI?

Automatically answered

Yes

36. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

40. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0.1
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
0.2
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Trees and wetlands adjacent to and/or along a man-made berm
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project code: 2023-0097080

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

Subject: Record of project representative's no effect determination for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)'

Dear James Hunkele:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 23, 2023, for 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)' (here forward, Project). This project has been assigned Project Code 2023-0097080 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Swamp Pink *Helonias bullata* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New Jersey Ecological Services Field Office and reference Project Code 2023-0097080 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)

2. Description

The following description was provided for the project 'JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)':

Berm 4 would be removed, and the land would be allowed to revert back to its natural condition.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.01063375,-74.580547,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310



In Reply Refer To:

June 23, 2023

Project Code: 2023-0097080

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

PROJECT SUMMARY

Project Code: 2023-0097080

Project Name: JBMDL DAF Installation Development Plan Project R2 Berm Removal (Berm 4)

Project Type: Military Development

Project Description: Berm 4 would be removed, and the land would be allowed to revert back to its natural condition.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.01063375,-74.580547,14z>



Counties: Burlington County, New Jersey

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

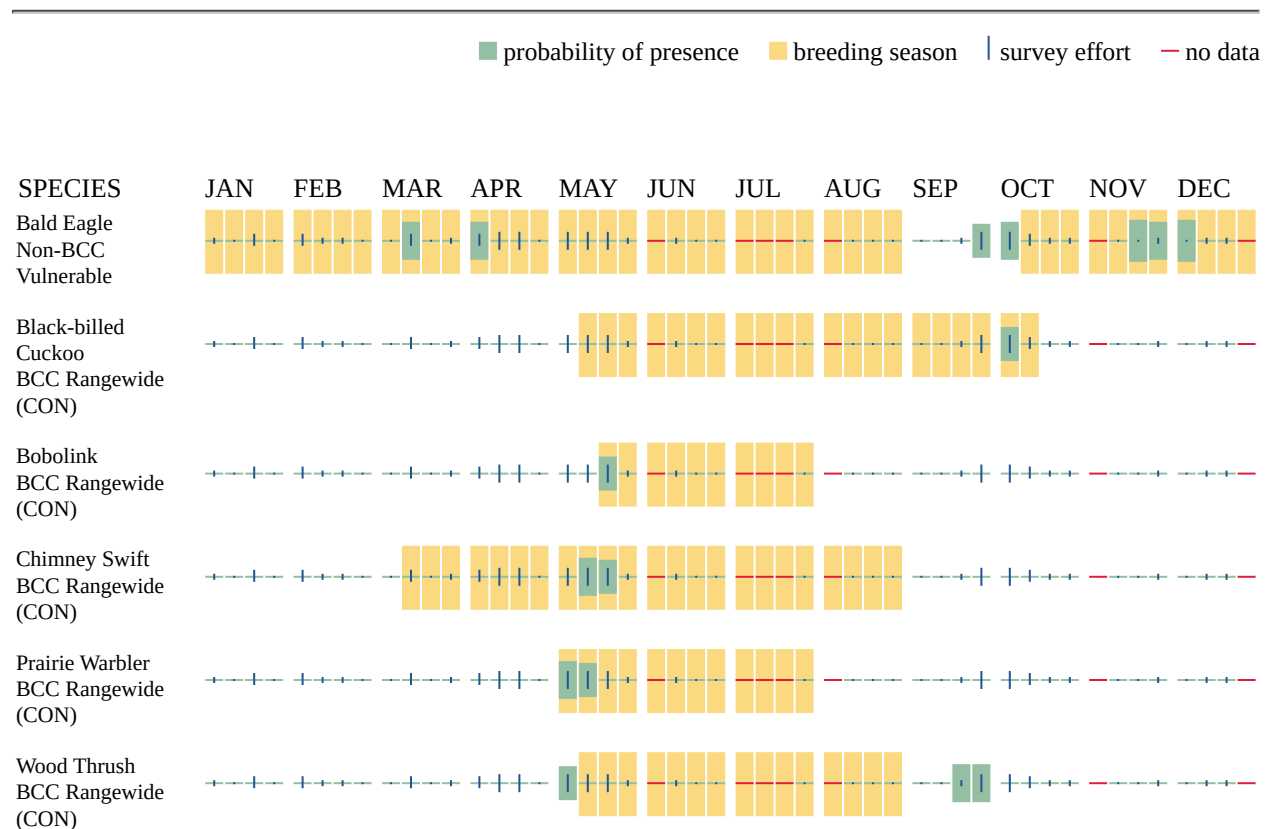
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1Ch](#)
- [PFO1Eh](#)

FRESHWATER EMERGENT WETLAND

- [PEM1/SS1Eh](#)

RIVERINE

- [R2UBH](#)

FRESHWATER POND

- [PUBHh](#)
-

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: James Hunkele
Address: 444 Liberty Avenue
Address Line 2: Suite 800
City: Pittsburgh
State: PA
Zip: 15222
Email: james.hunkele@stvinc.com
Phone: 4125222680

APPENDIX F

Approved Permits



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND RESOURCE PROTECTION
Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.nj.gov/dep/landuse
PERMIT



In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.

Approval Date
June 22, 2022

Expiration Date
June 21, 2027

Permit Number(s):

0300-09-0006.1 FWW170001
0300-19-0006.1 FHA220001

Type of Approval(s):

FWGP16 habitat create/enhance
FHA Permit Equivalency
Water Quality Certificate

Enabling Rule(s):

N.J.A.C. 7:7A-1.1(a)
N.J.A.C. 7:13-1.1(b)

Permittee:

Joint Base MDL c/o Paul Mahon
787 CES/CEIE, Building 5
Route 547
Lakehurst, NJ 08733

Site Location:

Joint Base McGuire-Dix-Lakehurst
Municipality: New Hanover Twp.
County: Burlington

Description of Authorized Activities:

This permit authorizes the temporary disturbance of 6.55 acres (285,318 square feet) of freshwater wetlands and 7.91 acres (344,560 square feet) of State open water for the breaching of four berms to restore natural stream flow and reduce open water within Bowkers Run and Jacks Run under a Freshwater Wetlands General Permit 16 and Flood Hazard Area Permit Equivalency as shown on the plans referenced on the last page of this permit. In addition to breaching berms, the permittee is authorized to remove *Phragmites australis* from within the wetlands using non-mechanical techniques and replant with appropriate native vegetation. This authorization to conduct activities in freshwater wetlands includes the issuance of a Water Quality Certificate.

Any additional un-permitted disturbance of freshwater wetlands, State Open Waters and/or transition areas beside that shown on the approved plans shall be considered a violation of the Freshwater Wetlands Protection Act rules unless the activity is exempt or a permit is obtained from the Department prior to the start of the proposed disturbance.

Prepared by:

Grace Weiss

If the permittee undertakes any regulated activity authorized under a permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the permit and all conditions therein.

**Received and/or Recorded by
County Clerk:**

This permit is not valid unless authorizing signature appears on the last page.

FRESHWATER WETLAND SPECIAL CONDITIONS:

1. The wetlands affected by this permit authorization are of Intermediate resource value and the standard transition area or buffer required adjacent to these wetlands is 50 feet. This general permit includes a transition area waiver, which allows encroachment only in that portion of the transition area, which has been determined by the Department to be necessary to accomplish the regulated activities. Any additional regulated activities conducted within the standard transition area onsite shall require a separate transition area waiver from the Division. Regulated activities within a transition area are defined at N.J.A.C. 7:7A-2.3. Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 *et seq.*) and implementing Rules (N.J.A.C. 7:7A) for additional information.
2. The permittee shall minimize impacts on freshwater wetlands, transition areas, and/or State open waters through the use of best management practices including, but not limited to: replanting disturbed areas with indigenous wetland plants, stabilizing disturbed soils, and backfilling the uppermost 18 inches of any excavation with the original topsoil material.
3. This authorization for a General Permit is valid for a term not to exceed five years from the date of this permit. If the permittee wishes to continue an activity covered by the permit after the expiration date of the permit, the permittee must apply for and obtain a permit extension or a new permit, prior to the permit's expiration. If the term of the authorization exceeds the expiration date of the general permit issued by rule, and the permit upon which the authorization is based is modified by rule to include more stringent standards or conditions, or is not reissued, the applicant must comply with the requirements of the new regulations by applying for a new GP authorization or an Individual permit.
4. Prior to project implementation, the permittee shall ensure that effects to historic and archaeological resources shall be resolved through consultation between the New Jersey Historic Preservation Office; the United States Department of the Air Force, as the lead Federal agency; and any consulting parties, pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations at 36 CFR § 800. Upon completion of Section 106 consultation, the permittee shall provide the Division a copy of Section 106 comments, together with a statement of how the comments have been incorporated into the project, pursuant to N.J.A.C. 7:7A-19.5(n).
5. If project circumstances change so that consultation under Section 106 of the National Historic Preservation Act is no longer necessary, the permittee shall consult with the Division and the New Jersey Historic Preservation Office to ensure that the provisions of N.J.A.C. 7:7A-5.7(b)5 are met prior to project implementation.
6. In order to protect fishery resources within Bowkers Run and Jack's Run from sediment generating activities, the Division recommends that any grading, excavation, or construction activities within the stream or the banks of the stream not occur between April 1st and June 30th of each year. In addition, any activity within the flood hazard area or riparian zone of this watercourse which does not minimize the introduction of sediment into said stream or which could cause more than a minimum increase in the natural level of turbidity, is also prohibited anytime but especially during this period. The Department reserves the right to require additional soil conservation measures if it becomes evident that additional measures are required to protect State regulated resources, or the right to suspend all regulated activities onsite should it be determined that the permittee has not taken proper precautions to ensure continuous compliance with this condition.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.
2. The issuance of a permit does not convey any property rights or any exclusive privilege.
3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.
4. The permittee will be responsible for the installation of a sediment barrier around all disturbed soils, which is sufficient to prevent the sedimentation of the remaining wetlands and transition area. In addition, a permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District having jurisdiction over the site.
5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.
6. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (Warn DEP Hotline) of any noncompliance that may endanger the public health, safety, and welfare, or the environment. In addition, the permittee shall inform the Division of Land Use Regulation by telephone at (609) 777-0454 of any noncompliance within twelve hours of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
 - d. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
7. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.
8. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:
 - a. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
 - c. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action.

9. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action under, as well as, in the appropriate case, suspension and/or termination of the permit.
10. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the regulated activity or project, or any portion thereof, is in existence, unless the permit is modified.
11. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.
12. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.
13. A permit shall be transferred to another person only in accordance with the regulations N.J.A.C. 7:7A-20.5.
14. A permit can be suspended or terminated by the Department for cause as specified at N.J.A.C. 7:7A-20.8 and 20.9.
15. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.
16. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.
17. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, seven days prior to the commencement of site preparation or of regulated activities, whichever comes first. The notification shall contain proof of recording of a conservation restriction or easement, if one was required as part of the permit.
18. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the permittee shall remove and dispose of in a lawful manner, all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.
19. The regulated activity shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species, and shall not jeopardize the continued existence of any local population of a threatened or endangered species.
20. Best management practices as defined at N.J.A.C. 7:7A-1.3, shall be followed whenever applicable.
21. If the permittee, before or during the work authorizes, encounters a possible historic property, as described at N.J.A.C. 7:7A-19.5(l), that is or may be eligible for listing in the New Jersey or National

Register, the permittee shall preserve the resource and immediately notify the Department and proceed as directed.

22. The permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7A-1.4.

APPROVED PLANS:

The drawings hereby approved are one sheet prepared by the Center for Environmental Management of Military Lands, dated November 2021, unrevised, entitled: "Joint Base McGuire-Dix-Lakehurst Berm Removal".

APPEAL OF DECISION:

In accordance with N.J.A.C. 7:7A-21, any person who is aggrieved by this decision may request a hearing within 30 days of the date the decision is published in the DEP Bulletin by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, Mail Code 401-04L, P.O. Box 402, 401 East State Street, 7th Floor, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist found at www.state.nj.us/dep/landuse/forms. Hearing requests received after 30 days of publication notice may be denied. The DEP Bulletin is available on the Department's website at www.state.nj.us/dep/bulletin. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information on this process.

If you need clarification on any section of this permit or conditions, please contact the Division of Land Use Regulation's Technical Support Call Center at (609) 777-0454.

Approved By:



Digitally signed by Ryan
Anderson
Date: 2022.06.22
13:51:50-04'00'

Ryan J. Anderson, Manager
Division of Land Resource Protection

Original sent to Agent to record
c: Permittee
Construction Official

