

87th Air Base Wing



**Joint Base McGuire-Dix-Lakehurst
Restoration Advisory Board
8 December 2016**

87th Air Base Wing



Overview of Basewide Site Inspection for Perfluorinated Compounds

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AFCEC/CZOE



JB MDL Response to PFCs



- Although PFOS/PFOA are unregulated, JB MDL is taking proactive steps to address PFOS/PFOA associated with mission-related AFFF releases
 - EPA has issued health advisory (HA) for PFOS and PFOA of 70 parts per trillion (ppt), individually or combined
- Goal is to protect human health and ensure access to safe drinking water for installation and supporting communities
- Comprehensive approach – identify, respond, prevent – to assess the potential for PFOS/PFOA in drinking water, on and off the installation, and respond appropriately

PFOS - Perfluorooctanesulfonic acid

PFOA - Perfluorooctanoic acid

AFFF - Aqueous Film Forming Foam

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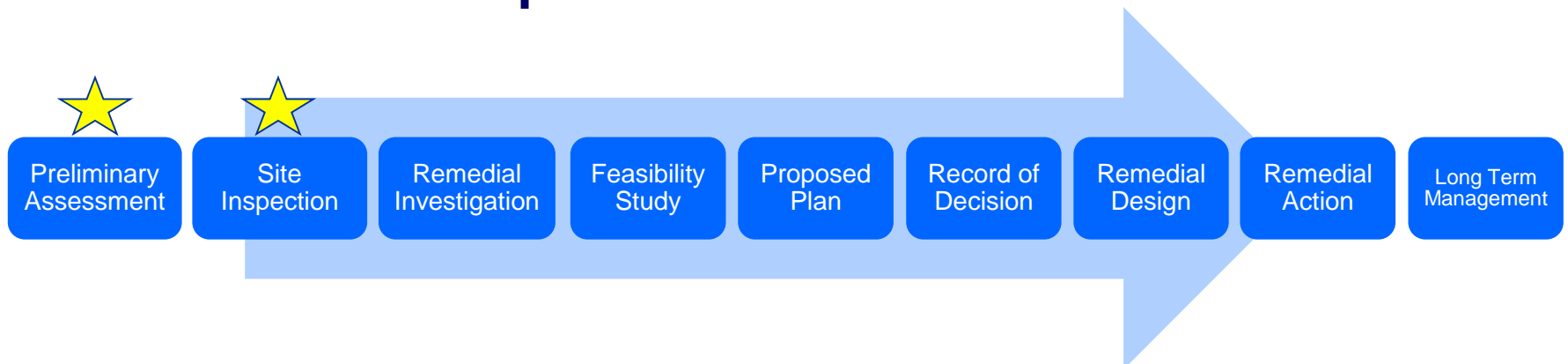
Perfluorinated Compounds



■ Three studies undertaken to date through the JB MDL Environmental Restoration Program

- Limited Study of 4 Non-fire Training Areas
- Basewide Preliminary Assessment
- Basewide Site Inspection (SI)
 - ♦ Expanded SI

■ Follow CERCLA process:



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Site Inspection



■ Goal of SI:

- Conduct sampling at sites identified in the Preliminary Assessment to determine presence/absence of contamination
- Evaluate potential pathways to receptors

■ For each site, determine if site is warranted for:

- No action
- Short term action/remedy → Expanded SI
- Remedial Investigation

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Site Inspection, 2016



■ Purpose:

- Sample 21 “PFC Areas” across JB MDL determined by PA
 - McGuire (11), Dix (4), Lakehurst (6)
- Determine presence/absence, evaluate potential exposure pathways, and expand, if necessary, to determine if there is off-site migration

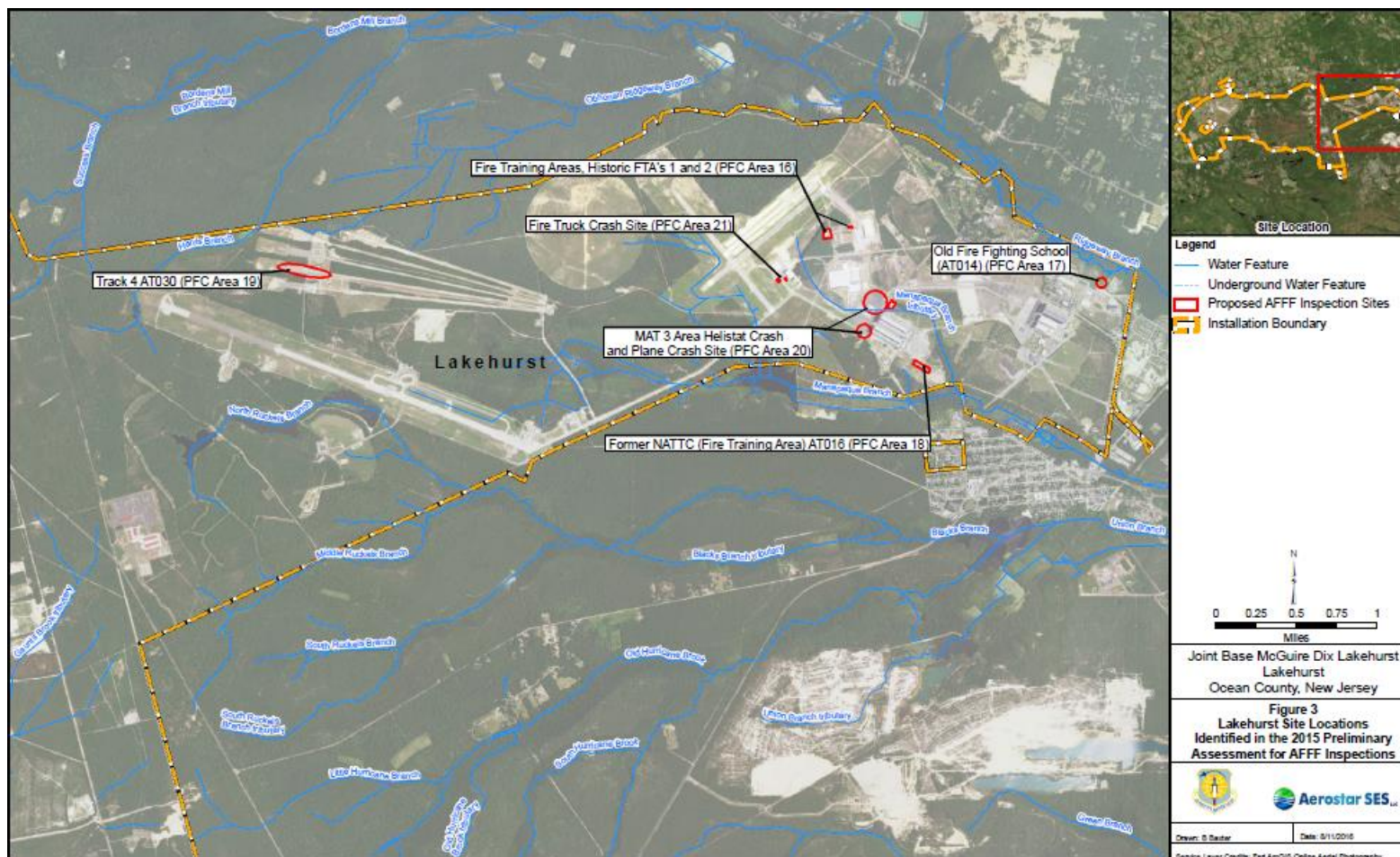
■ Schedule

- Final Work Plan - Aug 2016
- Sampling - Aug-Sep 2016
- Validated Sample Results – late Oct 2016
- Draft Report - March 2017
- Final Report - June 2017

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Lakehurst Areas in SI Work Plan



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Site Inspection Results

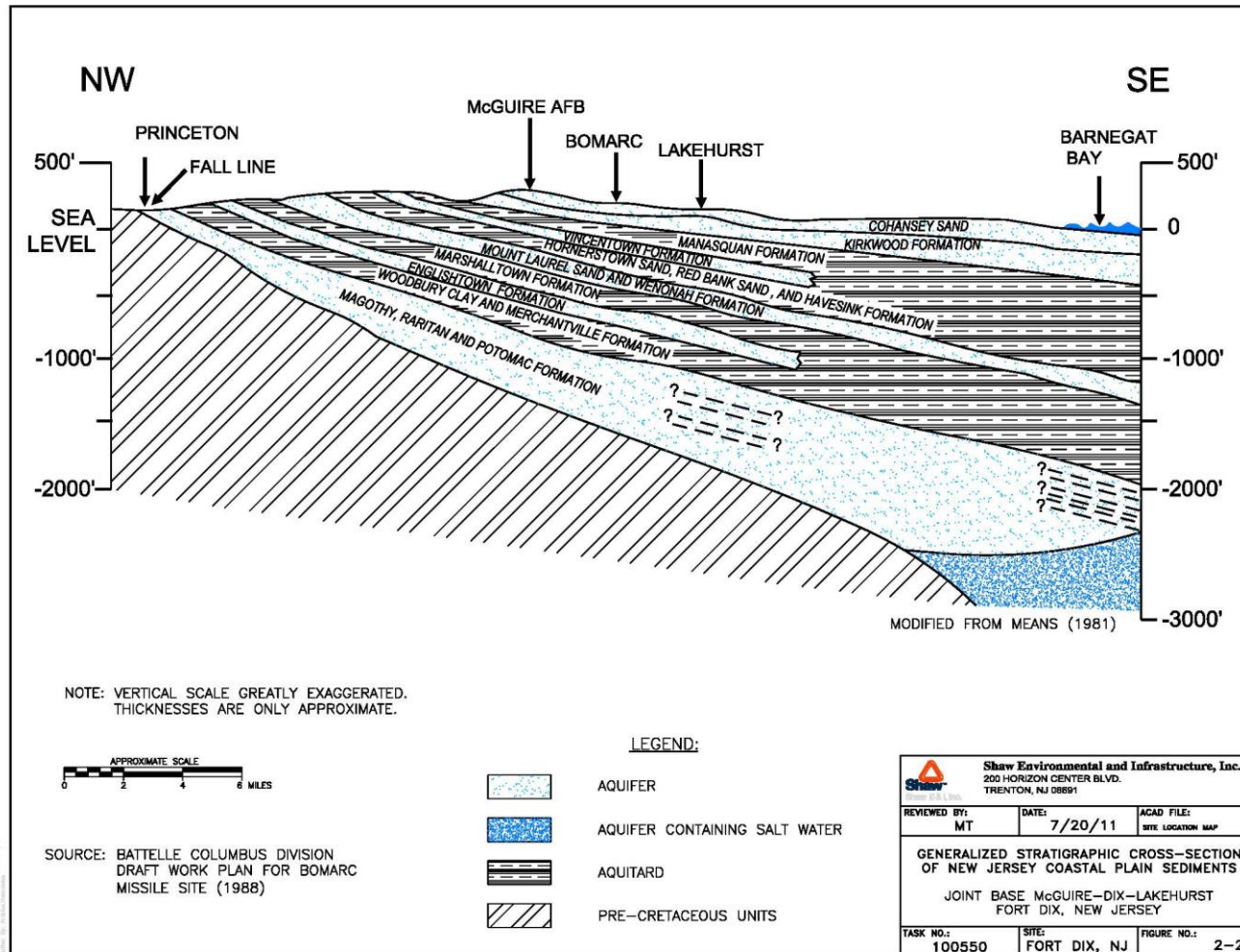


- **Exceedances of EPA HA (70 parts per trillion [ppt]) for PFOS and/or PFOA at each of the 21 sites**
- **Data reviewed in coordination with EPA and NJDEP**
 - **Main factors:**
 - **Magnitude of exceedances in groundwater**
 - **Distance to off base areas with shallow drinking water wells**
 - **Groundwater flow direction**
 - **Decided on need for Expanded SI, including initial step-out sampling and off-base sampling in select areas:**
 - ❖ **Old Fire Station, Bldg 2502, McGuire (PFC Area 4)**
 - ❖ **WWTP Land Application Area, Dix (PFC Area 14)**
 - ❖ **Old Firefighting School, Lakehurst (PFC Area 17)**
 - ❖ **Former NATTC Fire Training Area, Lakehurst (PFC Area 18)**

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Hydrogeologic Cross-Section New Jersey Coastal Plain



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Expanded Site Inspection



- **Awarded rapid response – type contract to conduct expanded SI for select areas**
 - Step out sampling
 - Off base sampling
 - Contract has built-in provisions for mitigation if needed
- **Contractor is BERS-Weston**
- **Close coordination with EPA region 2 and NJDEP**
 - Coordinated with NJDEP in conducting off base well search

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Expanded Site Inspection (cont'd)



- **Met with local townships to discuss sites and confirm areas supplied with municipal drinking water**
 - Jackson, Manchester, and most of Pemberton Township municipal water systems sampled for PFCs under UCMR3*
 - ◆ ALL RESULTS NON-DETECT FOR PFCS
 - Lakehurst not subject to UCMR3 but wells are in deep aquifer
- **Step-out sampling started 3rd week of November and canvassing off base areas for private wells to sample is underway**
 - Number of wells in areas targeted for initial sampling not known precisely - but approximately 50-75 wells
 - Up to 45 days required for sample results

** UCMR3 – Unregulated Contaminant Monitoring Rule*

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Expanded Site Inspection (cont'd)

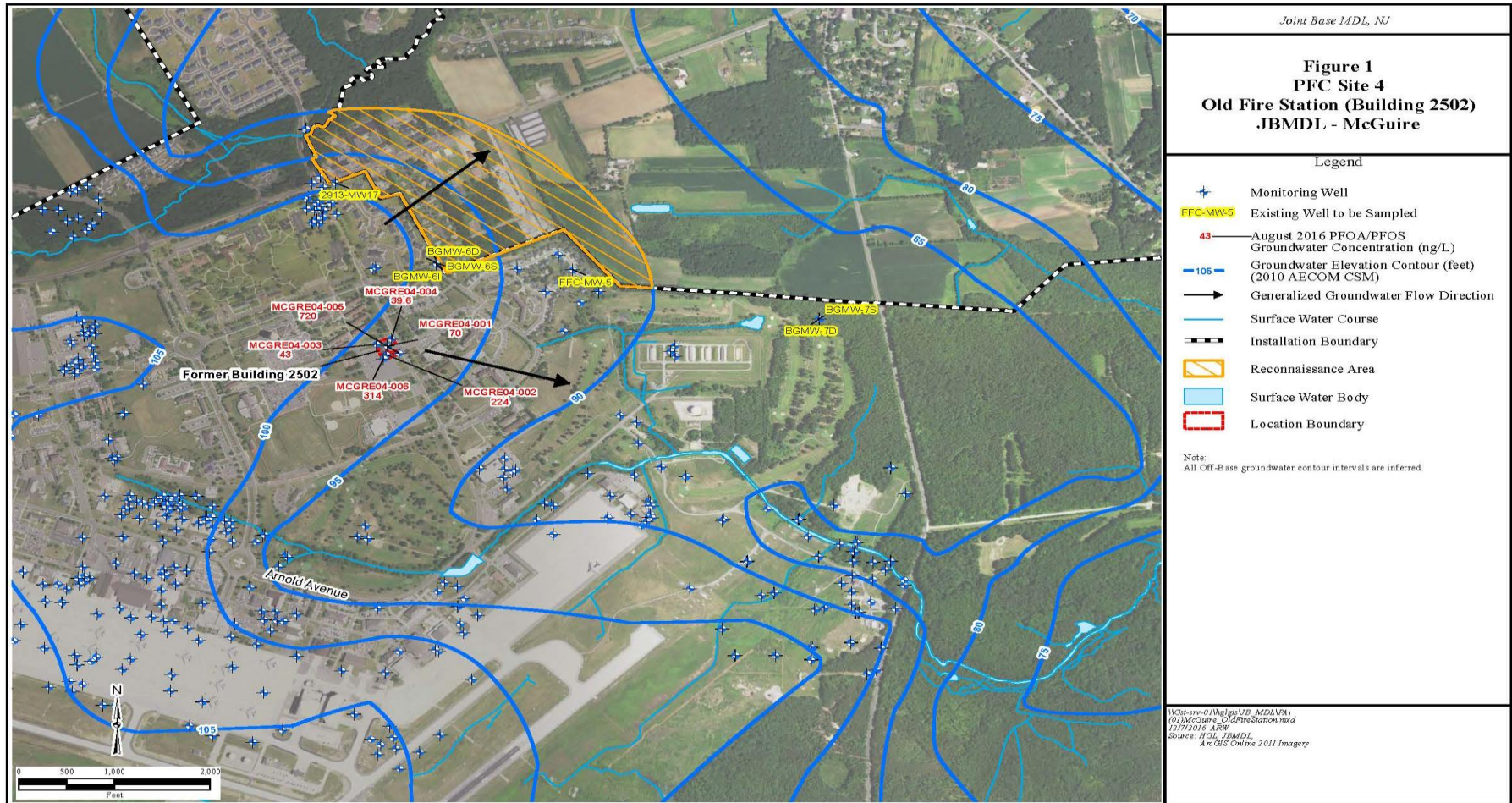


- **Action based on drinking water sample results:**
 - If results above Health Advisory (HA), Air Force will take immediate steps to ensure clean drinking water is provided, while actions continue over the longer term to address the source of PFOS/PFOA
 - If results show detections of PFOS/PFOA but below the HA, AF may request permission to resample, as needed, to evaluate concentrations
 - If results show no PFOS/PFOA (below detection limits), then no further sampling will be required

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PFC Area 4





PFC Area 17





PFC Area 18







Questions?

**You can also find additional information on the
JB MDL PFOS/PFOA web site:**

www.jointbasemdl.af.mil/PFCs

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