

Air Force Civil Engineer Center



Former Pease AFB Environmental Restoration Overview

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Former Pease AFB Restoration Program



- **Pease AFB announced for closure in BRAC 1988, mission ceased in March 1991**
- **Listed on the National Priorities List in 1990**
- **Federal Facilities Agreement signed December 1990**
- **83 sites identified, 51 cleaned to unrestricted use**
- **32 remaining sites**
 - **10 Sites in Long Term Management (e.g. Landfills)**
 - **20 Sites pending closure (solvents, petroleum in groundwater)**
 - **2 PFOS/PFOA Sites**
- **PFOS/PFOA groundwater plumes overlap many existing sites**

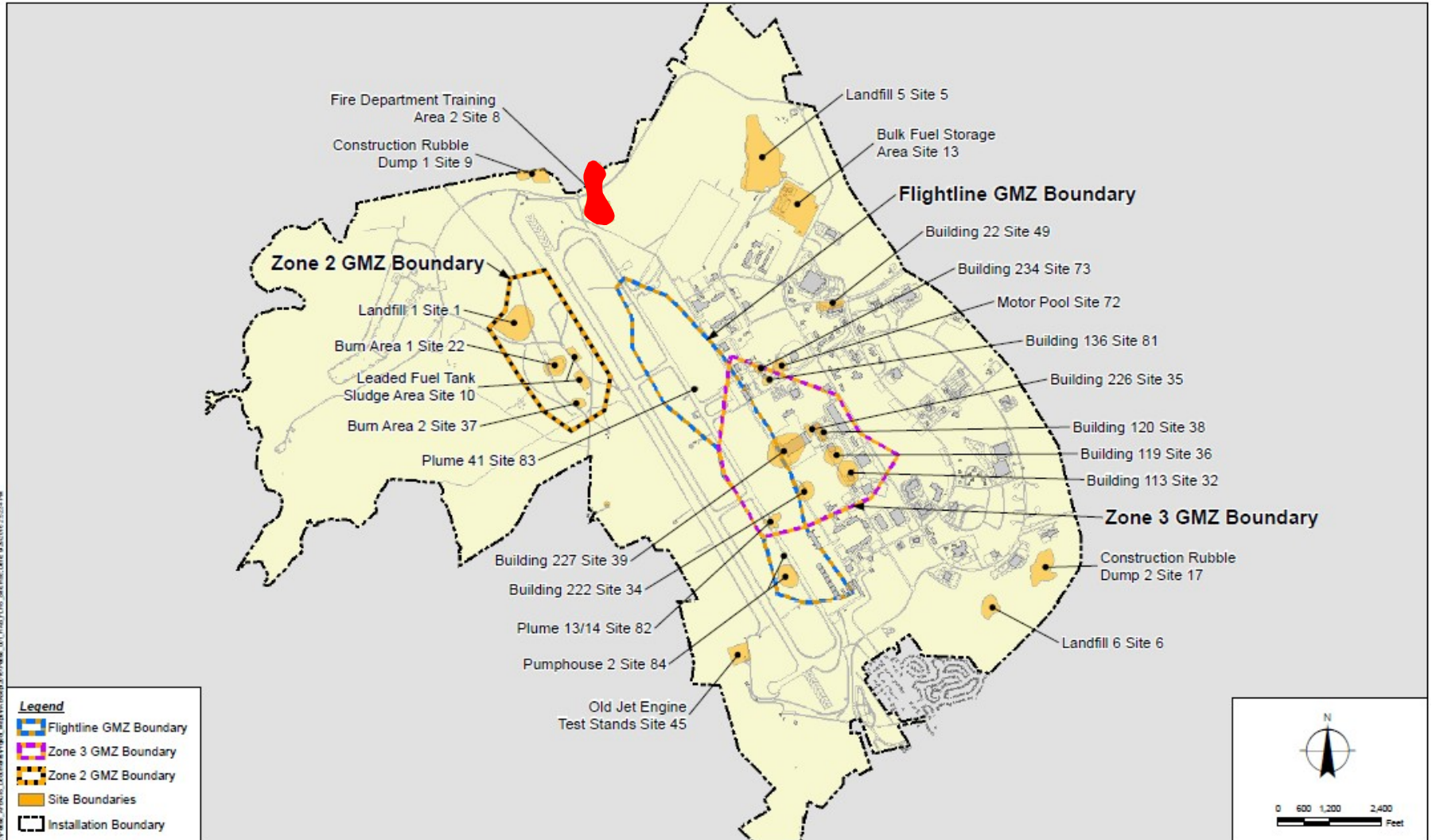


PFOS/PFOA Response

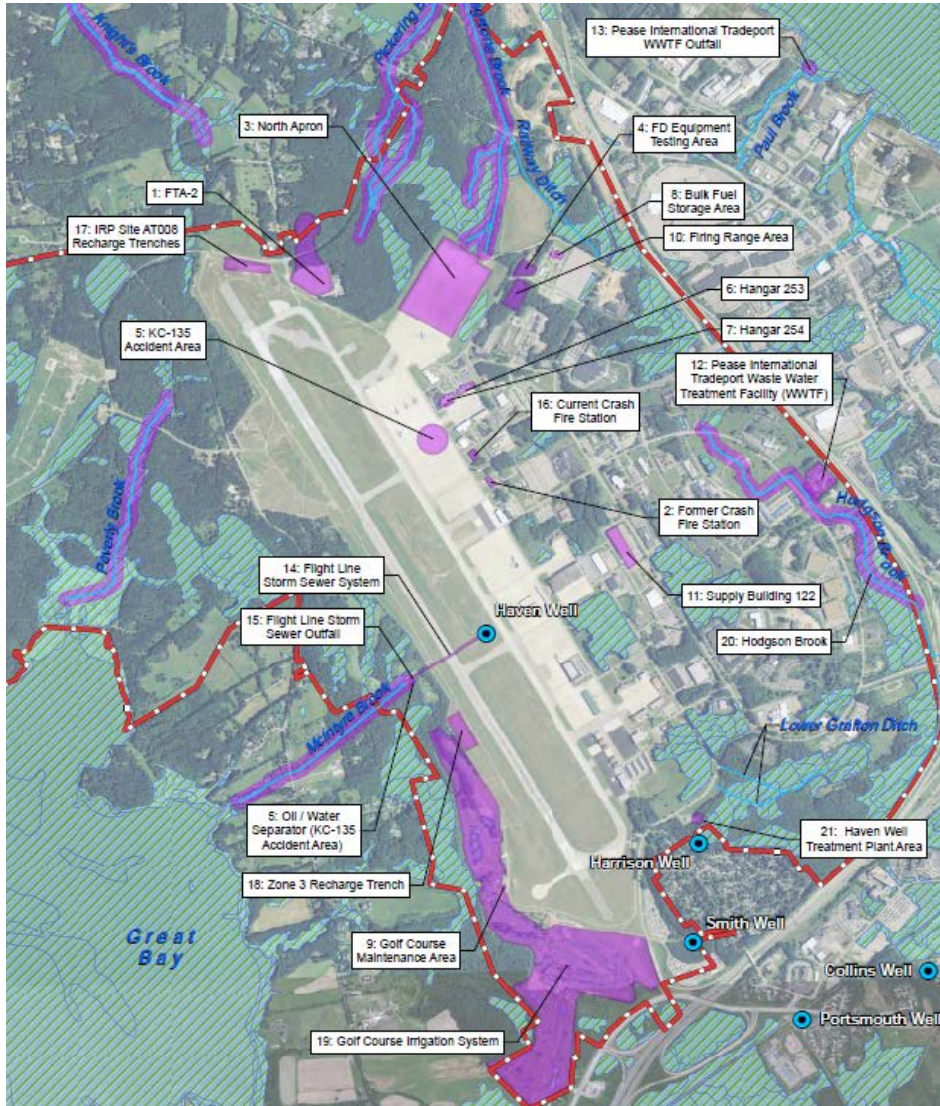


- **Chronology**

- **June and September 2013 – Air Force samples for PFOS and PFOA at the fire training area (Site 8)**
- **April/May 2014 – Air Force samples the Haven, Smith, and Harrison Municipal Supply Wells**
- **May 2014 – Haven Well Shut Down**
- **June 2014 – Air Force begins sampling off-post private wells**
- **2014 - 2015 – 39 private drinking water wells sampled quarterly; four whole house carbon treatment systems installed**
- **August 2015 – USEPA Issues Safe Drinking Water Act Administrative Order**
- **December 2015 – AF completes CERCLA Preliminary Assessment**
- **June 2017 – AF completes PFOS/PFOA CERCLA Site Investigation**



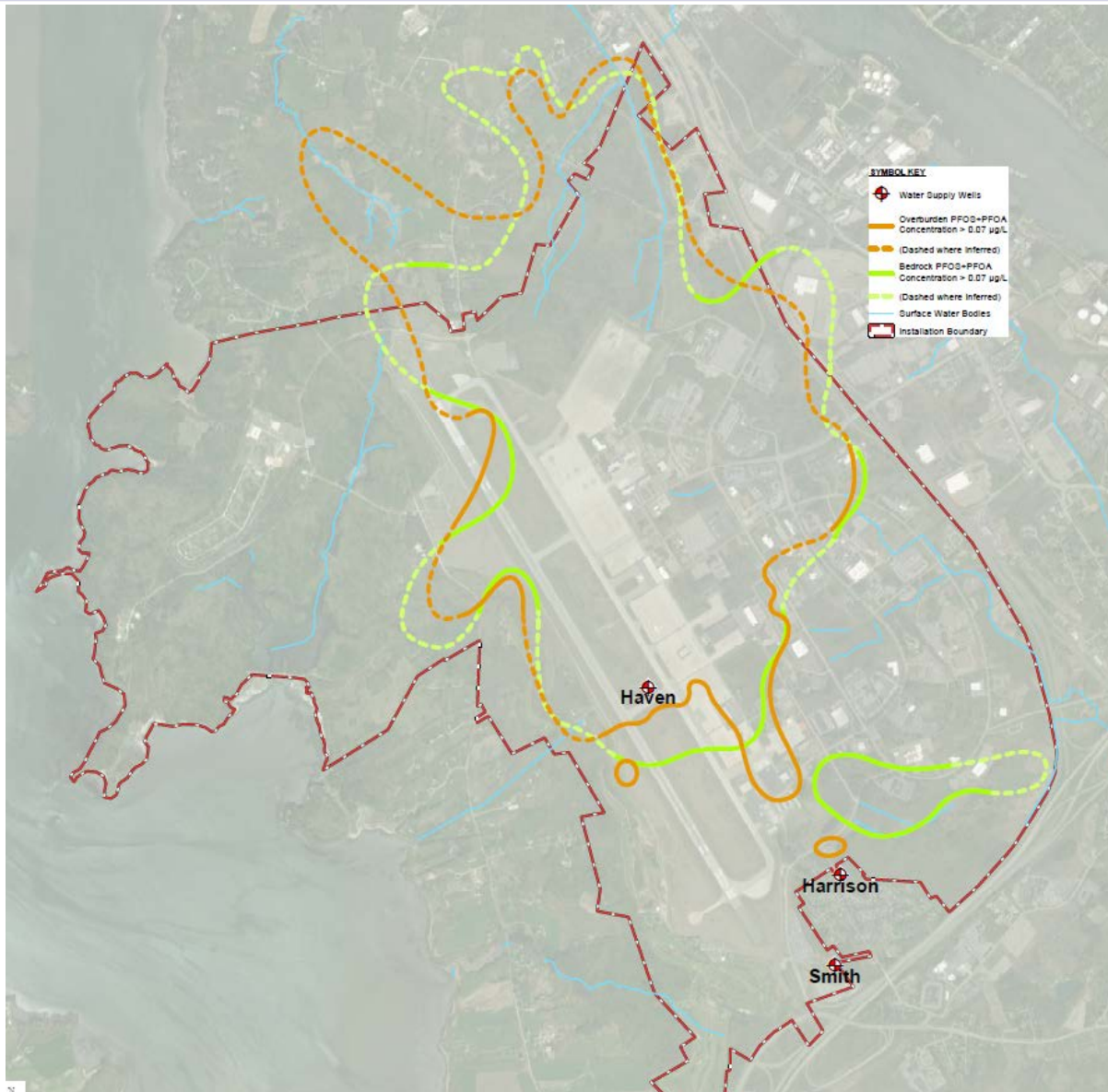
Former Pease Air Force Base
Restoration Sites



- 21 areas with suspected storage and/or release of AFFF
- 12 areas determined to not be significant sources of PFOS/PFOA
- Primary release areas
 - FTA-2 (Site 8)
 - KC-135 Accident Area
 - North Apron



PFOS/PFOA Plume Areas





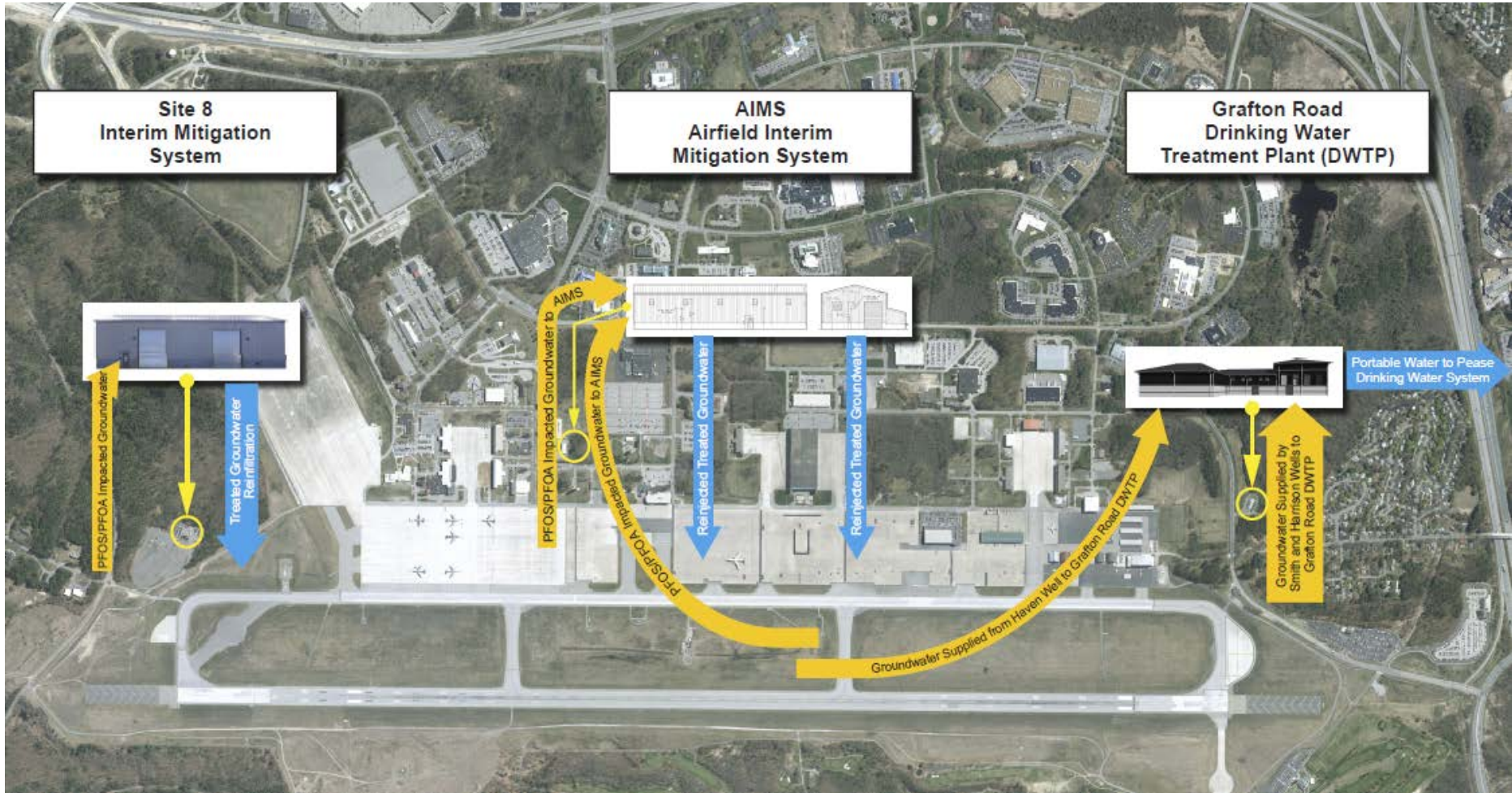
Integrated Response Actions



- **Series of actions conducted and underway to ensure no consumption of drinking water above EPA Health Advisory**
 - ✓ **Haven Well taken offline in 2014**
 - ✓ **Bottled Water provided to 4 homes and one transient well user**
 - ✓ **Point-of-Entry Treatment in four homes**
 - ✓ **Granular Activated Carbon (GAC) Demonstration Project for Smith & Harrison Wells**
 - ✓ **Begin mitigation of known source at Fire Training Area 2 (Site 8)**
 - **Airfield Interim Mitigation System up-gradient of Haven Well**
 - **Drinking Water Treatment System for Smith, Harrison & Haven Wells**



Overview of Treatment Plants





Former Fire Training (Site 8)



- **Interim Mitigation System (IMS) treats source area groundwater using granular activated carbon and an ion exchange resin**
- **Impacted groundwater is pumped to the Site 8 (IMS) through a series of extraction wells located in the Newington Town forest north of the treatment building**
- **The treated groundwater is then reinjected via infiltration trenches, replenishing the aquifer**



Airfield Interim Mitigation System (AIMS)



- **Intercepts contaminated groundwater up-gradient of three City of Portsmouth wells (Smith, Harrison & Haven)**
- **Treats PFOS and PFOA impacted groundwater using a series of granular activated carbon vessels followed by ion exchange resin**
- **Impacted groundwater is supplied to AIMS by a series of extraction wells located both on and off the airfield**
- **The treated groundwater is then pumped into a series of injection wells located in the Pease airfield, replenishing the aquifer.**



City of Portsmouth - Grafton Road Drinking Water Treatment Plant (DWTP)



- **After closure of the Haven Well, the Air Force negotiated four cooperative agreements with the City of Portsmouth to reimburse costs totaling over \$16M for design and construction of upgrades for PFOS/PFOA treatment**
- **Currently the DWTP treats water from the Smith and Harrison wells using granular activated carbon to remove PFOS/PFOA as part of a demonstration project/treatability study**
- **The plant will be upgraded in 2019 to treat the Smith, Harrison, and Haven Wells using a combination of ion exchange resin followed by granular activated carbon**
- **The treated drinking water is then supplied to the Pease Tradeport Drinking Water System**

