AFCEC BRAC
Former Pease AFB
RAB Meeting

Chris King – USAF
Tony Rodolakis – WSP
Tom Gerhard – WSP
11 December 2024

Agenda

- **Technical Check** – (Consensus Building Institute)
- **Welcome, Introductions, RAB Business** – (Consensus Building Institute)
- **Technical Presentations**
  - Overview of Baseline Ecological Risk Assessment Field Sampling Technical Memorandum – (WSP)
  - Site 8 IMS & AIMS update – (WSP)
- **Additional Presentations**
  - Accessing the Administrative Record and NHDES One Stop – (WSP and NHDES)
  - AFFF Releases Since 2015 – Conversations with Portsmouth, Newington, and the NH ANG
  - Select PFAS Destruction Technologies – (ESTCP - USAF)
- **Discussion of the DOD Memo** – (USAF)
- **Community Involvement Plan (CIP) Updates** – (USAF)
- **EPA PFAS aquatic road map and its application at Pease Public Comments** – (EPA)
- **Discuss Foam Sampling in Bay** – (Andrea Amico)
- **Open Discussion**
- **Meeting Recap and Next Steps** – Consensus Building Institute
- **Adjourn**

Baseline Ecological Risk Assessment (BERA) Field Sampling Technical Memorandum

- **SLERA Work Plan issued Final 22 September 2022**
- **Benchmark comparison conducted to guide selection of sample media and locations**
  - Soil, surface water, pore water, sediment
- **Argonne National Laboratory/Grippo (2021); Navy PFAS Issue Paper (2024); Divine et al. (2020)**
  - PFOS, PFOA, PFBS, PFBA, PFDA, PFHxS, PFHxA, PFNA, PFHpA
- **NOEC = No Observed Effect Concentration used for comparison**
- **PFOS is the driving PFAS contaminant for this investigation**

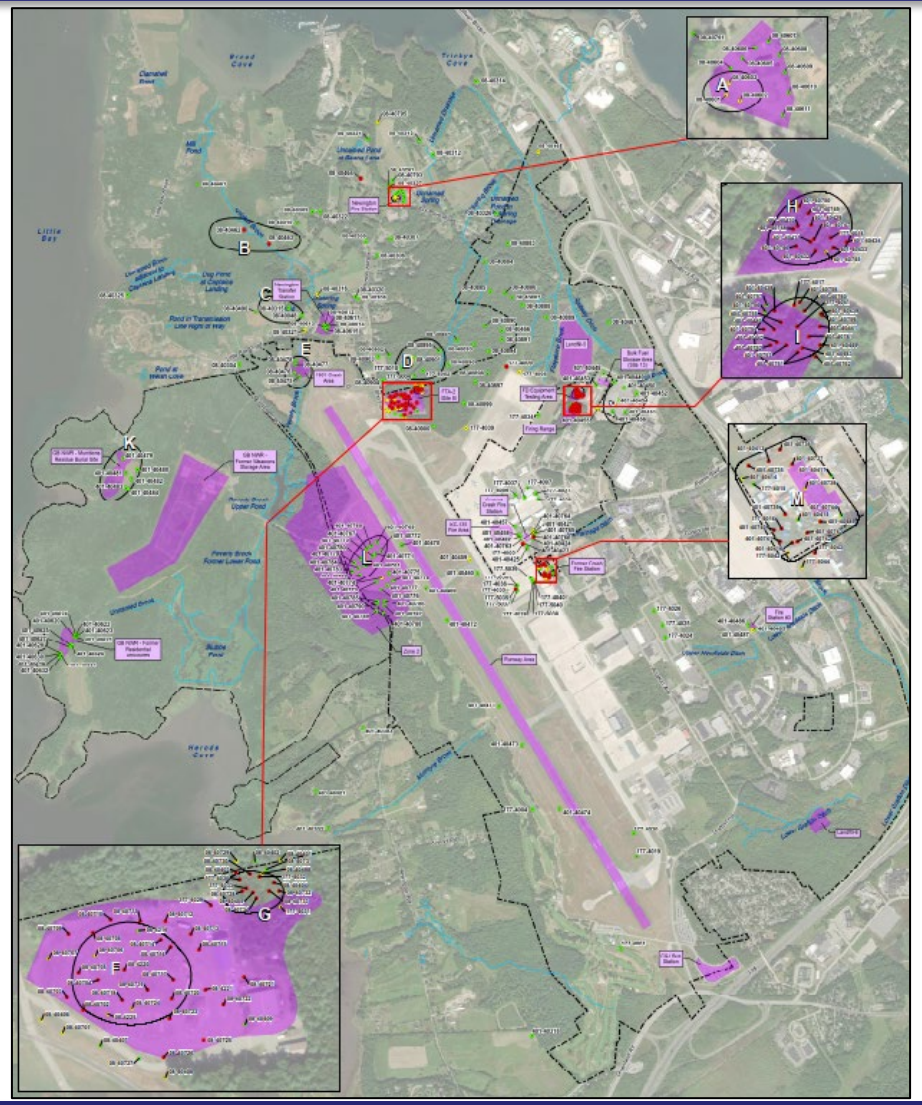
(BERA) Field Sampling Technical Memorandum continued

- **Data Reduction for Terrestrial and Aquatic Areas**
  - Soil (0-2 ft bgs): plant, invertebrate, bird, and mammal exposure.
  - Data from impervious areas or below buildings excluded
  - New construction areas at Pease
  - Surface Water: aquatic community (plants, inverts, fish/frogs), bird, and mammal exposure.
  - Seep and Pore Water (0-0.5 ft bgs): benthic invertebrates
  - Sediment: (0-0.5 ft bgs): bird and mammal food chain
- **Soil has been delineated for NOEC, further refinement needed for surface water, sediment, pore water**

(BERA) Field Sampling Technical Memorandum continued

- **Tissue Testing Objectives**
  - Terrestrial – plant, soil invertebrate, small mammal prey
  - Aquatic – plant, benthic/water column invertebrates, fish, amphibians
  - Use measured concentrations for site-specific food chain models
  - Validate accumulation factors underlying screening values
  - Collect enough data to develop site-specific uptake models

(BERA) Field Sampling Technical Memorandum continued



Terrestrial Sampling Areas

SYMBOL KEY

PFOS in Soil - 0-2ft (mg/kg):

- <0.0087
- ≥ 0.0087 and < 0.0386
- ≥0.0386

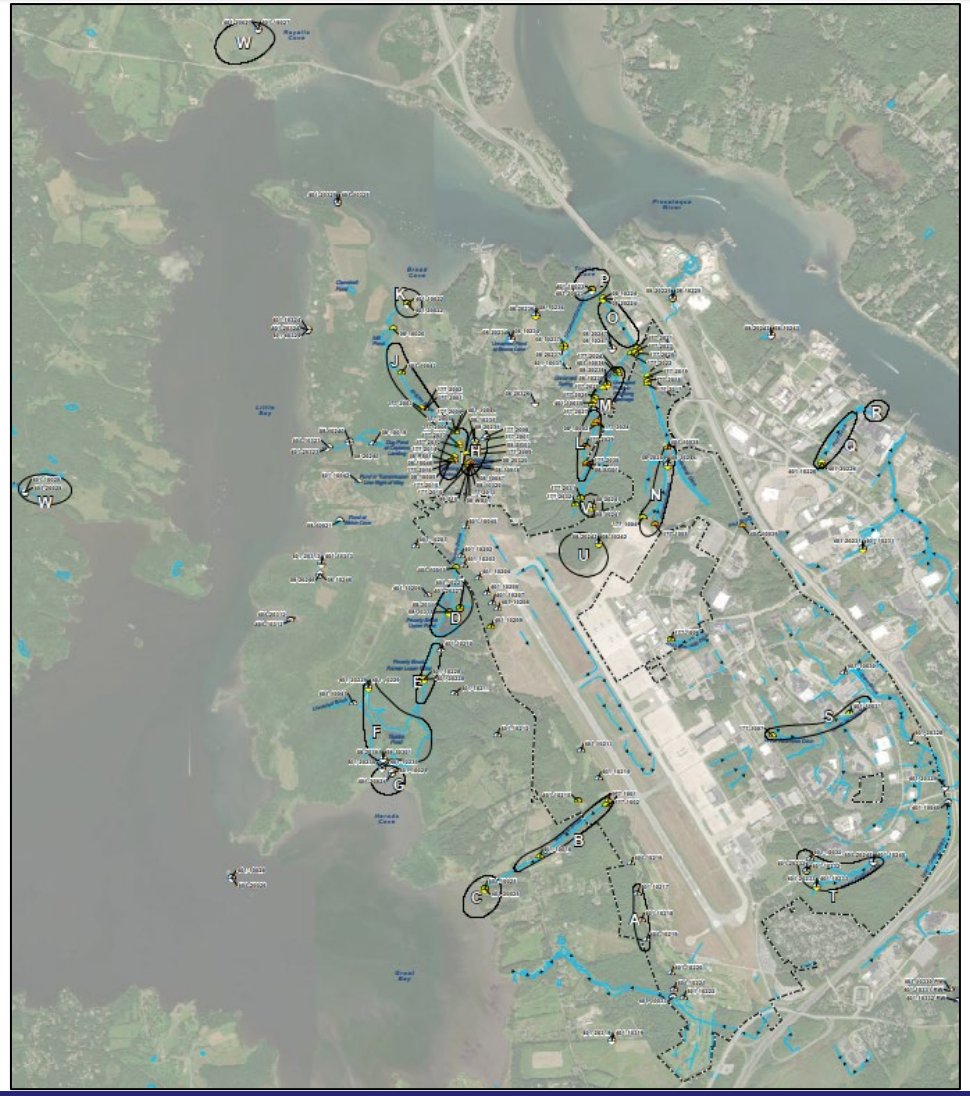
Surface Water Bodies

Known or Potential Source Areas

Pease Development Authority (PDA) Property Boundary

0.0087 mg/kg = Mammal PFOS NOEC
0.0386 mg/kg = Bird PFOS NOEC
40.2 mg/kg = Plant PFOS NOEC
48.1 mg/kg = Soil Invertibrate PFOS NOEC

(BERA) Field Sampling Technical Memorandum continued



Aquatic Sampling Areas

SYMBOL KEY

- Surface Water Bodies
- Pease Development Authority (PDA) Property Boundary
- Abiotic and tissue sampling target areas
- Ditch/Stream including flow direction

PFOS in Water:

- below mammal PFOS freshwater NOEC(<0.117 ug/L)
- exceeds mammal PFOS freshwater NOEC (>0.117 ug/L and <2.57 ug/L)
- exceeds mammal and bird PFOS freshwater NOEC(≥2.57 ug/L)

PFOS in Sediment:

- below mammal PFOS freshwater NOEC (< 0.0014 mg/kg)
- exceeds mammal PFOS freshwater NOEC (≥ 0.0014 mg/kg)

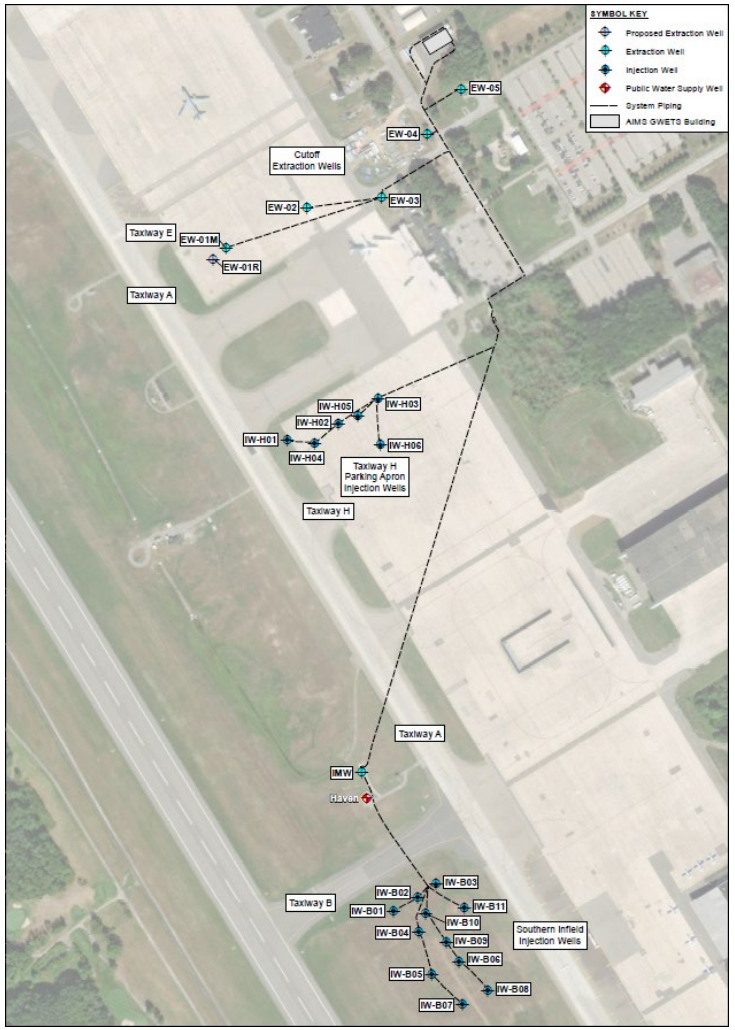
NOEC = No observed effect concentration

(BERA) Field Sampling Technical Memorandum continued

- **Sampling completed**
  - 77% of targeted terrestrial samples
  - 82% of targeted aquatic samples
- **Biotic and abiotic co-located samples analyzed for PFAS using Method 1633 (40-compounds)**
- **Results expected in Spring 2025**
- **Data will support a Tier II BERA**
  - Argonne National Laboratory/Grippo – October 2024 Update
  - PFOS and PFOA AWQCs – September 2024

Pease Treatment System Status Updates

- **AIMS operating at ~325 gpm**
  - Cutoff extraction wells (EW-01R through EW-05) operating at a combined 200 gpm.
  - IMW operating at 125 gpm.
  - Discharge split between Bravo and Hotel injection wells (following completion of injection testing)
- **Site 8 operating between ~35 gpm and ~45 gpm**
  - Water processing ability limited by solids (iron and manganese) loading in groundwater. Upgrade in progress (discussed later) to increase solids handling capabilities and groundwater extraction.
  - Discharging water to 3 of 6 trenches



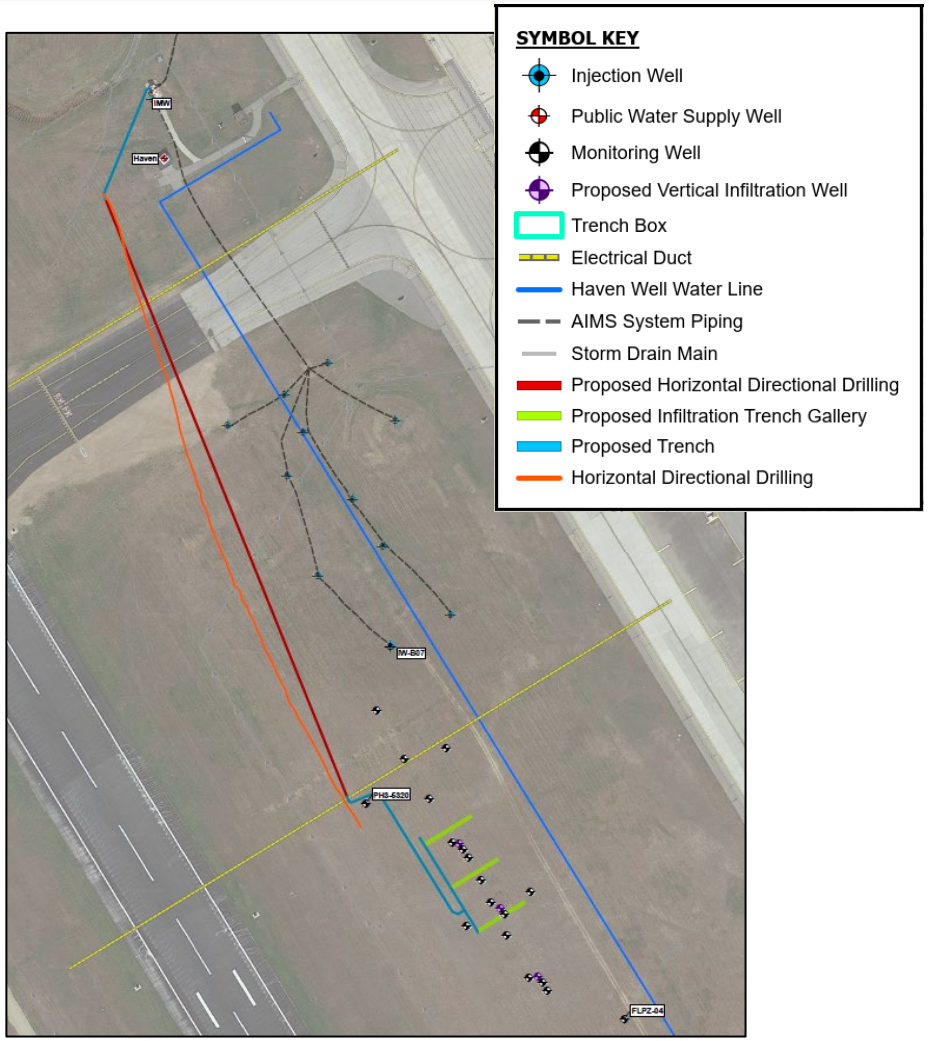
AIMS Challenges

- **Extraction limited during low-water conditions**
  - Groundwater table depressed, low extraction rates required to maintain desired groundwater levels
- **Injection limited during high-water conditions**
  - Groundwater ~2 feet from ground surface on Taxiway Hotel during high water conditions
  - Protection of airfield utmost importance
  - Cannot extract more water than can be injected

AIMS Status Update

AIMS Injection Evaluation

- **Injection trench pilot test completed 16 September 2024 to 11 October 2024.**
- **Injection trench testing proved successful, full scale injection trench system under design**
- **Horizontal directional drilling from interim mitigation well building (IMWB) to trench location, under Taxiway Bravo, completed.**
  - 2 week drilling effort, 21 October 2024 to 05 November 2024
  - 1,300 feet of conduit and pipe installed
- **Trench installation planned for Winter 2024**



Site 8 IMS Status Update

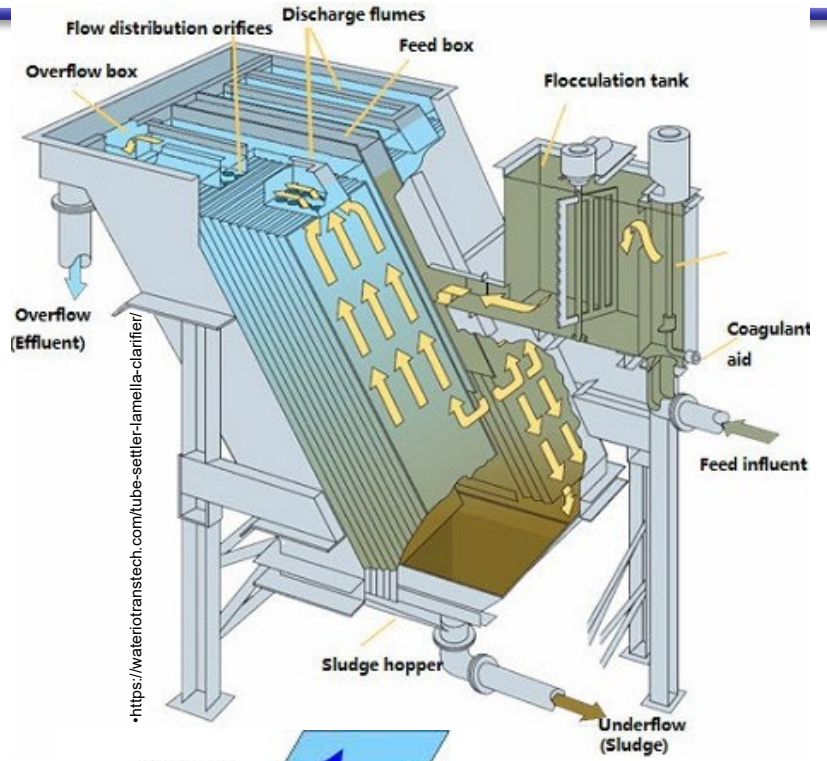
Site 8 IMS Challenges

- **Iron/metals fouling continues to be the primary limiting factor for treatment capacity.**
- **Operators have increased cleaning frequency of well pumps and conveyance lines to maintain extraction rates and prevent plugging.**
- **Increasing iron loading from wells overwhelms the clarifier, causing spillover of solids, which fouls bag filters and causes the system to shut down.**
  - Two solutions: larger clarifier, and post clarifier continuous filtration (sand filter)

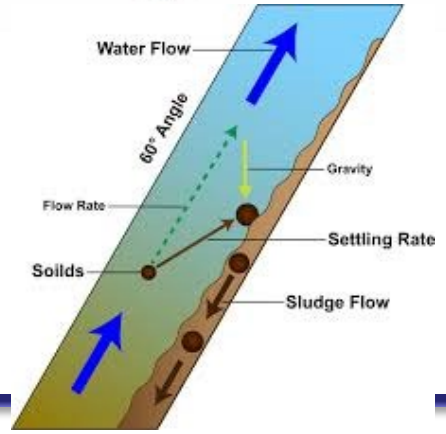
Site 8 IMS Status Update

Site 8 Upgrade Design

- **Upsize clarifier to increase flow and solids handling capabilities**
  - Includes upsizing of influent aeration tank, chemical feed pumps, and clarified water tank.
- **Double carbon treatment capacity to reduce backwash frequency**
- **Install post-clarifier sand filter for treatment of process water to minimize risk of bag filter fouling.**
- **Upsize sludge filter press and sludge holding tank(s), including sludge transfer pumps, to maximize sludge processing capabilities.**



•https://wateriotranstech.com/tube-settler-lamella-clarifier/



•https://metchem.com/new-clarifiers-manufactured-by-met-chem/

Site 8 IMS Status Update

Site 8 Upgrade Timeline

- **Selective equipment removal planned for Winter 2024**
  - Includes resin regeneration equipment, all methanol solutions, and dry chemical fire suppression system
- **Building modifications planned for Winter 2024**
  - Includes expansion of concrete equipment pads for larger equipment (as necessary) and electrical upgrades in north room.
- **Upgrade implementation planned for Spring 2025**

Administrative Record and NHDES One Stop

- Air Force Administrative Record
  - https://ar.cce.af.mil/
- New Hampshire Department of Environmental Services OneStop
  - https://www.des.nh.gov/node/841

Non-USAF PFAS Releases Since 2015

- **Conducted interviews with the NH ANG, PDA, and the Portsmouth and Newington Fire Chiefs.**
- **NH ANG (since 2015):**
  - No PFAS foam fire suppression systems are in operation, per USAF and OSD requirements.
  - Since 2015, records indicate only small (less than 25 gallon) spills have occurred. All were contained on the pavement, collected, and properly disposed.

Non-USAF PFAS Releases, continued

- **PDA (since 2015):**
  - No PFAS foam fire suppression systems are in any of the private jet hangars.
- **Portsmouth Fire Department (since 2015):**
  - No AFFF used in hangars on Pease
- **Newington Fire Department (since 2015):**
  - No AFFF used in responses

Innovative PFAS Technology Update

- Presentation from AFCEC/CZTE
  - Dr. Kent C. Glover
  - Dr. Jeffery L. Davis

OSD Policy on Implementing PFAS MCLs

- **Policy referred to as the DOD Memo on prioritizing implementation of the EPA PFAS MCLs (03 Sep 24) provides USAF guidance on action priorities:**
  - Prioritize actions on private drinking water wells where concentrations are known to be at or above three times the MCL values (i.e., PFOA = 12 ppt; PFOS = 12 ppt; PFHxS = 30 ppt; GenX = 30 ppt; PFNA = 30 ppt; HI = 3).
  - Pease has five such private drinking water wells.
- **Other actions such as remaining public and private wells will be addressed on a priority basis.**

Please Plan for Five Private Wells

- **Currently awaiting availability of a contract vehicle, which is expected in the early parts of 2025.**
- **Process starts with evaluating what response actions can be taken.**
  - Preference is to connect residence to municipal water supply.
  - If municipal hookup is feasible but will take longer than six months, DAF may install a point-of-entry or point-of-use treatment system (POETS or POUTS) in the interim.

Pease Plan for Five Private Wells, Cont.

- **If POETS, POUTS, or municipal hookup is installed as a time-critical removal action (TCRA), stakeholders can comment once TCRA memo is issued.**
- **If municipal hookup will take longer than six months, DAF will conduct an engineering assessment/cost analysis (EE/CA) to assess best path forward.**
  - Stakeholders can comment on EE/CA before response is chosen in non-time-critical removal action memo (NTCRA)

Community Involvement Plan (CIP) Update

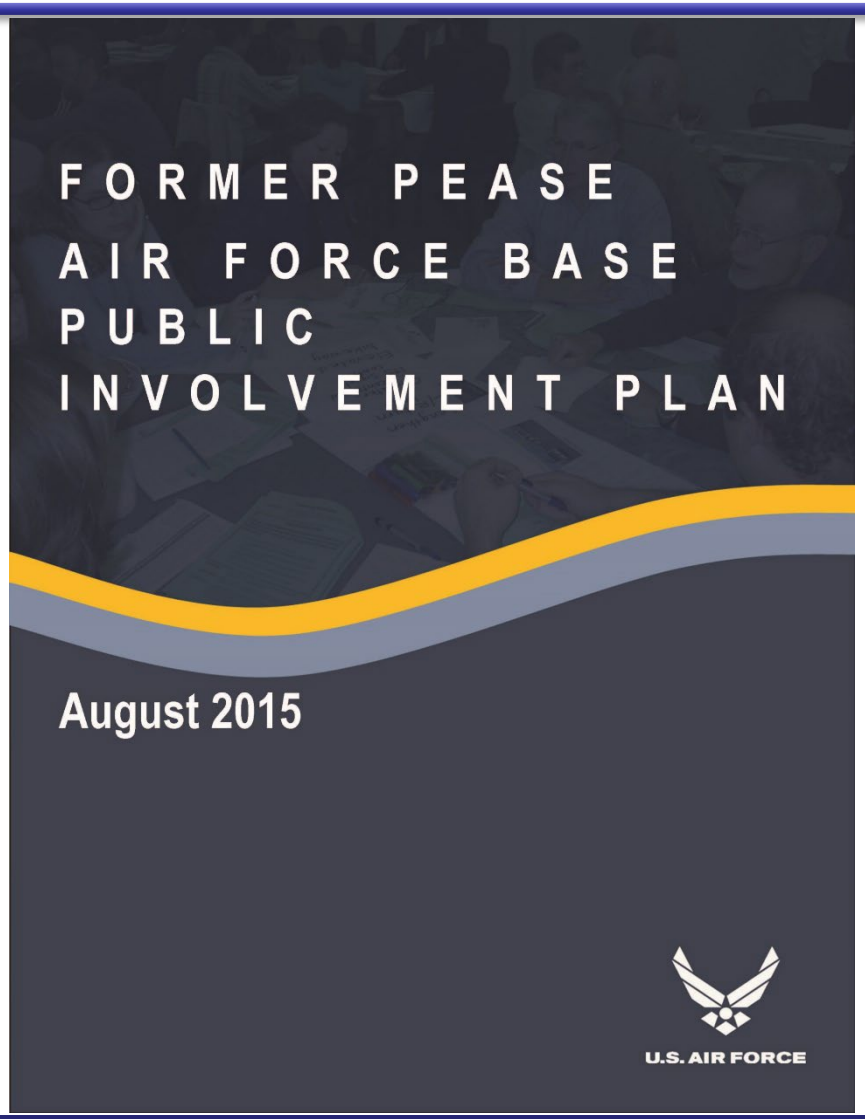
- **The (CIP) follows EPA Guidance**
- **A CIP is intended to achieve the following:**
  - Facilitate two-way communication with the community.
  - Document the current phase of the environmental restoration process.
  - Outline the community involvement strategy and list community involvement activities.
  - Encourage community involvement in ongoing site activities and the environmental restoration process.

CIP Update, Continued

- **The Pease CIP was last updated in 2015 (formerly called a Public Involvement Plan, or PIB).**
- **BRAC has a contract in place to update the Pease CIP in 2025. Pease will be the first update.**
  - Contractor is the same for BRAC and active duty. Ensures more consistency throughout USAF.
  - Requires interviews of key community stakeholders and identification of community concerns.
- **Main stakeholders are EPA, NHDES, the Pease RAB, and local government leadership.**

CIP Update, Continued

- **Plan to start in early 2025.**
  - Community interviews with local, state and federal officials, and community residents will be scheduled to solicit their concerns and information needs.
  - Interviews will be either in-person, through online platforms, or other means to best meet the needs of the interviewee.
  - Contact Chris King if you are interested in participating.



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