



Restoration Advisory Board Biddle Air National Guard Base

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NGB/A4VR
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Updates Since 10 March 2022



- Environmental Restoration Program Sites:
 - Willow Grove Site 1 (Privit Road):
 - Starting Five Year Review (BB&E)
 - Contract action summer 2022 for Final Record of Decision/Long Term Monitoring
- Coordinating with EPA/PADEP on the transition from SDWA AO to Navy Federal Facility Agreement
- PFAS Remedial Investigation:
 - Leidos developed geologic cross sections to support data quality objectives and conceptual site model discussions for Phase II and Phase III RI to support monitoring well selection and data gap analysis
 - ANG agreed to use traditional monitoring wells in lieu of multiport wells to complete the RI
 - EPA/PADEP/ANG agreed to not conduct comparative analysis study of bedrock monitoring well groundwater quality versus multiport well groundwater quality
 - ANG is modifying Leidos contract to include scope of work changes to RI UFP QAPP to include additional wells and additional down hole geophysics/packer testing/groundwater sampling
 - Submitted final Surface Water Technical Memorandum for Event 8 and draft final for Events 9 and 10
 - Regional Surface Water Sampling Event 21-22 March 2022
- PFAS Interim Groundwater Action:
 - Request for Proposals in June 2022 to support acquisition
- PFAS surface water treatment:
 - 11 August 2021 New Surface Water Treatment System started; as of 30 April 2022 treated 82M gallons
 - Submitted February 2022 and March 2022 NPDES Discharge Monitoring Reports to EPA/PADEP



3 Month Forecast of Activities



- Sign Navy Federal Facilities Agreement:
 - Complete Surface Water Response Action Memorandum
 - Complete Residential Drinking Water Action Memorandum
- Continued drinking water response actions (sampling, bottled water, and coordination with North Wales Water Authority (NWWA) and Warminster
- Complete RI Contract modification
- Prepare revised UFP QAPP modifications related to bedrock groundwater characterization and revised scope of work Phase II and III RI.
- Award Interim Groundwater Action Contract
- Surface Water Sampling June 13, 2022
- Continued storm water treatment operations (Warminster)



Remedial Investigation Project Objectives

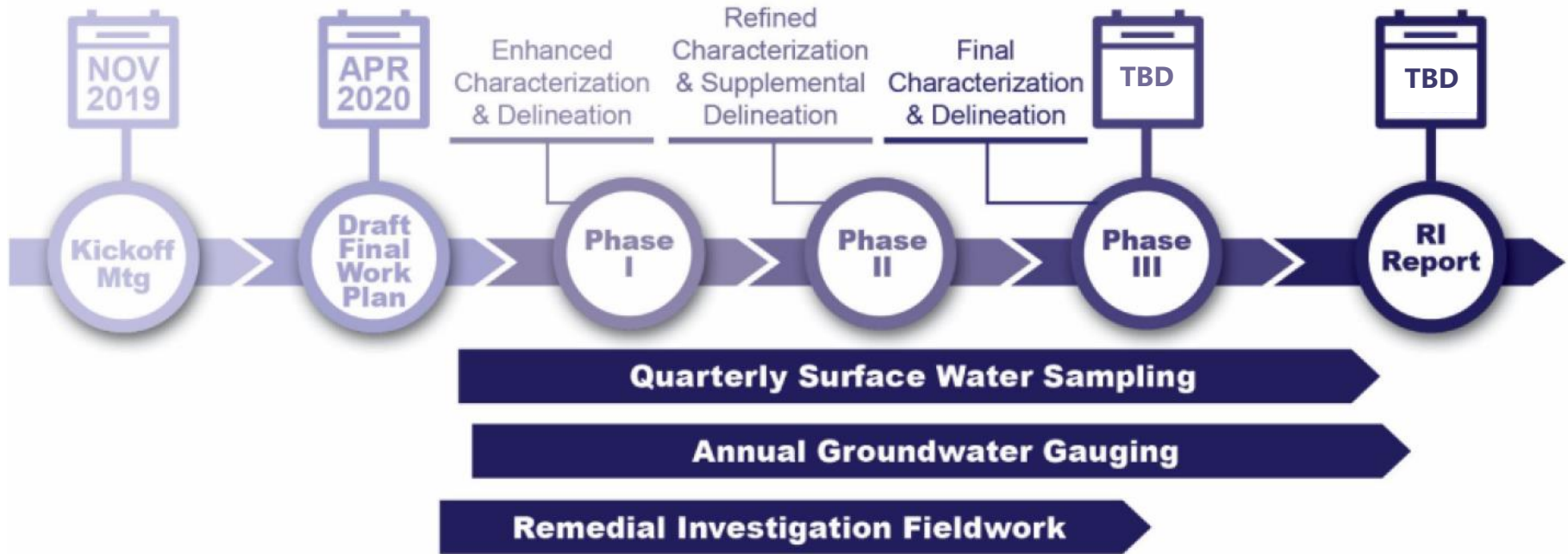


- Delineate the nature and extent of PFAS contamination, the threat to human health and the environment and prepare a Remedial Investigation (RI) Report.
 - Collect soil, sediment, surface water, and groundwater PFAS data on and around Biddle ANGB.
 - Conduct Baseline Risk Assessment (BRA).
 - Investigate link between groundwater and unnamed tributary to Park Creek.
 - Obtain data required to inform future development of a Feasibility Study.
 - Conduct quarterly surface water sampling for PFAS in coordination with the Navy.
 - Conduct annual potentiometric gauging, as needed to support USGS model.

Previously Identified Potential PFOS/PFOA Source Areas



Remedial Investigation General Process and Schedule



Remedial Investigation Progress



- EPA provided updated comments on the UFP-QAPP, previously approved in July 2020
- EPA, ANG, and Leidos are developing the path forward for RI. UFP-QAPP addendum will be developed to address revised scope
- Revised scope of work and contract modification in progress for additional/modified RI effort
- Held discussions with EPA and PADEP regarding revised scope of work for Phase II and III
- Developing a series of cross-sections to evaluate nature and extent of PFAS impacts to guide subsequent investigation

Quarterly Surface Water Sampling



- Performed regional Surface Water Sampling with Navy and USGS between March 21 & 22, 2022
- Finalized Sampling Memo for Round 8
- Delivered Draft Final Sampling Memo for Rounds 9 and 10 to EPA/PADEP
- The next Surface Water sampling event is planned for the week of June 13



Actions Planned for Next 3 Months



- Actions Planned for Next 3 Months
 - Pending contract modification, refine scope of work for RI Phase II and III in consultation with EPA and PADEP
 - Conduct regional Surface Water sampling in coordination with the Navy and USGS
 - Finalize quarterly Surface Water memos for Rounds 9 and 10
 - Draft quarterly Surface Water memo for Round 11
 - Perform next Surface Water sampling event the week of June 13

PFOS/PFOA Water Treatment

Biddle ANGB



- PFOS/PFOA has been detected in surface water leaving the Biddle Air National Guard Base. This water is primarily groundwater that discharges to a storm water detention basin on the northwest boundary of the Base and flows to Park Creek which flows to the Little Neshaminy Creek.
- 500 gallon per minute treatment plant began operations on 11 August 2021. ~ 82M gallons treated through the end of April 2022.
- First media change-out scheduled for May 2022 – GAC
- Treatment plant effluent PFOS+PFOA < 2ppt (<70 ppt required)
- Construction and O&M through Warminster Cooperative Agreement

NWWA Activities



- North Wales Water Authority assumed responsibility for Warrington water service area
- Cooperative agreement for water system actions
- PFAS treatment added to 3 municipal wells
- Construction underway to add PFAS treatment to 2 additional wells – 99% complete as of 1 May 2022
- Two water main extensions – project awarded 16 March 2022, construction start in May 2022
- Service line connections and private well decommissioning ongoing



Private Well Sampling



- ANG has contract in place with Wood to provide PFOS/PFOA testing of private drinking water wells and supply bottled water to properties with PFOS/PFOA at or above the EPA Health Advisory level (HA) for residents within our area of responsibility in Horsham, Warminster, and Warrington
- Total number of private wells sampled by ANG are:
 - Horsham
 - 6 wells sampled
 - 5 were above HA
 - 4 have been connected to municipal water
 - 1 well abandoned by Wood
 - Warrington:
 - 150 well sampled
 - 53 are above HA
 - 55 have been connected, NWWA has 13 signed agreements to connected this summer
 - Warminster: 12* well sampled
 - 11 are above HA
 - 8 have been connected municipal water
- *Some of these properties are on Valley Road with Warminster mailing addresses but are located in Warrington Township
- Sampling contact for ANG area of responsibility: Brad LaForest at brad.laforest@woodplc.com or (207) 828-3620

