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FOURTH QUARTERLY STATUS REPORT FOR ADMINISTRATIVE ORDER SDWA-03-2014-  
0230-DS WITH TRANSMITTAL LETTER NAWC WARMINSTER PA  
7/20/2015  
BRAC PMO EAST



DEPARTMENT OF THE NAVY  
BASE REALIGNMENT AND CLOSURE  
PROGRAM MANAGEMENT OFFICE EAST  
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5090  
Ser BPMOE/15-185  
July 20, 2015

Mr. Roger Reinhart  
U.S. Environmental Protection Agency  
Region III (3WP22)  
1650 Arch Street  
Philadelphia, PA 19103

Dear Mr. Reinhart:

SUBJECT: QUARTERLY REPORT REGARDING ADMINISTRATIVE ORDER DATED  
JULY 7, 2014, EFFECTIVE JULY 13, 2014, DOCKET NO.  
SDW-03-2014-0230-DS

In accordance with Section VI, Paragraph 40 of the subject  
Order, the attached Fourth Quarterly Report is submitted.

If you have any questions regarding this matter, please  
contact me at 215-897-4904.

Sincerely,

A handwritten signature in blue ink, appearing to read "Willington Lin", is written over a horizontal line.

WILLINGTON LIN, P.E.  
BRAC Environmental Coordinator  
By direction of BRAC PMO

Enclosure: Fourth Quarterly Report

Copy to:  
EPA Region III (S. Kloss)  
BRAC PMO Files

**4th Quarterly Status Report**  
**Period: April 4, 2015 through June 30, 2015**

**Administrative Order Dated July 7, 2014**  
**(Effective July 14, 2014)**  
**Docket No. SDWA-03-2014-0230-DS**

This quarterly status report provides a summary of the work performed by the Navy, associated entities, and U.S. EPA [via an Interagency Agreement (IA) with the Navy] over the period of **April 4, 2015 through June 30, 2015**. The Navy proposes that future quarterly status reports will be submitted every three months instead of every 90 days to synchronize reporting periods with the end of a fiscal year quarter. The next report will cover July 1, 2015 through September 30, 2015.

**SUMMARY OF ACTIVITIES**

During this Administrative Order (AO) reporting period, the public and private water systems sampling programs were continued under an agreement for technical support with EPA under the IA, which was extended through FY 2016.

As reported in the 3<sup>rd</sup> quarterly report, a Cooperative Agreement grant (CA) between the Navy and Warminster Township Municipal Authority (WTMA) was awarded in March 2015. Private and Public Water actions provided by this agreement will be discussed within the appropriate section of the report.

The Areas A, C, and D extraction wells continue to provide capture/containment of PFCs originating from these areas, with treatment provided by the groundwater treatment plant located in Area A, which has been modified to provide PFC removal through carbon polishing.

In addition, the Draft Unified Federal Policy Sampling and Analysis Plan (UFP SAP) for a Remedial Investigation of perfluorinated compounds was submitted for regulatory review (October 16, 2014); and key worksheets from the draft document were revised in accordance with EPA's comments and sent out for review on December 22, 2014. Review comments were addressed and a revised draft UFP SAP was submitted on April 9, 2015 - this version is still in EPA review.

Preliminary PFC RI investigation field work during the April - June quarter included the geophysical logging and packer sampling of Area C wells OB-11 and OB-13 by the USGS on behalf of the Navy. Samples were analyzed for VOCs and PFCs (interpretive report pending). The results of the testing/sampling will be used to identify depths for potential additional extraction wells in the vicinity of the former fire training area. In addition, the vapor intrusion field investigation for Gilda's Club was completed in June, and a hand dug well in the basement of Gilda's Club was sampled for VOCs and PFOA/PFOS (results pending). Gilda's club is supplied by a public water system, and the PFOA/PFOS sampling was performed to support the RI.

Monitoring well installations and groundwater sampling was performed in April 2015 to support a Finding of Suitability to Transfer (FOST) for the former Shenandoah Woods Housing associated with Naval Air Station Joint Reserve Base (NASJRB) Willow Grove that is located adjacent to the former NAWC, and results were shared with EPA and PADEP. Additional investigation of the area is underway.

The following provides additional detail regarding the quarter's activities.

#### **PUBLIC WATER SUPPLIES**

Monitoring: No public water supply (PWS) well sampling was performed by the Navy during this time period.

Treatment/Alternate Water Supply: The Navy is currently in the process of implementing the approved Water Treatment Plan for WTMA public water supply wells WMA-10, WMA-13, and WMA-26, which will be executed through the CA with WTMA. In accordance with the plan and the CA, these three PWS wells will be provided with carbon treatment.

A temporary carbon treatment system was installed on WMA-26 in July 2014, and this well has been pumped (for plume containment) to waste. The treated waste water is discharged to the WTMA Log College wastewater treatment plant.

Wells WMA-10 and WMA-13 are shut down and will remain so until the treatment systems have been installed. WTMA is in the process of permitting and design activities. The current anticipated timeline for this work is as follows:

- Public Water Supply Permit approval from PADEP: July 2015
- Finalize design for treatment train/buildings: July - August 2015
- Construction contractor procurement: August - September 2015
- Building Permit/Land Development Waiver Approval: August - September 2015
- Treatment system construction/prove-out: October 2015 - March 2016

### **PRIVATE WATER SYSTEMS**

Monitoring: Approximately 157 samples have been collected from 109 wells to date. No samples were collected during this reporting period. Under the IA, the EPA collected the samples, provided for analysis, validation and reporting of initial results to the private well owners. The private well owner contact information and analytical results are excluded from this public document. As of the end of March 2015, samples from thirteen (13) private wells have analytical results for PFOS at or above the provisional health advisory (PHA) levels and are being provided with alternate water supply by the EPA. To date, no detections of PFOA in private water systems meet or exceed the associated PHA levels.

The Navy and EPA extended the interagency agreement through 2016 on 30 June 2015. The next round of private water systems sampling is scheduled for July 2015, and will include 13 properties that were previously sampled plus up to 4 new locations (pending property owner approval).

Treatment/Alternate Water Supply: The CA with WTMA provides for public water connections for those in WTMA's service area. Thirteen property owners were offered - twelve have accepted a permanent alternate water supply (PWS hookup), and one offer is still pending. There were no rejections of the offer. Under the CA, WTMA is performing the following activities to implement the private water supply connections:

- Temporary construction easement agreements: to date, 7 of 12 homeowners have signed the required construction easements
- Water main extension along Newtown Road: Contractor (Barasso Construction) starting mid-July, anticipates

completion (including hookups of 4 residents along Newtown Road) by early September 2015 (pending one construction easement).

- Remaining private water supply hookups: Anticipated to be completed by the end of August 2015, contingent on getting easements from landowners.

No private water supply treatment system sampling was performed during the reporting period.

#### **NAVY PFC INVESTIGATION STATUS**

The April 9 2015 Revised Draft UFP SAP for a PFC Remedial Investigation and Vapor Intrusion Evaluation is still in EPA review. The UFP SAP is anticipated to be finalized in July 2015 (pending receipt of EPA comments) and executed in the summer/fall of 2015. Some preliminary PFC investigation work has been initiated in advance of finalizing the UFP SAP, including:

- Vapor intrusion evaluation of Gilda's Club
- Geophysical logging/packer sampling of select Area C wells

A report of PFC sampling at extraction wells in Areas A, C, and D from the November 2014 LTM sampling round is under preparation. The spring 2015 LTM sampling event was conducted in May which included PFC sampling/analyses of the extraction wells

Groundwater investigation work is being performed on an expedited schedule in Area B to support the Finding of Suitability to Transfer (FOST) of the Shenandoah Woods housing area property. The Shenandoah Wood housing area has been vacant since 2011 and is provided drinking water from Warminster Township Municipal Authority. There are no groundwater extraction wells at Shenandoah Woods. Three well pairs were installed in March, and the wells were sampled for PFCs in April 2015. Soil samples were also collected for PFC analysis during this Area B investigation work. The only exceedance of the PHA was at monitoring well HN-108I, where PFOS was detected at 0.236 µg/L. This monitoring well is located at the entrance road, near Bristol Road and is the furthest from Area B. The soil and groundwater sampling results are provided in the FOST documents. Additional monitoring well installations occurred in the Shenandoah Woods housing area (results pending).

## **UPCOMING ACTIVITIES FOR THE NEXT REPORTING PERIOD**

Over the next 3 months, the Navy plans to perform the following activities:

- Continue permitting, design, and construction contractor procurement activities for public well activated carbon treatment system installations for wells WMA-10, WMA-13, and WMA 26 through the CA with WTMA.
- Install the water main extension along Newtown Road and connect properties that have accepted the Navy's offer of a connection to a public water system through the CA with WTMA.
- Continue with periodic sampling of select private water systems (through the IA with EPA or by Navy contractor) and public water supply wells. Based on consultation with EPA, private wells with PFOS concentrations greater than 25% of the PHA levels will be periodically resampled to monitor that concentrations remain below the PHA levels.
- Continue to supply private well locations which are at/above the PHA levels with bottled water until permanent solutions can be implemented.
- Finalize the UFP SAP for a remedial investigation of PFCs and perform the associated field work.
- Complete the Finding of Suitability to Transfer (FOST) for Shenandoah Woods housing area.