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NAWC WARMINSTER
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PRIVATE WATER SYSTEM WATER TREATMENT PLAN FOR ADMINISTRATIVE ORDER
SDWA-03-2014-0230-DS WITH TRANSMITTAL LETTER NAWC WARMINSTER PA
2/18/2015
BRAC PMO EAST



DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE EAST
4911 SOUTH BROAD STREET
PHILADELPHIA, PA 19112-1303

5090
Ser BPMOE/15-081
February 18, 2015

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

Dear Mr. Reinhart:

SUBJECT: PRIVATE WATER SYSTEM WATER TREATMENT PLAN ADMINISTRATIVE
ORDER DATED JULY 7, 2014, EFFECTIVE JULY 13, 2014,
DOCKET NO. SDWA-03-2014-0230-DS

Per Section VI, Paragraph 38 of the subject Order, the attached updated Private Water Treatment Plan (Private WTP) describes the Navy's planned approach for provision of alternate permanent water supply and/or treatment for private water systems. Twelve private wells, identified under an interagency agreement with EPA, require alternate drinking water sources.

The Navy requests a time extension of 180 days from the approval of this updated Private WTP, regarding the order's requirement to provide a permanent drinking water supply. This request is made due to the extended time it has taken to negotiate a comprehensive cooperative agreement (CA) with the Warminster Municipal Authority. The CA implements a number of Private WTP requirements of the order, including extension of a water main, connection of four locations, and payment of connection and inspection fees. The CA award is expected by late-February 2015.

If you have any questions regarding this submittal, please contact me at (215)897-4904 or willie.lin@navy.mil.

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

Attachment

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

PRIVATE WATER TREATMENT PLAN
ALTERNATE LONG-TERM WATER SUPPLY STRATEGY
FOR PRIVATE WATER SYSTEMS
AUGUST 22, 2014 (Updated February 18, 2015)

This Water Treatment Plan (WTP) describes the Navy's planned approach to addressing private water system issues related to the detection of perfluorooctanoic acid (PFOA) and/or perfluorooctanesulfonic acid (PFOS) at impacted properties in the vicinity of the former Naval Air Warfare Center (NAWC) in Warminster, Pennsylvania.

Per Section VI, paragraph 38 of the Administrative Order (order) issued to the Navy by the U.S. Environmental Protection Agency (EPA) in July 2014, the Navy is required to provide an alternate water source to property owners due to the presence of PFOA and/or PFOS at/above levels above EPA's provisional health advisory (PHA) values (0.4 ug/l for PFOA, 0.2 ug/L for PFOS). Because the PHA levels are only one significant figure, rounding will be applied as necessary to the analytical results. The Navy intends to address this issue by first providing immediate alternate drinking water, such as bottled water. The Navy will continue to provide alternate drinking water until connecting affected property owners to a public water supply system as described in this Private WTP. In the unlikely event that a connection to public water is impractical or the property owner rejects the offer but requests treatment instead, an activated carbon treatment system will be installed.

For private wells that are below the PHA levels, these can continue to be used for drinking and cooking purposes. The Navy will monitor the wells which are at/above 25% of the respective PHA level for drinking water safety. The monitoring will initially be quarterly until a scientific trend is established. Based on years of historical sampling results from other PFC sites, wells which are below 25% of PHAL are not considered at risk to reach the PHA levels.

PRIVATE WATER SYSTEM CONNECTIONS TO PUBLIC WATER SUPPLY

The Navy's default approach to address private water systems that have PFOA and/or PFOS at concentrations at/above EPA's PHA level will be to connect the affected systems to a public water supply. The Navy considers that this is the most protective approach, and is also the optimum implementable and cost-effective approach from a long term perspective.

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Notification to Property Owners and Offer of Public Water Supply Connection/Treatment: The Navy will send letters via signature receipt delivery services to Property owners, with private drinking water well that have PFOA and/or PFOS at levels at/above the respective PHAs, offering them a connection to the local public water system at the Navy's expense. The letter will include a brief description of the connection process, a time frame for consideration/response to the offer (30 days), and signature lines for the impacted property owners to indicate that they accept or reject the Navy's offer, which are to be signed and returned to the Navy. The Navy will also contact the property owner with a telephone call or visit to the property owner within the 30 day period. An example letter is provided as Attachment A. Per the order, EPA will be notified of acceptance or rejection of each offer within 5 days of receipt by the Navy, along with supporting documentation.

For property owners who accept the offer for connection to the public water distribution system, the Navy will enter into a temporary access agreement with them to allow for the required site work.

If the property owner rejects the public water system connection offer, the Navy will make personal contact and offer a carbon treatment (CT) system with a 14 day timeframe for acceptance. If the property owner rejects the CT also, the Navy will notify EPA within five days.

Should no response be received from a private water system owner after 30 days, a second letter will be sent repeating the offer with an additional 14 day timeframe for acceptance. Should no response be received by then, the Navy will attempt to contact the property owner in person. Only after two attempts to contact the property owner in person has failed then the offer will be considered to have been rejected.

Private Water System Connection: Upon receipt of the signed letter accepting the Navy's offer and execution of the subsequent temporary access agreement, the Navy's Contractor for water line connections will contact the property owner to schedule an initial inspection of the property to determine the optimum approach to execute the connection, considering the current plumbing layout and the house/building/property layout relative to public water system access point(s). A brief 1 to 2

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page connection plan will be developed for each planned connection, along with a drawing that shows the planned water line route and connection details. Concurrent with plan development, appropriate documentation requesting connection to the public water supply system will be completed by the Navy's Contractor and submitted to the appropriate Municipal Authority for review and approval, along with any required fees. Upon approval of the connection plan by the Navy and approval of the connection by the associated Municipal Authority, the connection will be executed. The connection process will generally include the following (subject to Municipal Authority-specific requirements):

- Coordination with the appropriate Municipal Authority to tap into the water main and install a corporate stop.
- Excavation of a trench for installation of a water line running from the building to the connection point (curb stop).
- Installation of the curb stop and installation/connection of the water line from the curb stop to the water main and to the building.
- Installation/ hookup of the water line, water meter, and a pressure regulator to the building plumbing system and Township/Municipal Authority inspection of the water line prior to backfilling.
- The property will have the option to either close or keep the existing water well.
 - o If the well is closed, the Navy will remove all well equipment and piping; and properly document the well closure. Work will include deactivation and removal of electrical and plumbing connections of the well pump, pressure tank and appurtenant connections. The well shall be sealed in accordance with PA Department of Conservation and Natural Resources (DCNR) procedures
 - o If the existing well remains, the well system will be terminated at an exterior frost-free hose bib. The property owner will not be able use that water for cooking and drinking purposes, and permanent signage indicating "NON-POTABLE" provided. The property owner will acknowledge this restriction in writing.
- Backfilling of the water line trench and landscaping/site restoration as needed return the property to pre-installation conditions.

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Permits Required: Municipal Authority-specific procedures will be identified and followed as appropriate depending on the location of each private water system. Specific to Warminster Township Municipal Authority (WTMA), where most of the hookups are anticipated, no permits are required to connect to public water service, however an Application & Contract for Water and/or Sewer Service (Attachment B) is required to initiate the connection process, and an inspection of the water line by WTMA is required prior to backfilling the trench for the installed water line.

Long-Term Operation, Maintenance, and Monitoring: As the properties will be connected to public water, no long-term operation, maintenance, and/or monitoring is required following completion of the water supply connection. Public water usage fees will be the responsibility of the property owner.

Schedule: The following schedule milestones are associated with the connection of private water systems to the public water system:

- Offer letter sent to property owner: Within 50 days of receiving validated data confirming PFOA and/or PFOS at or above the respective PHA level, or within 21 days of EPA approval of this WTP, whichever is later.
- Response from property owner accepting or rejecting offer: 30 days from offer letter receipt.
- Execution of a temporary access agreement between the Navy and the property owner: within 14 days following acceptance of offer.
- Initial property/building inspection scheduled/completed and submittal of the required Township/Municipal Authority advance applications/fees: within 21 days following property owner acceptance of connection offer and execution of the corresponding temporary access agreement.
- Connection plan completed: Within 10 days following initial inspection.
- Implementation of connection: Within 60 days of property owner accepting offer for connection to public water supply and execution of the corresponding temporary access agreement.

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PRIVATE WATER SYSTEM - TREATMENT ALTERNATIVE

For private water wells where public water system connections are not available, the Navy will provide liquid granular activated carbon (LGAC) filtration systems for the water systems and will perform the required monitoring and maintenance of the systems.

Provision of Permanent Treatment: As necessary, the Navy will provide permanent, long-term treatment for private water wells in lieu of connection to public water supply. A liquid-phase granular activated carbon (LGAC) treatment system will be installed on the private water system such that the produced water is cycled through the treatment system prior to use. The Navy will pay for all costs associated with the installation, operation, monitoring, and maintenance of the treatment system, including periodic carbon replacement and treatment system monitoring.

Permits Required: Township and Municipal Authority-specific requirements will be identified and followed as private water systems are identified for treatment, i.e. building permits, inspections, etc.

Long-Term Operation, Maintenance, and Monitoring: The Navy will perform all long term treatment system-related activities, including carbon replacement, management, and regeneration or disposal, treatment system-related sampling, and other treatment system-related maintenance activities required.

Schedule: The following schedule milestones are associated with the installation of a private water system treatment system:

- Offer letter sent to property owner: Within 50 days or receiving validated data confirming PFOA and/or PFOS at or above the respective PHA level, or within 21 days of EPA approval of this WTP, whichever is later.
- Response from property owner. Accepting or rejecting offer: 30 days from offer letter receipt.
- Execution of a temporary access agreement between the Navy and the property owner: within 14 days following acceptance of offer.
- Initial property/building inspection scheduled/completed and submittal of the required Township/Municipal Authority

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advance applications/fees: within 21 days following property owner acceptance of treatment system offer and execution of the corresponding temporary access agreement.

- Treatment system installation plan completed: Within 10 days following initial inspection.
- Implementation of installation: Within 60 days of property owner accepting offer for treatment and execution of the corresponding temporary access agreement
- Treatment system sampling (pre- and post-treatment): Monthly initially, then as needed based on carbon breakthrough patterns.
- LGAC management: As needed based on sampling results.

ATTACHMENT A

EXAMPLE NOTIFICATION LETTER



DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE EAST
4911 SOUTH BROAD STREET, BLDG 679
PHILADELPHIA, PA 19112

5090
Ser BPMOE/15-nnn
January xx, 2015

Mr. / Ms. Property Owner
123 Anywhere Lane
Warminster, Pennsylvania 18974

SUBJECT: DEPARTMENT OF THE NAVY OFFER FOR PUBLIC WATER
CONNECTION AT ADDRESS

The Navy is offering to provide, at no cost to you, a permanent drinking water supply by a connection to Warminster Municipal Authority (WMA), a public water supply.

As you are aware, the groundwater in certain areas near the former Naval Air Warfare Center (NAWC) in Warminster, Pennsylvania, has been found to contain perfluorooctanoic acid (PFOA) or perfluorooctane sulfonic acid (PFOS), at concentrations at or exceeding their respective Provisional Health Advisory (PHA) levels (0.4 micrograms per liter for PFOA; 0.2 micrograms per liter for PFOS). The results of the water sampling recently conducted at your property by the U.S. Environmental Protection Agency indicate that your private well has been impacted by PFOS at concentrations at or above the PHA levels.

Upon acceptance of this offer, a separate temporary access agreement will be prepared to allow entry onto your property by the Navy and authorized contractors for the purpose of planning and implementing the water line connection.

The Navy will obtain any necessary permits and arrange for any building inspections. The work will be performed safely and cleanly by a Navy authorized and qualified contractor. Any water outages will be kept to a minimum and scheduled in advance with you. Upon connection to the WMA water system, you will be responsible for all water usage payments to WMA.

You will also have the option to either close or keep your existing water well. If the well is closed, the Navy will remove all well equipment and piping; and properly document the well closure. If you keep your existing well, the well system will be terminated at an exterior frost-free hose bib, and you will not be able use that water for cooking and drinking purposes.

A Navy representative will be contacting you to confirm your receipt of this letter and be available to answer any questions you may have regarding the offer.

Two copies of an "Acknowledgement and Agreement" form is attached for your response to this offer. Your response is requested within 30 days from the date of this letter. You can return via postage-paid envelope, FAX, or e-mail attachment. If you choose to not accept the offer, your response is still requested. Only the property owner can respond.

The Navy looks forward to working with you to ensure a permanent drinking water supply. If you have any questions regarding this letter, please contact Mr. Willington Lin, BRAC Environmental Coordinator, at 215-897-4900.

Sincerely,

GREGORY C. PRESTON
Director

Enclosures: 1. Acknowledgement and Agreement
2. Postage paid pre-addressed envelope

Copy to:
NAVFAC BRAC PMO file

SUBJECT: DEPARTMENT OF THE NAVY OFFER FOR PUBLIC WATER
CONNECTION AT ADDRESS

ACKNOWLEDGEMENT AND AGREEMENT

Please indicate your decision by checking the appropriate box, signing and dating as indicated below, and return in the enclosed postage-paid envelope. The additional copy of this letter is provided for your records. **Only the property owner can respond.**

I accept the Navy's offer for connection to the public water supply.

I reject the Navy's offer.

Signature: _____

Printed Name: _____

Date: _____

**PLEASE RESPOND WITHIN 30 DAYS AND RETURN THIS PAGE VIA POSTAGE -
PAID ENVELOPE, FAX TO 215-897-4902, OR E-MAIL ATTACHMENT TO:**

Willington Lin, P.E.
NAVFAC BRAC Program Management Office East
4911 S. Broad Street, Bldg. 679
Philadelphia, PA 19112
E-MAIL: WILLIE.LIN@NAVY.MIL

Enclosure (1)

ATTACHMENT B

APPLICATION & CONTRACT FOR WATER AND/OR SEWER SERVICE

(TO BE FURNISHED)