



Fact Sheet—Naval Air Station Oceana PFOA/PFOS Investigation

THE DRINKING WATER PROVIDED BY THE CITY OF VIRGINIA BEACH HAS BEEN TESTED AND PFOA AND PFOS WERE NOT DETECTED. SAMPLING OF PROPERTIES RECEIVING WATER SUPPLIED BY THE CITY IS NOT NECESSARY.

INTRODUCTION

The safety and health of military and civilian personnel at and around Naval Air Station (NAS) Oceana are top Navy priorities. ***The Navy is requesting permission to sample private drinking water wells within a designated sampling area near NAS Oceana. The majority of homes and businesses surrounding NAS Oceana receive drinking water supplied by the City of Virginia Beach. Locations using City water as a drinking water source do not require sampling.*** The Navy's sampling request is being made as a result of recent testing conducted on NAS Oceana which found perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) above the U.S. Environmental Protection Agency (EPA) health advisory level in groundwater. PFOA and PFOS belong to the family of chemicals referred to as per- and polyfluoroalkyl substances (PFAS) or perfluorinated compounds (PFCs). The Navy recognizes the potential for PFOA and PFOS detected in groundwater to move off the NAS Oceana property, which could potentially impact the quality of drinking water for nearby residents who do not use the City of Virginia Beach drinking water.

There is no legal requirement to conduct the off-base drinking water sampling. It is a voluntary measure that the Navy is undertaking to ensure that PFOA and PFOS from the Navy's activities are not impacting the drinking water of our off-base neighbors. ***If the drinking water in any of the off-base homes sampled is found to contain PFOA and/or PFOS above the EPA health advisory, the Navy will provide alternate water supplies while a long-term solution is implemented.***

This fact sheet provides additional information on PFOA and PFOS and Navy policy, plans for off-base drinking water sampling, and planned actions once the results are available.

The Navy has been working with the EPA, the Virginia Department of Environmental Quality (VDEQ), the Virginia Department of Health, the Agency for Toxic Substances and Disease Registry, and the City of Virginia Beach to develop an off-base sampling approach, including identifying the designated sampling area (Figure 1).

PFOA AND PFOS AND NAVY POLICY

PFOA and PFOS are man-made chemicals that have been used since the 1950s in many household and industrial products because of their ability to repel grease, stains, and water. PFOA and PFOS are now present virtually everywhere in the world because of the large amounts which have been manufactured and used. Once these compounds are released to the environment, they break down very slowly.

Currently, PFOA/PFOS are classified as unregulated or "emerging" contaminants, which have no Safe Drinking Water Act regulatory standards or routine water quality testing requirements. PFOA and PFOS are being studied by the EPA to determine if regulation is needed. EPA has issued a health advisory level for the cumulative concentration of PFOA and PFOS. ***Health advisory levels are not regulatory standards. EPA health advisories were established to provide Americans, including the most sensitive populations, with a margin of protection from a lifetime exposure to***



Health Information

Exposure to PFOA and PFOS appears to be widespread. Studies have found both compounds in the blood samples of the general human population and wildlife nationwide. Exposure to PFOA and PFOS through ingestion is the primary health concern for people. Studies on exposed human populations indicate that PFOA and/or PFOS may cause elevated cholesterol levels and possibly low infant birth weight. When animals are given large doses, they exhibit developmental, reproductive, and liver effects. Other studies suggest a link with certain cancers.

Health effects from exposure to low levels of PFOA and PFOS are not well known and studies are continuing. At this time, it is not possible to link exposures to PFOA and PFOS in water to a person's individual health issues. Blood tests are available, but they are not routinely done because the results can be inconclusive and test results do not predict health effects. Long-term exposure effects are still being investigated by EPA. ***Based on what is known and still unknown about PFOA and PFOS, the EPA recommends people not use water that contains PFOA and/or PFOS above the lifetime health advisory level for drinking or cooking.***

PFOA and PFOS from drinking water. The EPA health advisory level is 70 parts per trillion (ppt) for the sum of the concentrations of PFOA and PFOS.

Until a decision on regulating PFOA and PFOS or other PFAS is made, the Navy has proactively developed a policy to ensure that drinking water that has been impacted by our operations and that tests above the lifetime health advisory level does not continue to be used for drinking and cooking.

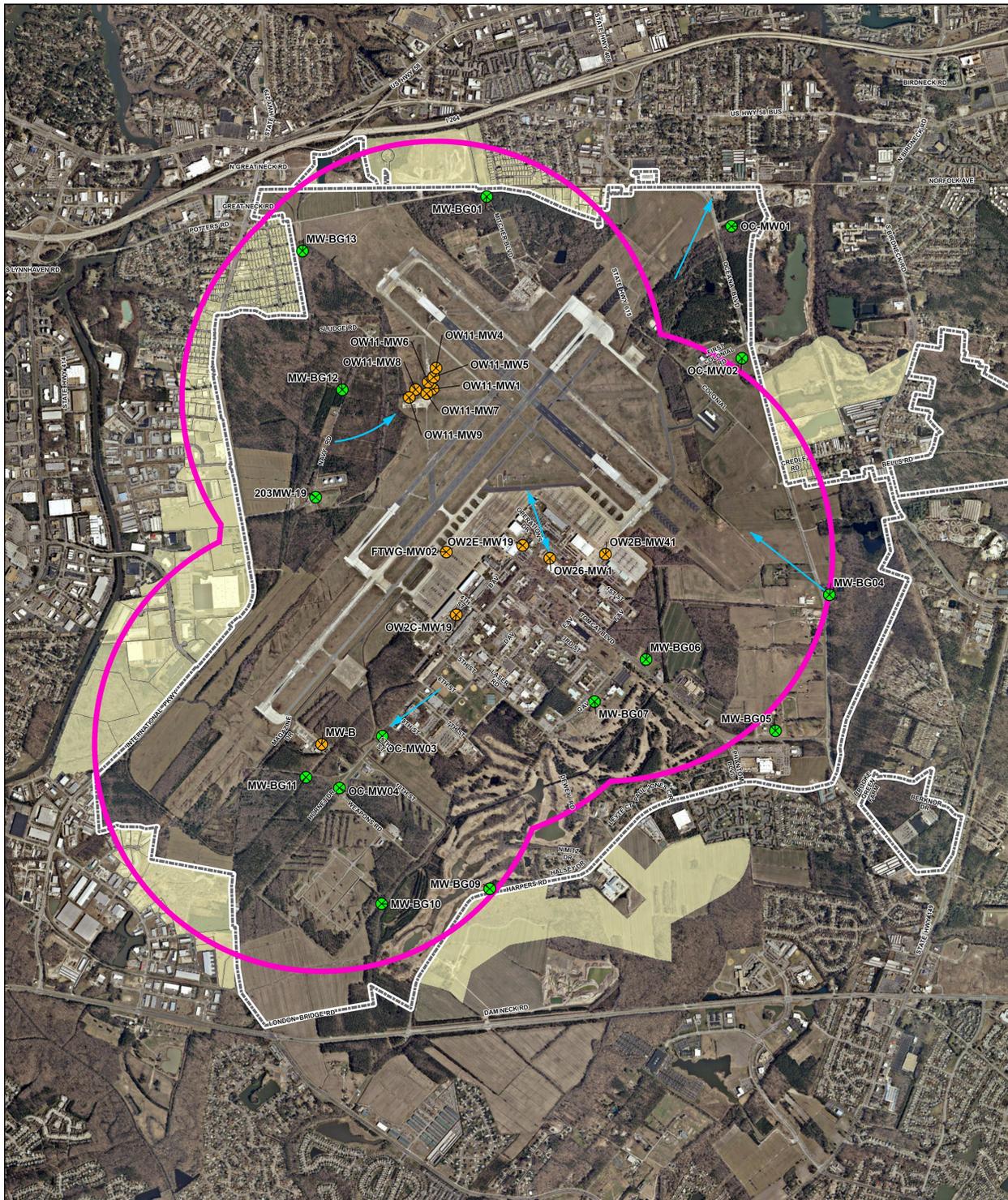
The most common historical Navy use of PFOA and PFOS has been during activities involving firefighting foam. The groundwater on NAS Oceana was tested because foam containing PFOA and PFOS was used in years past for firefighting training. Results received in December 2016 from samples of the NAS Oceana on-base groundwater monitoring wells show that the water contains both PFOA and PFOS above the EPA health advisory levels.

The Navy has started an investigation under our Environmental Restoration Program to determine if PFOA and/or PFOS in the groundwater have moved off the NAS Oceana property. Our first priority in this investigation is to determine if PFOA and/or PFOS are present in the drinking water for the residents that do not use water provided by the City of Virginia Beach and to take appropriate action as needed. ***The City of Virginia Beach drinking water has been tested and PFOA and PFOS were not detected. Locations using water provided by the City of Virginia Beach do not require sampling and are not affected by the current effort.***

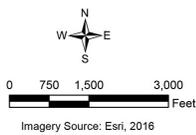
OFF-BASE DRINKING WATER SAMPLING

The Navy began contacting property owners in the designated sampling area the week of December 5, 2016, to request to sample their drinking water. Off-base drinking water sampling will be conducted at no cost to residents in the sampling area between December 16 and December 22, 2016. The sampling process will take approximately 45 minutes and will involve a team of two technicians coming onto the property to collect a sample, preferably from a location where water is untreated by any household filtration systems (outdoor spigot or untreated indoor location). Prior to collecting the sample,

THE DRINKING WATER PROVIDED BY THE CITY OF VIRGINIA BEACH HAS BEEN TESTED AND PFOA AND PFOS WERE NOT DETECTED. SAMPLING OF PROPERTIES RECEIVING WATER SUPPLIED BY THE CITY IS NOT NECESSARY.



- Legend**
- Monitoring Wells with PFOS/PFOA Exceedances
 - Monitoring Wells with PFOS/PFOA Detections
 - Direction of Groundwater Flow
 - ▭ Sampling Area
 - ▭ Installation Boundary
 - ▭ Parcels within Sampling Area



PFOS/PFOA Detections and Designated Sampling Area
 NAS Oceana
 Virginia Beach, Virginia



the technicians will go over the homeowner questionnaire provided with the sampling notification packet. The questionnaire is designed to gather information about the drinking water well and any filtration systems being used, which will help with selecting the appropriate tap to sample and later when evaluating the sampling results and developing follow-on investigation plans as needed.

ACTIONS BASED ON RESULTS

Results of sampling are expected in February 2017. The Navy will keep individual results confidential to the extent permitted by law. We will provide notification to each resident of their individual drinking water results and follow-on actions for their home, if needed. The Navy will host an additional Open House Public Meeting in February to share a summary of results and our next steps of the investigation with the public. The following is a summary of planned actions based on drinking water sampling results:

Provide alternate drinking water: If a drinking water sample is found to contain PFOA or PFOS at or above the EPA lifetime health advisory level, the Navy will provide an alternate water source (for example, bottled water) for drinking and cooking. The Navy will continue to provide alternate water at no cost to these property owners until a long-term solution can be put in place.

No additional action needed: No additional sampling or other action will be required for homes where PFOA and PFOS are not detected in the drinking water or where they are detected at concentrations less than the EPA lifetime health advisory level.

The Navy will work with the EPA and VDEQ to determine if the results indicate that the sampling area needs to be expanded to include additional properties near NAS Oceana. The Navy will also use the results to guide the installation of additional monitoring wells as needed to complete the groundwater investigation.

Action	Total PFOA and PFOS Concentration
Provide alternate drinking water	At or above EPA lifetime health advisory (70 ppt)
No additional action needed	Below 70 ppt

FOR MORE INFORMATION

To learn more about the emerging contaminants PFOA and PFOS, please see the EPA fact sheet at:

https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfes_updated_5.31.16.pdf

The Navy has also established a website at http://www.cniv.navy.mil/oceana_water_info which we will continue to update as more information becomes available. General information about the Navy's PFAS program can be found here: <http://www.secnv.navy.mil/eie/Pages/PFC-PFAS.aspx>

If you have any questions about the sampling program, please call 757-341-0450.

THE DRINKING WATER PROVIDED BY THE CITY OF VIRGINIA BEACH HAS BEEN TESTED AND PFOA AND PFOS WERE NOT DETECTED. SAMPLING OF PROPERTIES RECEIVING WATER SUPPLIED BY THE CITY IS NOT NECESSARY.