



Naval Support Activity (NSA) Mechanicsburg Mechanicsburg, Pennsylvania 2022 PFAS Drinking Water Investigation

January 2022

The Navy is requesting permission to sample water obtained from drinking water wells within a sampling area near the Naval Support Activity (NSA) Mechanicsburg for certain per- and polyfluoroalkyl substances, commonly known as PFAS.

PFAS are a family of thousands of different chemicals which have been widely used in industrial and consumer products since the 1950s. The Navy developed a proactive policy to address past releases of PFAS at installations nationwide, as several PFAS are now of emerging public health concern. The U.S. Environmental Protection Agency (EPA) has issued a lifetime health advisory for two commonly used and studied PFAS, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).

The most common Navy activity that could have resulted in the historical release of PFOA, PFOS, and other PFAS to the environment at NSA Mechanicsburg (Figure 1) is the use of firefighting foam (specifically aqueous film-forming foam, or AFFF) for testing, training, firefighting, and other life-saving emergency responses. Because of this historical use, PFOA, PFOS and other PFAS are present in the groundwater on-base, and they may also be present in off-base drinking water wells in the direction that groundwater flows away from the base.

Based on data available at the time, the Navy identified a sampling area near NSA Mechanicsburg in 2019 and conducted a drinking water well investigation. An additional drinking water well sampling area has recently been identified based on new information (Figure 2). The Navy is currently asking to sample drinking water wells located in the 2022 sampling area as well as any drinking water wells in the 2019 sampling area that were not previously sampled.

Records indicate that many residents near NSA Mechanicsburg purchase their drinking water from either SUEZ Water Company (SUEZ) or Pennsylvania American Water Company (PA American). If your drinking water is provided by SUEZ or PA American, the Navy does not need to sample your water.

BACKGROUND

In 2018, a comprehensive Preliminary Assessment was completed to identify all potential releases of PFAS to the environment on NSA Mechanicsburg. Eight known or suspected PFAS release areas (shown on Figure 2) were identified in the Preliminary Assessment: AOC 21 - Building 0-D Firefighting Training Tank, AOC 22 - Former Sanitary Sewage Plant and Sludge Drying Beds, Building 206 - Storage Facility, Building 306-A - Fire Department, Lawnmower Fire Area, Site 3 - Ball Road Landfill and Burn Pits, Helicopter Pad Firefighting Training Area, and Southern Firefighting Training Area. Therefore,



Figure 1- NSA Mechanicsburg

following Navy policy, an off-base sampling area was established in 2019 in the direction of groundwater flow, as understood at that time, from the known or suspected PFAS release areas (Figure 2), and 62 drinking water wells were sampled. PFOA and/or PFOS were not detected in three wells, and were detected at concentrations below the EPA lifetime health advisory in 58 wells. PFOA and/or PFOS were detected above the EPA lifetime health advisory in one well, and bottled water is currently being provided. A long-term solution is being evaluated.

A Site Inspection (SI) began in 2021 to investigate the potential PFAS release areas at NSA Mechanicsburg. To date, 26 groundwater and 33 soil samples have been collected on the installation to determine if PFAS were historically released to

To be protective, the Navy will provide bottled water for drinking and cooking to any resident in the sampling area whose well contains drinking water with PFOA and/or PFOS above the EPA lifetime health advisory.

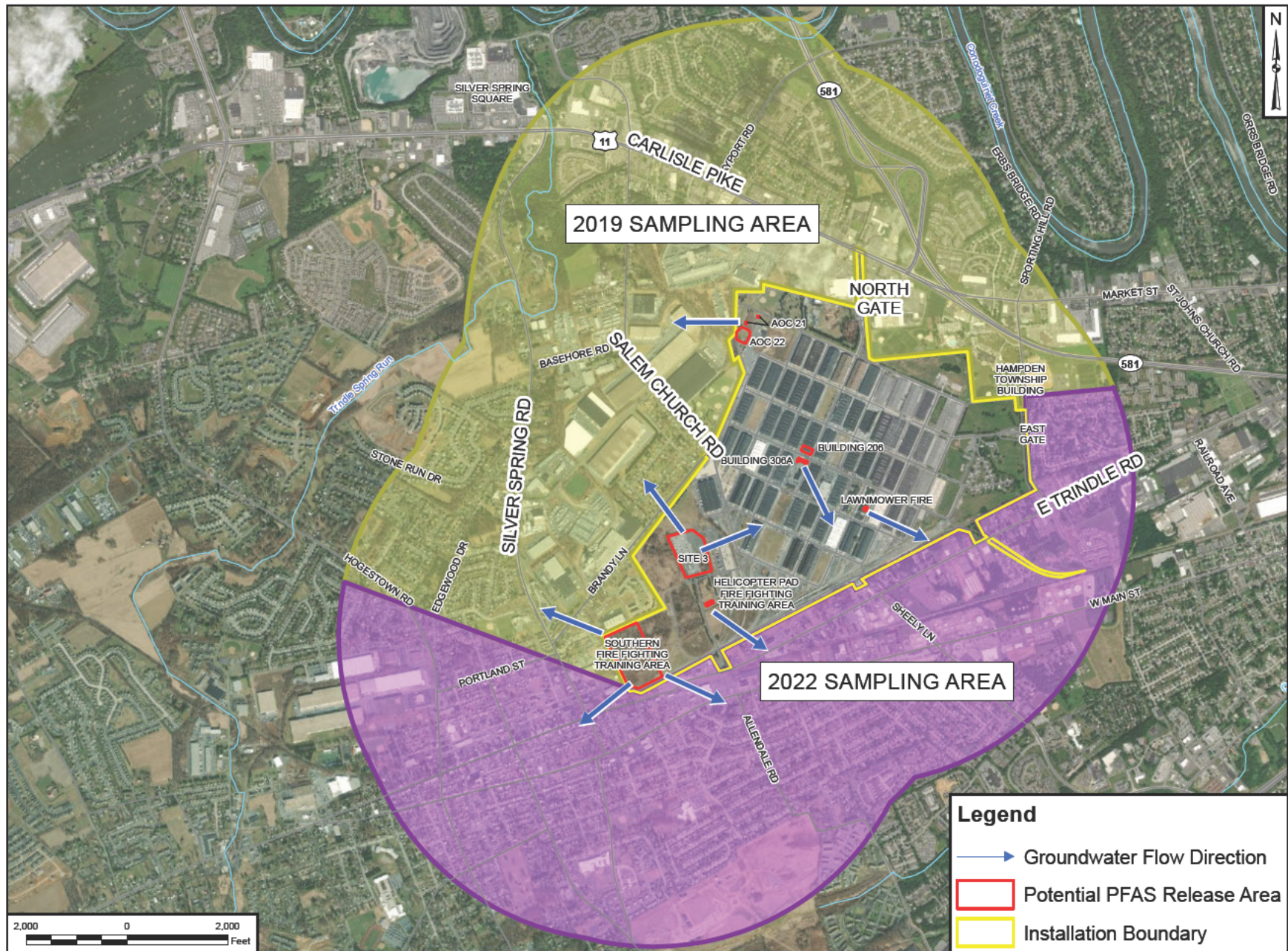


Figure 2 - Drinking Water Investigation Sampling Areas

the environment. During the SI, additional information about the direction of groundwater flow and confirmed releases on the installation was obtained. Based on the results of this investigation, additional areas with PFOA and/or PFOS in groundwater above the EPA lifetime health advisory were identified that may have impacted off-base drinking water wells in the direction of groundwater flow away from the base. The additional sampling area is shown on Figure 2. This drinking water well investigation will allow us to identify and address any current exposure to PFOA and/or PFOS that may be above the EPA lifetime health advisory.

There is no legal requirement to conduct this drinking water testing. We are performing this voluntary testing because it is important that our neighbors in the sampling area are not drinking water with PFOA and/or PFOS concentrations above the EPA lifetime health advisory as a result of known or suspected releases of PFAS from NSA Mechanicsburg. We are conducting the investigation in collaboration with partners such as EPA Region 3, the Pennsylvania Department of Environmental Protection, and the Pennsylvania Department of Health.

PFAS

PFAS are man-made chemicals that have been used since the 1950s in many household and industrial products because of their stain- and water-repellent properties. PFAS are now present virtually everywhere in the world because of the large amounts that have been manufactured and used. Once these compounds are released, they break down very slowly.

PFAS are chemicals of emerging concern, which have no Safe Drinking Water Act regulatory standards or routine water quality testing requirements. EPA's lifetime health advisories are non-enforceable and non-regulatory. They are informal technical guidance to assist federal, state, and local officials, along with managers of public or community water systems, in protecting public health as needed.

The EPA is currently studying PFAS to determine if national regulation is needed. The EPA's lifetime health advisory provides Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS in drinking water. The EPA's lifetime health advisory for exposure is 70 parts per trillion (ppt) for PFOA and 70 ppt for PFOS. When both PFOA and PFOS are found in drinking water, the combined concentrations should not exceed 70 ppt.

NAVY POLICY

Until a decision for regulating PFAS is made, the Navy has proactively developed a policy to conduct investigations at installations where there has been a known or suspected release of PFAS to the environment. The Navy's first priority with these investigations is to ensure people are not being exposed to PFOA and/or PFOS in their drinking water at concentrations exceeding the EPA's lifetime health advisory as a result of a Navy PFAS

release. When a known or suspected release of PFAS is identified on a Navy installation, a sampling area is established one mile in the direction the groundwater flows away from a release site. To be protective, the Navy offers sampling to all residents whose drinking water is supplied by private groundwater wells in these sampling areas. Once any potential exposure from drinking water has been addressed, the Navy will then complete the full investigation to determine the extent of these compounds on our installations. Property owners can request sampling by contacting us at [REDACTED] ([REDACTED]).

ACTIONS BASED ON RESULTS

The preliminary results from the drinking water sampling are expected approximately 30 days after collecting the samples. We will provide notification to the property owners of their personal drinking water results and follow-up actions if needed. The Navy will do its best to keep the results of individual properties confidential to the extent permitted by law.

The Navy will provide an alternate water source, likely bottled water, for drinking and cooking to any properties in the sampling area if the private well water contains PFOA and/or PFOS above the EPA's lifetime health advisory. The Navy will continue to provide the alternate water until a permanent solution is implemented.

HEALTH INFORMATION

Exposure to PFOA and PFOS appears to be global. Studies have found both compounds in the blood samples of the general population. Studies on exposed populations indicate that PFOA and/or PFOS may have caused elevated cholesterol levels and possibly low infant birth weight. In studies conducted using laboratory animals, effects on developmental, neurological, immune, thyroid, and liver function were observed.

Health effects from exposure to low levels of PFAS are not well known and studies are continuing. At this time, it is not possible to link exposures to PFOA and/or PFOS to a person's individual health issues. Blood tests are available to measure these chemicals, 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 the EPA.

Based on what is known and still unknown about PFOA and PFOS, EPA recommends people not drink or cook with water that contains these compounds above the EPA's lifetime health advisory.

FOR MORE INFORMATION

<https://go.usa.gov/xmM9q>

If you have questions, contact NSA Mechanicsburg Public Affairs Office:
717-605-2448