



Naval Base Kitsap Bangor Silverdale, Washington PFAS Drinking Water Investigation Fact Sheet

January 2020

The Navy is requesting permission to sample water obtained from drinking water wells that use groundwater within a designated area near Naval Base Kitsap (NBK) Bangor 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 is the use of firefighting foam (specifically aqueous film-forming foam, or AFFF) for testing, training, firefighting, and other life-saving emergency responses. PFAS compounds may be present in the soil and/or groundwater at NBK Bangor (Figure 1) as a result of historical uses of AFFF. Because of this historical use, there is potential for PFOA, PFOS, and other PFAS to be in the groundwater on base, and it may also be present in nearby off-base drinking water wells located in the direction that the groundwater flows away from the base within the designated sampling areas (Figure 2 and Figure 3).

Records indicate that residents in the sampling areas either purchase their drinking water from Kitsap Public Utilities, purchase it from a local water purveyor, or use a private well for their drinking water. **The Navy is asking to sample only water from drinking water wells that use groundwater in the designated areas.**

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 provide technical information to states, agencies, and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.

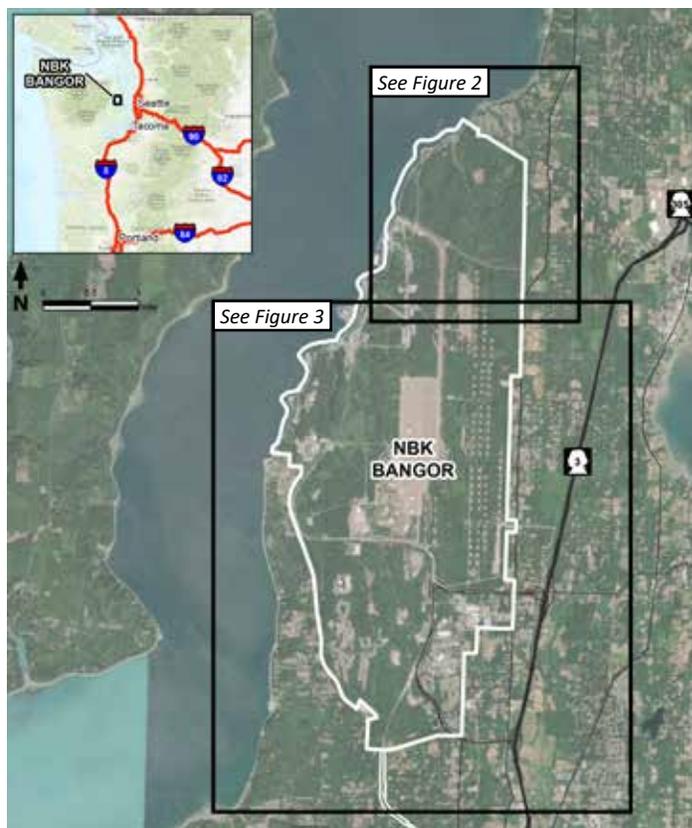
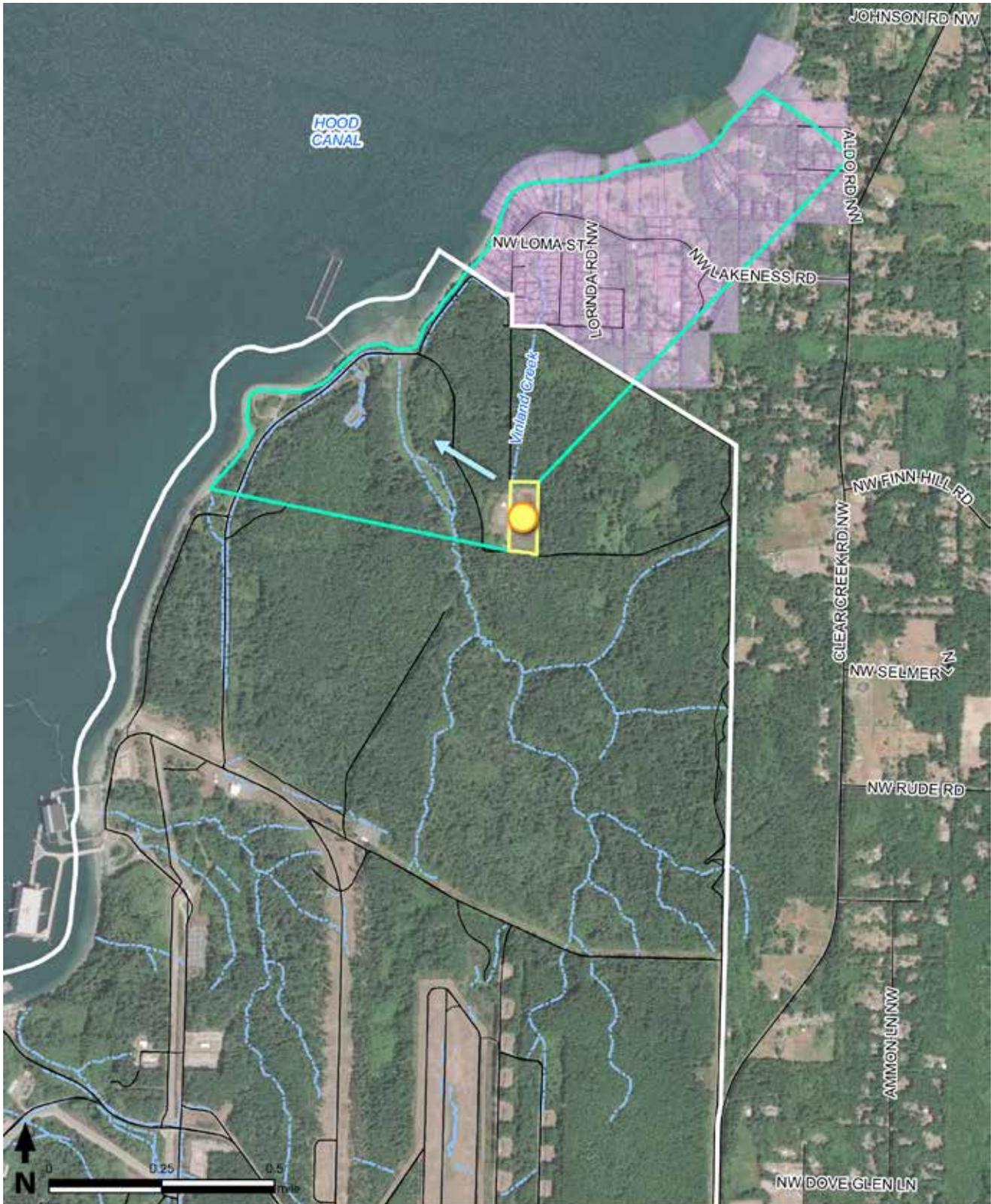


Figure 1 – NBK Bangor

The Navy established a proactive policy to ensure the communities near our installations are not exposed to drinking water with PFOA and/or PFOS above the EPA's lifetime health advisory due to past known or likely Navy release of products containing PFAS. Following this policy, the Navy identified potential PFAS release areas on NBK Bangor that may present an exposure to nearby residents using wells for their drinking water. This drinking water well investigation will allow us to identify and address any current exposure to PFOA and/or PFOS above EPA's lifetime health advisory.

To be protective, the Navy will provide bottled water for drinking and cooking to any resident in the designated sampling area whose drinking water well contains PFOA and/or PFOS above the EPA lifetime health advisory. The Navy will provide bottled water until a long-term solution is implemented.

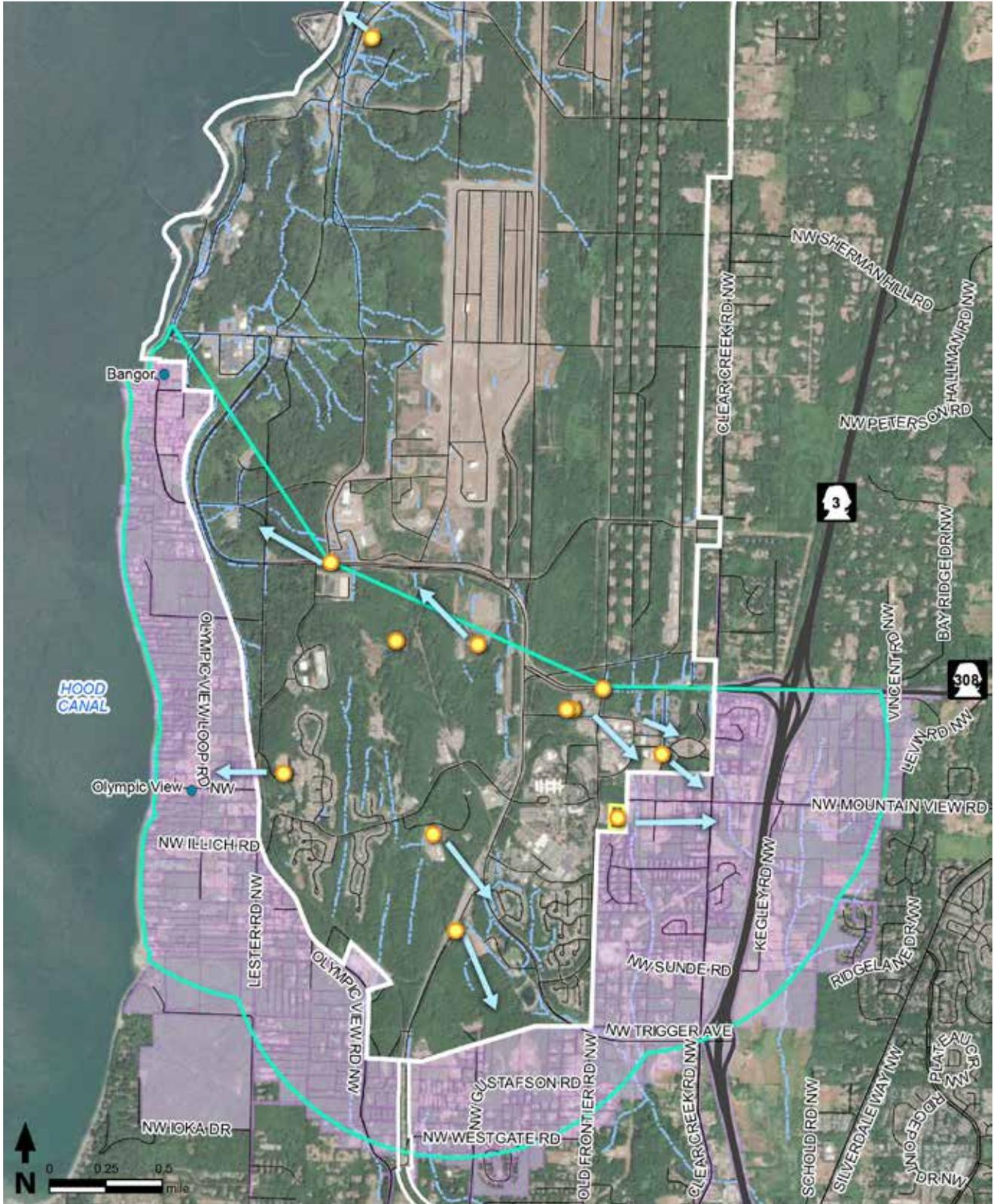
Figure 2 – Designated Sampling Area, North



LEGEND

- Yellow circle with dot: Potential PFAS source area
- Blue arrow: Anticipated shallow aquifer groundwater flow direction
- White outline: Installation boundary
- Purple area: Designated sampling area

Figure 3 – Designated Sampling Area, South



LEGEND

- Potential PFAS source area
- Anticipated shallow aquifer groundwater flow direction
- Installation boundary
- Designated sampling area

There is no legal requirement to conduct this drinking water testing. The Navy is performing this voluntary testing because it is important that we ensure our neighbors in the designated sampling areas 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 NBK Bangor. The Navy is conducting the investigation in collaboration with partners such as EPA Region 10, the Agency for Toxic Substances and Disease Registry, the Washington State Department of Ecology, the Washington State Department of Health, and the Kitsap Public Health District.

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.

The EPA has issued a lifetime health advisory for two commonly used and studied PFAS, PFOA and PFOS, and 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 health advisory for lifetime 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 1 mile in the direction the groundwater flows away from a release site. To ensure protectiveness, the Navy offers sampling to all residents whose drinking water is supplied by wells that use groundwater in these designated 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.

ACTIONS BASED ON RESULTS

The preliminary results from the off-base 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 resident in the designated sampling areas whose drinking water well 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://www.navfac.navy.mil/NWPFAS>

**If you have specific questions, contact the Navy Public Affairs office at:
844-NBKBNGR (844-625-2647) or PAO_Feedback@navy.mil**