



Naval Air Station Whidbey Island Ault Field

Phase 4 Drinking Water Investigation

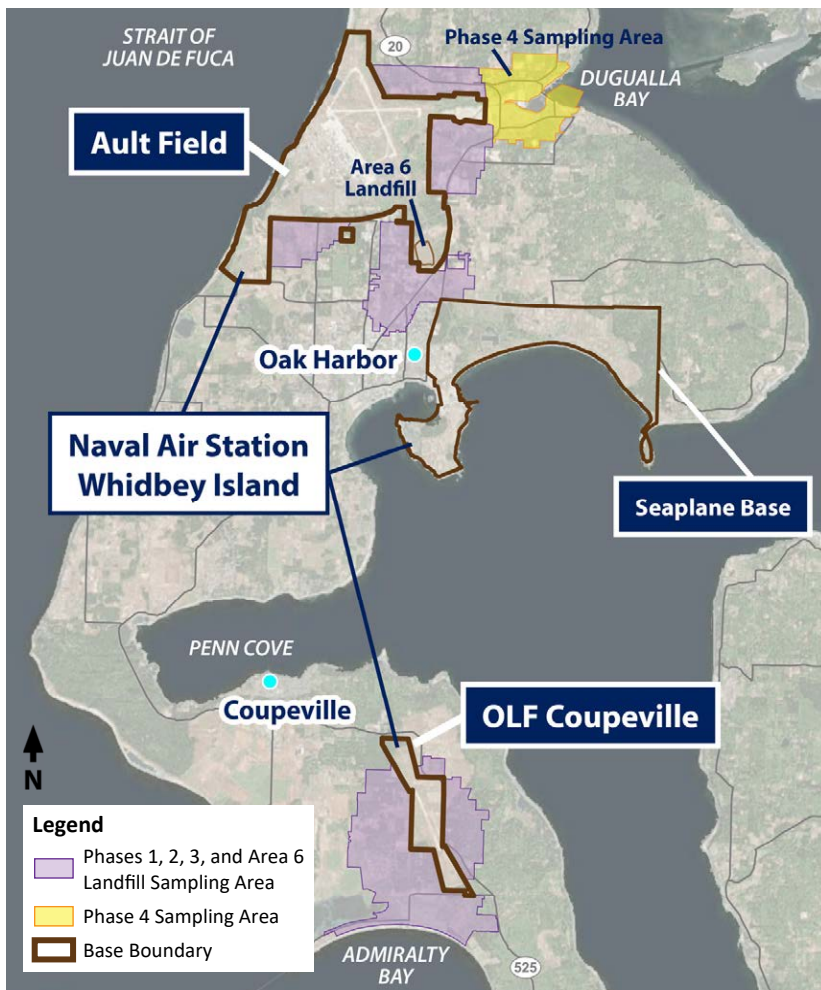
January 2019

The Navy is addressing past releases of per- and poly-fluoroalkyl substances, commonly known as PFAS, under the Navy Environmental Restoration Program. These substances may be present in the soil and/or groundwater at Navy sites as a result of historical fire fighting activities using aqueous film forming foam (AFFF). This foam was used for plane crashes, equipment testing, and training, as well as in other operations such as plating shops and hangars where AFFF was used in the fire suppression systems. *Based on historical use of AFFF, there are three areas of PFAS investigation at Naval Air Station Whidbey Island (NASWI): Ault Field, Outlying Landing Field (OLF) Coupeville, and Area 6 Landfill (see Figure 1).*

Since drinking water sources may have been impacted by our past use of AFFF, our first step has been to sample drinking water sources that are close to known or suspected releases of AFFF. From November 2016 through June 2018, the Navy sampled 232 drinking water wells near Ault Field, OLF Coupeville, and the Area 6 Landfill for PFAS. In October 2017, the Navy began biannual sampling of drinking water wells where PFAS were detected, and drinking water wells adjacent to properties with PFAS exceedances. These are precautionary measures to ensure residents living near our installations are not being exposed to PFAS in off-base drinking water.

The Navy is working closely with the Environmental Protection Agency (EPA) Region 10, the Agency for Toxic Substances and Disease Registry (ATSDR) Region 10, the Washington State Department of Health (DOH), and Island County Public Health to assess the potential releases and the impact to drinking water near Ault Field, OLF Coupeville, and the Area 6 Landfill. The Navy will continue to work with these agencies to protect public health.

Figure 1



This fact sheet focuses on the fourth phase of the Ault Field Drinking Water Investigation. The Navy is requesting access to sample all private and community drinking water wells within the Phase 4 sampling area near Ault Field (see Figure 2). The Navy will also continue to accept requests to sample private and/or community drinking water wells that have not yet been sampled within the previous sampling areas.

Separate fact sheets are available with information on the OLF Coupeville and Area 6 Landfill drinking water investigations.

If your preliminary results show that your drinking water contains PFOS and/or PFOA above the EPA health advisory level, then the Navy will provide bottled water or an alternate water supply until a long-term solution is implemented.

BACKGROUND

PFAS are manufactured chemicals that have been used since the 1950s in many household and industrial products because of their stain- and water-repellant properties (for example, fabric in upholstered furniture, carpet, nonstick cookware, floor wax, and the lining of microwave popcorn bags). PFAS are now widespread in the world because of the large amounts that have been manufactured and used. Once these compounds are released to the environment, they remain there for a long time.

PFAS are a type of “emerging contaminant,” which is a chemical or material characterized by a perceived, potential, or real threat to human health or the environment or by a lack of published health standards. PFAS have no Safe Drinking Water Act regulatory standards or routine water quality testing requirements. The EPA continues to study PFAS to determine if regulation is needed.

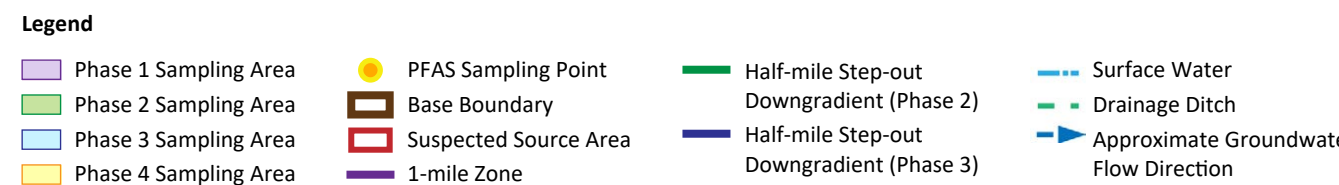
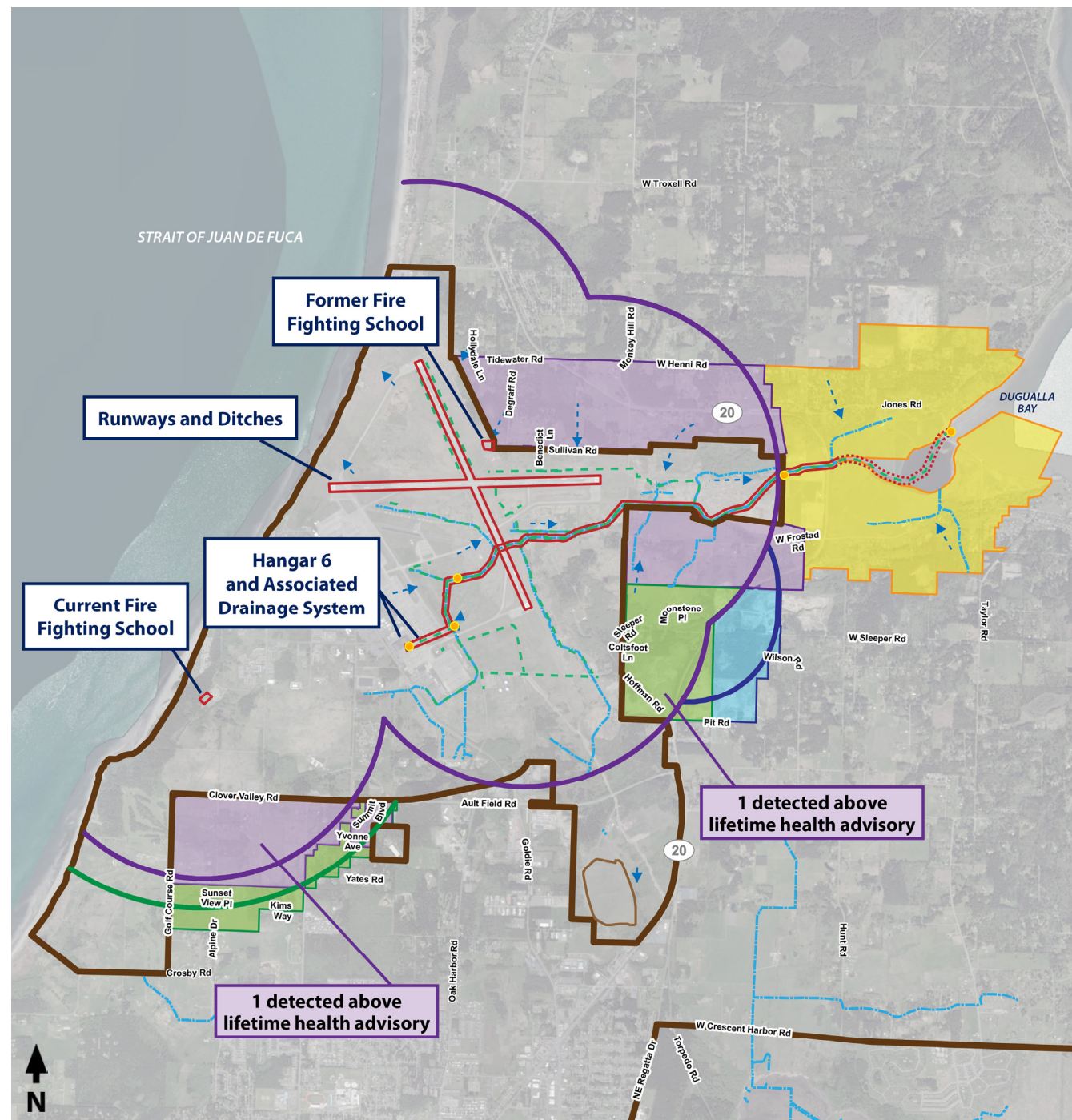
In May 2016, the EPA announced lifetime health advisory levels for two PFAS, specifically perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). According to the EPA: **Health advisory levels are not regulatory standards. They are health-based concentrations which should offer a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOS and PFOA in drinking water.** The EPA health advisory level for lifetime exposure is 70 parts per trillion (ppt) for PFOS and 70 ppt for PFOA. When both PFOS and PFOA are found in drinking water, the combined concentrations should not exceed 70 ppt.

The drinking water investigation for Ault Field has focused on PFOS and PFOA because these are the only PFAS for which the EPA has established a lifetime health advisory level in drinking water.

AULT FIELD PHASE 1, 2, AND 3 DRINKING WATER INVESTIGATIONS

Drinking water investigations near Ault Field were conducted in a phased approach from November 2016 to June 2017. The Phase 1 sampling area was selected based on groundwater flow direction and the on-base locations of known or suspected releases of AFFF. The Phase 1 area extends approximately 1 mile to the east of the Ault Field runway, a half-mile to the north of the former Fire Fighting School, and 1 mile downgradient from the current Fire Fighting School, and included more than 176 properties (see Figure 2). The results of the Phase 1 sampling indicated that PFOS and/or PFOA are above the EPA lifetime health advisory in one off-base drinking water well located south of the current Fire Fighting School. Based on these results and other information made available to the Navy, the Phase 1 drinking water investigation area was extended an additional half-mile downgradient of this area.

Figure 2



Note: Figure 2 represents PFOS and/or PFOA exceedances for unique wells sampled during all phases.

This additional area is referred to as the Phase 2 sampling area, and included 60 properties. The results of the Phase 2 sampling indicated that PFOS and/or PFOA are above the EPA lifetime health advisory in one additional off-base drinking water well southeast of the runway and runway ditches. Based on the Phase 2 results, the Navy expanded the drinking water investigation a half-mile downgradient of this area. This additional area is referred to as the Phase 3 sampling area and included 14 properties. Phase 3 drinking water sampling results indicated that PFOS and/or PFOA are not present in drinking water wells above the EPA lifetime health advisory.

The table below summarizes the results for phase 1, 2, and 3 of drinking water sampling near Ault Field.

Phase 1, 2, and 3 Combined Sampling Area Drinking Water Results near Ault Field			
Wells with Permission to Sample	Wells Sampled	Validated Results	Validated Results above EPA Lifetime Health Advisory
105	105	105	2

PHASE 4 DRINKING WATER INVESTIGATION

In October 2018, the Navy identified PFAS in a storm water drain near Hangar 6 and in an associated storm water drainage system that empties into Clover Valley Stream and Dugalla Bay. As a result of this new information, the Navy is conducting a fourth phase of sampling for drinking water wells located within a half mile to the north-northeast and south-southeast of the surface water body where the PFAS was detected above the EPA lifetime health advisory (see Figure 2).

If your property is within the Phase 4 sampling area or within the previously designated sampling areas and you have a drinking water well that has not previously been sampled by the Navy, the Navy encourages you to schedule sampling of your well by leaving a voicemail at 360-396-1030 or by emailing the Navy’s Public Affairs Office at PAO_feedback@navy.mil. If your property is within the designated sampling areas and a drinking water well is not present on your property, we would like you to confirm that information by contacting the Navy at the phone number or email address above.

ACTIONS BASED ON RESULTS

The results from Phase 4 drinking water sampling are expected in spring of 2019. The Navy will provide notification to each property owner of their personal drinking water results and follow-up actions if needed. We will keep the results private to the greatest extent possible.

The EPA recommends that water containing PFOS and/or PFOA above the health advisory levels not be used for drinking or cooking. If your preliminary results show that your drinking water contains PFOS and/or PFOA above the EPA lifetime health advisory level, the Navy will provide bottled water or an alternate water supply until a long-term solution is implemented.

The Phase 4 sampling area, as shown on Figure 2, may be expanded in one or more directions in the future depending on the results.

HEALTH INFORMATION

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

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 PFOS and/or PFOA 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 PFOS and PFOA, it is recommended that people not drink or cook with water that contains these compounds above the EPA lifetime health advisory level.

FOR MORE INFORMATION

www.secnav.navy.mil/eie/pages/pfc-pfas.aspx

The Navy has established the following website to keep you updated as more information becomes available:

<https://navfac.navy.mil/NWPFAS>