



Naval Air Station Whidbey Island Ault Field

Phase 2 Drinking Water Investigation

February 2017

INTRODUCTION

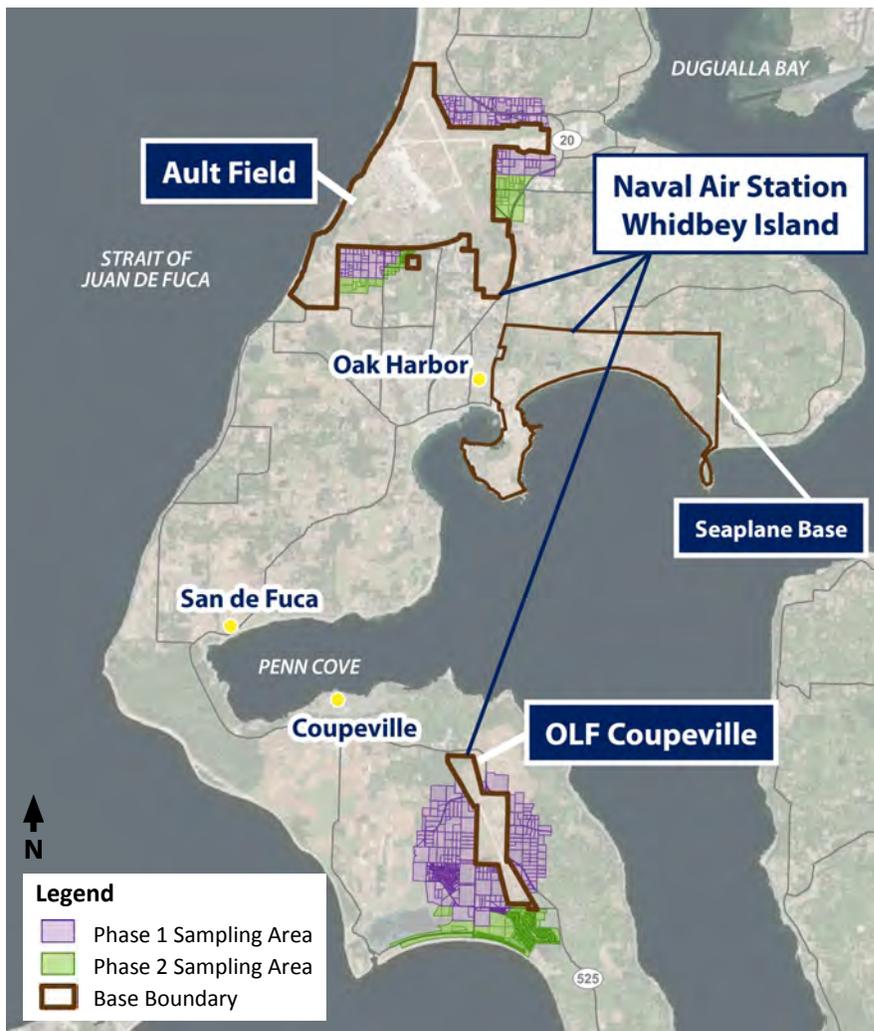
The Navy is addressing past releases of per- and poly-fluoroalkyl substances, commonly known as PFAS, under the Navy Environmental Restoration Program. These substances may be present in the soil and/or groundwater at Navy sites as a result of historical fire fighting activities using aqueous film forming foam (AFFF). This film 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 system. *Based on historical use of AFFF, there are two areas of PFAS investigation at Naval Air Station Whidbey Island (NASWI): Ault Field and Outlying Landing Field (OLF) Coupeville (see Figure 1).*

Since drinking water sources may have been impacted by our past use of AFFF, our first step is to sample drinking water sources that are close to confirmed or probably past AFFF releases. The Navy is working in conjunction with Environmental Protection Agency (EPA) Region 10, Agency for Toxic Substances and Disease Registry (ATSDR), Washington State Department of Health (DOH), and Island County Public Health to assess the potential releases and the impact to drinking water at Ault Field and OLF Coupeville. The Navy will continue to work with these agencies to protect public health.

The Navy is conducting this voluntary measure to ensure we protect drinking water quality both on- and off-base.

This fact sheet focuses on the Ault Field Drinking Water Investigation. ***The Navy is requesting access to sample***

Figure 1



all private drinking water wells within the Phase 1 and Phase 2 sample areas near Ault Field (see Figure 2) and will be coordinating with the community water purveyors to sample the drinking water supply wells in this area for those residents receiving their drinking water from a community system.

A separate fact sheet is available with information on the OLF Coupeville investigation.

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 “emerging contaminants,” which are chemicals or materials 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 is currently studying 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.

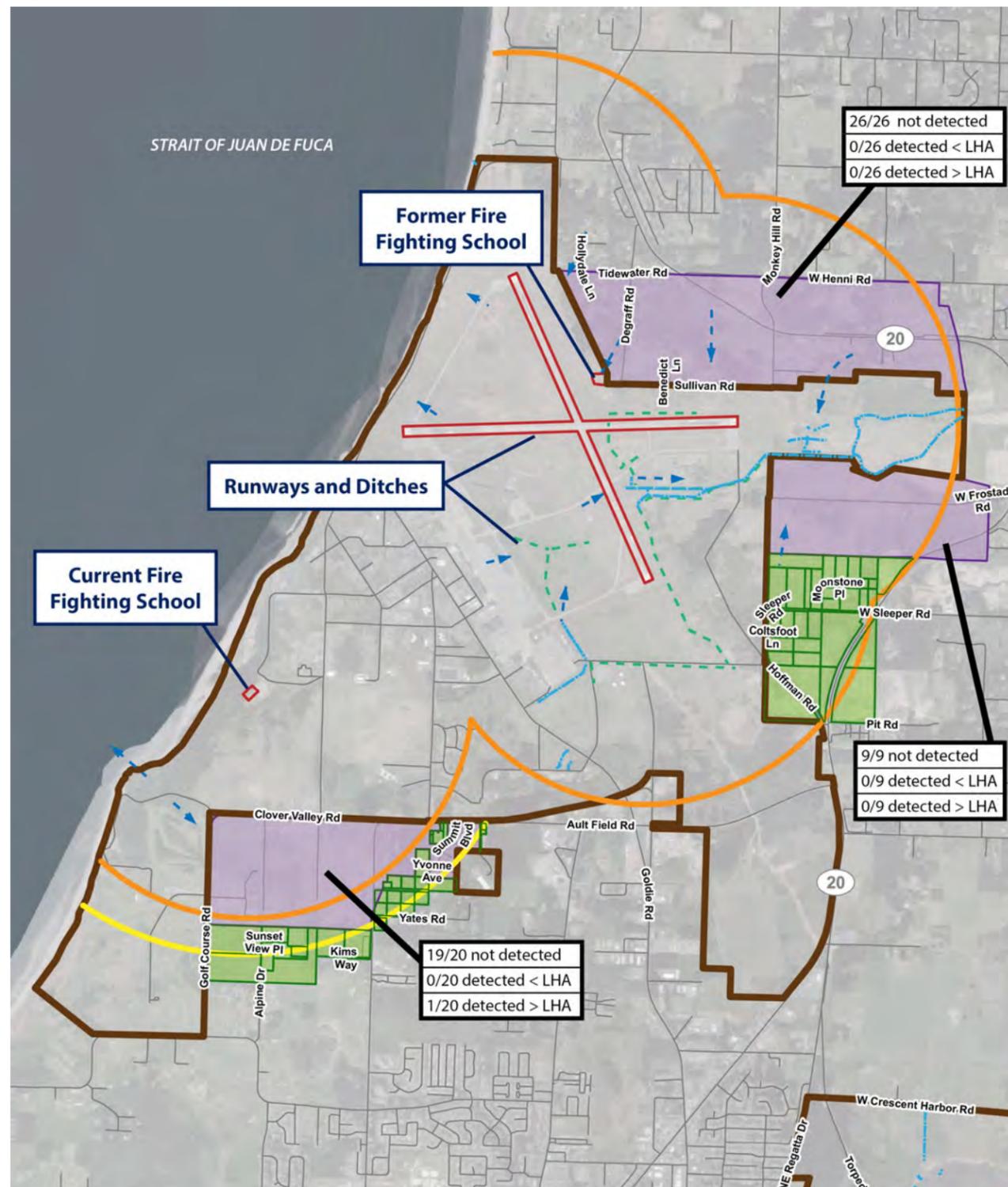
The drinking water investigation for Ault Field will focus on PFOS and PFOA because these are the only PFAS for which the EPA has established a health advisory level in drinking water.

PHASE 1 INVESTIGATION

The Navy previously identified three areas on Ault Field where AFFF releases occurred or are suspected to have occurred. These include the Former Fire Fighting School, the Ault Field Runways and associated drainage ditches, and the Current Fire Fighting School (Figure 2). PFOS/PFOA have been detected in the shallow groundwater at the Former Fire Fighting School above the EPA health advisory levels, confirming the past release of these compounds. Additionally, AFFF has been used at the Current Fire Fighting School, but to date no sampling for PFOS/PFOA has been conducted at this location.

The Navy performed the first round (Phase 1) of off-base drinking water sampling in November–December 2016. The table below summarizes the results of the sampling at Ault Field. The results indicate that exposure to PFOA and PFOS is not occurring at many of the private drinking water wells that have been sampled to date. However, in many cases well owners were not able to provide important information regarding their well construction, such as the depth of the well. Since there are distinct aquifers that

Figure 2



Legend

- Base Boundary
- Suspected Source Area
- 1-mile Zone
- Half-mile Step-out Downgradient
- Phase 1 Sampling Area
- Phase 2 Sampling Area
- Surface Water
- Drainage Ditch
- Approximate Groundwater Flow Direction

Summary Table Definitions

Number of samples with PFOA and/or PFOS not detected
Number of samples with PFOA and/or PFOS detections less than the EPA LHA
Number of samples with PFOA and/or PFOS detections greater than the EPA LHA

drinking water wells may be using, the Navy wants to continue to sample in specific areas to ensure additional exposure is not occurring.

Phase 1 Drinking Water Results at Ault Field (Results of sampling conducted through December 21, 2016)			
Samples Collected	PFOA and/or PFOS Not Detected	PFOA and/or PFOS Detected Below EPA Health Advisory	PFOA and/or PFOS Detected Above EPA Health Advisory
55	54	0	1

PHASE 2 INVESTIGATION

Out of the 55 samples collected by the Navy in November–December 2016, one sample exceeded the health advisory set by EPA in May 2016. The Navy is expanding the drinking water investigation one half-mile downgradient from this sample location. As an additional protective measure, the Phase 2 sampling will also include the area within the 1-mile zone east of the runway and runway ditches. These new sampling areas are referred to as the Phase 2 sampling areas (see Figure 2).

With permission, the Navy would like to sample all drinking water wells in the designated sampling area.

If your property is within the designated sampling area and you have a drinking water well on your property, you may schedule sampling of your well at the Open House Public Meetings, by leaving a voicemail at 360-396-1030, or by emailing the Navy’s Public Affairs Office at PAO_Feedback@navy.mil.

Representatives from the Navy, EPA, ATSDR, Washington State DOH, and Island County Public Health will be at the Open House Public Meetings to discuss this important project with you.

Please attend at any time during one of the following meetings to have your questions answered.

Coupeville
Wednesday, February 15, 2017, 4–7 p.m.
Coupeville High School “commons,” 501 S Main Street

Oak Harbor
Thursday, February 16, 2017, 5–8 p.m.
Oak Harbor High School, 1 Wildcat Way

ACTIONS BASED ON RESULTS

Results from Phase 2 drinking water sampling are expected in spring 2017. 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 health advisory level, then the Navy will provide bottled water or an alternate water supply until a long-term solution is implemented.

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

FOR MORE INFORMATION

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

The Navy has established this website to keep you updated as information becomes available:

<http://go.usa.gov/xkMBc>

You may schedule drinking water sampling for your residence by leaving a voicemail at **360-396-1030** or by sending an email to **PAO_feedback@navy.mil**.

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 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.

Consuming water above the EPA health advisory may be a health concern.