



Naval Air Station Whiting Field Milton, Florida Off-Base Drinking Water Investigation Results

October 2021

The Navy has conducted sampling of drinking water wells within a designated area near Naval Air Station Whiting Field for certain per- and polyfluoroalkyl substances, commonly known as PFAS. There were detections of PFOA and/or PFOS above the EPA lifetime health advisory within the sampling area.

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 NAS Whiting Field (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 may be present in the soil and/or groundwater on-base, and they have been detected in nearby off-base drinking water wells located in the direction that groundwater flows away from the Base within the sampling area (Figure 2).

Records indicate that many residents in the sampling area purchase their drinking water from either the City of Milton or the Point Baker Water System. The Navy is not asking to sample water provided by the City of Milton or the Point Baker Water System. **At this time, the Navy is only asking to sample from drinking water wells located in the sampling area.**

PFAS are chemicals of emerging concern, which have no Safe Drinking Water Act regulatory standards or routine water quality testing requirements. EPA 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.

PREVIOUS SAMPLING

In 2016, the Navy implemented a policy to identify and address sites with potential for exposure to PFOA and PFOS in drinking water. The review of existing records and databases identified confirmed and potential releases of PFAS within the Base boundary that could impact nearby drinking water. This records search identified one site on NAS Whiting Field – Former Crash Crew Fire Training Area. Following Navy policy, in 2017, a sampling area was designated in the direction of groundwater flow from the Former Crash Crew Training Area, and 10 wells were sampled (Figure 2). PFOA and/or PFOS were detected below the EPA lifetime health advisory in seven wells; PFOA was detected above the EPA lifetime health advisory in one well.

The Navy has conducted extensive, basewide research that has identified additional areas at NAS Whiting Field where AFFF may have been released to the environment; therefore, additional drinking water sampling began in March 2021 in areas in the direction of groundwater flow from the additional AFFF release areas. Based on the 2021 results, the sampling area has been expanded (Figure 2). This drinking water well investigation will allow us to address any current exposure to PFOA and/or PFOS above the EPA lifetime health advisory.

There is no legal requirement to conduct this drinking water testing. The Navy is performing this voluntary testing because it is important that our

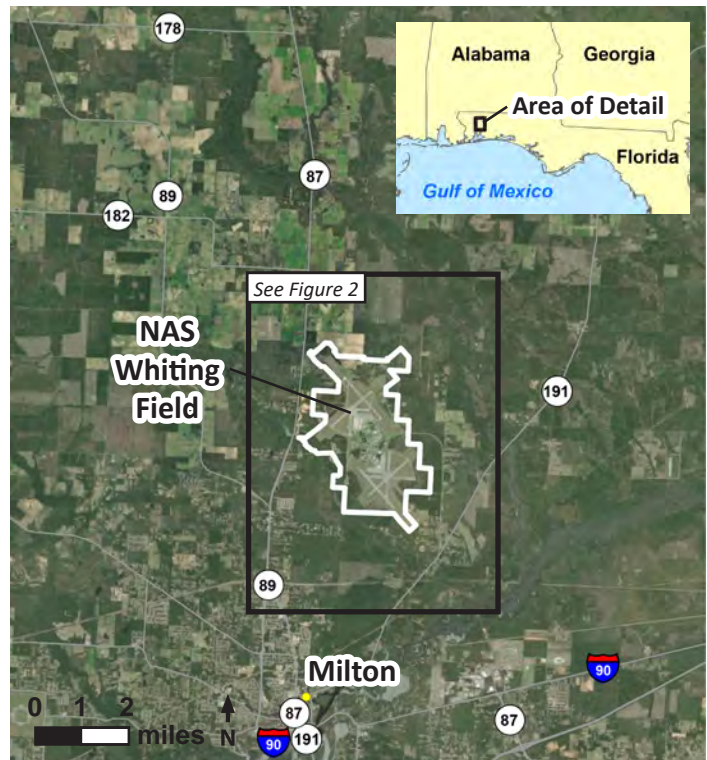


Figure 1 – NAS Whiting Field

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 NAS Whiting Field. The Navy is conducting the investigation in collaboration with partners such as EPA Region 4, the Florida Department of Environmental Protection, and the Florida Department of Health.

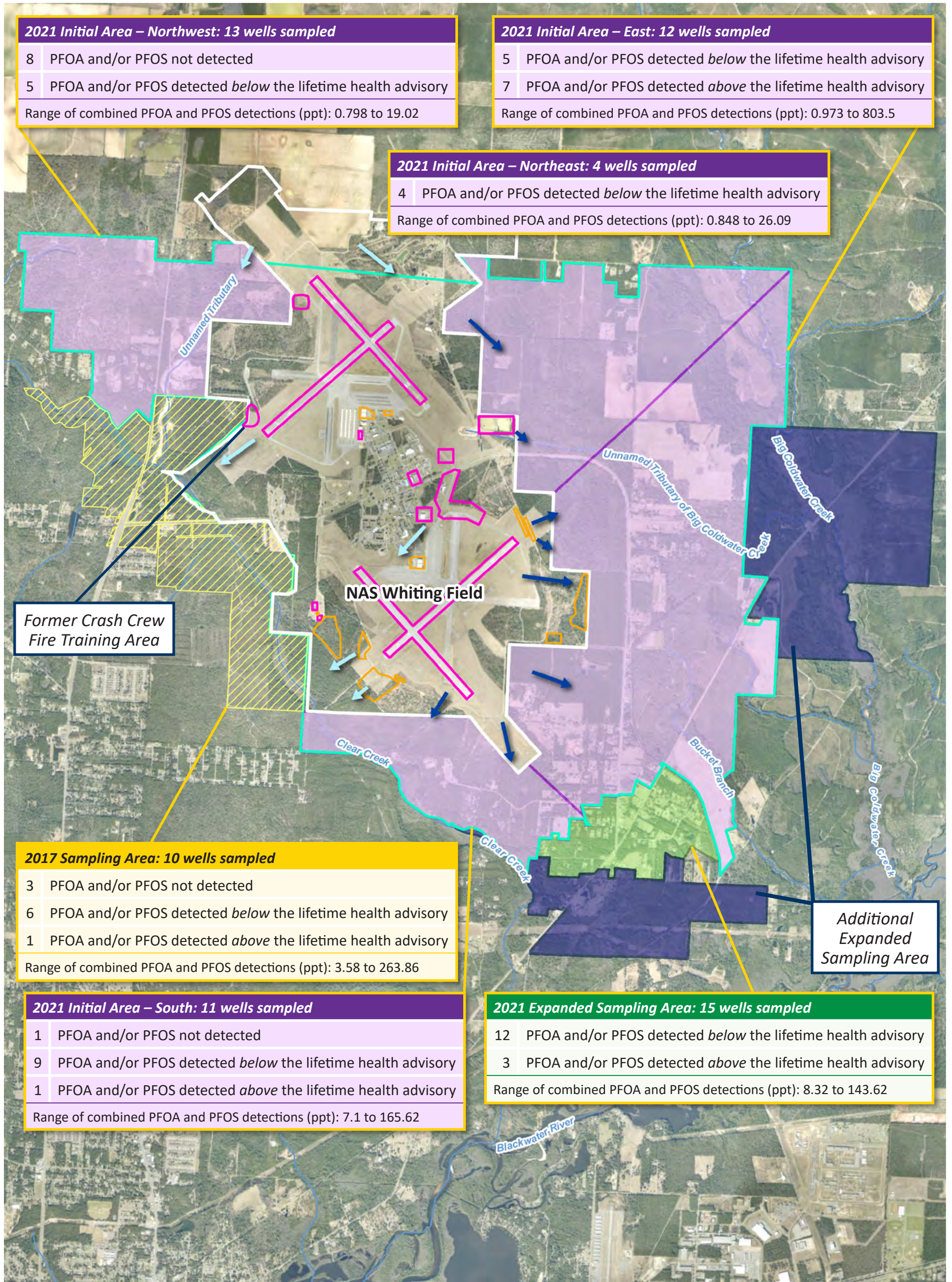
Drinking water at NAS Whiting Field is supplied by three on-base wells. In 2016, the on-base water supply was sampled for six PFAS, and none were detected. The on-base drinking water was resampled in late 2020, and PFOA and PFOS were detected above the EPA lifetime health advisory. On-base residents and employees were notified, and alternative water for drinking and cooking was provided. Following this action, a filtration system was added to the base's water treatment system to remove PFAS. No PFAS have been detected above the EPA lifetime health advisory in the treated groundwater, so it is now available for consumption. On-base water supplies will continue to be monitored.

PFAS

PFAS are man-made chemicals that have been used since the 1950s in many household and industrial products because of their stain- and

**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.
The Navy will provide bottled water until a long-term solution is implemented.**

Figure 2 – Sampling Area



LEGEND

- Confirmed PFAS release area
 - Potential PFAS release area
 - Base boundary
 - 2021 downgradient 1-mile PFAS release buffer
 - Confirmed groundwater flow direction
 - Estimated groundwater flow direction
 - 2017 sampling area
 - 2021 initial sampling area
 - 2021 expanded sampling area
 - 2021 additional expanded sampling area
- ppt = part(s) per trillion
- ↑ 0 0.25 0.5
N mile

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 is currently studying PFAS to determine if national regulation is needed. The EPA lifetime health advisory provides Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and/or PFOS in their drinking water. The EPA 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 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 that groundwater flows away from a release site. To be protective, the Navy offers sampling to all residents whose drinking water is supplied by groundwater wells 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.

INITIAL DRINKING WATER RESULTS

In March 2021, the Navy began off-base drinking water sampling in the 2021 initial sampling area (Figure 2). Table 1 and Figure 2 summarize the 2021 initial sampling area results from March to August 2021.

| WELLS SAMPLED | 40 |
|----------------------------------------------------------|----|
| No detections | 9 |
| Detections <i>below</i> the EPA lifetime health advisory | 23 |
| Detections <i>above</i> the EPA lifetime health advisory | 8 |

Of the 40 wells sampled, PFOA and/or PFOS were detected in 31 samples. PFOA and/or PFOS were detected above the EPA lifetime health advisory in eight wells sampled to the south and east of NAS Whiting Field. At some locations, where readily available, these properties have been connected to the public water supply, and the remaining properties are currently being supplied bottled water by the Navy until a long-term solution is implemented. The Navy is still offering to sample drinking water wells within the initial sampling area that have not previously been tested. Property owners can request sampling by contacting us at 844-NASWFLD (844-627-9353).

EXPANDED DRINKING WATER RESULTS

In April 2021, the Navy expanded the off-base drinking water sampling southeast of NAS Whiting Field based on initial detections of PFOA and/or PFOS above the EPA lifetime health advisory. The table below summarizes the results of the 2021 expanded sampling.

| WELLS SAMPLED | 15 |
|----------------------------------------------------------|----|
| No detections | 0 |
| Detections <i>below</i> the EPA lifetime health advisory | 12 |
| Detections <i>above</i> the EPA lifetime health advisory | 3 |

Of the 15 wells sampled, PFOA and/or PFOS were detected in all samples. PFOA and/or PFOS were detected above the EPA lifetime health advisory in three wells sampled to the southeast of NAS Whiting Field. At some locations, where readily available, these properties have been connected

to the public water supply, and the remaining properties are currently being supplied bottled water by the Navy until a long-term solution is implemented. The Navy is still offering to sample drinking water wells within the expanded sampling area that have not previously been tested. Property owners can request sampling by contacting us at 844-NASWFLD (844-627-9353).

ADDITIONAL EXPANDED DRINKING WATER SAMPLING

Of the 55 wells sampled in the 2021 initial and expanded sampling areas, PFOA and/or PFOS were detected above the EPA lifetime health advisory in 11 wells. These 11 wells are located to the south and east of NAS Whiting Field, and the Navy is expanding the sampling area one half-mile from the detections of PFOA and/or PFOS above the EPA lifetime health advisory in the direction of groundwater flow (see Figure 2).

ACTIONS BASED ON RESULTS

The Navy will continue to test in the 2021 sampling area as shown on Figure 2. Preliminary results from the additional off-base drinking water sampling are expected approximately 30 days after collecting the samples. We will notify 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 sampling area whose well contains drinking water with PFOA and/or PFOS above the EPA lifetime health advisory. The Navy will continue to provide the alternate water until a long-term solution is implemented.

At some locations, a long-term solution is already in place, as residents have been connected to the public water supply where readily available.

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 lifetime health advisory.

FOR MORE INFORMATION

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

If you have specific questions, contact the Navy at:
844-NASWFLD (844-627-9353) or
whtg_naswf_pao.fct@navy.mil