

TO REQUEST SAMPLING call 844-NASWFLD (844-627-9353) visit http://go.usa.gov/xAEQF or scan the QR code ↓



ACRONYMS &			
AB	ABBREVIATIONS		
EPA	U.S. Environmental		
	Protection Agency		
NAS	Naval Air Station		
PFAS	per- and		
	polyfluoroalkyl		
	substances		
PFOA	perfluorooctanoic		
	acid		
PFOS	perfluorooctane		
	sulfonate		
ppt	part(s) per trillion		

The Navy is addressing potential exposure to PFOA and PFOS in drinking water around NAS Whiting Field.

- In 2016, the EPA established a drinking water lifetime health advisory (70 ppt) for two PFAS, specifically PFOA and PFOS.
- The Navy issued a policy to address PFOA and PFOS in drinking water.
- The most common historical source of PFOA and PFOS was in firefighting foam, which is no longer used for firefighting training.
- The Navy initiated basewide investigations for all Navy installations to address potential exposure to PFOA and PFOS.



ES1211201622VBO

Off-Base PFAS Drinking Water Investigation – 2017

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NAS	Naval Air Station
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate



- In 2016, the Navy implemented a and PFOS in drinking water.
- In 2017, an initial PFAS and potential releases of PFAS within the Base boundary that
 - The investigation identified the side of NAS Whiting Field.

LEGEND

- Confirmed PFAS release area
- Installation boundary
- Confirmed groundwater flow direction
- 2017 sampling area

policy to identify and address sites with potential for exposure to PFOA

investigation identified confirmed

could impact nearby drinking water.

Former Crash Crew Fire Training Area located on the northwest





Off-Base PFAS Drinking Water Results – 2017

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10 drinking water wells were sampled in the direction of groundwater flow from the Former Crash Crew Fire Training Area.

- PFOA and PFOS were not detected in 5 wells.
- PFOA and/or PFOS were detected below the EPA lifetime health
- PFOA and/or PFOS were detected above the EPA lifetime health advisory in 1 well (263.86 ppt).

LEGEND

- Confirmed PFAS release area \Rightarrow
- **Installation boundary**

advisory in 4 wells (5.79–32.3 ppt).

 Bottled water is being provided to this property, and implementation of a long-term remedy is underway.

> Confirmed groundwater flow direction 2017 sampling area



On-Base PFAS Drinking Water Investigation

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EPA	U.S. Environmental Protection Agency	
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- Drinking water at NAS Whiting Field is supplied by three on-base wells.
- In 2016, the on-base water supply was tested for six different PFAS, and none were detected.
- NAS Whiting Field resampled the on-base drinking water in late 2020, and PFOA and PFOS were detected above the EPA lifetime health advisory (70 ppt) at a concentration of 714 ppt.
- On-base residents and employees were notified, and an alternative drinking and cooking water source has for more information about been provided until a long-term solution is implemented.
- Results of on-base drinking water PFAS sampling at NAS Whiting Field can be found at: http://go.usa.gov/xASbN





Pensacola Clay confining unit

On-Base Environmental Cleanup Process

TO REQUEST SAMPLING





ACRONYMS & ABBREVIATIONS

EPA	U.S. Environmental	
	Protection Agency	
NAS	Naval Air Station	
PFAS	per- and	
	polyfluoroalkyl	
	substances	

PRIORITY: Protect Human Health and the Environment

- The structured regulatory process, shown below, will be used to identify and clean up past environmental releases at NAS Whiting Field.
- The Florida Department of Environmental Protection and EPA are working closely with the Navy and providing oversight at every step of the process.
- Public input is welcome throughout the process and is formally solicited at certain points.
- From the beginning to end, this process can be lengthy.

PFAS Environmental Cleanup Process

Investigation

- Evaluate potential releases.
- Determine impacts and delineate extent of identified releases.
- Determine potential exposures and risks.

Options evaluation and remedy selection

- Determine appropriate technology.
- Consider protectiveness. time to clean up, and cost.
- Solicit public input.

Design, construction, and implementation

- Put remedy in place.
- Implement active or passive treatment, as appropriate.
- Provide long-term management, as needed.

The on-base PFAS evaluation is in its early stages. The first step is to identify potential sources of PFAS. The second step is to determine where PFAS are actually present.





On-Base Confirmed and Potential PFAS Release Areas

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ACRONYMS & ABBREVIATIONS		
NAS	Naval Air Station	
PFAS	per- and polyfluoroalkyl substances	



- Further investigation is underway because of previous uses at NAS Whiting Field of PFAS-containing materials, such as firefighting foam.
- cleanup process for assessment of and response to PFAS releases.
- Assessment Report, which will be completed in 2021 and available in the Administrative Record: http://go.usa.gov/xAEQF.

LEGEND

- Confirmed PFAS release area
- Potential PFAS release area
- Installation boundary

The Navy is following the well-established federal statutory/regulatory environmental

• 23 on-base areas have been identified as confirmed or potential PFAS release areas.

Findings are documented in a Preliminary

Off-Base PFAS Drinking Water Investigation – 2021





ACRONYMS & ABBREVIATIONS		
Naval Air Station		
per- and polyfluoroalkyl substances		



The Navy needs your help to sample your drinking water well.

- confirmed and potential PFAS release areas.
- If your drinking water is provided by the City of wells are not located within the sampling area the Navy. City of Milton and Point Baker Water and no PFAS were detected.
- The 2017 sampling area is not included in the current investigation.
- water wells.

LEGEND

- Confirmed PFAS release area
- Potential PFAS release area
- Installation boundary
- Confirmed groundwater flow direction
- Estimated groundwater flow direction

The 2021 sampling area includes properties within 1 mile in the direction of groundwater flow from the

Milton or Point Baker Water System, the supply and your water does not need to be sampled by Systems previously sampled their well systems,

The Navy may expand the sampling area based on the results of the current sampling of drinking

Designated sampling area boundary

2021 sampling area

2017 sampling area



Per- and Polyfluoroalkyl Substances (PFAS)

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ACRONYMS & ABBREVIATIONS

EPA	U.S. Environmental Protection Agency
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
ppt	part(s) per trillion

What Are PFAS?

- Family of manufactured chemicals, no natural occurrence.
- PFOA and PFOS are the most studied and understood.
- Found in the environment around the world (in air, water, soil, animals, plants, as well as in people).
- Last a long time in the environment.
- Used since 1940s in many products, such as:



firefighting foam



personal care products



stain-resistant carpets and fabrics



nonstick cookware



water-resistant fabrics



food packaging

What Is the EPA Lifetime Health Advisory for PFOA and PFOS?

- 70 ppt in drinking water.
- It is intended to protect against harmful general public, for lifetime exposure.

How Was the EPA Lifetime Health **Advisory Calculated?**

- It is based on studies of health effects from PFOA and PFOS in laboratory animals.
- exposure is from other sources.
- It considers information regarding health effects in people exposed to PFOA and of mothers who are exposed.

It is a combined level of PFOA and PFOS of

health effects to sensitive populations and the

It assumes 20 percent of overall exposure is from drinking water, and 80 percent of overall

PFOS, including the fetuses or nursing infants

Exposure and Health Effects

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QR code ↓



ACRONYMS & ABBREVIATIONS

CDC	Centers for
	Disease Control
	and Prevention
PFAS	per- and
	polyfluoroalkyl
	substances
PFOA	perfluorooctanoic
	acid
PFOS	perfluorooctane
	sulfonate

PFAS in People

- CDC estimates that most people in the U.S. have PFAS in their bodies.
- Levels of PFAS are decreasing following their phase-out from use.
- PFAS will build up in the body until exposure stops.

Exposures to PFAS

- PFAS may be in drinking water, food, indoor dust, some consumer products, and workplaces.
- Most non-occupational exposures occur by drinking water or eating food that contain PFAS.
- Exposure is minor through skin contact when bathing, showering, or swimming.
- PFAS reach the fetuses or nursing infants of mothers who are exposed.
 - However, based on current science, the benefits of breastfeeding appear to outweigh the risks for infants exposed to PFAS in breastmilk.

How to Reduce Exposure

- There are no medical treatments that will remove PFAS from the body.
- The best intervention is to stop the source of exposure (such as drinking water).
- There are at-home treatment systems that can reduce PFAS in drinking water, such as certain filters certified for PFAS removal.
 - · For more information about PFAS filtration systems certified by NSF International, a public health organization, visit http://www.nsf.org or scan the QR code.

for more information about PFAS filtration, scan the QR code 1



Potential Health Effects

- At this time, scientists are still learning about how exposure to PFAS might affect people's health.
- Studies indicate possible health effects could include:
 - Increased cholesterol levels.
 - Increased risk of high blood pressure and preeclampsia in pregnant women.
 - Changes in growth, learning, and behavior of the developing fetus and child.
 - Small decrease in infant birth weight.
 - Immune system effects (possible decreased response to some vaccines).
 - Decreased fertility.
 - Altered hormone function.
- Increased risks of certain types of cancers (testicular, kidney, and prostate).
- health impact might occur as a result of exposure.

Should I Have My Blood Tested?

- Blood testing for PFAS is available but is not a regular test offered by a doctor.
 - will they provide information for treatment.
 - your health condition.

• The levels of PFOA or PFOS in drinking water do no predict what, if any,

• PFAS blood tests will not provide information on health problems, nor

PFAS blood tests results can't tell you if PFAS exposure has caused



Drinking Water Sampling Process

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ACRONYMS & ABBREVIATIONS		
COVID-19	coronavirus	
	disease 2019	
EPA	U.S.	
	Environmental	
	Protection	
	Agency	

Drinking water well sampling is voluntary.

Sampling Process

- We need the property owner's help to:
 - Make the sampling appointment.
 - Fill out the questionnaire prior to the appointment.
- An adult (18 years or older) must be present at the property during sampling.
- Samples will be collected by a team of experienced contractors:
 - Team will consist of two members.
 - The water sample will be collected as close to well as possible.
 - Water will run for 3 to 5 minutes prior to collection.
- Samples will be collected and analyzed according to EPA guidelines.
- Sampling takes less than an hour.

COVID-19 Precautions

- precautions to minimize exposure.
 - with the team.
 - Sampling team members may arrive in separate cars.
 - masks and gloves.

 - Upon completion of sampling, a team sampling is complete.

The sampling team will take the necessary

• A sampling team member will call you upon arrival; you do not need to directly interact

Sampling team members will be wearing

• One team member will collect the sample; the second team member will likely remain in the car to assist with documentation.

member will call you to let you know that

Sampling and Results Timeline

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844-NASWFLD (844-627-9353) visit <u>http://go.usa.gov/xAEQF</u> or scan the	 Property owner signs up for drinking water well sampling. 	Through March 17
QR code ↓	2. Navy contractor samples well.	 March 10–17, 202
	 Navy receives preliminary results. 	 Approximately 1 m after sample colled
		 Within 24 hours of
ACRONYMS & ABBREVIATIONS EPA U.S. Environmental Protection Agency PFOA perfluorooctanoic acid	 Navy calls property owner with results. 	 Bottled water deliver and/or PFOA are a lifetime health adv
PFOS perfluorooctane sulfonate ppt part(s) per trillion	 Lab data is verified and Navy mails final lab data to property owner. 	 Approximately 3 m from sampling.

7, 2021.

- 21.
- month ected.
- of results received.

ivered if PFOS above the EPA visory (70 ppt).

months

Sign Up for Your Sampling Appointment

TO REQUEST SAMPLING







Off-Base Drinking Water Well Sampling

- The Navy will be sampling drinking water wells in the 2021 sampling area.
- Sampling is at no cost to you.
- Drinking water samples will be collected Wednesday, March 10 through Wednesday, March 17, 2021.
- Sampling appointments are available on these days 8 a.m.-5 p.m.

Additional times are available upon request

- The property owner must give permission for permission slip.
- Sampling takes less than an hour.
- An adult (18 years or older) must be present at the property during sampling.

The Navy will provide bottled water for cooking and drinking if PFOA and/or PFOS exceed the EPA lifetime health advisory (70 ppt).

Off-Base Drinking Water Sampling Activity Timeline – 2021



sampling and complete the questionnaire and

Communication of Preliminary Results