

What Are PFAS?

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- Present in the environment around the world (air, water, soil, plants, animals, and humans)
- Called "forever chemicals" because they last a long time in the environment
- Widely used since 1940s in many products, such as:



U.S. Navy / Photographer's
Mate 3rd Class Tommy Gilligan

firefighting foam



Image: freepik.com

**stain-resistant carpets
and fabrics**



Image: Kyler Boone / unsplash

water-resistant fabrics



Image: freepik.com

personal care products



Image: Valeria_Aksakova / freepik

nonstick cookware



Image: freepik.com

food packaging

- Ongoing nationwide effort to phase out PFAS in manufactured products

TO REQUEST DRINKING WATER WELL SAMPLING

leave a message at
1-833-222-3282

or email
environmental_coordinator@jacobs.com

FOR MORE INFORMATION

visit www.navfac.navy.mil

/ThurmontSampling

or scan the QR code →





Why is the Navy Sampling Drinking Water Wells Nationwide?

- The Navy is addressing PFAS across all installations
- Since 2016, the Navy's priority has been to address potential exposure in drinking water wells in neighboring communities
 - At this time, the Navy could provide bottled water for drinking and cooking if two PFAS (PFOA and PFOS) were in drinking water greater than 70 ppt
- In April 2024, the EPA published standards (maximum contaminant levels) for PFAS in public drinking water systems
- In response, DoD implemented a policy to address exposure in private drinking water wells

PFAS	EPA Maximum Contaminant Levels	DoD PFAS Interim Action Levels for Private Drinking Water Wells
perfluorooctanoic acid (PFOA)	4 ppt	12 ppt
perfluorooctane sulfonic acid (PFOS)	4 ppt	12 ppt
perfluorononanoic acid (PFNA)	10 ppt	30 ppt
perfluorohexane sulfonic acid (PFHxS)	10 ppt	30 ppt
hexafluoropropylene oxide dimer acid (HFPO-DA, or GenX)	10 ppt	30 ppt
hazard index for mixture of at least two of PFHxS, PFNA, HFPO-DA, and perfluorobutane sulfonic acid (PFBS)	1 (no units)	3 (no units)

Note: These levels are based on current EPA MCLs. If EPA updates applicable requirements, DoD will review and update its policy as appropriate.

The Navy continually evaluates PFAS exposure and takes action as necessary.

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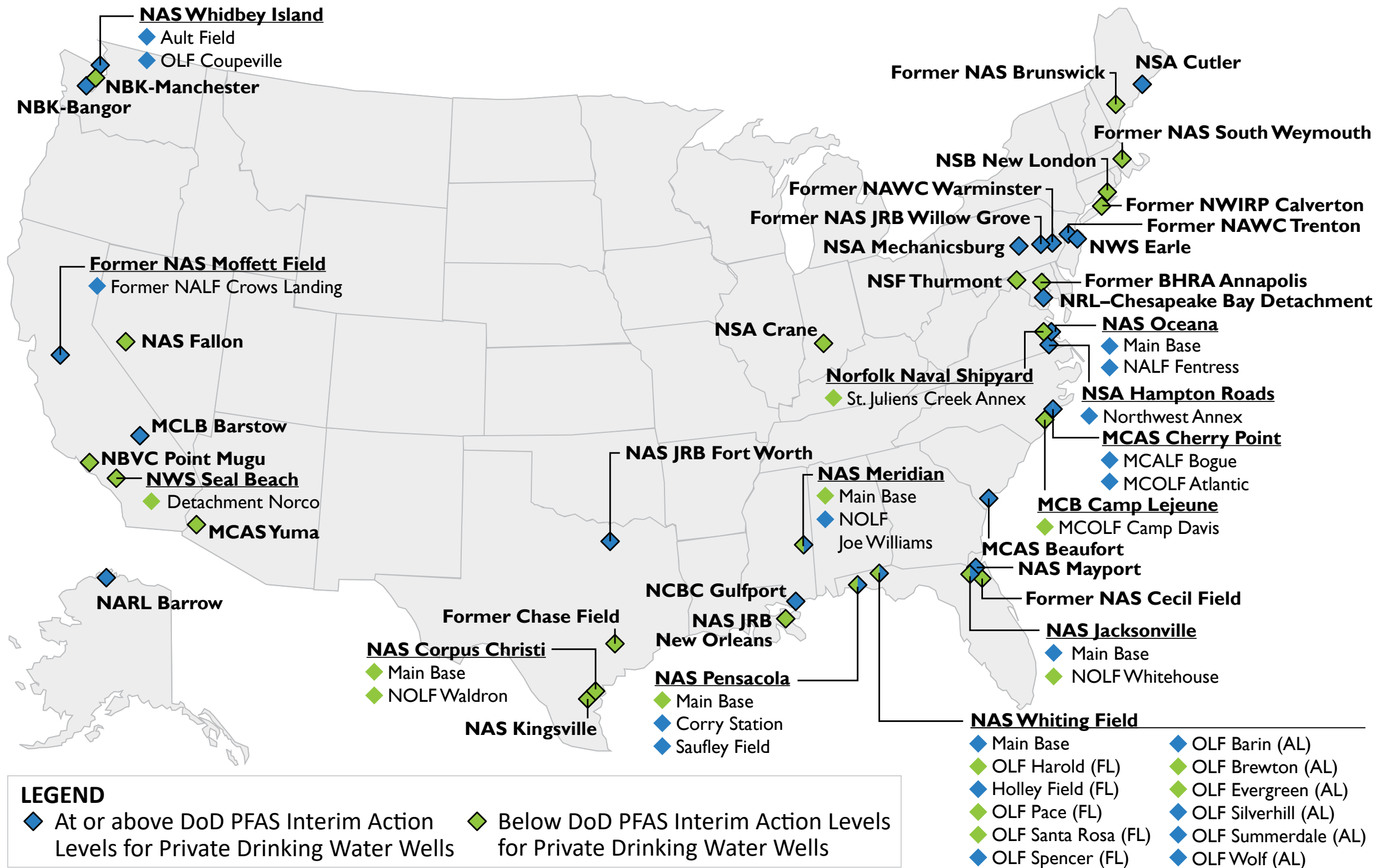


ACRONYMS & ABBREVIATIONS

DoD	Department of Defense	PFAS	per- and polyfluoroalkyl substances
EPA	U.S. Environmental Protection Agency	ppt	part(s) per trillion
NSF	Naval Support Facility		




Navy Private Drinking Water Well Sampling for PFAS



As of May 30, 2025

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On-Facility PFAS Investigation

- 2021 – Investigation of potential PFAS release areas began
- 2021 – Fire Station and Aircraft Hangar identified as PFAS release areas
- 2023 – PFAS detected in on-Facility monitoring wells
- 2024 – Firefighting foam removed from NSF Thurmont
- In progress – Additional on-Facility investigation

On-Facility Groundwater Results

PFAS	Concentration range (ppt)
PFOA (<i>perfluorooctanoic acid</i>)	9.9 – 110
PFOS (<i>perfluorooctane sulfonic acid</i>)	110 – 430
PFNA (<i>perfluorononanoic acid</i>)	1.5 – 5.9
PFHxS (<i>perfluorohexane sulfonic acid</i>)	53 – 280
HFPO-DA, or GenX (<i>hexafluoropropylene oxide dimer acid</i>)	not detected
PFBS (<i>perfluorobutane sulfonic acid</i>)	6.1 – 26

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2023 Drinking Water Sampling Results

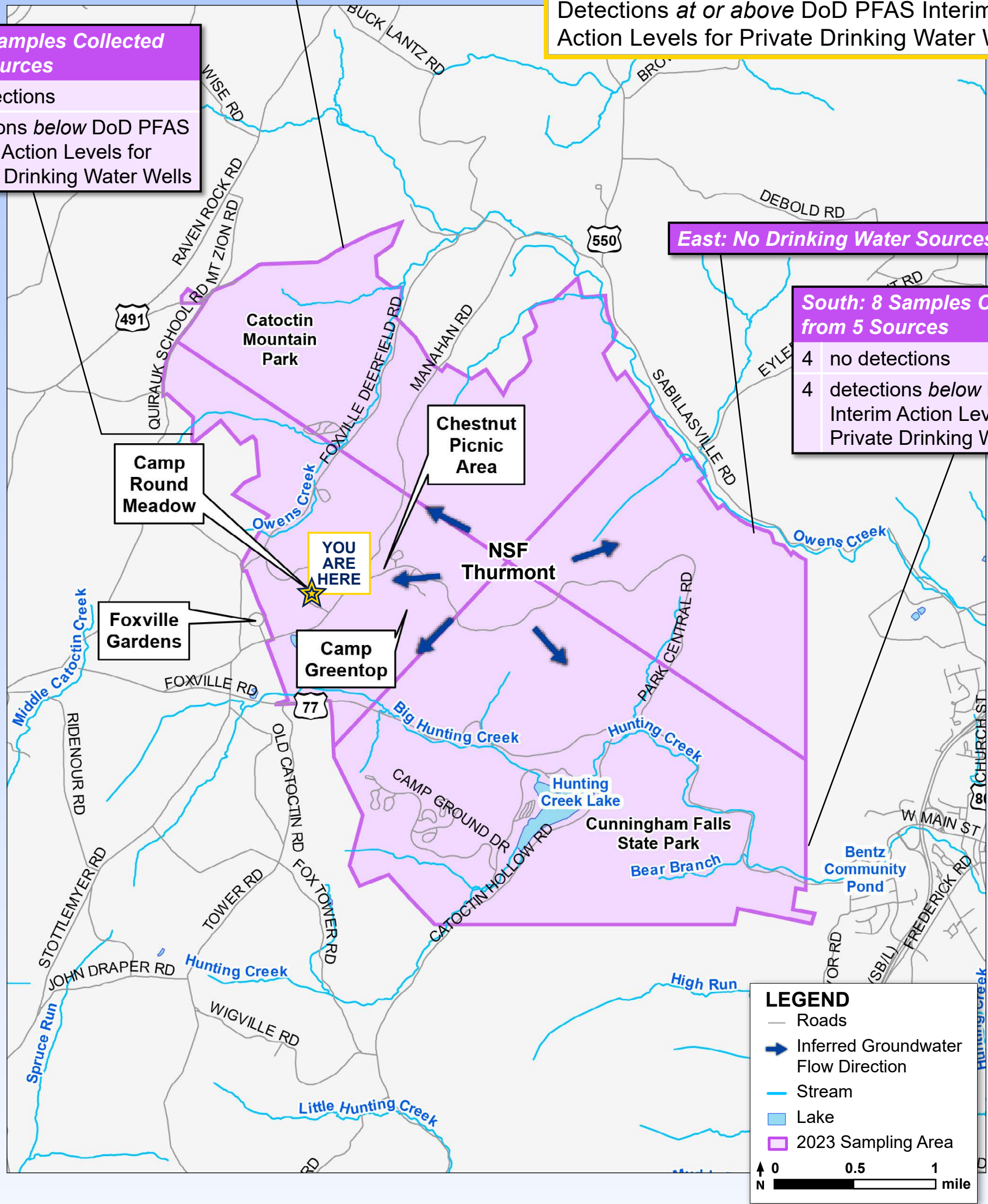
Total Number of Samples		19
No detections		11
Detections <i>below</i> DoD PFAS Interim Action Levels for Private Drinking Water Wells		8
Detections <i>at or above</i> DoD PFAS Interim Action Levels for Private Drinking Water Wells		0

North: 2 Samples Collected from 2 Sources
 2 no detections

West: 9 Samples Collected from 9 Sources
 5 no detections
 4 detections *below* DoD PFAS Interim Action Levels for Private Drinking Water Wells

East: No Drinking Water Sources

South: 8 Samples Collected from 5 Sources
 4 no detections
 4 detections *below* DoD PFAS Interim Action Levels for Private Drinking Water Wells



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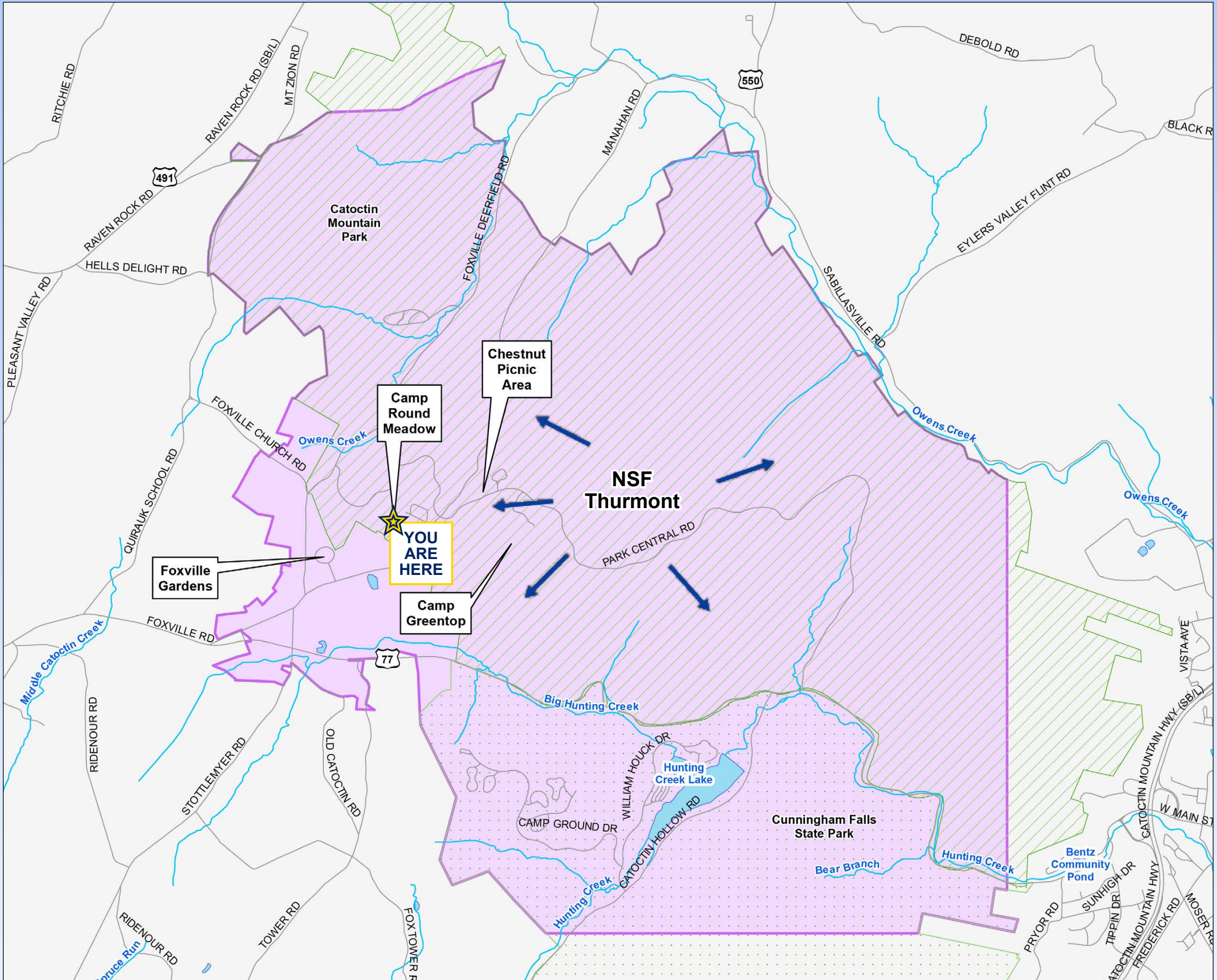
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Expanded Sampling Area

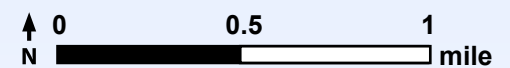
The Navy needs your permission to sample your private drinking water well.

- Sampling offered to all private property owners with drinking water wells in the sampling area
- Sampling area expanded in the direction of groundwater flow
- Additional areas may be considered based on sampling results



LEGEND

- Roads
- ➔ Inferred Groundwater Flow Direction
- Stream
- Lake
- Sampling Area
- ▨ Catoclin Mountain Park
- ▨ Cunningham Falls State Park



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Environmental Cleanup Process

PRIORITY: Protect Human Health and the Environment

- The EPA cleanup process is used to identify and clean up past environmental releases, including PFAS
 - The Navy is responsible for implementing the investigation and cleanup process
 - Maryland Department of the Environment provides regulatory oversight
- The investigation and cleanup process depends on multiple factors and can take time

Protective actions can be taken at any point in this process.

PFAS Environmental Cleanup Process



WE ARE HERE

Investigate

Determine cleanup options

Plan and implement

Cleanup complete

- Evaluate known and potential releases
- Determine amount and size of identified releases
- Determine potential exposures and risks

- Evaluate:
 - Cleanup time frame
 - Regulatory requirements
 - Costs
 - Current technology
- Request public input
- Decide upon a course of action

- Develop goals and implement plans
- Provide long-term management

- Achieve long-term project goals

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Per- and Polyfluoroalkyl Substances (PFAS)

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water-resistant fabrics



personal care products



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food packaging

- Ongoing nationwide effort to phase out PFAS in manufactured products

How Can People Be Exposed to PFAS?

- PFAS may be present in drinking water, food, indoor dust, some consumer products, and workplaces
- Most non-work-related exposures occur by drinking water or eating food that contains PFAS
- Exposure is minor through skin contact
- PFAS can transfer to unborn offspring or nursing infants by mothers exposed to PFAS

How Can People Reduce Exposure to PFAS in Drinking Water?

- **GET YOUR DRINKING WATER WELL TESTED**
- If test results warrant, use an alternative water source for drinking and cooking
- Certain certified filters can reduce PFAS in drinking water

FOR MORE INFORMATION

from the EPA about PFAS filtration systems, visit <http://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf> or scan the QR code →



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PFAS Health Effects

What Are the Potential Health Risks?

- Scientists are still actively studying PFAS and how PFAS exposure affects human health
- Exposure to PFAS could increase the risk of:
 - ♥ Higher cholesterol levels
 - 🍃 Changes in liver enzymes
 - 👶 Higher blood pressure in pregnant women
 - 👶 Lower infant birth weight and changes in growth
 - 📉 Decreased vaccine response
 - 🎗 Some types of cancers (testicular and kidney)
 - 🏠 Changes in thyroid function



Chemical exposures do not always lead to health effects.

Are Blood Tests Available for PFAS?

- Blood testing for PFAS is not a regular test offered by a doctor
- Blood test results will not tell you if PFAS exposure will cause current or future health issues

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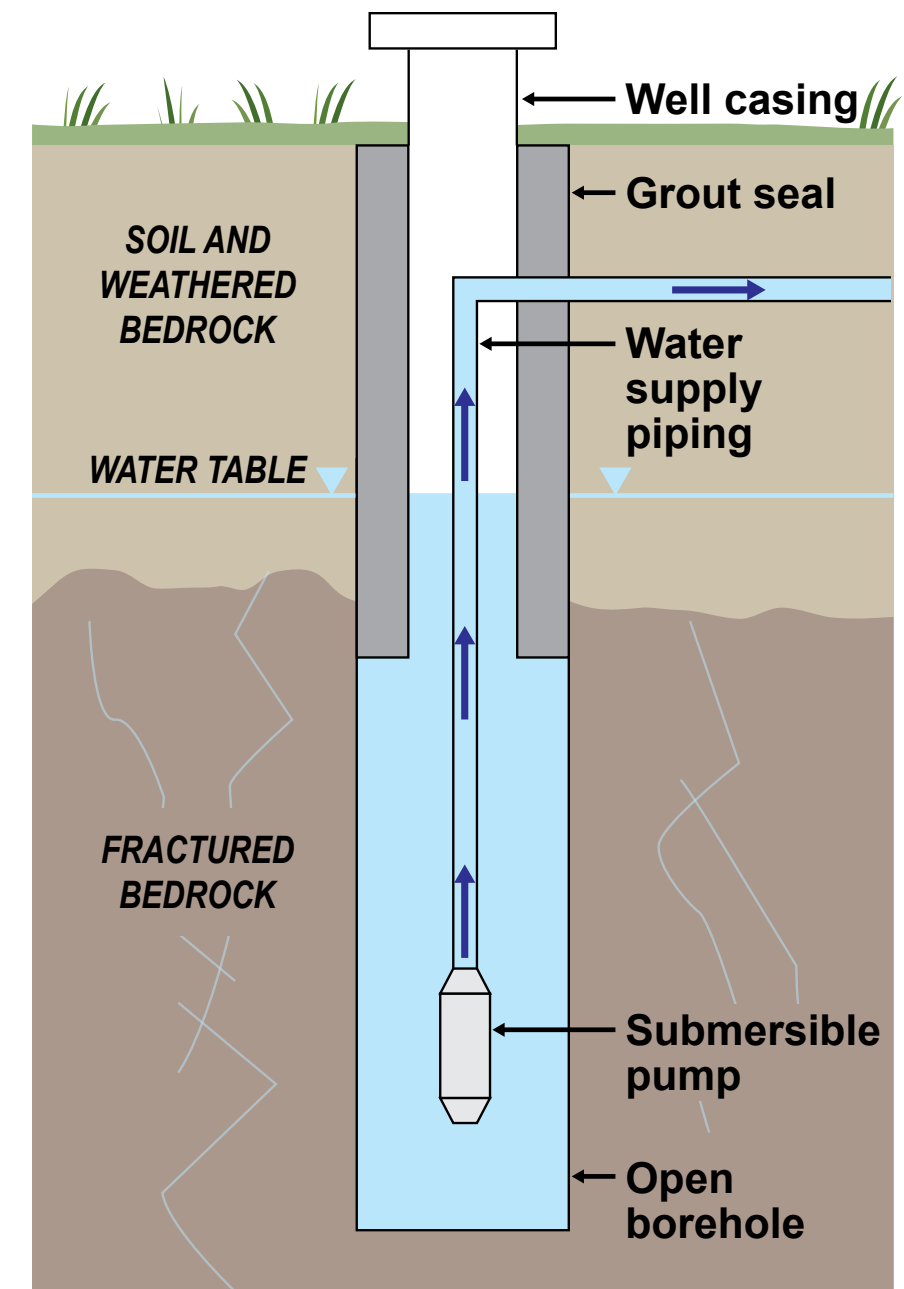
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Private Well Maintenance

Minimizing the Risks

- Testing of private drinking water wells is recommended to ensure water quality
- The National Ground Water Association recommends well owners test their water at least annually for contaminants, including bacteria and nitrates
- More frequent testing is recommended if your water changes in taste, odor, or appearance
- If using water conditioner (aka, “water softener”) equipment, it should be maintained and kept in working order
- Do not dispose of or store hazardous materials or chemicals near your well

Typical Well Design



FOR MORE INFORMATION

on in-home water treatment systems, please visit
<https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf>

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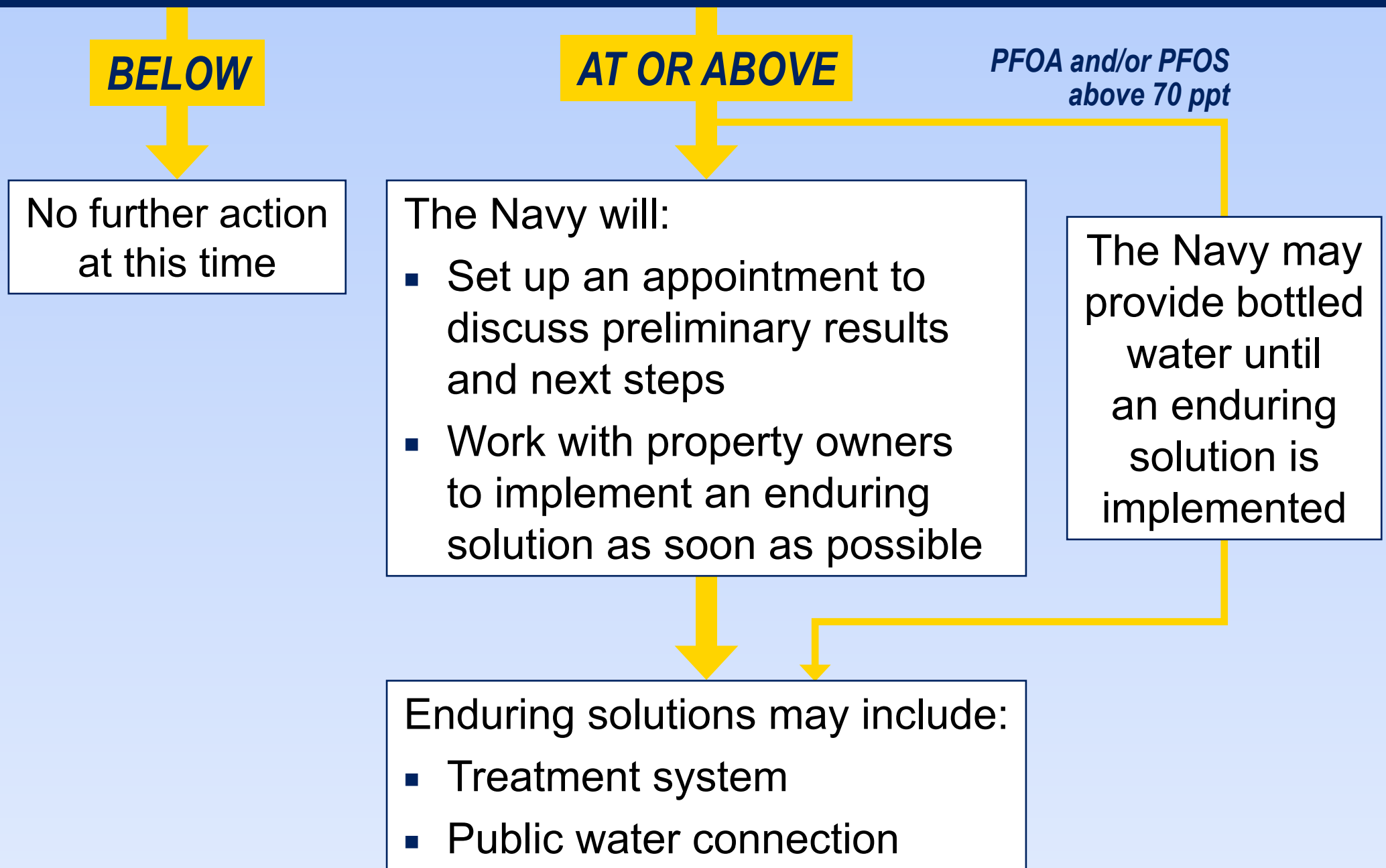
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What Happens After Sampling?

- **Within 30 days:** Navy representative calls property owner with preliminary results
- **Within 3 months:** Final results mailed

Preliminary results compared to DoD PFAS Interim Action Levels for Private Drinking Water Wells




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Sign Up for Your Sampling Appointment

Sampling Appointment

- No cost to you
- Available daily (including weekends) from **8 a.m. to 6 p.m.**
 - **Thursday, September 18, through Thursday, September 25**
 - *Additional times are available upon request*

What We Need

- Right-of-Entry Agreement signed by property owner
- Authorized adult (18 or older) must be present at the property during sampling
- Completed drinking water well questionnaire (optional)

Sampling Process

- Samples collected by a team of two experienced professionals:
 - Typically takes less than an hour
 - Collected as close to well as possible
 - Water will run prior to sample collection
- Samples will be collected and analyzed according to EPA-approved methods
- Specific safety and/or health precautions during sampling will be considered, if requested in advance by property owner or tenant

To schedule an appointment after the Open House, please call 1-833-222-3282 and leave a message.

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