



Why is the Navy Sampling Drinking Water Wells Nationwide?

The Navy is addressing potential exposure to PFOA and PFOS in drinking water near Naval Base Kitsap (NBK) Manchester.

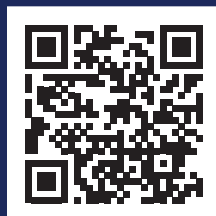
- In May 2016, the EPA established drinking water lifetime health advisories* (70 ppt) for two PFAS (PFOA and PFOS).
- In response, the Navy issued a policy in June 2016 to address PFOA and PFOS in drinking water.
- The Navy’s primary historical release of PFOA and PFOS was firefighting foam.
 - No longer released during training and testing.
 - Currently used for emergency response.
- The Navy is investigating all installations to identify PFOA and PFOS exposure.



On March 14, 2023, **the EPA proposed a draft regulatory drinking water standard for certain PFAS**, including PFOA and PFOS. In response, the Department of Defense (DoD) has issued the following statement: “DoD respects and values the public comment process on this proposed nationwide drinking water rule and looks forward to the clarity that a final regulatory drinking water standard for PFAS will provide. In anticipation of the final standard that EPA expects to publish by the end of 2023, **the DoD is assessing what actions DoD can take to be prepared to incorporate EPA’s final regulatory standard** into our current cleanup process, such as reviewing our existing data and conducting additional sampling where necessary. In addition, **DoD will incorporate nationwide PFAS cleanup guidance**, issued by EPA and applicable to all owners and operators under the federal cleanup law, as to when to provide alternate water when PFAS are present.”

**TO REQUEST
DRINKING WATER
SAMPLING**
call
1-855-732-7627
1-855-PFAS-MCR

FOR MORE INFORMATION
visit <https://www.navfac.navy.mil/manchesterpfas>
or scan the QR code →

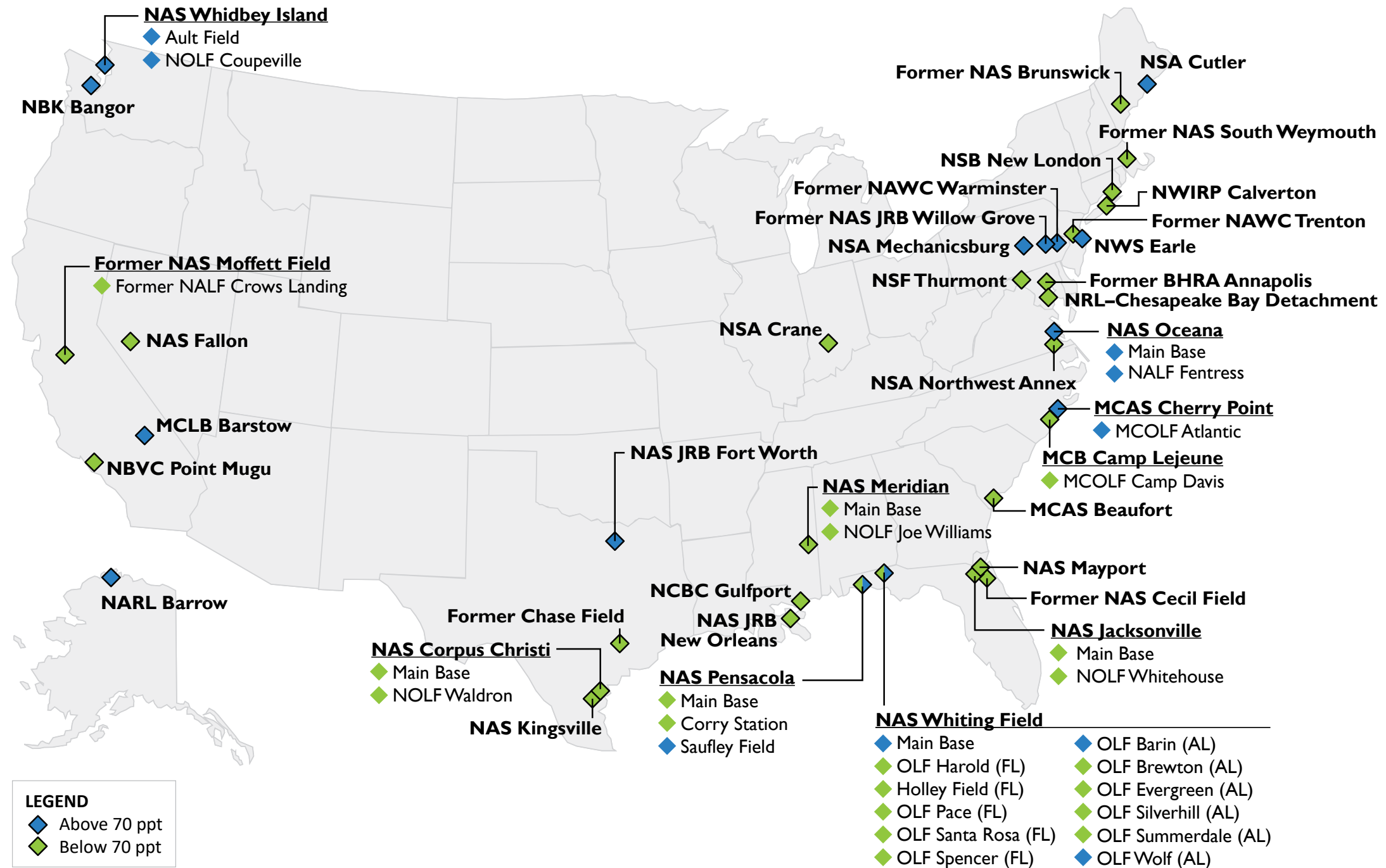


ACRONYMS & ABBREVIATIONS

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



Locations of Completed Off-Base Drinking Water Sampling for PFOA and PFOS



The Navy will provide bottled water to properties for cooking and drinking if PFOA and/or PFOS are above 70 ppt.

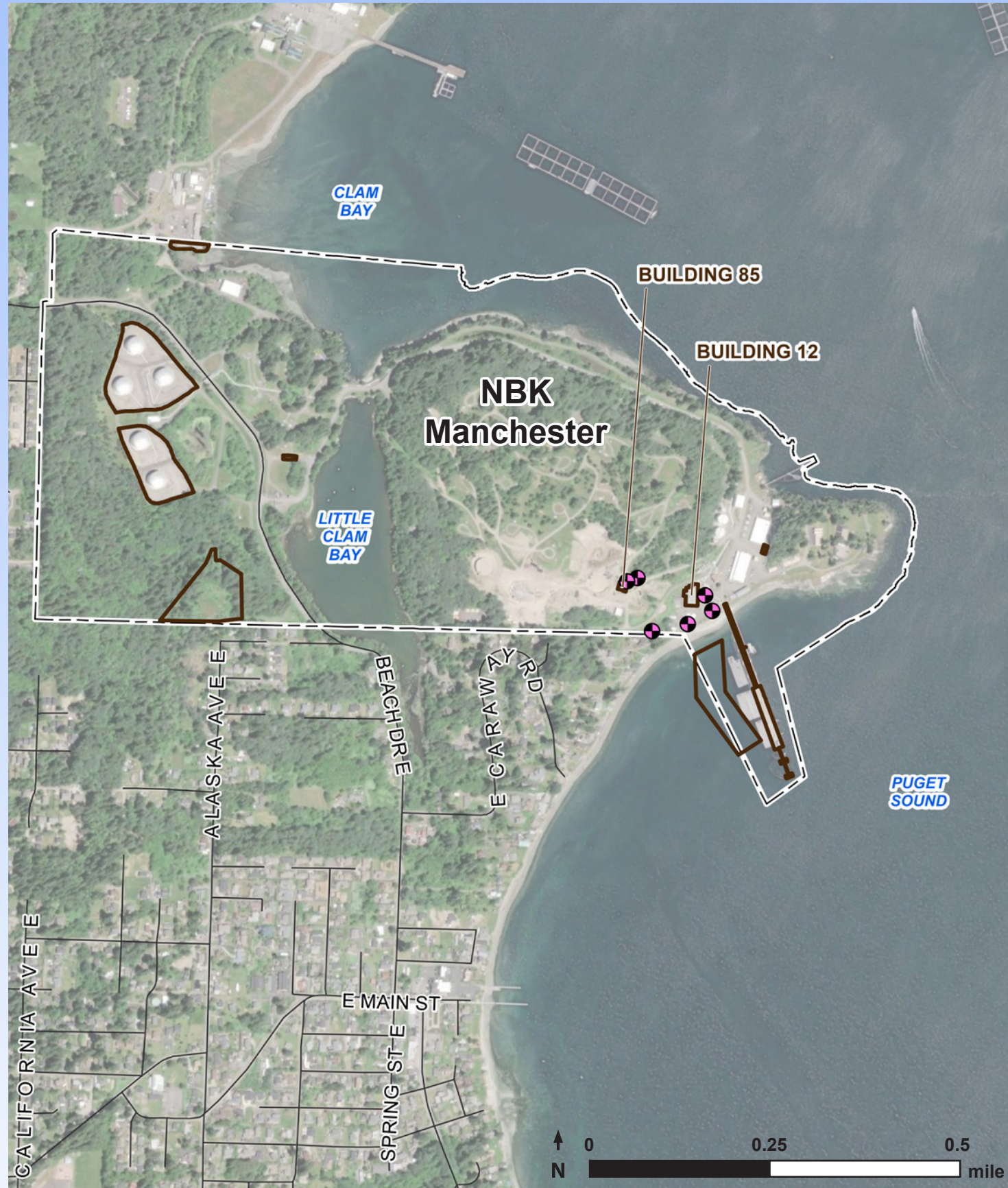
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NBK Manchester On-Base PFAS Investigation

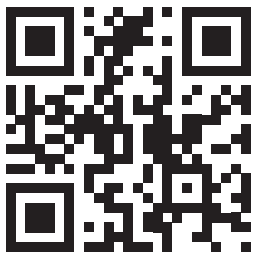


- Collected samples at eight PFAS release areas related to firefighting foam training, testing, spills, storage, or disposal
- PFOA and PFOS detected in groundwater above 70 ppt

PFAS	Concentration range (ppt)
PFOA	83.7–176,000
PFOS	686–27,900

- Preliminary Assessment Report
 - Completed 2021
 - Provides information on each release area
 - Available in the Administrative Record
- Site Inspection Report
 - Will be completed in 2023
 - Will be available in the Administrative Record

FOR MORE INFORMATION
 access the NBK Manchester Administrative Record at
<http://go.usa.gov/xh25r>
 or scan the QR code →




LEGEND

- Installation boundary
- Monitoring well with detection of PFOA and/or PFOS above 70 ppt
- PFAS release area

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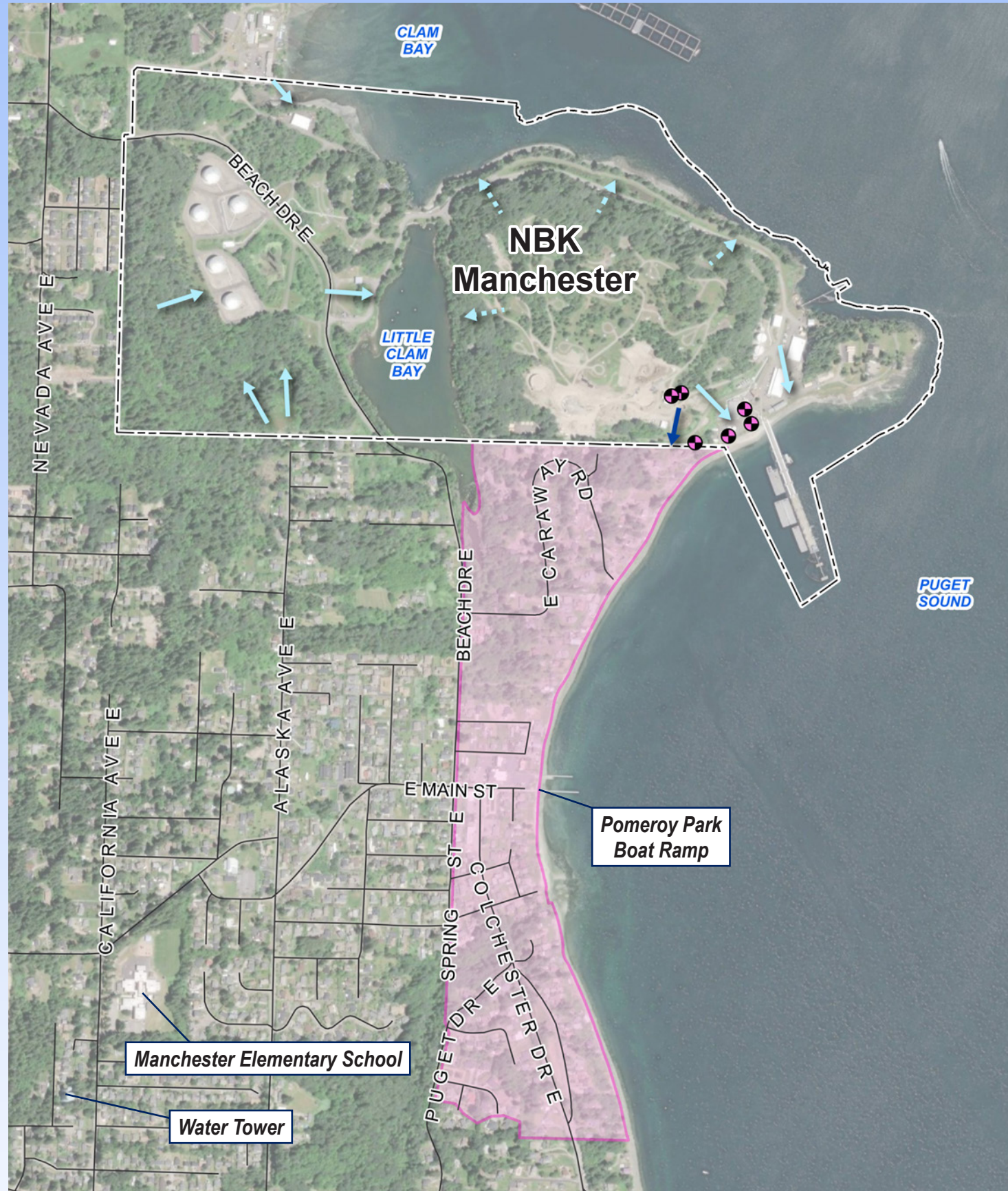


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Off-Base PFAS Drinking Water Sampling

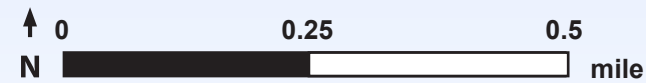


The Navy needs your help to sample your drinking water well.

- The sampling area is 1 mile in the direction of groundwater flow from shallow on-base monitoring wells with PFOA and/or PFOS above 70 ppt.
- If you have a drinking water well in the sampling area, the Navy would like to sample your well.
- The Navy may expand the sampling area based on the results of the off-base drinking water well sampling.
- If your drinking water is provided by the Manchester Water District, your water does not need to be sampled by the Navy.
- On-base drinking water is supplied by Manchester Water District.


LEGEND

- ▭ Installation boundary
- Monitoring well with detection of PFOA and/or PFOS above 70 ppt
- ➔ Downhill flow direction
- ➔ Confirmed groundwater flow direction
- ➔ Anticipated groundwater flow direction
- ▭ Sampling area



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Exposure to Per- and Polyfluoroalkyl Substances (PFAS)

What Are PFAS?

- Family of manufactured chemicals.
- 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.
- Widely used since 1950s 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: Kyle Boone / unsplash
water-resistant fabrics



Image: freepik.com
personal care products



Image: Valeria_Aksakova / freepik
nonstick cookware



Image: freepik.com
food packaging

How Can People Be Exposed to PFAS?

- PFAS may be present in drinking water, food, indoor dust, some consumer products, and workplaces.
- When found in drinking water, it can be a primary source of exposure.
- Most non-occupational exposures occur by drinking water or eating food that contains PFAS.
- Exposure is minor through skin contact when bathing, showering, or swimming.
- Mothers with PFAS in their bodies can transfer PFAS to their fetuses or nursing infants.
- Based on current science, the benefits of breastfeeding appear to outweigh the risks for infants exposed to PFAS in breastmilk.

How Can People Reduce Exposure to PFAS in Drinking Water?

- **Get your drinking water well tested.**
- Use an alternative water source for drinking, cooking, and making baby formula.
- Certain certified filters can reduce PFAS in drinking water.

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Health Effects

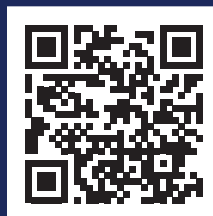
What Are the Potential Health Effects?

- Scientists are still learning about how exposure to PFAS affects people's health.
- Exposure to PFAS could increase the risk of:
 - ♥ Higher cholesterol levels.
 - 🍷 Changes in liver enzymes.
 - 👶 Higher blood pressure and preeclampsia in pregnant women.
 - 👶 Lower infant birth weight and changes in growth.
 - 🏠 Lowered/decreased vaccine response.
 - 🎗 Certain types of cancers (testicular and kidney).

Chemical exposures do not always lead to health effects.

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State Action Levels for PFAS in Drinking Water

State drinking water standards

The Washington State Board of Health set State Action Levels (SALs) for five PFAS in October 2021. These standards:

- ◆ Require most **public water systems** to test for PFAS and take certain actions, like monitoring and public notice, if they find PFAS.
- ◆ Recommend when to take action to reduce PFAS in drinking water
- ◆ SALs are health protection levels for long-term drinking water. They also apply to shorter periods for sensitive groups.

State Action Levels (SALs)

PFOA	10
PFOS	15
PFNA	9
PFHxS	65
PFBS	345

SAL units are in parts per trillion (ppt)

Acronyms

PFAS	per and polyfluoroalkyl substances	PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid	PFHxS	perfluorohexane sulfonic acid
PFOS	perfluorooctane sulfonic acid	PFBS	perfluorobutane sulfonic acid



How to minimize exposure when PFAS exceed a SAL in your tap water

- ◆ Use an alternate or treated water source for drinking and cooking if you are pregnant, breastfeeding or mixing infant formula.
- ◆ Install a home filter to remove PFAS from your water.
- ◆ At high concentrations, consider filtering garden and livestock water.
- ◆ Connect to a nearby public water system or well that doesn't have PFAS.
- ◆ For more information go to doh.wa.gov/pfas.

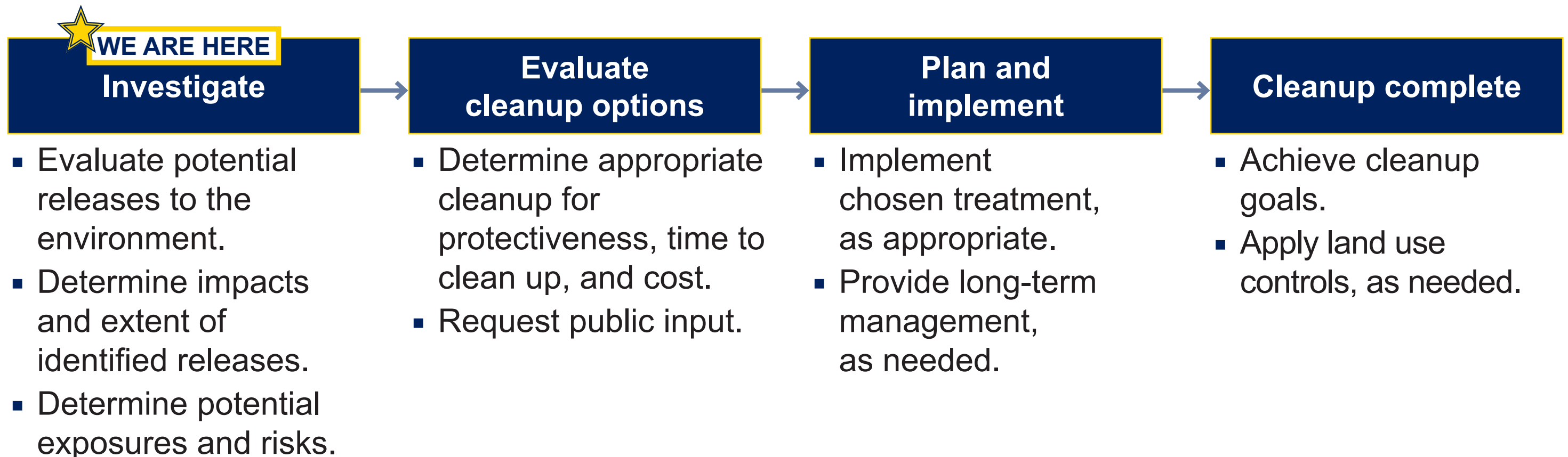


Environmental Cleanup Process

PRIORITY: Protect Human Health and the Environment

- Structured regulatory process (below) used to identify and clean up past PFAS releases at NBK Manchester.
- Washington State Department of Ecology works closely with the Navy to provide oversight throughout the process.
- Public input is welcome throughout the process.
- This process will be lengthy.

PFAS Environmental Cleanup Process



Response actions, such as providing bottled water, can be taken at any time.

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Drinking Water Sampling Results Timeline

Sequence of Events

Approximate Timeframe

1. Navy receives preliminary results.

■ Within 1 month after sample collected.

2. Navy calls property owners and tenants with results.

■ Within 24 hours of results received by the Navy.

3. If PFOA and/or PFOS are above 70 ppt, bottled water is delivered for **drinking and cooking**.

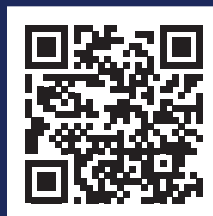
■ Within 24 hours of results notification.

4. Lab data are verified and Navy mails final results to property owner and tenant.

■ Within 3 months of sampling.

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Sign Up for Your Drinking Water Sampling

Sampling Appointment

- No cost to you.
- Available daily **Wednesday, June 14, through Saturday, June 17, 2023, 8:00 a.m. to 5:00 p.m.**
Additional times are available upon request

What We Need from You

- Signed access authorization form.
- An adult must be present at the property during sampling.

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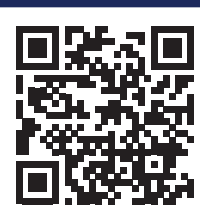
Well Sampling Process

- Samples will be collected by a team of two experienced contractors:
 - Takes less than an hour.
 - Collected as close to the well as possible.
 - Water will run prior to sample collection.
- Samples will be collected and analyzed according to EPA guidelines.
- Team will take health precautions if requested.

To schedule an appointment after the Open House, call 1-855-732-7627 (1-855-PFAS-MCR)

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