



Why is the Navy Sampling Private Drinking Water Wells Nationwide?

Additional information can be found online at www.secnav.navy.mil/eie/pages/pfc-pfas.aspx

For updates as more information becomes available, visit <https://go.usa.gov/xVCV9>

If you have specific questions, please contact the Public Affairs Office at 860-694-5980 or chris.zendan@navy.mil

The Navy is identifying potential exposure to certain per- and polyfluoroalkyl substances (PFAS) in private drinking water.

- The Navy is committed to protecting our neighbors' drinking water and taking responsibility for our previous operations.
- In 2016, the EPA established a drinking water lifetime health advisory (70 ppt) for two currently unregulated PFAS, specifically PFOA and PFOS.
- The most common historical Navy use of PFOA and PFOS was in firefighting foam.
- In 2016, the Navy issued a protective policy to identify and prioritize sites with the potential for exposure to PFOA and PFOS.
- The Navy has initiated basewide investigations for all Navy installations to identify and address the potential for exposure to PFOA and PFOS.





Identifying Potential PFAS Sites

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- SUBASE New London is following the Navy's PFAS Assessment Investigative Process
 - Historic records research/review
 - Interviews and questionnaires
 - Database searches
 - Site visit
 - Local water provider information

- Findings documented in an Assessment Report
- 15 areas identified as potential PFAS release areas
- No sampling for PFAS has been performed to date



EPA U.S. Environmental Protection Agency
ppt parts per trillion

PFAS per- and polyfluoroalkyl substances
PFOA perfluorooctanoic acid

PFOS perfluorooctane sulfonate
On-base within SUBASE New London fence line



Potential PFAS Sites

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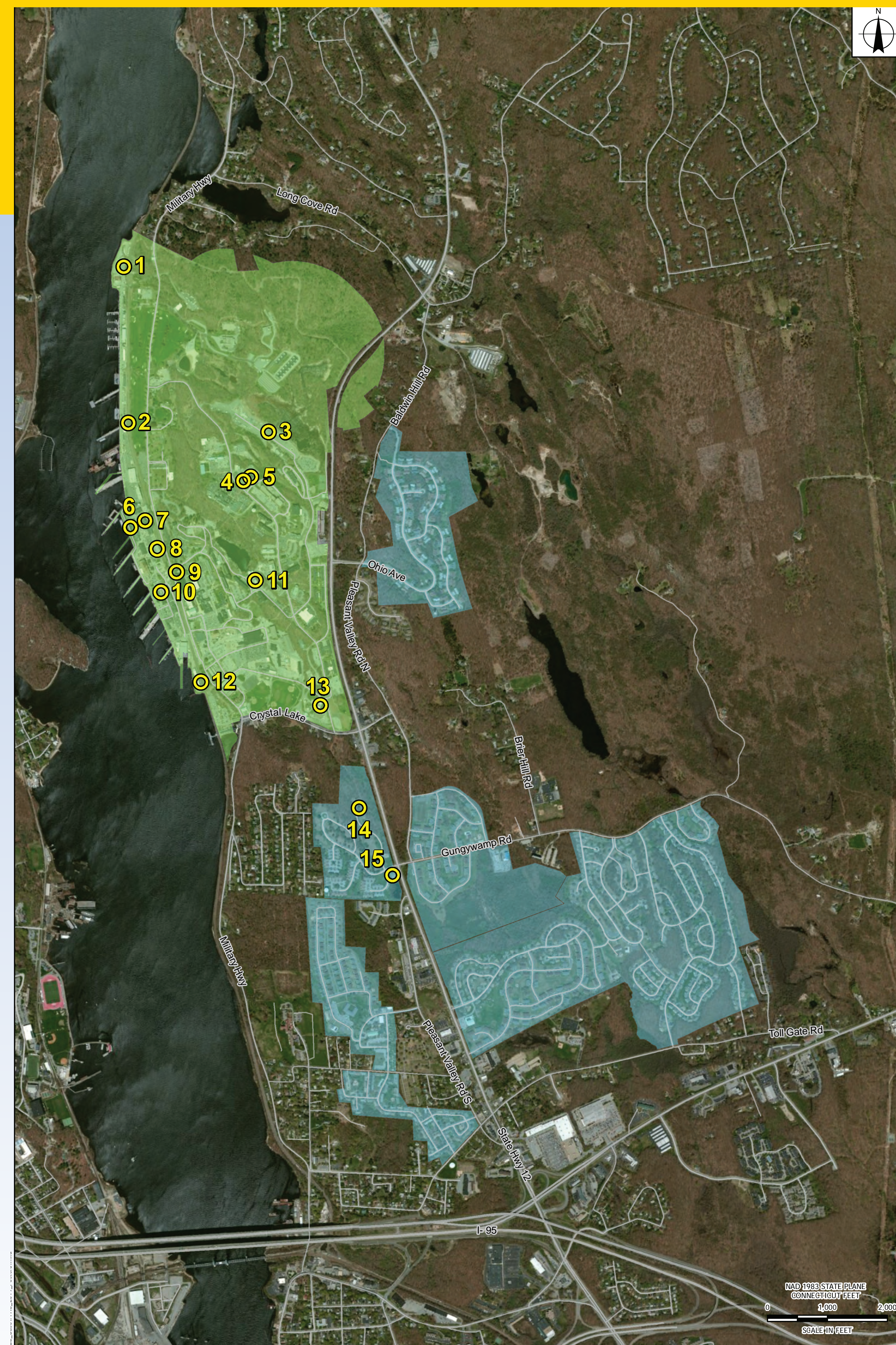
Areas of Potential Concern

Potential On-Site PFAS Sites

1	Former Equipment Storage (Building 355 - DRMO)
2	Central Paint Accumulation Area (Building 174)
3	Paved Storage Area (Alpha Lot)
4	Hazardous Materials Storage (Building 561)
5	Hazardous Waste Storage (Building 562)
6	Machine Shop (Building 40)
7	Potential Former Fire Training Location (Building 88)
8	SUBASE New London Fire Station 1 (Building 107)
9	Vehicle Accident Fire Response (late 1980's)
10	Former Fuel Storage Building (Building 548)
11	Damage Control Center (Building 465)
12	Former Sewage Treatment Plant
13	Fuel Farm

Potential Off-Site PFAS Sites

14	Location of Two Controlled Burns (Jackson Drive)
15	SUBASE New London Fire Station 2



EPA U.S. Environmental Protection Agency PFOA perfluorooctanoic acid
 ppt parts per trillion PFOS perfluorooctane sulfonate
 PFAS per- and polyfluoroalkyl substances On-base within SUBASE New London fence line



Off-Base Private Drinking Water Well Sampling

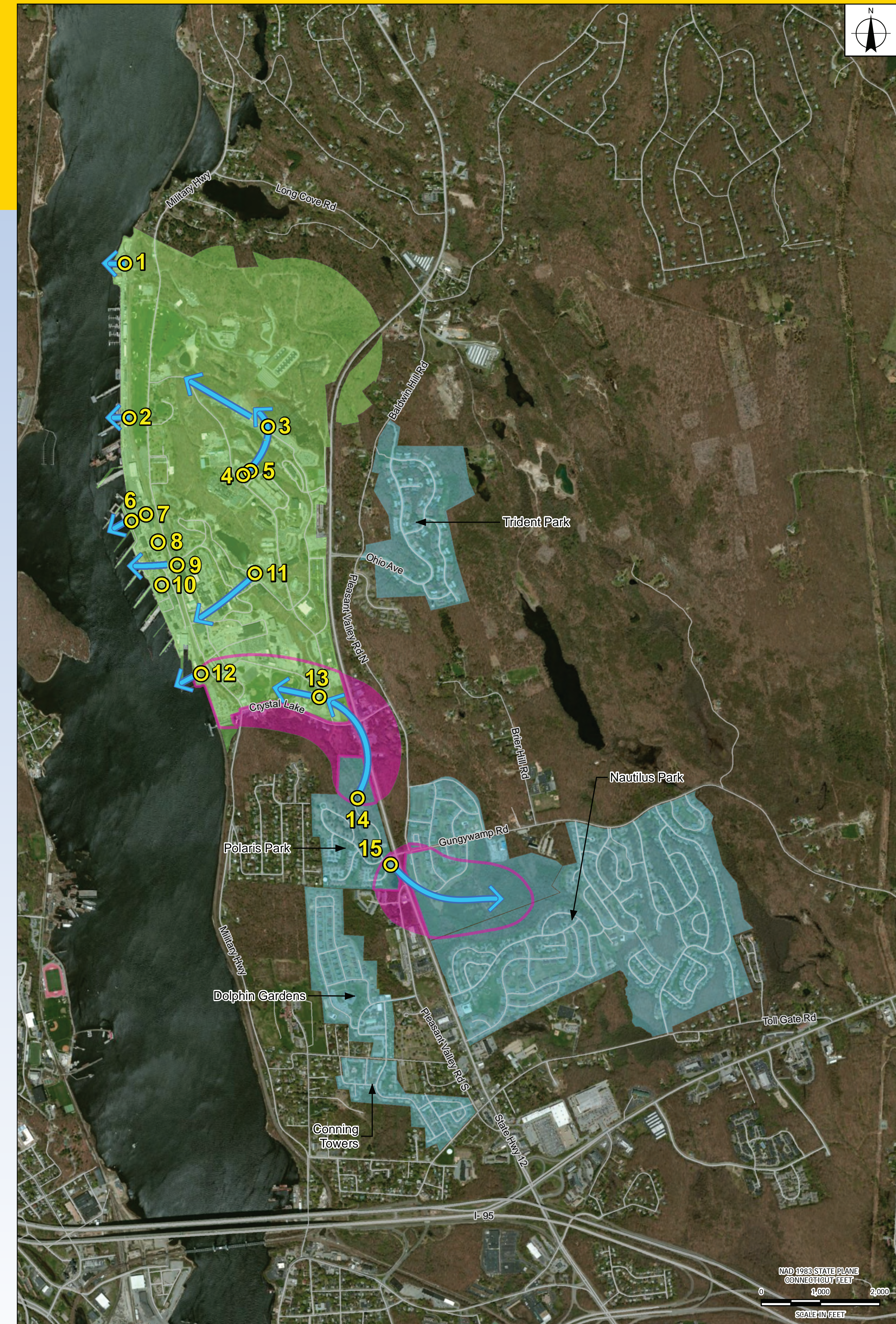
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- The designated sampling area is located in the direction of groundwater flow from the potential PFAS sites.
- SUBASE and Balfour Beatty Communities - Public Private Venture Housing drinking water is provided by public water supply.
- Based on the results of private drinking water well sampling the Navy may expand the sampling area.

If you are within the designated area, the Navy needs your cooperation to sample your private drinking water well



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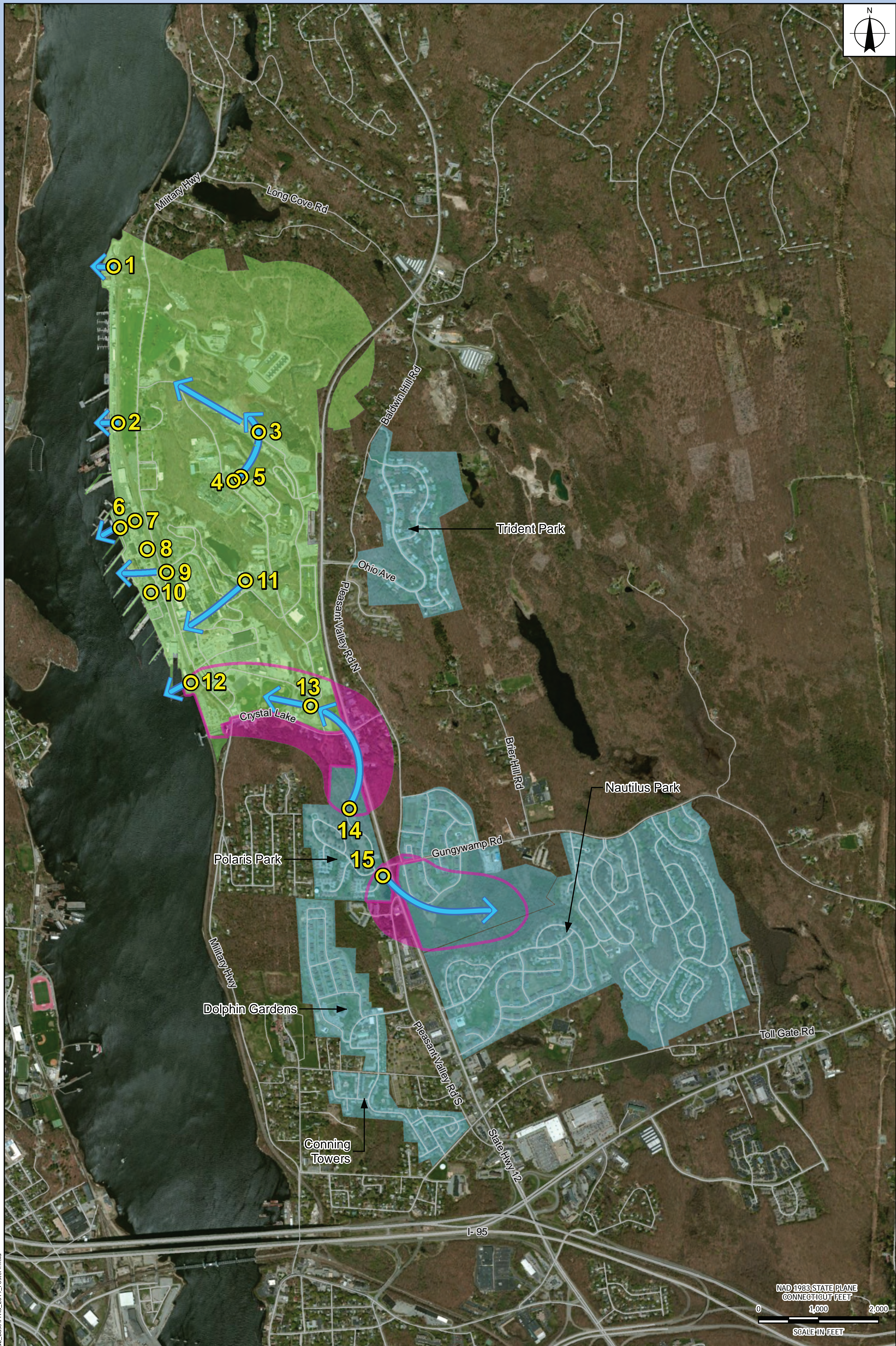
DESIGNATED SAMPLING AREA	POTENTIAL PFAS SOURCE LOCATION	HOUSING AREA
DOWNGRAIDENT AREA	INSTALLATION AREA	GROUNDWATER FLOW DIRECTION

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

EPA	U.S. Environmental Protection Agency	PFOA	perfluorooctanoic acid
ppt	parts per trillion	PFOS	perfluorooctane sulfonate
PFAS	per- and polyfluoroalkyl substances	On-base	within SUBASE New London fence line



Off-Base Private Drinking Water Well Sampling



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LEGEND					
	DESIGNATED SAMPLING AREA		POTENTIAL PFAS SOURCE LOCATION		HOUSING AREA
	DOWNGRADIENT AREA		INSTALLATION AREA		GROUNDWATER FLOW DIRECTION

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Per- and Polyfluoroalkyl Substances (PFAS)

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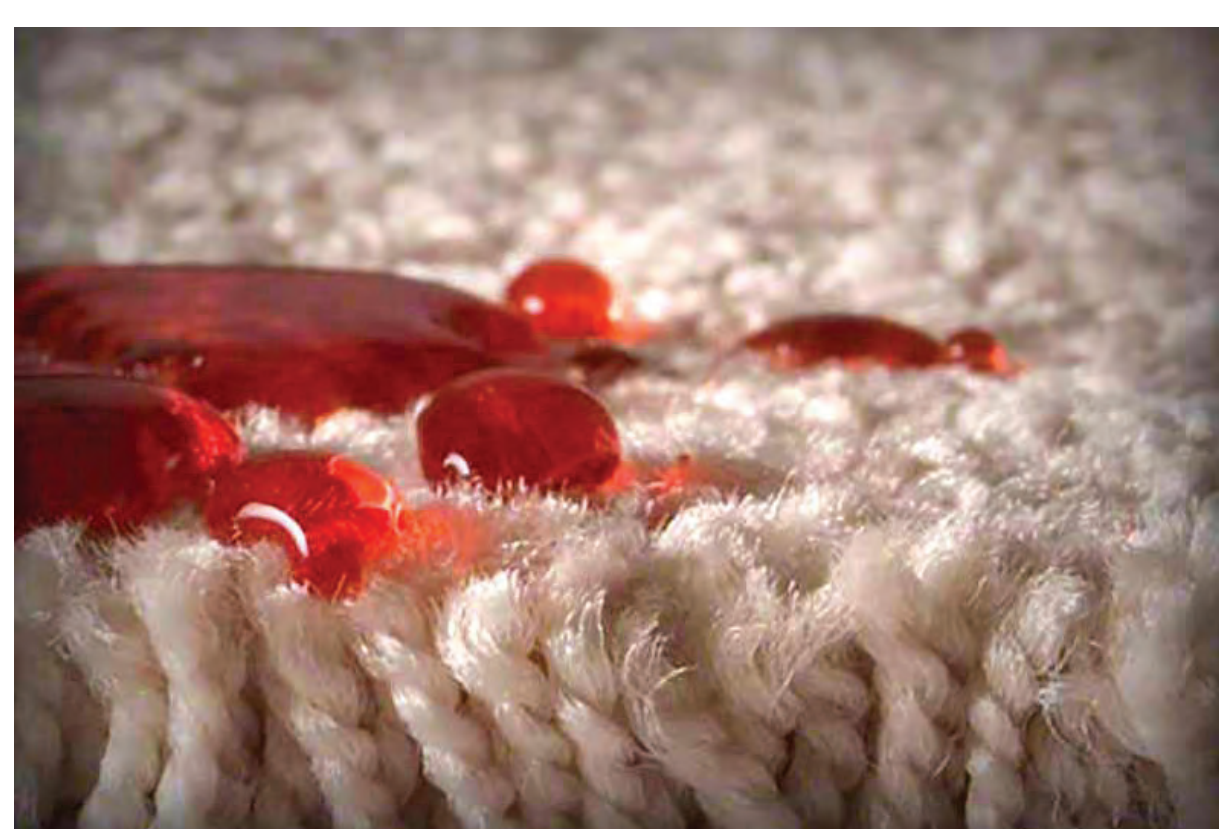
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Where Do PFAS Come From?

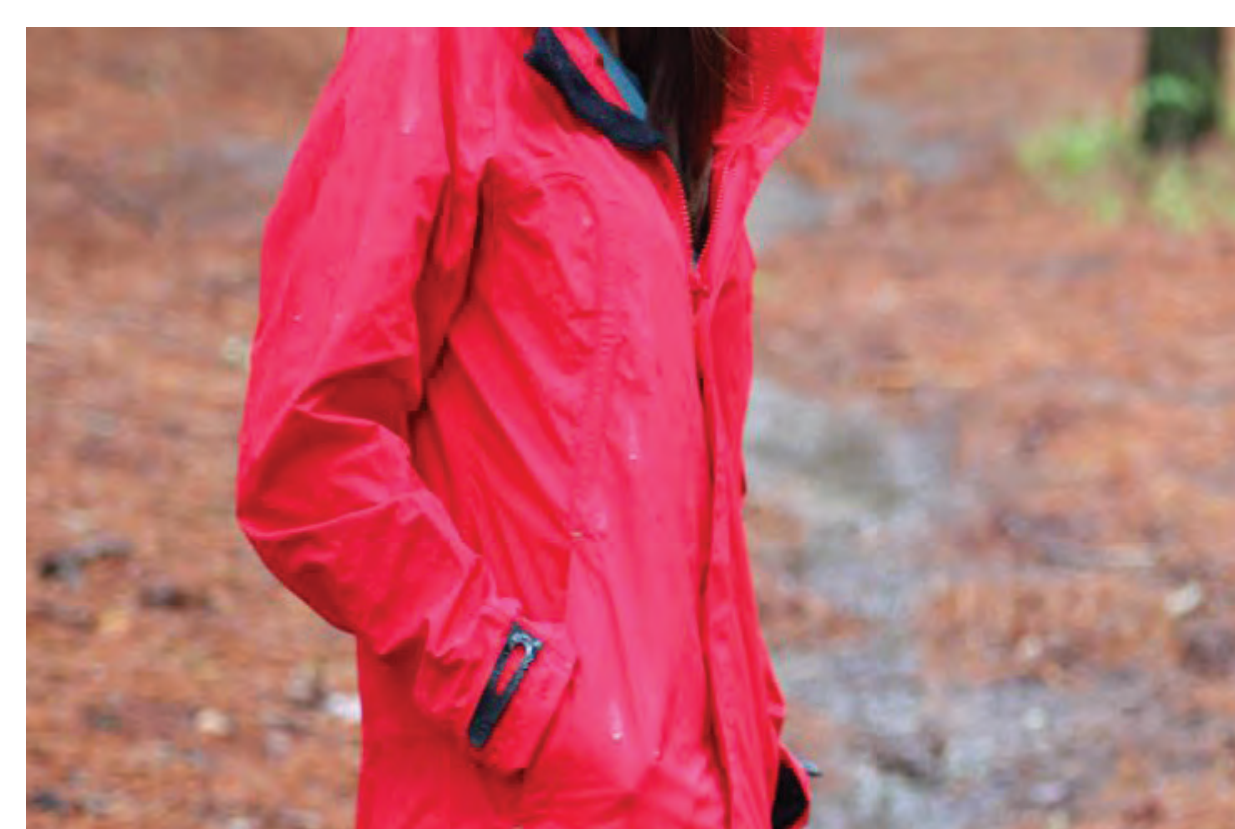
- Man-made compounds, no natural occurrence.
- Used since 1950s in many products.
- Last a long time in the environment.
- Found in people, animals, and fish around the world.



firefighting foam



stain-resistant carpets



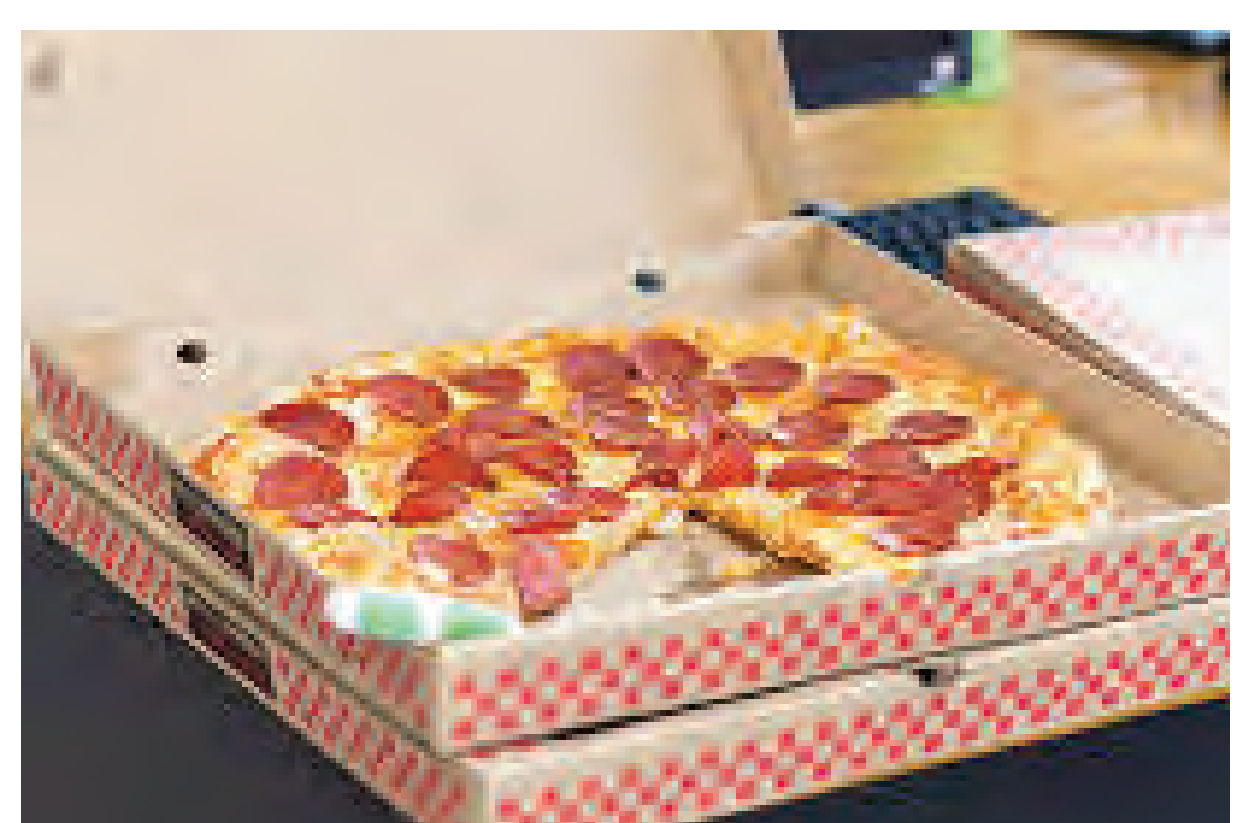
water-resistant fabrics



personal care products



nonstick cookware



food packaging

What is the EPA's Lifetime Health Advisory?

- Sets a total concentration of 70 ppt of PFOA and PFOS in drinking water.
- Protects against potential harmful health effects of lifetime exposures to the general public and sensitive populations
 - Fetuses
 - Nursing infants
 - Pregnant women
 - People with certain health conditions
- Assumes the majority of overall exposure is from sources other than drinking water.
- Is only an advisory and is therefore non-enforceable.
- Based on studies of health effects from PFOA and PFOS in laboratory animals.
- Considers health effects from exposure to PFOA and PFOS.



Exposure and Health Effects

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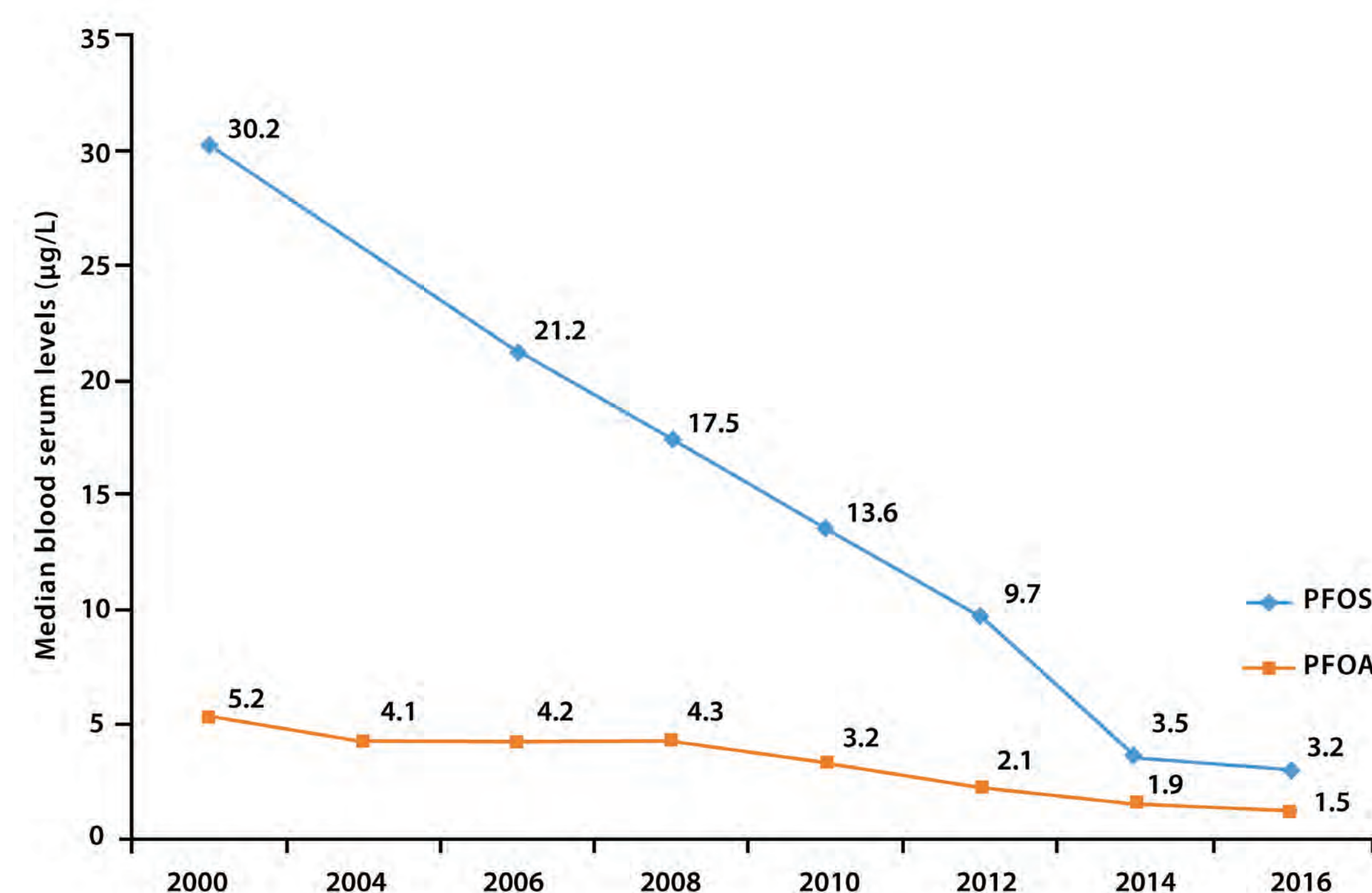
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PFAS in People

- Most people in the U.S. have PFAS in their bodies.
- Levels of PFOA and PFOS are decreasing following their phase-out from use.
- Some PFAS stay in the body a long time.
- There is no recommended medical treatment to reduce PFAS in the body.

Levels of PFOS and PFOA in blood serum of the U.S. population since their phase-out from products began around 2002



Source: CDC National Health and Nutrition Examination Survey

Potential Health Effects

- More research is needed to determine possible links between PFAS exposure and health effects.
- Animals exposed to high levels of PFAS had changes in liver, thyroid, and pancreas function; altered hormone levels; and increased rates of certain cancers.
- Limited evidence suggests that potential human health effects may include:
 - Increased cholesterol levels
 - Changes in growth, learning, and behavior of the developing fetus and child
 - Immune system changes
 - Decreased fertility
 - Altered hormone function
 - Increased risk of certain types of cancer

PFAS Exposure

- Appears to be widespread around the world
- Primarily through ingestion of contaminated food, water, or soil, including accidental ingestion
- Will build up in the body until exposure stops
- Pregnant and nursing mothers may pass PFAS to children
- PFAS typically do not absorb through skin contact

Based on current data, the levels of PFOA or PFOS cannot be linked to an individual's current or future health effects.

CDC Centers for Disease Control and Prevention
EPA U.S. Environmental Protection Agency
ppt parts per trillion

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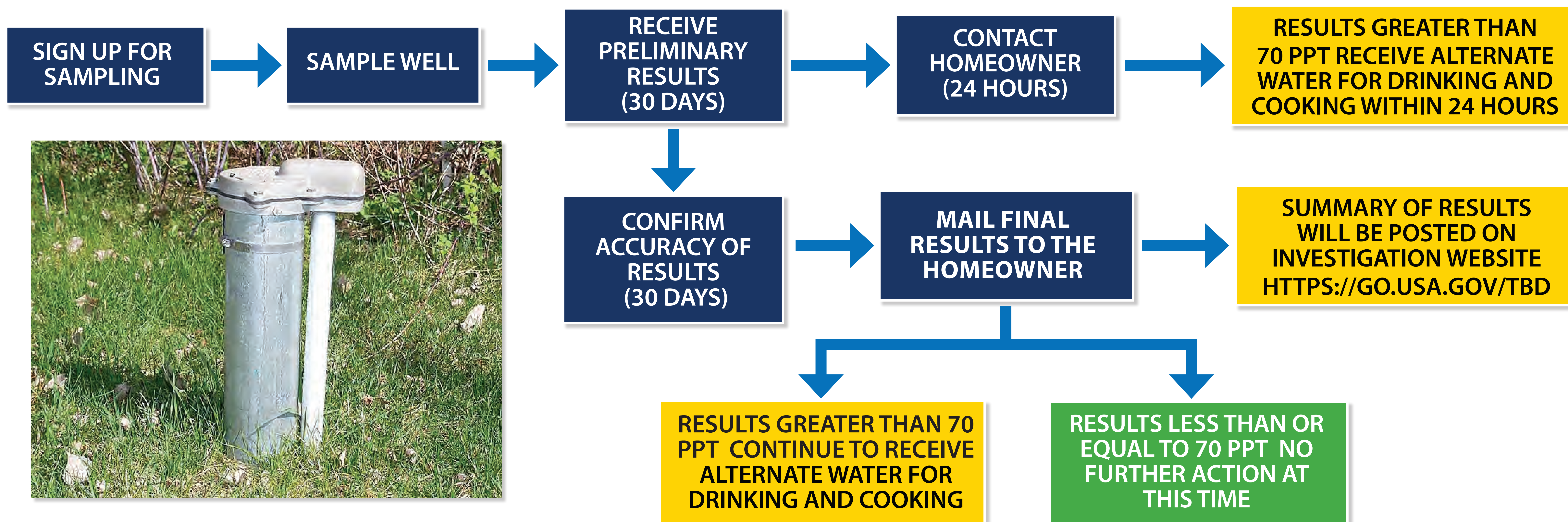
Next Steps

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Sequence of Events



Ongoing Actions

- Potentially expand the sampling area based on sampling results
- Continue to communicate with residents
- Continue on-base PFAS study
- Continue to work with Federal , State, and Local partners

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Environmental Cleanup Process for PFAS

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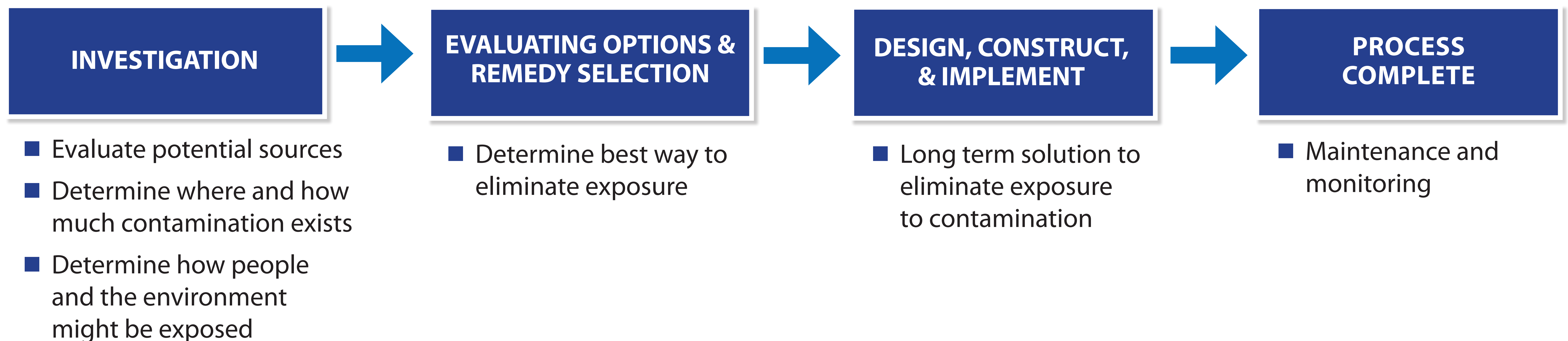
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PRIORITY: Protect Human Health and the Environment

- Structured process to identify and address the contamination
- EPA and Connecticut Department of Energy and Environmental Protection work closely with the Navy and provide oversight at every step of the process
- Public input is welcome throughout the process and is formally solicited at certain points
- This process can be lengthy and the Navy is in the early stages

Environmental Cleanup Process

WE ARE HERE



The PFAS evaluation is in its early stages. The first step is to identify potential sources of PFOS/PFOA. The second step is to determine if PFOS/PFOA is actually present. If PFOS/PFOA are not present, then no further action will be necessary.



We Need Your Cooperation – Drinking Water Sampling Process

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Sampling your private drinking water well is voluntary.

Sampling Process

- The Navy will be sampling drinking water wells in the designated sampling area.
 - Drinking water sample appointments can be made for September 18, 2019 or after, any time from 8:00 am to 7:00 pm.
 - Sample appointments will take less than one hour.
- We need property owner permission to:
 - Agree to sampling and complete the questionnaire.
 - Schedule your appointment.
 - An adult (18 years or older) must be present during sampling.

Two Ways to Schedule an Appointment

1. **SCHEDULE YOUR APPOINTMENT HERE TODAY**
2. **SCHEDULE AN APPOINTMENT AFTER TODAY, CALL 1-860-694-5980**





Sign Up for Your Sampling Appointment Here

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Off-base Drinking Water Well Sampling

- Samples will be collected by a team of qualified professionals
 - Team will consist of up to three members and will include at least one Navy representative.
 - An adult (18 years or older) must be present at the time of sampling.
 - Sample will be collected from the closest available point to the well (before treatment, if possible).
 - Water will be run for no more than 15 minutes before sampling.
 - Simple hand-held equipment will be used.
- Samples will be analyzed according to EPA guidelines following strict quality control and quality assurance protocols.
 - You'll be notified of results in approximately 30 days.