



The Navy's Environmental Restoration Program at NAS Patuxent River, Webster Field, and NRC Solomons



More information about the NAS Patuxent River Environmental Restoration Program can be found at <http://go.usa.gov/xSjbt> (case sensitive)

If you have specific questions, please contact patrick.a.gordon10.civ@us.navy.mil or 301-757-3343

What is the Environmental Restoration Program (ERP)?

- A nationwide Department of Defense (DoD) program to identify, investigate, and clean up soil, sediment, groundwater, surface water contamination that resulted from past activities.
- Consists of two programs:
 - The Installation Restoration Program: Addresses releases of hazardous substances, pollutants, or contaminants that may pose risks to human health and the environment.
 - The Munitions Response Program: Addresses environmental health and safety hazards from unexploded ordnance, discarded military munitions, and munitions constituents.
- Is dedicated to reducing risks to human health and the environment.
- Is conducted in partnership with:
 - U.S. Environmental Protection Agency
 - Maryland Department of the Environment



Environmental restoration work in 2007 to remove lead-contaminated soil from a closed rifle range (Operable Unit 2-Area E) at NAS Patuxent River.

Our environmental partnership ensures our program meets all state and federal laws and regulations and provides long-term protection of both human health and the environment.



CERCLA Environmental Investigation Process

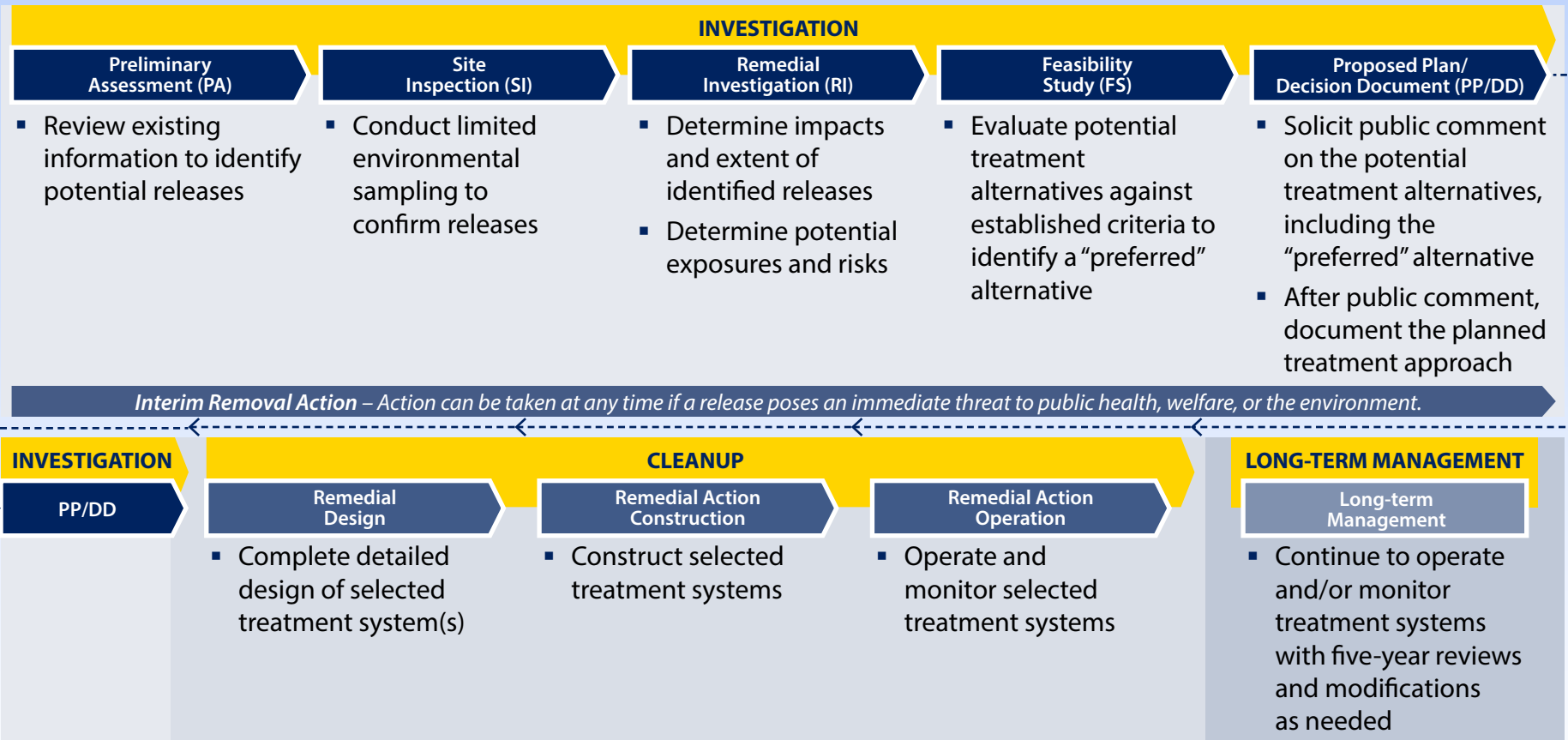


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Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Process

- The Navy follows a structured regulatory process known as CERCLA to identify and clean up past environmental releases.





NAS Patuxent River Legacy* ERP Sites



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Active Sites

- Site 9 – Former Drum Disposal Area
- Site 21 – Sludge Drying Beds
- Site 23 – DPDO Salvage and Recycling Center
- Site 34 – Drum Disposal Area
- Site 55 – Former Hazardous Waste Storage Hut
- Site 56 – Abandoned Hazardous Waste UST

Remedy-in-Place Sites

- Sites 1/12 – Fishing Point Landfill
- Site 6 – Boneyard
- Site 11 – Former Sanitary Landfill
- Site 17 – Pesticide Control Shop
- Site 31 – Tire Shop
- Site 39 – Waste PCE Storage Area

LEGEND

- ▭ Active site
- ▭ Remedy-in-Place site
- ➔ Approximate groundwater flow direction
- ▭ Installation boundary

* The sites that were in the ERP prior to the inclusion of PFAS sites.



PFAS Sites at NAS Patuxent River



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PFAS Sites

- Sites 1/12 – Fishing Point Landfill/Landfill Behind Rifle Range
- Site 9 – Building 2385 Hazardous Materials Storage Facility
- Site 11 – Former Sanitary Landfill
- Site 14 – Old Fire Fighting Burn Pad
- Site 34 – Drum Disposal Area
- Site 41 – Fire Fighting Burn Pad
- Site 57 – Building 102 Marine Aviation Detachment
- Site 58 – Building 1669 “Hush House”
- Site 59 – Buildings 215 & 217 Engine Test Area
- Site 60 – Hangar 2905 Aircraft Prototype Facility
- Site 61 – Hangar 2133 Joint Strike Fighter Aircraft Hangar
- Site 62 – Bronson Road Aircraft Crash Site
- Site 63 – Crash Trucks Daily Equipment Functioning Inspection Area
- Site 64 – Building 103 Air Operations Fire Station
- Site 65 – Skeet Range – T-38 Aircraft Crash Site
- Site 66 – Hangar 110 Test Pilot School Aircraft Hangar
- Site 67 – Air Show Fire Fighting Demonstration Area
- Site 68 – Hangar 2835 Air Test & Evaluation Squadron 20 Hangar
- Site 69 – Hangar 2805 Presidential Helicopter Hangar

LEGEND

- PFAS site
- Approximate groundwater flow direction
- Installation boundary



ERP Sites at Webster Field and NRC Solomons

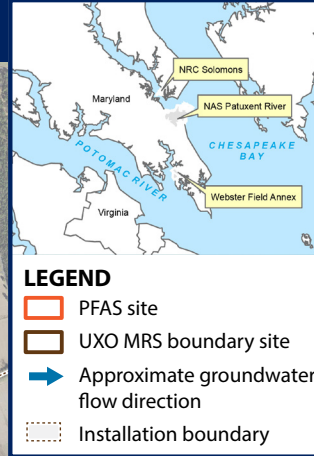


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Webster Field

- Site 34 – Fire Station 3 Building 8076 (PFAS site)
- Site 35 – AFFF Crash Truck Maintenance Check Area (PFAS site)
- UXO-0001 Former Aerial Bombing Range



NRC Solomons

- Site 4 – Building 6454 Hazardous Storage Facility (PFAS site)



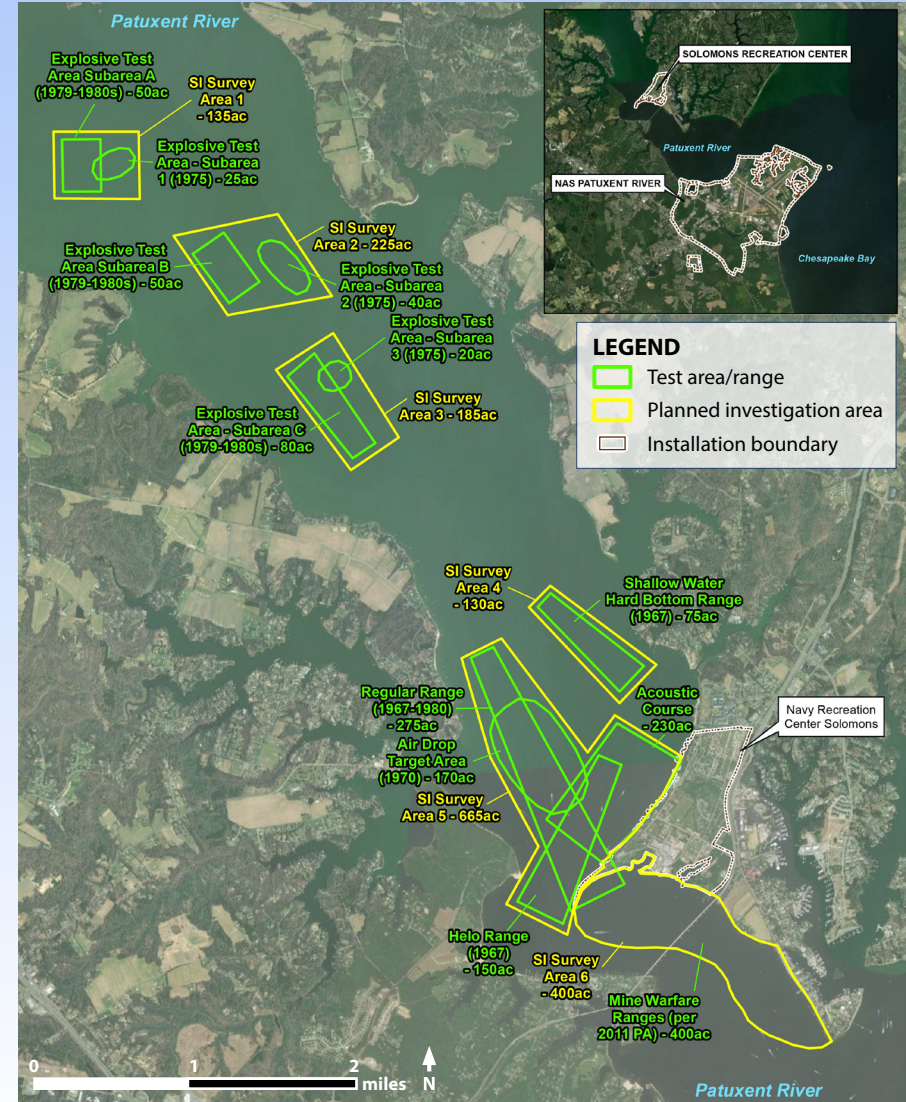
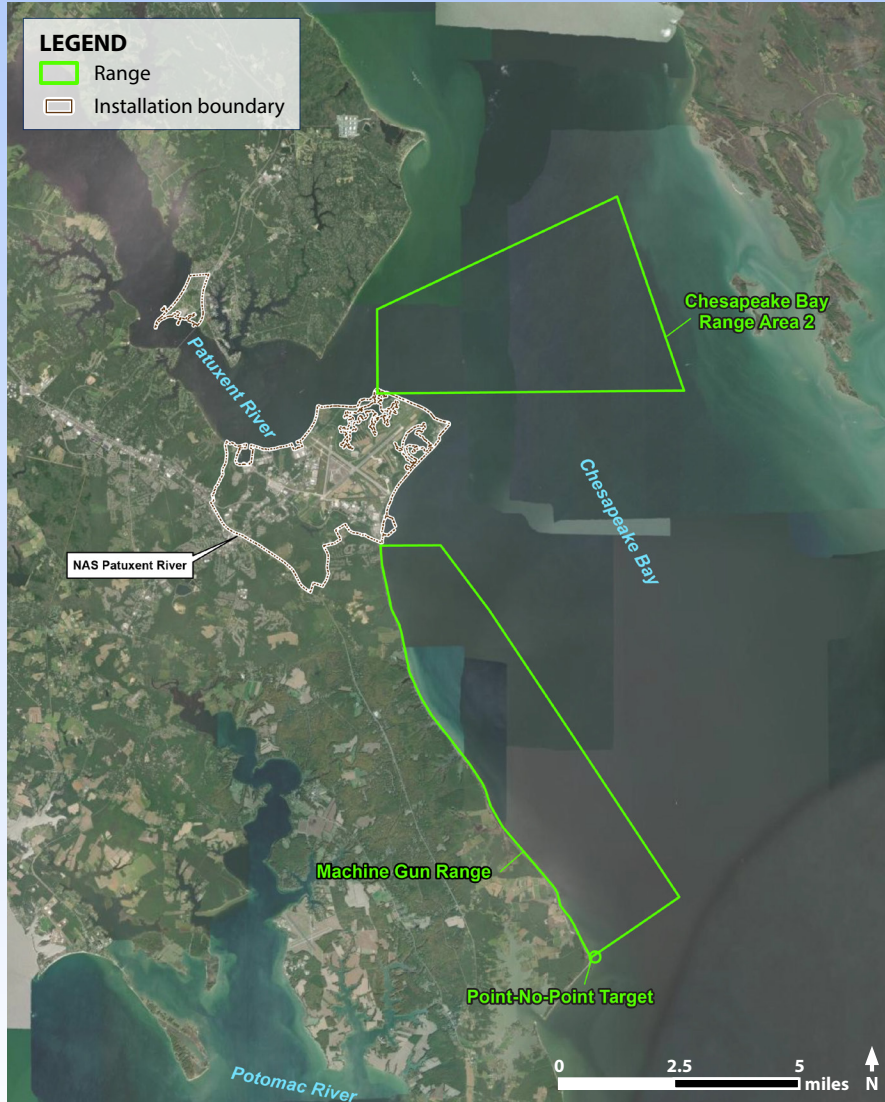


Munitions Response Water Ranges



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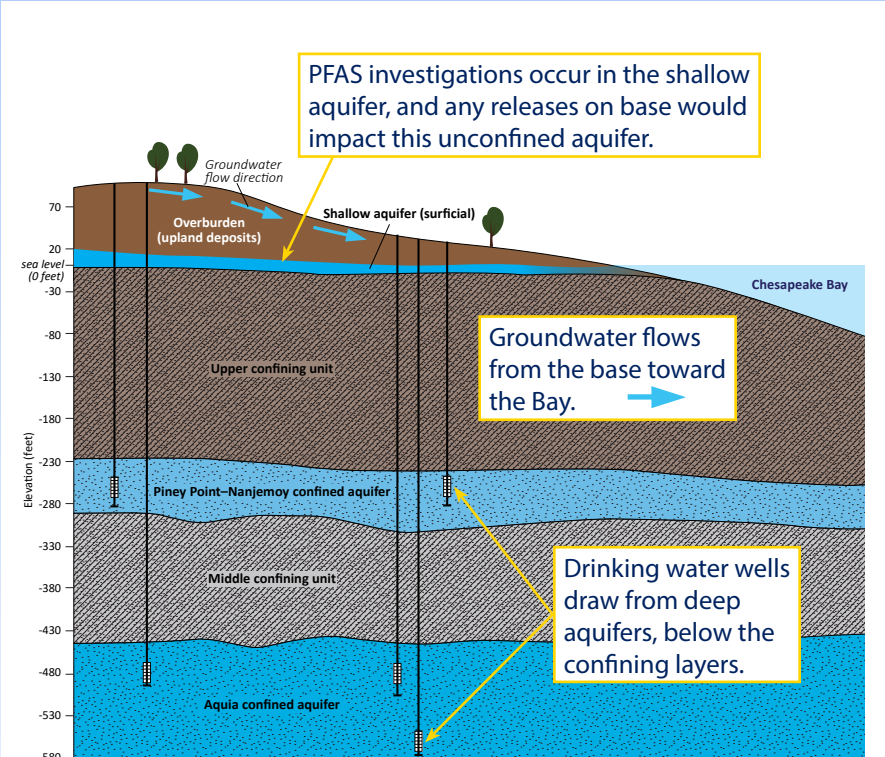


Base and Community Drinking Water



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LEGEND

- Overburden (upland deposits)
- Shallow aquifer (surficial)
- Upper confining unit
- Piney Point-Nanjemoy confined aquifer
- Middle confining unit
- Aquia confined aquifer

On-base Drinking Water

- The Navy conducts routine drinking water testing. NAS Patuxent River drinking water meets all of EPA's Safe Drinking Water Standards.
- PFAS were not detected in any on-base drinking water supply wells.

NAS Patuxent River Consumer Confidence Report:
https://mde.maryland.gov/programs/water/water_supply/ConsumerConfidenceReports/Documents/CCR2022/Saint%20Mary%27s%20County/0180022-Patuxent-Naval-Air-Station.pdf



or scan the QR code →

Off-base Drinking Water

- St. Mary's County Metropolitan Commission (MetCom) conducts routine drinking water testing. Community drinking water meets all of EPA's Safe Drinking Water Standards.
- Sampling for PFAS in off-base drinking water is not necessary at this time.

MetCom Consumer Confidence Reports and PFAS Testing:

<https://www.metcom.org/operations>



or scan the QR code →



Why Is the Navy Investigating PFAS?



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2016 EPA Lifetime Health Advisories

- In May 2016, the EPA established drinking water lifetime health advisories* for PFOA and PFOS, individually or combined, of 70 ppt

Navy Use of Firefighting Foam

- Contains PFAS including PFOS and PFOA
- Historically released during training, equipment testing, and emergency response
- Currently used for emergency response
- Department of Defense (DoD) is researching fluorine-free alternatives

Navy Policy

- Investigate Navy installations nationwide
- Identify known and suspected release areas on-base
- Identify PFOA and PFOS exposure off-base if the result of a Navy release



On March 14, 2023, **the EPA proposed a draft regulatory drinking water standard for certain PFAS**, including PFOA and PFOS. In response, 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.”



Exposure to PFAS



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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:



firefighting foam



stain-resistant carpets and fabrics



water-resistant fabrics



personal care products



nonstick cookware



food packaging

How Can People Be Exposed 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.
- 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?

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

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 →





Health Effects of PFAS Exposure



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What Are the Potential Health Effects?

- Scientists are still learning about how exposure to PFAS affects people's health.
- Studies indicate possible health effects could include:
 - Increased cholesterol levels
 - Changes in liver enzymes
 - Increased risk of high blood pressure and preeclampsia in pregnant women
 - Small decrease in infant birth weight and changes in growth
 - Immune system effects
 - Altered hormone function
 - Increased risks of certain types of cancers (testicular and kidney)
- Levels of PFAS in drinking water do not predict health impacts.

Are Blood Tests Available for PFAS?

- Blood testing for PFAS is available but is not a regular test offered by a doctor.
- Blood test results can't tell you if PFAS exposure will cause current or future health problems.

Chemical exposures do not always lead to health effects.



Restoration Advisory Board



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Restoration Advisory Board (RAB)

- A RAB is a group of interested local community members who meet with Navy, and state and federal regulatory agency staff several times per year.
- RAB meetings, which are open to the public, are an opportunity for community RAB members to discuss and provide input on environmental investigations and cleanup plan.
- NAS Patuxent River recently re-established its RAB.
- For more information, contact:
 - **Base Co-Chair, David Steckler**
(david.j.steckler.civ@us.navy.mil)
 - or
 - **Community Co-Chair, Val Perez**
(PaxRiverRAB@gmail.com)

FOR MORE INFORMATION

All documents and reports related to NAS Patuxent River's ERP can be accessed online in the Navy's Administrative Record:
<https://www.navfac.navy.mil/Business-Lines/Environmental/Products-and-Services/Environmental-Restoration/WASHINGTON/Patuxent-River-NAS/Administrative-Record/>

or scan the QR code →





Community Engagement

Getting Involved: You and Your Community



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Goals of Community Engagement

- Keep the community well-informed of ongoing and planned activities
- Encourage and enable community members to get involved
- Listen carefully to what the community is saying
- Collaborate with the community to address concerns
- Incorporate community input into planned actions
- Explain to the community what has been done and why

We Want To Hear Your Suggestions!

Throughout the cleanup process, engaging in dialogue and collaborating with community members is essential. We are always looking for ideas and recommendations to better strengthen early and meaningful community participation. We want to hear your voice and meet your expectations.





Recent Site Cleanups and Restorations



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Sites 1 and 12 – Fishing Point Landfill



before



after

New Living Shoreline and Restoration at Sites 1 and 12 Landfill

Site 23 – DPDO Salvage and Recycling Center



before, looking west



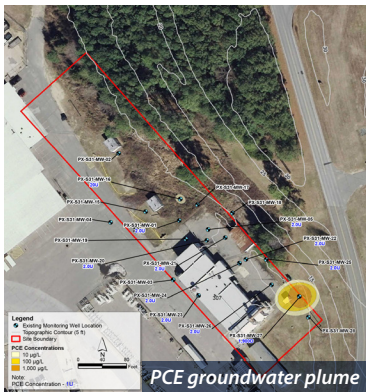
before, looking north



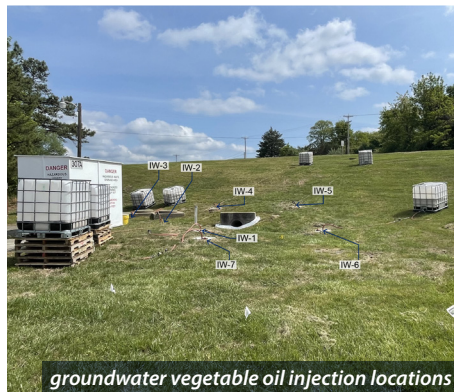
after

Soil & Debris Removal and Restoration at Site 23

Site 31 – Tire Shop



PCE groundwater plume



groundwater vegetable oil injection locations

Groundwater Remediation with Enhanced Vegetable Oil at Site 31

Former Pistol Range (UXO-2)



before (historical)



lead soil removal



after

Soil & Impact Berm Removal and Restoration at Former Pistol Range