November 2025

Department of Environmental Quality
Bernard Allen Memorial Emergency Drinking Water Fund & PFAS Sampling

Vincent Antrilli - Division of Waste Management

NC Statute: 87-98

Established 2007, the Bernard Allen Fund is used to:

- Perform well sampling & notification of wells located within 1500 feet and at risk from known groundwater contamination
- Provide temporary or permanent alternative drinking water supplies to persons whose drinking water is contaminated
- Monitoring and service of treatment systems use in conjunction with alternative drinking water supplies

NC Statute: 87-98

Qualifications for use of the Bernard Allen Fund are:

- Residential private wells used as the primary drinking water source must exceed federal drinking water standards, or state standards if no federal standards exist
- Contamination must not have been caused or contributed by the well owner and owner must not be a business or corporate entity
- Well owner must meet financial qualifications
  - Annual income not to exceed 300% (3x) of federal poverty rate

NC Statute: 87-98 Modification

In 2022 G.S. 87-98 was modified to include provisions for PFAS.

- No income limit to qualify for alternate water
- Contamination limits expanded to include DHHS health goal and EPA's health advisory standards for contaminants without MCL and 2L standards

PFAS Treatment System Reimbursement Program

Basis for Determining Treatment Needs (EPA March 2023)

- PFOA 4 ng/L
- PFOS 4 ng/L
- PFNA 10 ng/L
- PFHxS 10 ng/L
- HFPO-DA (GenX) 10 ng/L
- A mixture of HFPO-DA (GenX), PFBS, PFHXS, PFNA at hazard index of 1.0

Note: Exceedances of PFAS in accordance with the provisions of the Chemours Consent Order are referred to Chemours for alternate water and do not qualify for DEQ alternate water and the reimbursement program.

NC PFAS 2L

As on November 1st 2025 NC 2L standards for PFAS went into effect.

- PFOA 0.001 ng/L
- PFOS 0.7 ng/L
- HFPO-DA (GenX) 10 ng/L

Note: All PFAS IMACs have expired and are no longer applicable.

Per 15A NCAC 02L.0202 Groundwater Quality Standards, where 2L standards are below Practical Quantitation Limits (PQLs), the PQL will be used as the enforceable standard. The PQL for PFOA and PFOS are:

- PFOA 4 ng/L
- PFOS 4 ng/L

In the event whereas the EPA rescinds all the MCL standards for PFAS we will use enforceable Practical Quantitation Limits (PQLs) for determining treatment needs.

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Risk Communication

- Property owners having wells with detectable concentrations of PFAS compounds are provided:
  - **Copies of the lab report**
  - **NCDEQ Understanding PFAS Fact Sheet**
- Where contamination exceeds drinking water standards our staff contact the property owner by phone to review results and discuss alternate water options.

Understanding PFAS

What are PFAS, or per- and polyfluoroalkyl substances?

PFAS refers to a group of man-made chemicals. They are widely used in commercial and consumer products such as food packaging, water- and stain-repellent fabrics, nonstick products and firefighting foams. They are also commonly used in industrial processes and manufacturing. Because of their widespread use, these compounds are present in household and industrial waste, air emissions and wastewater discharges.

PFAS are often called "forever chemicals" because they don't break down in the environment and can build up, or bioaccumulate, in humans and animals.

What do I need to know about PFAS?

Most Americans have been exposed to PFAS. Scientists have identified ingestion through drinking water as the primary pathway for PFAS exposure in humans. Most standard municipal drinking water treatment systems are not built to filter out PFAS and until recently, testing labs were not able to detect them at lower levels.

Some PFAS can accumulate in the human body. Scientific studies have shown that exposure to certain levels of PFAS have been linked to reproductive effects such as decreased fertility or increased high blood pressure in pregnant women; developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations, or behavioral changes; increased risk of some cancers; reduced ability of the body's immune system to fight infections, including reduced vaccine response; interference with the body's natural hormones; and increased cholesterol levels and/or risk of obesity.

More information and resources are available online:
bit.ly/UnderstandingPFAS

For a Fact Sheet on filtration options and sampling from the NC Dept of Health and Human Services, scan the QR code or visit:

bit.ly/PFASFiltration

What Steps Can I Take to Reduce PFAS Exposure?

The first step is finding out the PFAS levels in your drinking water.

- If you have public water, contact your utility to find out whether they have sampled for PFAS and what steps they are taking to address PFAS.
- If you have a private well, consider having your water sampled by a certified lab.

If you are concerned about the level of PFAS in your drinking water, whether you are on a well or public water, you may consider adding filtration to reduce the amount of PFAS you consume. The North Carolina Department of Health and Human Services has developed a list of options, from whole house or under sink systems to pitcher of fridge filters with information on their effectiveness.

Are there limits for PFAS in drinking water?

On March 14, 2023, U.S. EPA announced the proposed national regulation of six PFAS compounds for public water systems:

- EPA is proposing an enforceable Maximum Contaminant Level (MCL) for PFOA and PFOS, at 4 parts per trillion, a level that can be reliably measured by most labs.
- The proposed rule would also regulate GenX chemicals, PFNA, PFHxS, and/or PFBS through the use of a Hazard Index calculation to determine if the combined levels of these PFAS pose a potential risk to human health.

These limits apply to public drinking water systems, but private well users can use the proposed MCLs as a decision-making tool on whether to reduce exposure by adding filtration or seeking public water connections where available.

How is DEQ addressing PFAS?

DEQ has been working with public water systems to prepare for the proposed regulation and assess PFAS levels in drinking water systems across the state.

Additionally, DEQ has taken a number of actions to better identify PFAS sources and reduce emissions and discharges:

- Developing state groundwater and surface water quality standards for PFAS compounds;
- Requiring PFAS information from new facilities and industries;
- Developing permit conditions as appropriate throughout the state;
- Identifying and prioritizing locations where these substances may have been manufactured, used, discharged or disposed for additional assessment;
- Conducting groundwater testing and additional monitoring in areas with known PFAS contamination;
- Requiring all solid waste sanitary landfills to include PFAS analyses of all regular groundwater, surface water and leachate samples.

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PFAS Treatment System Reimbursement Program

Income Qualification

At or below 3x poverty level

(POU installed by BAF)

Above 3x poverty level

(Owner installs POU, POE, or connects to public water system and submits application for reimbursement)

POU = Point of Use
POE = Point of Entry

PFAS Treatment System Reimbursement Program

Standard Point of Entry (POE) System

Kinetico K-5
Reverse Osmosis

Aquasana
Reverse Osmosis

Point of Use (POU) Systems

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Filter Questions

Understand Which Filtration Technologies Effectively Remove PFAS

Reverse Osmosis (RO) Systems: The gold standard for PFAS removal, utilizing semi-permeable membranes with 0.0001-micron pores that physically block PFAS molecules. RO systems achieve near-total elimination of forever chemicals while also removing heavy metals, dissolved salts, bacteria, and hundreds of other contaminants.

Activated Carbon Filtration: Specially designed carbon media adsorbs PFAS compounds through surface attraction, particularly effective against long-chain PFAS like PFOA and PFOS. GAC (granular activated carbon) also removes chlorine, volatile organic compounds, and taste/odor issues.

Ion Exchange Resin Technology: Targets both long-chain and short-chain PFAS compounds through ionic attraction, making it essential for comprehensive PFAS removal in multi-stage filtration systems.

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Filter Questions

Choosing the Right Type of System

Point-of-Use (POU) Systems

Installed at a single faucet or countertop, these systems excel for drinking and cooking water. They're affordable, space-saving, and often DIY-friendly.
Cost to install can range from $500 to $2500

Whole-House Systems

Installed at the point of entry, these systems filter all water in your home—including showers, laundry, and appliances—offering comprehensive protection. They often require professional installation but deliver exceptional long-term value.
Cost to install can range from $1000 to $8000

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Filter Questions

Factoring the Total Cost of Ownership

When evaluating your options, consider both short-term and long-term costs. It's important to look at the complete picture:

- **Purchase price of the system**
- **Filter and membrane replacement intervals**
- **Installation costs (especially for whole-house systems)**
- **Ongoing maintenance and service**

Higher-quality systems may require a bigger upfront investment but often offer **longer filter life, superior performance, and lower replacement costs** over time.

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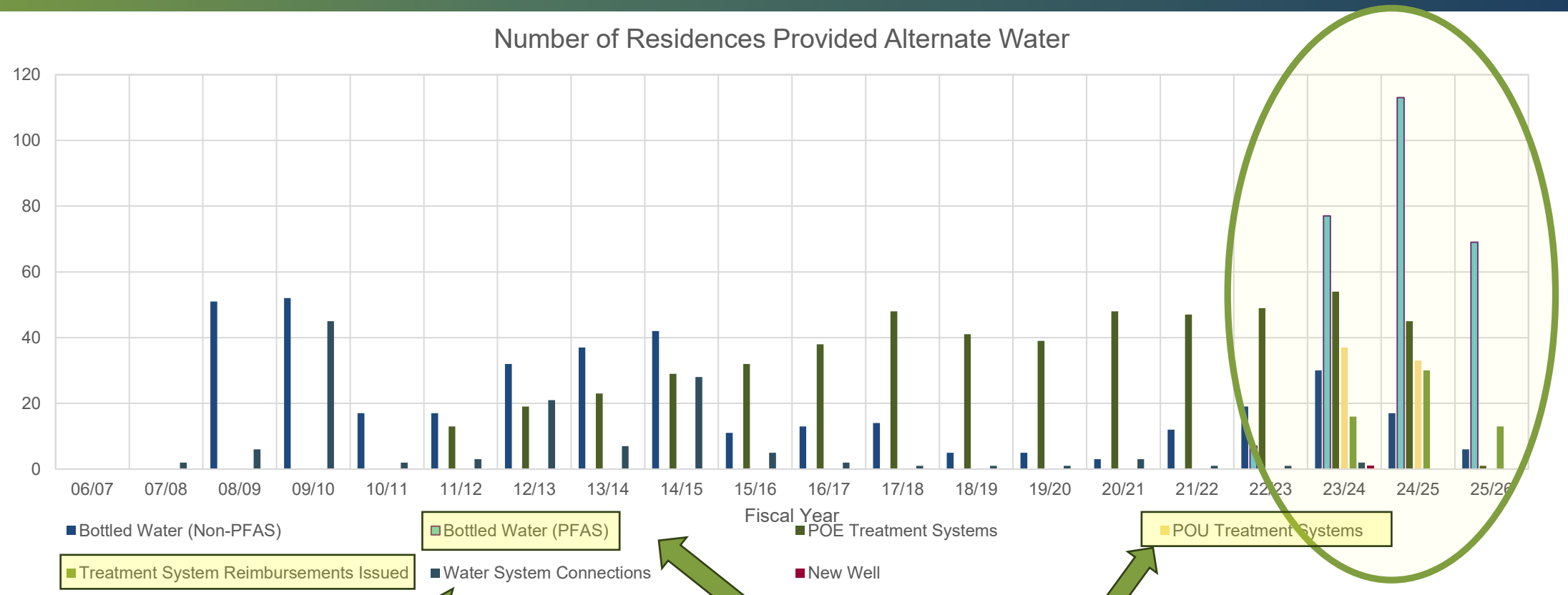
PFAS Treatment System Reimbursement Program

Application Package

Applications are mailed out directly to those property owners currently identified with PFAS contamination meeting the review criteria and not under purview of a responsible party. (i.e., Chemours)

Applications can also be accessed online at:
https://www.deq.nc.gov/pfas-treatment-system-assistance-program

Alternate Water Provided

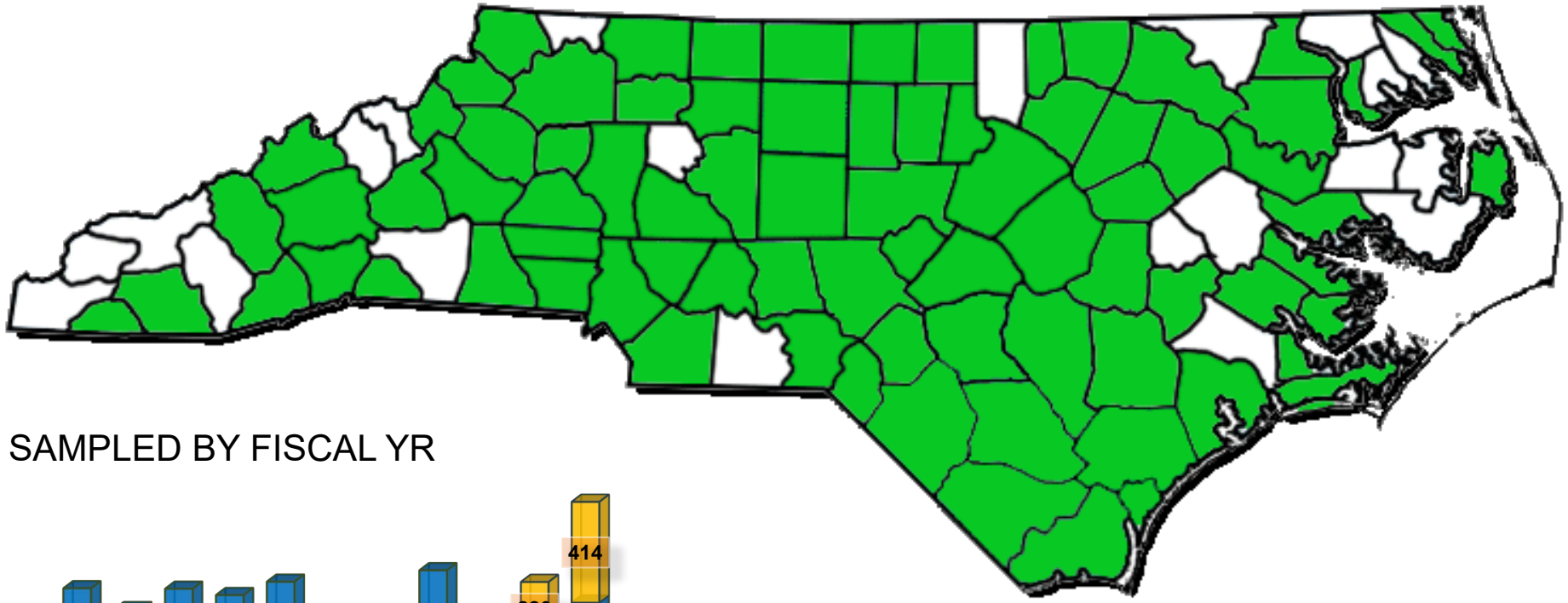


Directly Related to PFAS Work

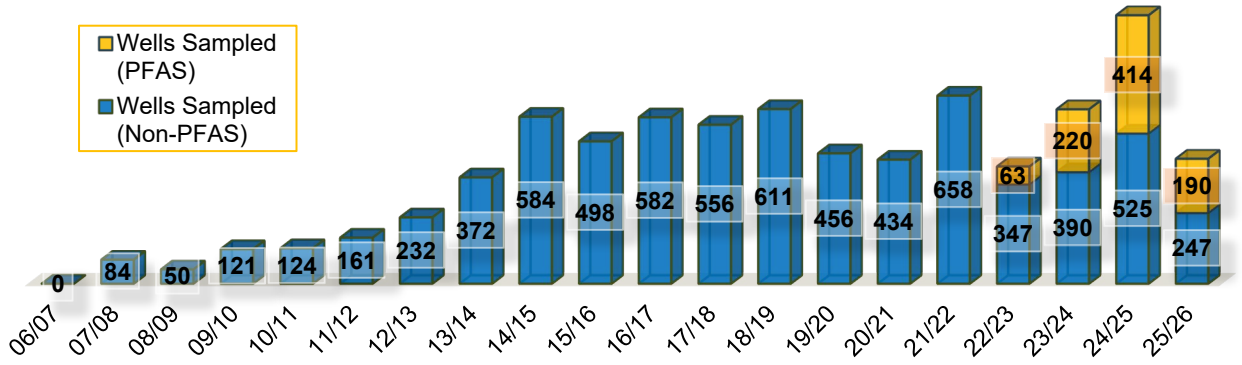
Department of Environmental Quality

Wells Sampled

Wells Sampled
7,032 Non-PFAS
887 PFAS
7,919 Total



WELLS SAMPLED BY FISCAL YR



79 Counties

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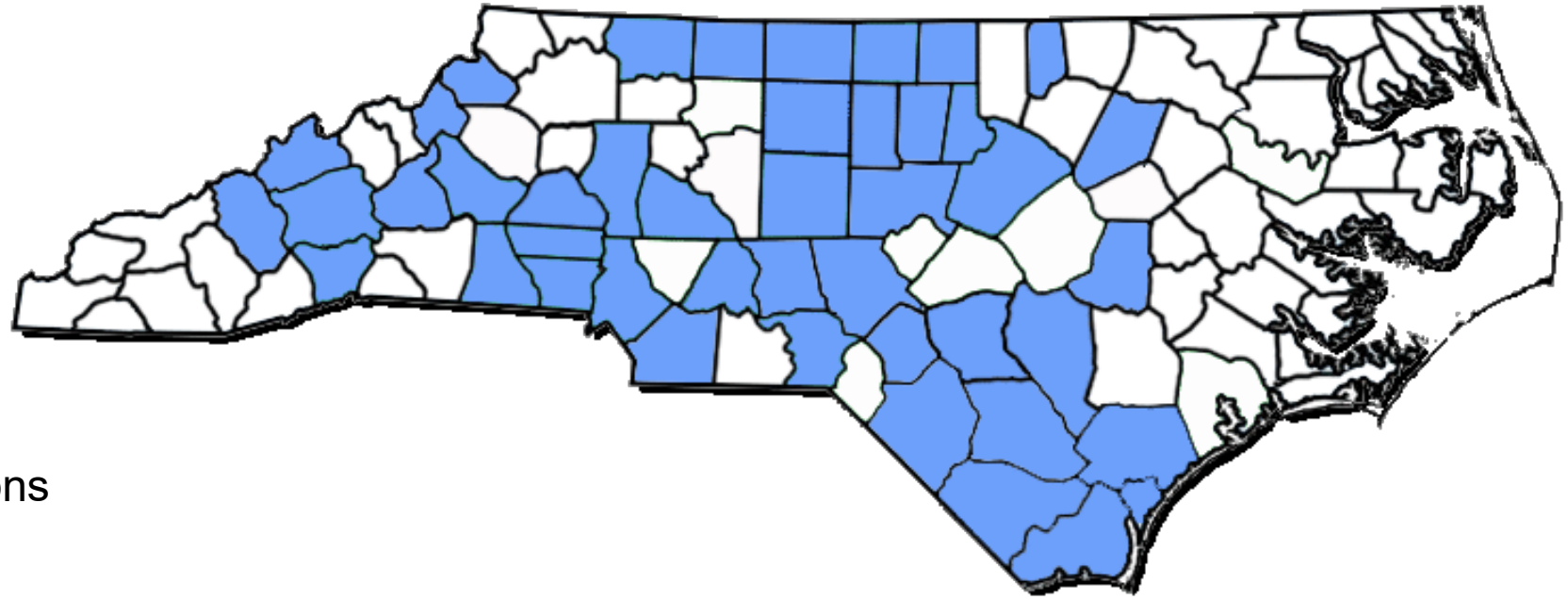
Alternate Water Provided

Alternate Water Provided	
649*	Received Bottled Water
526**	Point of Entry Treatment Systems Installed or Maintained
70	Point of Use Treatment Systems Installed
131	Water Service Connections
1	Well Installed
57	Well Closures
59	Reimbursements Issued



44 Counties

* Includes homes that received bottled water over multiple fiscal years while waiting for treatment system, waterline or well installation.

** Includes homes that have had treatment systems maintained over multiple fiscal years

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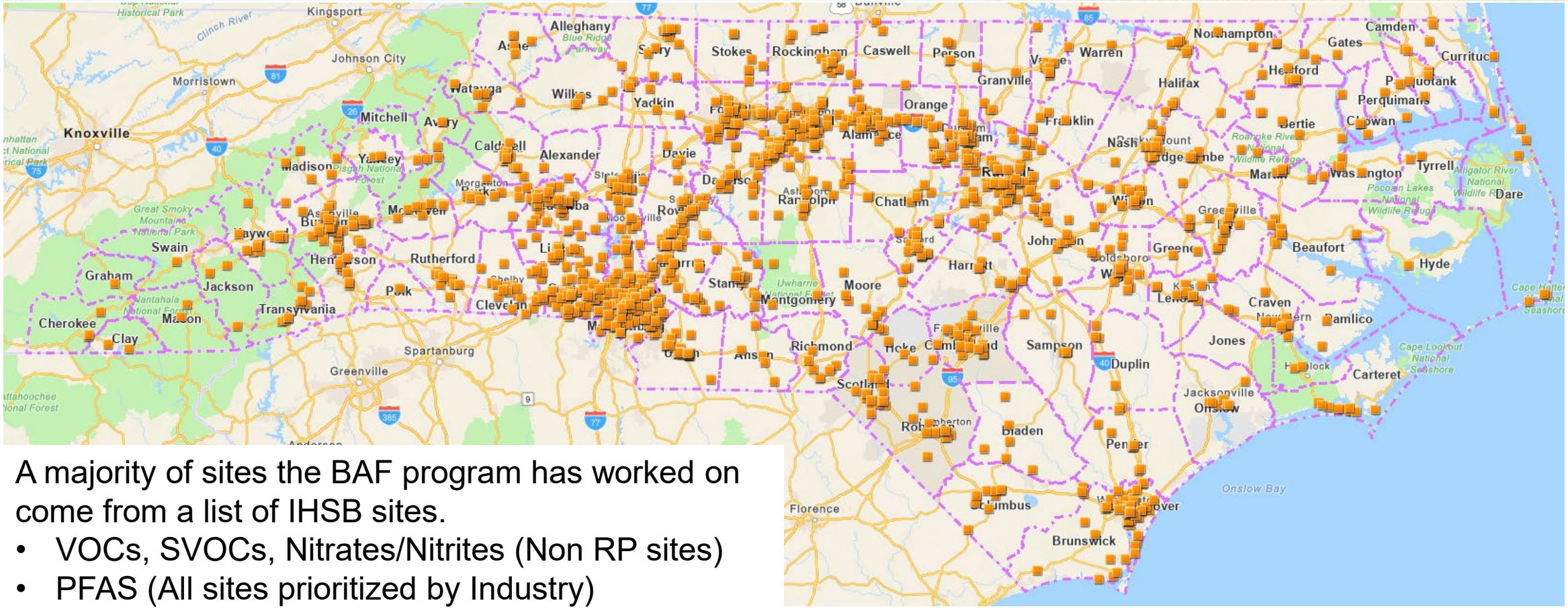
What sites does BAF work on?

Inactive Hazardous Sites Branch



A majority of sites the BAF program has worked on come from a list of IHSB sites.

- VOCs, SVOCs, Nitrates/Nitrites (Non RP sites)
- PFAS (All sites prioritized by Industry)

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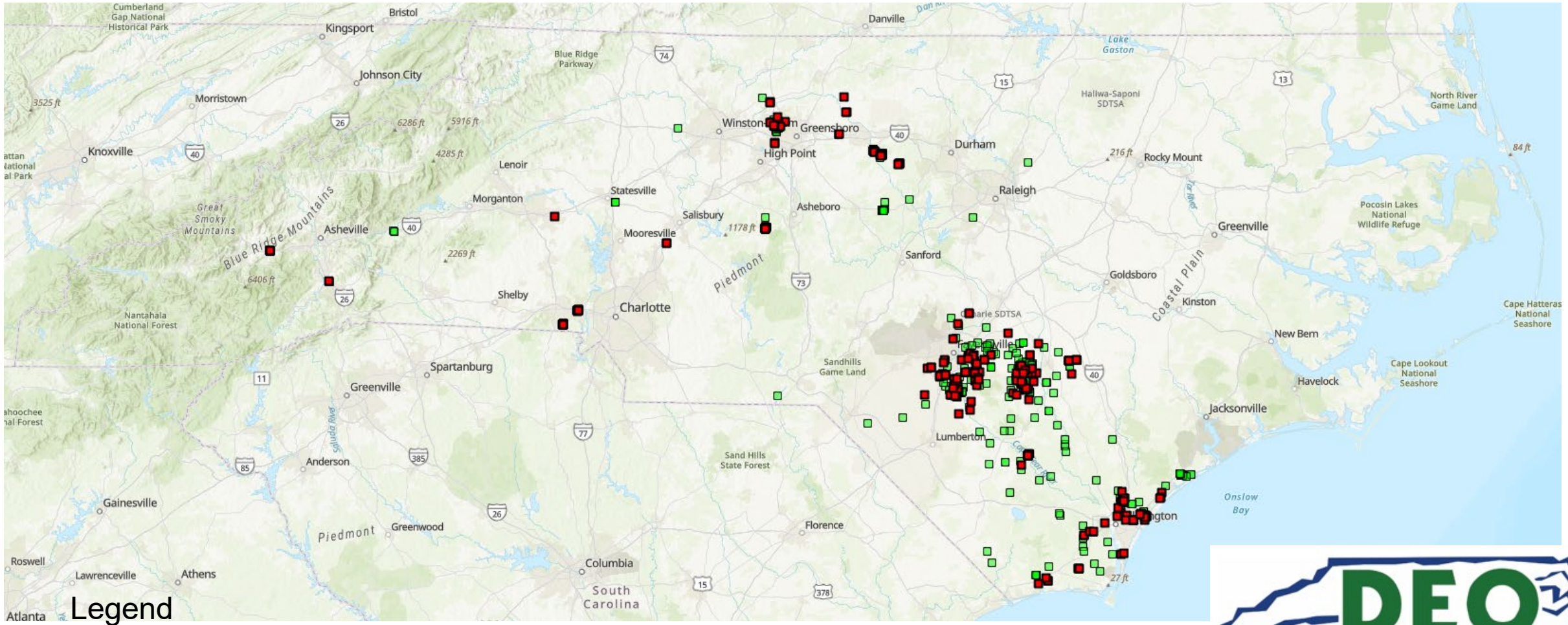
PFAS Sampling North Carolina



Legend

- = No Exceedance
- = Exceeds EPA MCL

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BAF Working with others

The BAF works with counties and cities as well as various state and federal agencies.

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IHSB
DWR
UST
HW

WAKE COUNTY
NORTH CAROLINA

SAMPSON COUNTY, N.C.
EST. 1784

NEW HANOVER COUNTY • NORTH CAROLINA
ESTABLISHED 1729

MECKLENBURG COUNTY
NORTH CAROLINA

COUNTY OF GUILFORD
NORTH CAROLINA
1771

CITY OF RALEIGH
NORTH CAROLINA
ESTABLISHED 1792

Orange County
17 52
North Carolina

CHARLOTTE

GREENSBORO

EPA

ALAMANCE COUNTY
PRO BONO PUBLICO
NORTH CAROLINA

HENDERSON COUNTY
FOUNDED 1838

DEQ
NORTH CAROLINA
Department of Environmental Quality

EPA Grant to DWI Administered by BAF

Waterline Extensions

- Partner with Utilities to provide gap funding and service connections to low income areas
  - Cape Fear Public Utility Authority
  - Sampson County Utilities

Sampling

- Small and Underserved Communities

Extension of the PFAS Reimbursement Program (Low Income Only)

- Provide free POUs to residents if:
  - Not in area for water main extension
  - Do not qualify for Chemours referral
- Maintain application process for those who prefer whole house option

Program Growth and Focus

What's next?

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Questions

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Presenter

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