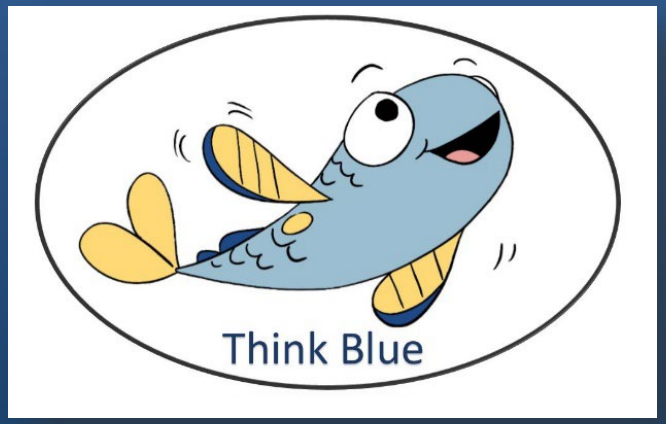
Community Water Forum

Tuesday May 3, 2022

Portsmouth City Hall

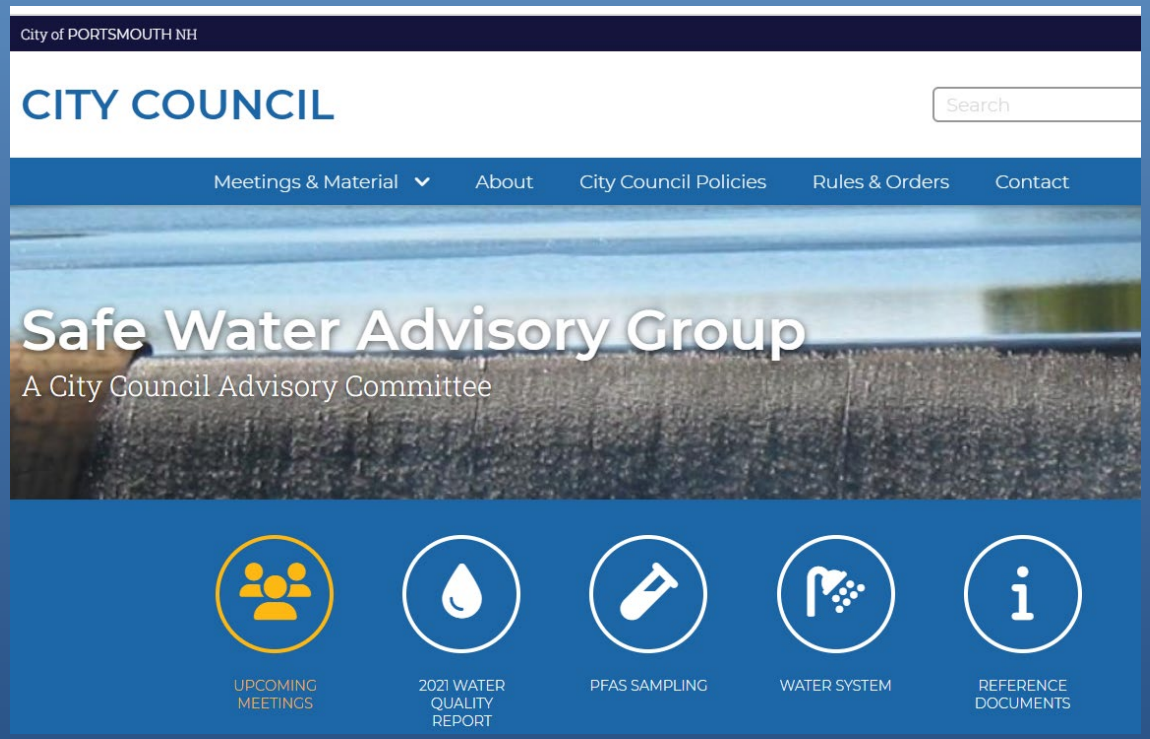
Safe Water Advisory Group
City of Portsmouth



Welcome!

- Andrea Amico, Co-Chair
- Brian Goetz – Deputy Director of Public Works, Co-Chair
- Al Pratt, Water Resources Manager
- Mason Caceres, Water Quality Specialist
- Kim McNamara, Health Officer
- Other City and Water Division staff

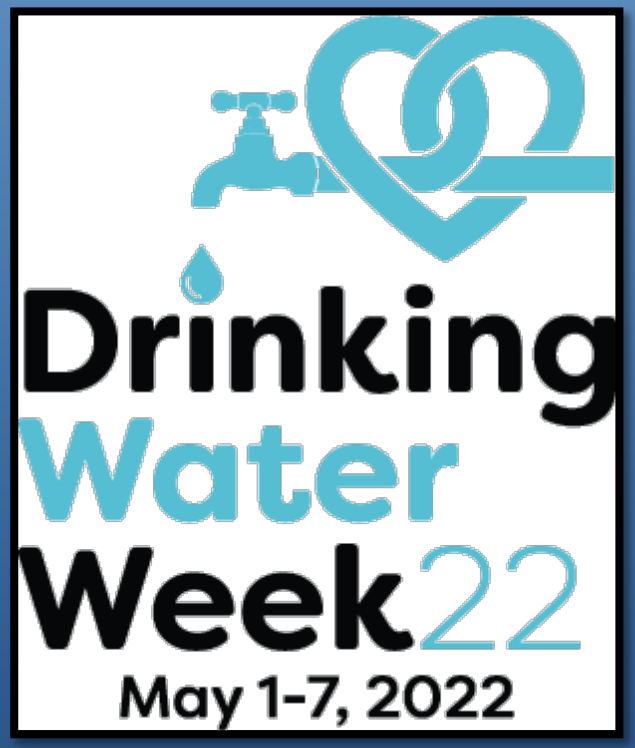
Safe Water Advisory Group



- Rich Blalock, City Councilor
- Vincent Lombardi, City Councilor
- William McQuillen, Assistant Fire Chief
- Andrea Amico, Community Member
- Rich DiPentima, Community Member
- Katrie Hillman, Community Member
- Hope Van Epps, School Board
- Laurel Schaider, Environmental Scientist/Medical Professional
- Rebecca Perkins Kwoka, State Senator
- David Meuse, State Representative
- Kim McNamara, Health Department
- Brian Goetz, Public Works/Water
  Vacant, Community Member

DRINKING WATER WEEK

No matter the reason.
Regardless of the season.
Your tap water is:
#ThereWhenYouNeedIt



#DrinkingWaterWeek
We encourage you to appreciate the high quality of your water and recognize the teams of dedicated water professionals, miles of pipes underground and cutting-edge water treatment combining to ensure your water is there, 24/7, 365 days a year.

American Water Works Association
Dedicated to the World's Most Important Resource®

NHWWA
NH WATER WORKS ASSOCIATION

New England
Water Works Association
a Section of the American Water Works Association

Water Forum Agenda

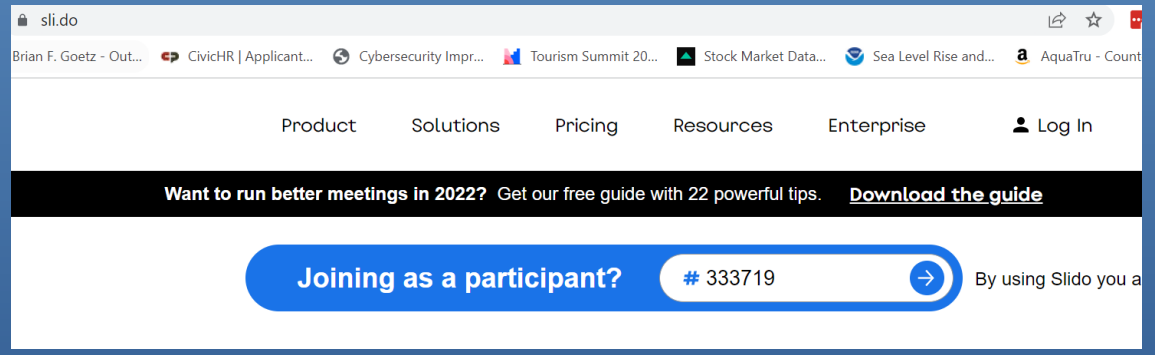
- In person – City Council Chambers
- Zoom – participants will be muted but will have opportunity to participate during polling and during Question & Answer Session
- Event will be recorded and will be available on City's YouTube channel
- PowerPoint presentations
- Videos of water system history, sources and components
- Interactive Polling #1
- Videos on water quality
- Contaminants of concern
- Additional resources and information
- Question and Answer Session
- Interactive Polling #2

Videos – Portsmouth and Pease Overviews

1. System History and Overviews (19:30 min)
2. Portsmouth Sources of Supply (3:00 min)
3. Pease Water Treatment (2:30 min)

Polling – First Round:

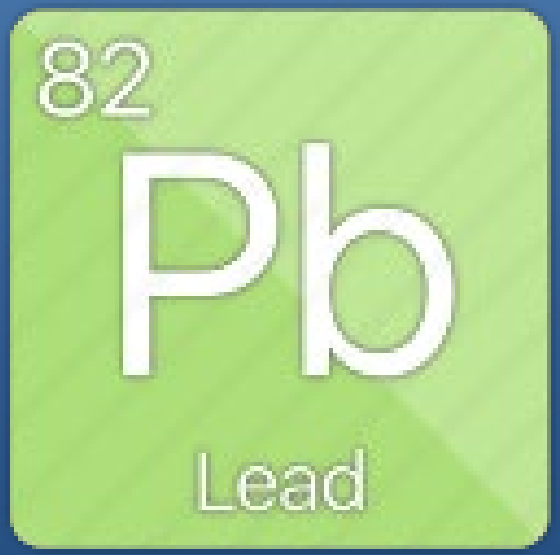
- Open a Web Browser
- Go to:
  - Sli.do
- Enter Code:
  - 333719

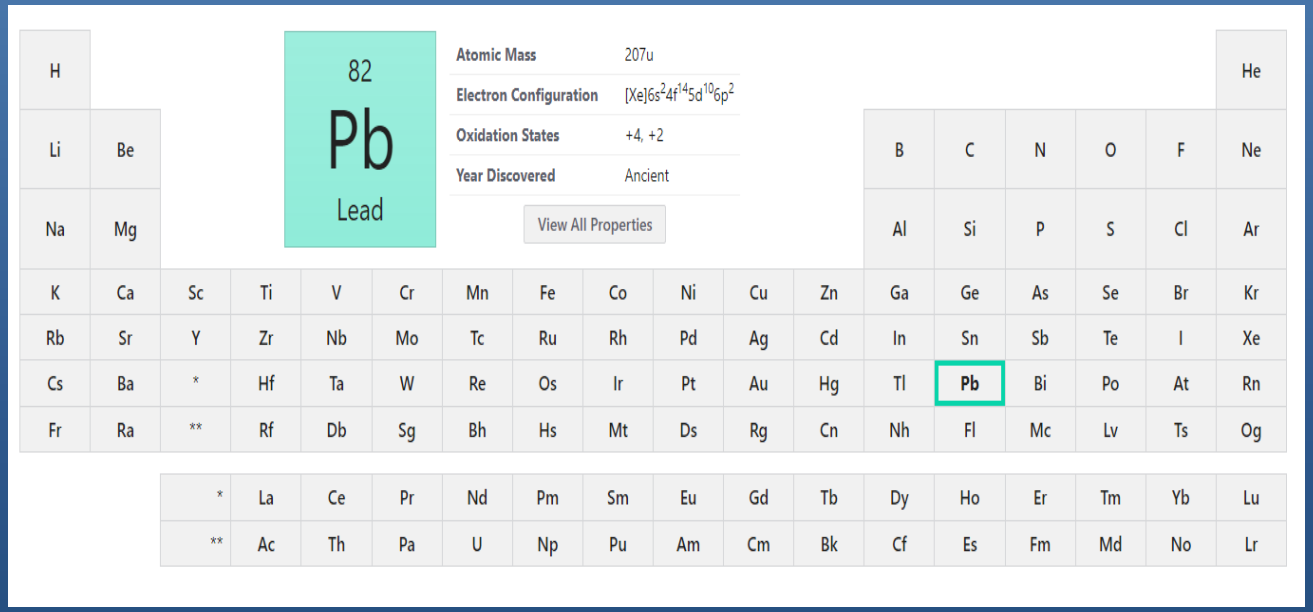


Videos –

1. Water Quality Sampling (2:40 min)
2. Water Quality Testing and Reporting (8:30 min)

Lead
-Natural Element





Lead by the Numbers in 2020

Lead poisoning is

100%

preventable

56%

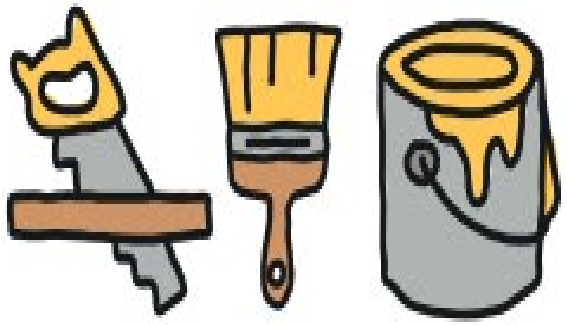
Of structures in NH's highest risk communities that were built prior to 1978 when lead paint was banned for residential use.

42,057

Or 50% of NH children, 72 months or younger, reside in housing units built before the 1978 ban on lead in residential paint, where they are potentially exposed to lead hazards.

14%

In 2020, 3,108 fewer NH children had blood lead level tests than in 2019, due to the COVID-19 pandemic. This represents a 14% drop in the State's pediatric blood lead level testing rate.



1 in 3

Parents of children with blood lead levels greater than 5 µg/dL, report that renovations have taken place in the home within the last six months.

1 in 5

Attention Deficit Disorder cases were attributed to lead exposure.

www.aap.org

It only takes a speck of lead dust the size of a grain of salt to poison a child.

SOURCES OF LEAD IN WATER

Lead is rarely found in water *before* it enters your home, but the plumbing in your home could be contributing lead to the water you drink. Lead is most likely to be found in your water first thing in the morning after the water sits in the pipes all night, or any length of time where it sits more than six hours.

Source: NHDES Healthy Homes & Lead Poisoning Prevention Program

Source: US EPA "Concerned about lead in your drinking water?"

What does lead pipe look like?

Photos: EPA Region 5

Chemical Contaminants

>80,000 Registered Chemicals in Use

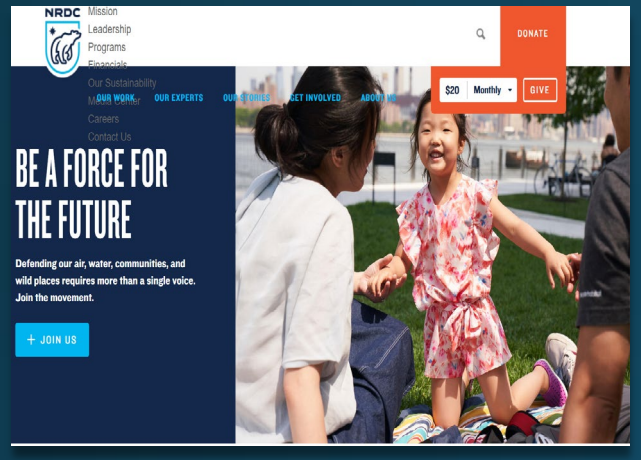
>60,000 Never Safety Tested

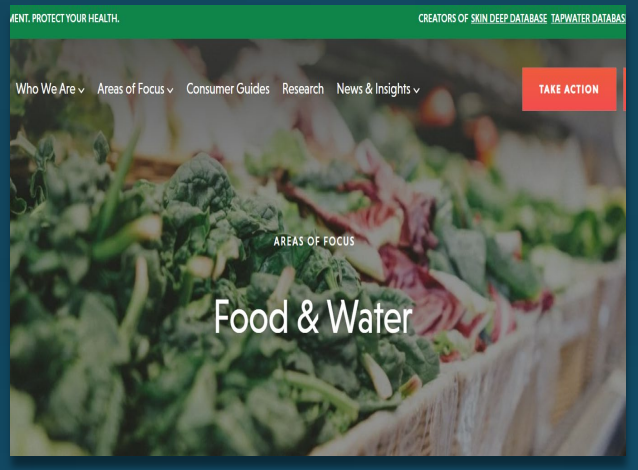
2021 Annual Plan for Chemical Risk Evaluations Under TSCA December 21, 2021

Table 1: Status of Existing Chemical Risk Evaluations ☐ - Completed Work

Chemical	Risk Evaluation (RE) Status				
	Initiate RE	Draft Scope	Final Scope	Draft RE	Completed RE
HPS Risk Evaluations Initiated in 2016					
Methylene Chloride	Dec. 2016		June 2017	Oct. 2019	June 2020
1-Bromopropane	Dec. 2016		June 2017	Aug. 2019	Aug. 2020
Cyclic Aliphatic Bromide Cluster (HBCD)	Dec. 2016		June 2017	June 2019	Sept. 2020
Carbon Tetrachloride	Dec. 2016		June 2017	June 2019	Nov. 2020
Trichloroethylene (TCE)	Dec. 2016		June 2017	Feb. 2020	Nov. 2020
N-Methylpyrrolidone (NMP)	Dec. 2016		June 2017	Nov. 2019	Dec. 2020
Perchloroethylene	Dec. 2016		June 2017	Apr. 2020	Dec. 2020
1,4-dioxane	Dec. 2016		June 2017	June 2019	Dec. 2020
C.I. Pigment Violet 29 (PV29)	Dec. 2016		June 2017	Nov. 2018, rev. Oct. 2020	Jan. 2021
Asbestos Part I (Chrysotile)	Dec. 2016				Dec. 2021
Asbestos Part II (Legacy Uses)	Dec. 2016	Dec. 2021			
HPS Risk Evaluations Initiated in 2019					
Tris(2-chloroethyl)phosphate (TCEP)	Dec. 2019	Apr. 2020	Aug. 2020		
Phosphoric acid, triphenyl ester (TPP)	Dec. 2019	Apr. 2020	Aug. 2020		
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta [g]-2-benzopyran (HHCBA)	Dec. 2019	Apr. 2020	Aug. 2020		
p-Dichlorobenzene (PDCB)	Dec. 2019	Apr. 2020	Aug. 2020		
o-Dichlorobenzene (ODCB)	Dec. 2019	Apr. 2020	Aug. 2020		
Ethylene dibromide (EDB)	Dec. 2019	Apr. 2020	Aug. 2020		
Phthalic anhydride (PAD)	Dec. 2019	Apr. 2020	Aug. 2020		
1,1,2-Trichloroethane (1,1,2 TCA)	Dec. 2019	Apr. 2020	Aug. 2020		
1,2-Dichloropropane (1,2 DCP)	Dec. 2019	Apr. 2020	Aug. 2020		
1,1-Dichloroethane (1,1 DCA)	Dec. 2019	Apr. 2020	Aug. 2020		
1,2-Dichloroethane (1,2 DCA)	Dec. 2019		Aug. 2020		
4,4'-(1-Methylethylidene)bis[2, 6-dibromophenol] (TBBPA)	Dec. 2019	Apr. 2020	Aug. 2020		
Di-ethylhexyl phthalate – (1,2-Benzene-dicarboxylic acid, 1,2-bis-(2-ethylhexyl) ester) (DEHP)	Dec. 2019	Apr. 2020	Aug. 2020		
Formaldehyde (FDA)	Dec. 2019	Apr. 2020	Aug. 2020		
trans-1,2-Dichloroethylene (Trans 1,2 DCE)	Dec. 2019	Apr. 2020	Aug. 2020		
Dibutyl phthalate (1,2-Benzene-dicarboxylic acid, 1,2-dibutyl ester) (DBP)	Dec. 2019	Apr. 2020	Aug. 2020		
Butyl benzyl phthalate – 1,2-Benzene-dicarboxylic acid, 1-butyl 2(phenylmethyl) ester (BBP)	Dec. 2019	Apr. 2020	Aug. 2020		
Di-isobutyl phthalate – (1,2-Benzene-dicarboxylic acid, 1,2-bis-(2methylpropyl) ester) (DIBP)	Dec. 2019	Apr. 2020	Aug. 2020		
Dicyclohexyl phthalate (DCHP)	Dec. 2019	Apr. 2020	Aug. 2020		
1,3-Butadiene (BTD)	Dec. 2019	Apr. 2020	Aug. 2020		
Manufacturer-Requested Risk Evaluations Initiated					
Di-isodecyl phthalate (DIDP) – (1,2-benzenedicarboxylic acid 1,2-diisodecyl ester)	Dec. 2019	Nov. 2020	Aug. 2021		
Di-isononyl phthalate (DINP) – (1,2-benzenedicarboxylic acid, 1,2-diisononyl ester)	Dec. 2019	Nov. 2020	Aug. 2021		
Octamethylcyclotetra-siloxane (D4)	Oct. 2020	Sept. 2021			

Resources





NRDC

To safeguard the earth—its people, its plants and animals, and the natural systems on which all life depends.

EWG

To empower you with breakthrough research to make informed choices and live a healthy life in a healthy environment.

Silent Spring Institute

Prevent cancers by reducing people's exposure to harmful chemicals where they live, work, and play.

The Best Protection

- ***Reduce the purchase and consumption of unnecessary chemicals***
- ***Use natural cleaners and products***
- ***Purchase small quantities***
- ***Avoid storing where flooding can mingle with chemicals***
- ***Do not allow chemicals to seep into the ground or storm drains***
- ***Dispose of properly***

Household Hazardous Waste Day

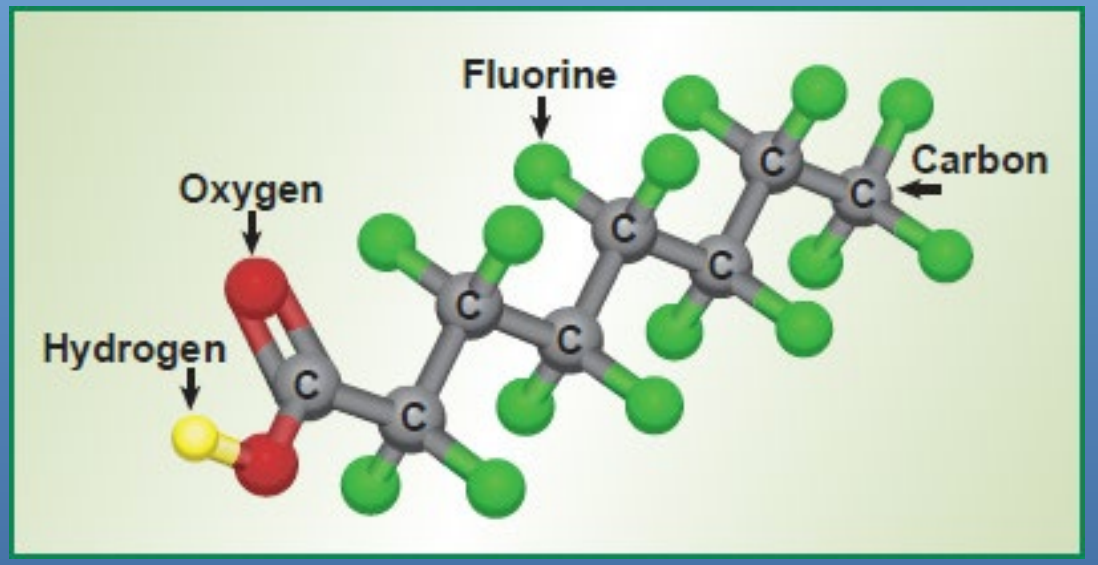
Saturday May 21 – 8am-12 noon

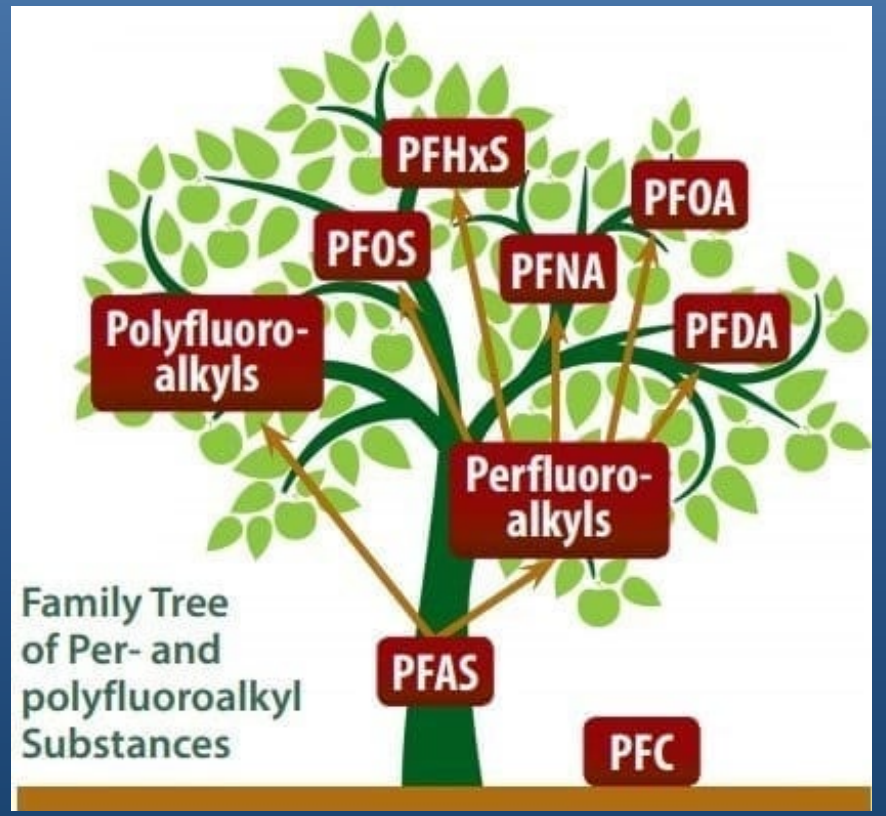
Portsmouth Recycling Center, 680 Peverly Hill Road

*For residents of Portsmouth, Greenland, & Newington – Proof of residency required

PFAS

- What are PFAS?
  - Large class of ~ 9000 manmade chemicals used in many everyday products.
  - “Forever chemicals”: Carbon fluorine bonds in PFAS means the chemicals don’t break down



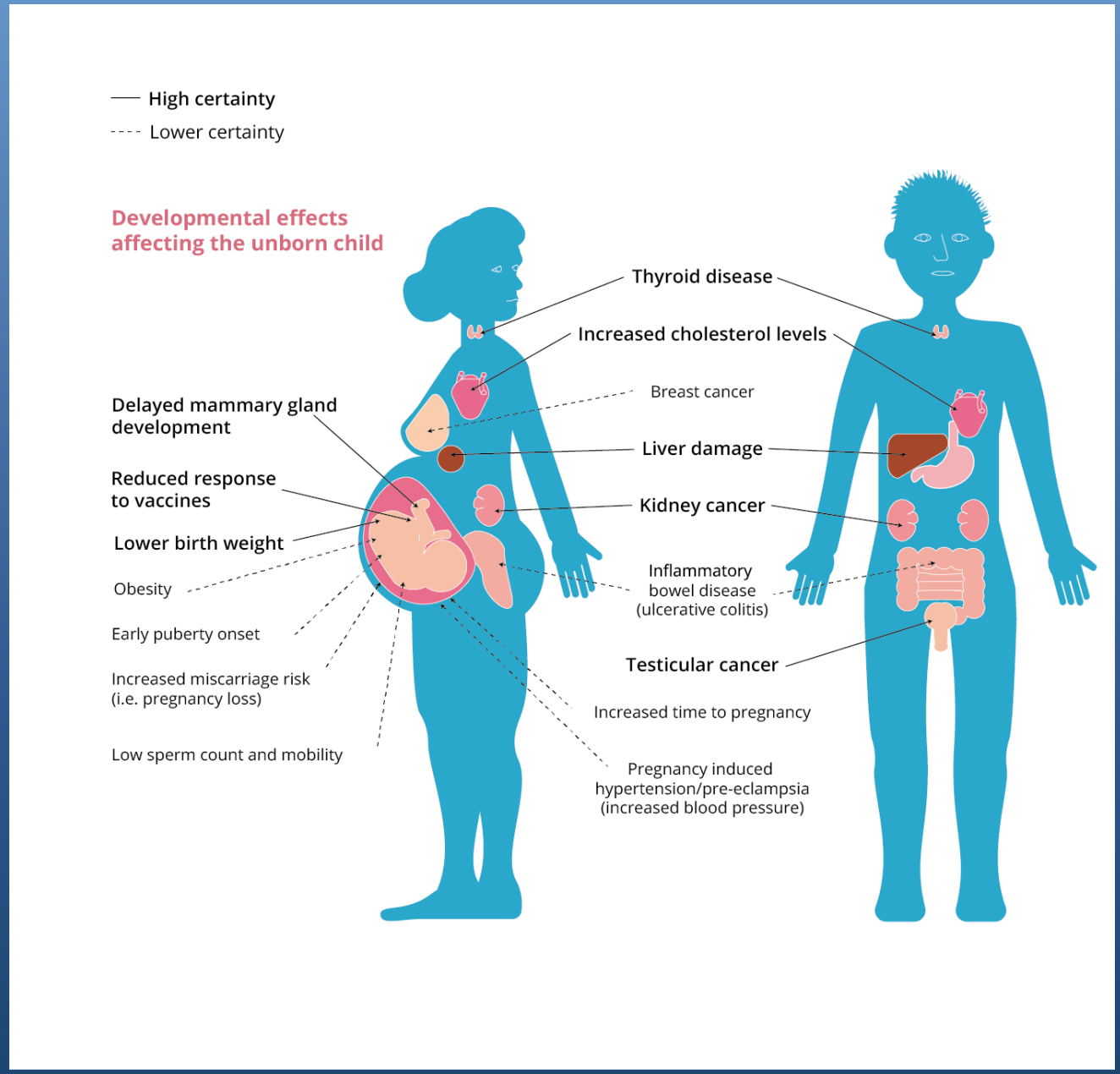


PFAS

- Where are PFAS found?
  - Non stick cookware, firefighting foam, fast food packaging, weatherproof clothing, stain resistant products, carpets, furniture, dental floss, and more.
  - 99% of Americans have some detectable levels of PFAS in their blood.

PFAS

- Why are we concerned?
  - PFAS are persistent and bioaccumulate in humans, animals, and environment.
  - PFAS have been associated with:
    - Cancers (kidney, testicular)
    - High cholesterol
    - Immune suppression (less effective vaccines
    - Thyroid disorders
    - High blood pressure during pregnancy
    - Low birth weight in babies



PFAS and the City of Portsmouth: Pease Tradeport

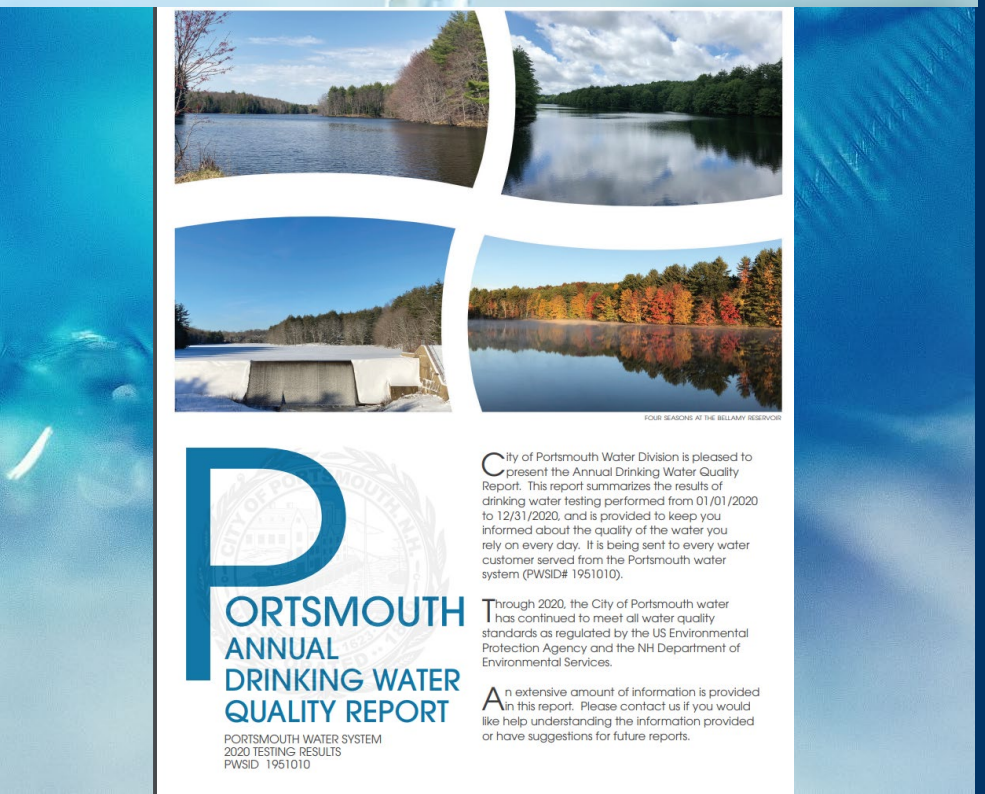
- High levels of PFAS discovered in drinking water in 2014
- Haven well shut down from 2014-2021
- Thousands of community members exposed to contaminated drinking water
- Air Force has spent millions of dollars on remediation and filtration of water
- Current PFAS levels in Pease drinking water is non detect post filtration
- Two PFAS health studies underway to study PFAS health effects

PFAS and the City of Portsmouth: Coakley Landfill

- Former dump and current superfund site located in North Hampton.
- PFAS and 1,4 dioxane were detected in groundwater at Coakleyin2016.
- PFAS also detected in Berry's Brook in Greenland & Rye.
- Contamination from Coakley has contaminated private drinking water wells in Greenland
- City of Portsmouth oversees the Coakley Landfill Group
- There is no active remediation or filtration at Coakley Landfill to stop the contamination from spreading at this time.

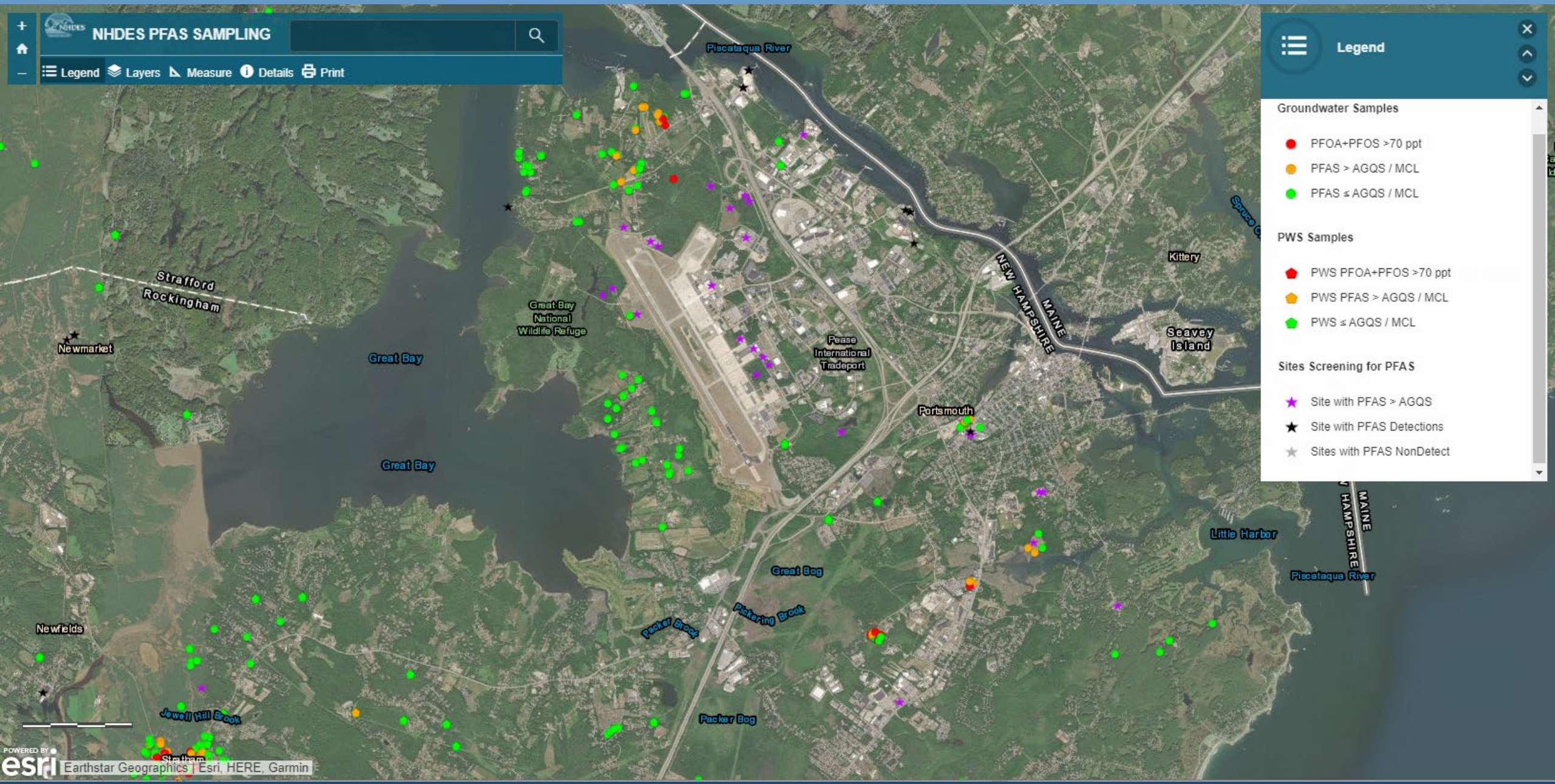
PFAS and the City of Portsmouth: Tolend Road Landfill

- Tolend Road Landfill is a superfund site located in Dover adjacent to the Bellamy Reservoir (the City's largest drinking water source)
- PFAS,1,4-dioxane, and various volatile organics are present in the groundwater around the landfill
- The Dover Group and their consultant are monitoring groundwater quality and operating a groundwater mitigation system
- USEPA and NHDES are overseeing the remediation activities at this site
- City of Portsmouth and the Dover Group monitor the levels closely for any migration



PFAS and the City of Portsmouth: City Drinking Water

- Many tap and source samples collected in the City since 2019
- City of Portsmouth drinking water does have detectable levels of PFAS
- 11 PFAS have been detected in the City water with a total combined levels ranging from 6 ppt to 29 ppt based on source averages since January 2019
- PFAS with state and federal guidelines have been within the acceptable limit, but many of the PFAS detected have no federal or state guidelines
- PFAS can be filtered from drinking water using granular activated carbon or reverse osmosis filtration


NHDES PFAS SAMPLING
Legend
Layers
Measure
Details
Print
Legend
Groundwater Samples
PFOA+PFOS >70 ppt
PFAS > AGQS / MCL
PFAS ≤ AGQS / MCL
PWS Samples
PWS PFOA+PFOS >70 ppt
PWS PFAS > AGQS / MCL
PWS ≤ AGQS / MCL
Sites Screening for PFAS
Site with PFAS > AGQS
Site with PFAS Detections
Sites with PFAS NonDetect
Piscataqua River
Strafford
Rockingham
Newmarket
Great Bay
Great Bay National Wildlife Refuge
Great Bay
Pease International Tradeport
NEW HAMPSHIRE
MAINE
Kittery
Seavey Island
Portsmouth
Little Harbor
Piscataqua River
Great Bog
Pickering Brook
Packer Brook
Packer Bog
Newfields
Jewell Hill Brook
Stratham
POWERED BY esri
Earthstar Geographics | Esri, HERE, Garmin

Videos –

1. Additional Water Treatment and Testing Options (6:00 min)

How to get involved

City of Portsmouth

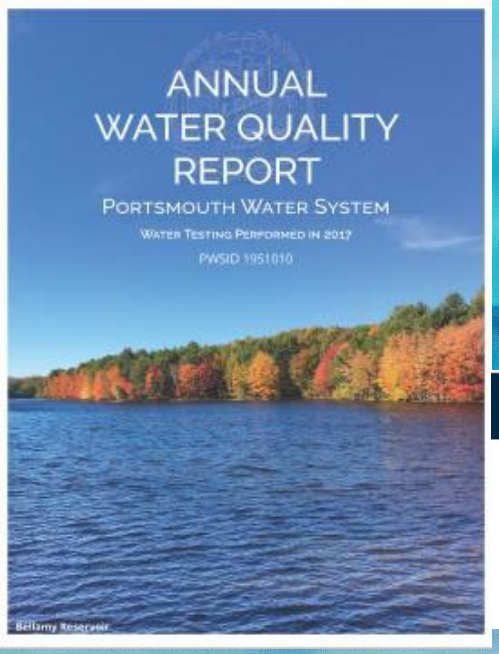
- SWAG: quarterly meetings at City Hall; current opening for a Portsmouth resident to join

Pease Tradeport Activities

- Restoration Advisory Board (RAB): quarterly meetings with US Air Force https://www.afcec.af.mil/Home/BRAC/Pease-Archives/
- Community Assistance Panel (CAP): 3 meetings a year with ATSDR https://www.atsdr.cdc.gov/pfas/activities/pease/cap.html
- PFAS-REACH Study: actively recruiting Pease community members https://silentspring.org/project/pfas-reach

State level efforts:

- Drinking water and groundwater advisory commission: quarterly meetings https://www4.des.state.nh.us/nh-dwg-trust/?page_id=89



How to stay informed

Social media, websites, and newsletters

- Portsmouth DPW Twitter and newsletter
- Instagram: @ThinkBluePortsmouthNH
- City of Portsmouth newsletter
- Websites
  - City of Portsmouth DPW website
  - PFAS Exchange
  - EWG
- Community advocacy groups
  - Testing for Pease
  - NH Safe Water Alliance
  - National PFAS Contamination Coalition

PFAS-REACH Study actively recruiting Pease community members

Did you work at Pease before 2014?

Do you have children ages 3–8?

Children ages 3 to 8 who attended daycare at Pease before 2014 or whose mothers worked at Pease before 2014 may be eligible to enroll!

Learning about your child's PFAS exposure will empower you to better protect their health.

Participants will receive up to $125 in gift cards and a personalized report of their study results.

Contact us to sign up!

Email: pfas-reach@silentspring.org
Call or text: 617-221-6428
bit.ly/pfas-reach

NIH National Institute of Environmental Health Sciences

PFAS-REACH
PFAS Research, Education, and Action for Community Health

PFAS-REACH is a collaboration of Silent Spring Institute, Northeastern University, Michigan State University, Testing for Pease, Massachusetts Breast Cancer Coalition, and Community Action Works.

Community Resources

CITY LEVEL RESOURCES:

- SWAG: https://www.cityofportsmouth.com/citycouncil/safe-water-advisory-group
- City of Portsmouth newsletter: https://www.cityofportsmouth.com/city/welcome-portsmouths-community-newsletter
- City of Portsmouth DPW website: https://www.cityofportsmouth.com/publicworks/water/drinking-water-quality

PEASE TRADEPORT RESOURCES:

- Pease RAB with US Air Force: https://www.afcec.af.mil/Home/BRAC/Pease-Archives/
- Pease CAP with ATSDR: https://www.atsdr.cdc.gov/pfas/activities/pease/cap.html
- PFAS-REACH Study: https://silentspring.org/project/pfas-reach
- Testing for Pease: http://www.testingforpease.com/

STATE LEVEL RESOURCES:

- Drinking water and groundwater advisory commission: https://www4.des.state.nh.us/nh-dwg-trust/?page_id=89
- NH DES Drinking Water: https://www.des.nh.gov/water/drinking-water
- NH Safe Water Alliance: https://www.facebook.com/NHSafeWater/

NATIONAL LEVEL RESOURCES:

- US EPA Ground and Drinking water: https://www.epa.gov/ground-water-and-drinking-water
- PFAS Exchange: https://pfas-exchange.org/
- Environmental Working Group: https://www.ewg.org/tapwater/
- National PFAS Contamination Coalition: https://pfasproject.net/

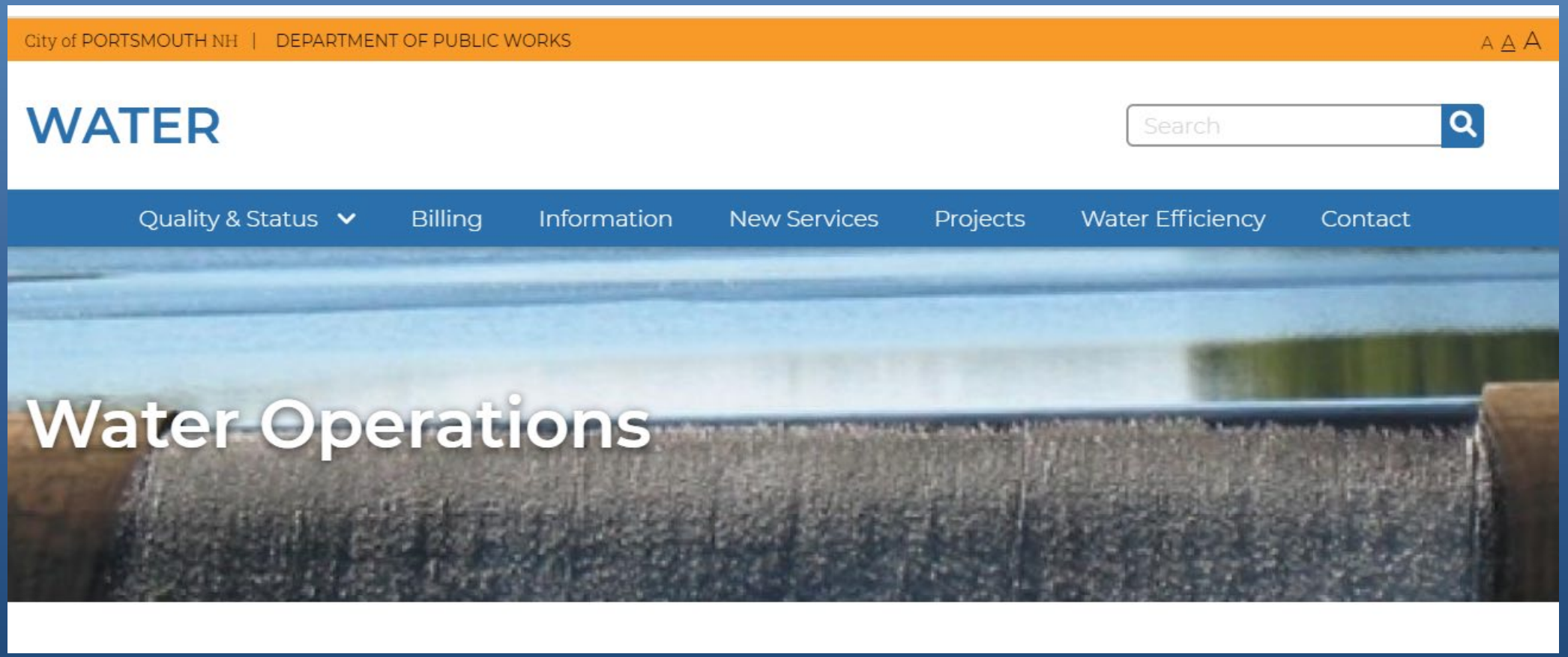
Questions and Answers

- Zoom participants
- In-person questions

Polling – Second Round:

- Open a Web Browser
- Go to:
  - Sli.do
- Code:
  - 470072

Additional Information: CityOfPortsmouth.com/publicworks/water



Thanks for Attending!