

**Safe Water Advisory Group (SWAG) A City Council Advisory Committee  
Meeting Minutes**

**Wednesday, February 23, 2022 at 6:30 – 8:30 pm. City Hall Conference Room A and via Zoom**

Attending in person: Andrea Amico and Brian Goetz, co-chairs; Guest speaker Beverly Drouin, Councilors Rich Blalock and Vince Lombardi, Asst. Fire Chief Bill McQuillen. And via Zoom: Hope Van Epps, Sen. Rebecca Perkins Kwoka, City Health Officer Kim McNamara.  
Staff: Al Pratt, Stephanie Seacord (recording secretary)

Welcome & Introductions by Andrea Amico, SWAG co-chair who provided an overview of the creation of the group in 2020, membership and accomplishments. Re-appointed SWAG, through Dec 31, 2023 per Mayor McEachern, includes the following:

- Councilors Rich Blalock and Vince Lombardi
- Community members Andrea Amico, Katie Hillman, Rich DiPentima and one vacancy
- Portsmouth Fire Dept. Asst. Fire Chief Bill McQuillen
- Portsmouth Water Division, DPW Deputy Director Brian Goetz
- Portsmouth Health Department, Health Officer Kim McNamara
- Portsmouth School Board, Hope Van Epps
- Environmental Scientist Dr. Laurel Scheider
- NH State Senator Rebecca Perkins Kwoka
- NH State Representative David Meuse

The Group voted unanimously to accept the minutes from the last meeting.

**Presentation by Beverly Baer Drouin, NH Division of Public Health. Healthy Homes & Lead Poisoning Program** (presentation posted:

[https://www.cityofportsmouth.com/sites/default/files/2022-02/HealthyHomes\\_Lead\\_2022\\_02\\_23.pdf](https://www.cityofportsmouth.com/sites/default/files/2022-02/HealthyHomes_Lead_2022_02_23.pdf))

The health dangers of lead are well known documented (2020 NH Lead Exposure data and 2019 Portsmouth data); although the public may be less aware that very small amounts of lead can have debilitating effects on children because they have not yet developed brain blood barriers. The sweet taste of lead is attractive to children who are in oral stage of development; but most lead risk comes from lead dust from paint in housing, DIY projects, soil, some spices/cosmetics. The perfect pediatric storm of lead as a neuro-toxin produces

- delayed cognitive and executive function development
- delayed speech, vision and language development
- short attention span
- poor gross motor skill development
- behavioral issues

All of which contribute to costly societal impacts as children grow older.

The key public health issue in regards to the presence of lead in the environment concerns testing. While NH requires universal blood testing for lead at age 1 and again at age 2, only 62% of the age 1 population on the Seacoast was tested (2019 data) and only 53% of the age 2 population. Meanwhile that census reported elevated levels of lead in 39 children (646 children, statewide). Report:

<https://wisdom.dhhs.nh.gov/wisdom/assets/resources/lead-exposures/2019-lead-data-briefs/Seacoast-Report.pdf>

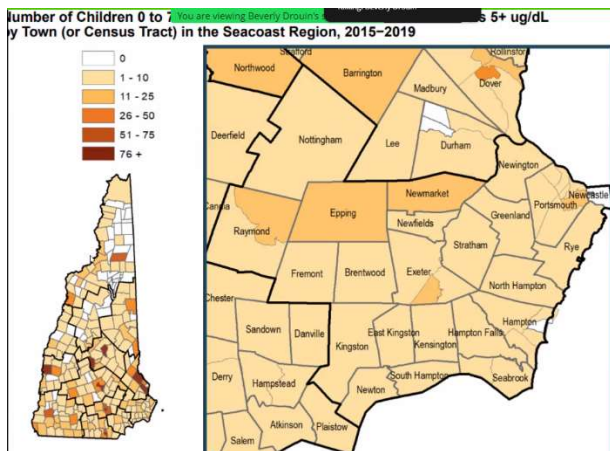
Current legislation: HB 1642 will require blood testing for lead for any child to enter public school or daycare. HB 1421 to require testing of water in schools for lead, SB 452 to require testing water in schools and daycares for lead.

## Schools and Daycares

- NHDES School & Daycare Sampling Program
  - SB 247 (February 2018)
    - 2016 voluntary sampling
    - 2018-2019 required sampling
  - HB1421 (currently in committee)
    - parent notification & result submittal
  - HB1642 (currently in committee)
    - mandatory blood testing for school attendance
  - SB452 (currently in committee)
    - 3 samples between January 2016 and June 30, 2024
    - All "outlets"/ applicable fixtures used for drinking water
    - >1 ppb parent and guardian notification
    - Remediation plan within 120 days of notification
    - Test results submitted to NHDES

Portsmouth has some of the oldest housing stock in the state. Lead was not banned until 1978. Pre-1950 housing is guaranteed to contain lead. Pre-1830 housing is "held together with lead."

State data maps areas with high risk factors for lead poisoning: older buildings, poverty, high transient rate and numbers of children in rental properties. "Certain neighborhoods are flashing red with risk."



By order of RSA 130-A, children age 6 and under who register 5ug/dL lead are assigned to nurse case management which directs environmental assessment. Once a property is under this Administrative Order only licensed lead professionals can perform the lead abatement.

RSA 540-A:3-a covers testing for lead in drinking water by DPHS. If results are 15ppb or more in a rental, the landlord is required to install and maintain a water filtration system.

But Portsmouth does not have the resources to monitor maintenance, or conduct tenant turnover inspections. Kim McNamara – There's also concern with Portsmouth's push to 'eat local' and support local farmers that there's lead in the soil. While the Health and Inspections workforce is stretched, Health could pull water samples when doing health inspections and can provide followup for the children under Administrative Orders. Using the DPHS maps at the street level of high risk – have to start somewhere.

Obstacles limiting 100% participation in the testing at age 1 and 2: cost (\$30 per test), transportation to the doctor, up to parents to followup. Wondering how schools can assist – gateway testing requirement helps..

DHHS offers “healthy home” materials in multiple languages:

<https://www.dhhs.nh.gov/dphs/bchs/clpp/publications.htm>

One solution to assist in educating DIY and contractors may be Manchester’s model EPA RRP Certification course to train CTE students in safe work practices for lead.

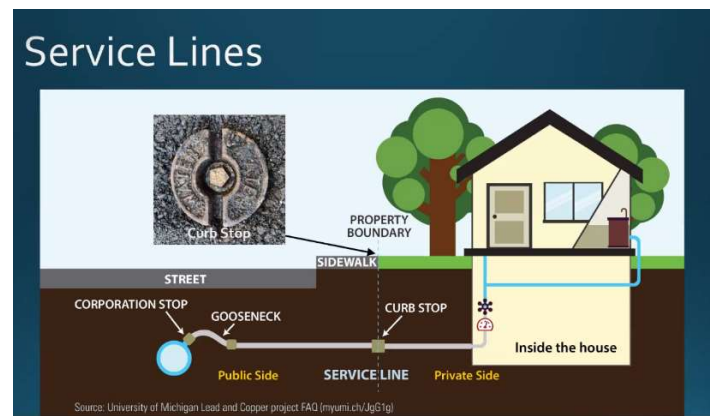
Group member Hope Van Epps said she would followup with the Portsmouth CTE program.

Contact: Beverly Drouin, 603.271.8158 Email: [beverly.j.drouin@dhhs.nh.gov](mailto:beverly.j.drouin@dhhs.nh.gov)

### Lead & Copper Regulations and City of Portsmouth Activities (Al Pratt, Water Supply Operations Manager for the City of Portsmouth DPW/Water Division)

Presentation posted:

[https://www.cityofportsmouth.com/sites/default/files/2022-02/SWAG%20Lead%20Presentation-February%202022\\_0.pdf](https://www.cityofportsmouth.com/sites/default/files/2022-02/SWAG%20Lead%20Presentation-February%202022_0.pdf)



The Portsmouth Water Division continues to work to eliminate sources of lead that might contaminate drinking water. The water sources have no lead. Since 1986 water pipes must have < 8% lead. Portsmouth service lines are copper and galvanized steel; but the connections from service lines to the house can often be lead goosenecks. Since 1997, fixtures and fittings must be < 8%. 2011 Safe Drinking Water Act further required “lead free” materials; but lead solder is still available. The solution to the problem is public education. Homeowners can check their plumbing materials:

# Identifying Pipe Materials

Pipe Material	Scratch Test	Magnet Test	Hardness
Copper	color of new penny	not magnetic	moderate
Galvanized	grayish-silver color	magnetic	hard
Lead	shiny silver color	not magnetic	soft
Plastic	blue, white or gray	not magnetic	soft

Portsmouth also maintains a corrosion control program since galvanized pipes deteriorate from corrosion in 40-60 years, and compensates for corrosion by adding orthophosphate to water to create a lining barrier in galvanized pipes.

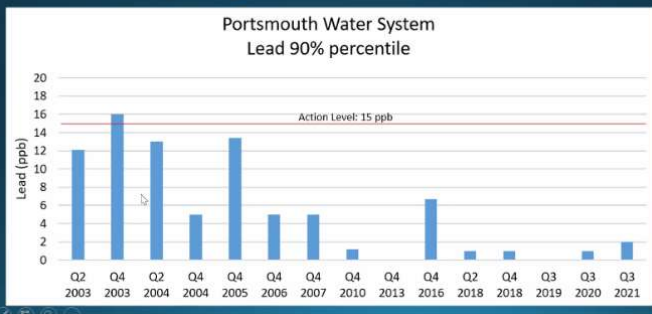
The City's lead sampling program currently involves 60 volunteer homes (sampled 30 at a time) and would like more.

## Brief History of the USEPA Lead & Copper Rule

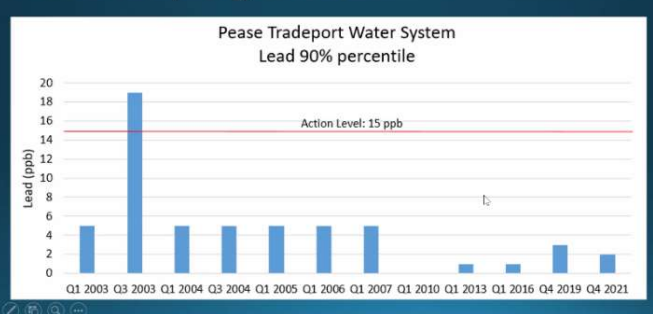
- Sampling from taps of highest risk customers
- Response Requirements to Action Levels (AL)
  - >10% exceeds AL (90<sup>th</sup> percentile)
    - 15 ppb Lead
    - 1.3 ppm Copper
- Corrosion Control Treatment (CCT)
- Water Quality Parameter (WQP) Monitoring
- Public Education
- Lead Service Line Replacement (LSLR)

The new 2021 Copper & Lead rule requires the posting of the composition of 50% of service lines now and 100% by 2024. The City is committed to finding and fixing any in-home service where lead is discovered at levels > 15 ppb and offers loan arrangements. Pre-1886, 50% of the service lines were lead.

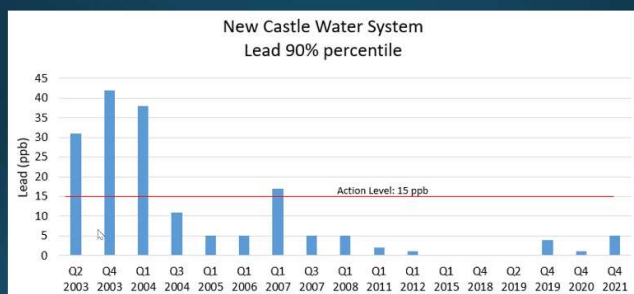
## Summary of Portsmouth Lead Sampling Results



## Summary of Pease Lead Sampling Results



## Summary of New Castle Lead Sampling Results



### Solutions for homeowners:

#### Know your plumbing system

- What is your service line made of?
  - Copper  Galvanized metal  Lead  Plastic
- How old is your plumbing, pre-1986?
- How old are your fixtures/faucets, pre-1997 or pre-2014?
- Do you know where your water meter and shut-off valves are?
- Do you have water treatment?
  - What is it designed for?
  - Is it NSF/ANSI certified? Standard 53 for lead reduction?
  - Maintain your treatment system!

#### Know your lead risk

- Test your water for lead
  - First flush (faucet fixture and solder)
  - Fifth liter or when you would typically begin use (cold water)
  - From all taps you use for drinking water
- What if you detect lead?
  - Resample and other taps
  - Manage with flushing
  - Identify and replace source, if feasible
  - Treat drinking water with filter certified to remove lead

Contact: Al Pratt, 603.520.0622 Email: [anpratt@cityofportsmouth.com](mailto:anpratt@cityofportsmouth.com)

Mason Caceres 603.312.3804 Email: [mecaceres@cityofportsmouth.com](mailto:mecaceres@cityofportsmouth.com)

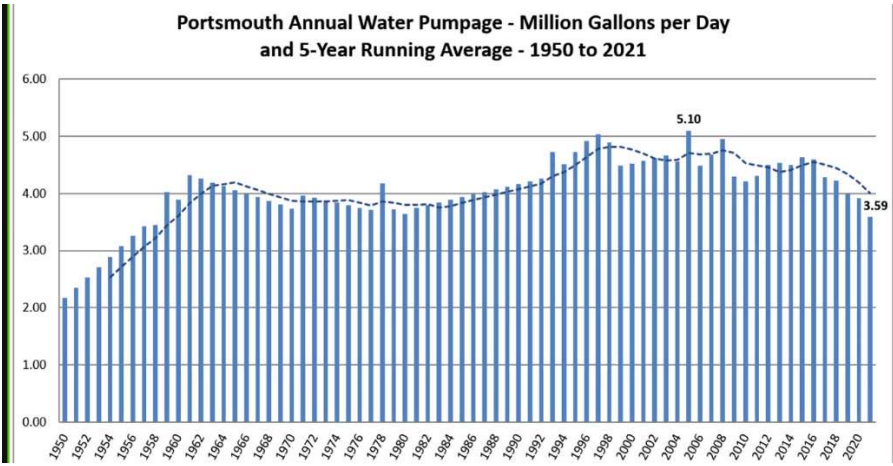
### 2021 Year in Review and PFPrA Update (Brian Goetz, Deputy Director, City of Portsmouth DPW and SWAG co-chair)

#### Presentation posted:

<https://www.cityofportsmouth.com/sites/default/files/2022-02/Portsmouth%20Water%20%E2%80%93%202021%20Year%20in%20Review.pdf>

### 2021 Weather Summary (Boston Globe)

- Average Temperature was 54.6 degrees
  - 2.5 degrees above normal
  - Second-warmest year since 1872
- Warmest June on record
- Second warmest August on record
- Second warmest September on record
- Fourth warmest October on record



Hot & dry = water demand  
 Even with growth, pumpage reduction from efficiencies and rate behavior. Found and fixed leaks.  
 Water main replacement also reduces lead.

### Water Main Replacements:

**1892**

**58.6 Miles of Pipe  
 ~ 2 miles/year**

1991-2000 – 16.5 miles  
 2001-2010 – 18.6 miles  
 2011-2020 – 23.6 miles

Optimizing water we have – as there are no new sources.

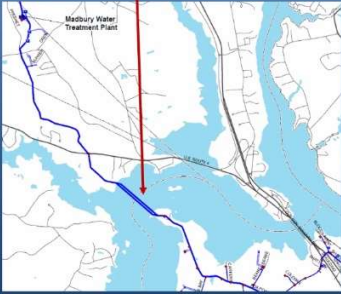
### Collins Well Upgrades

Existing Collins Well

New Collins Well B

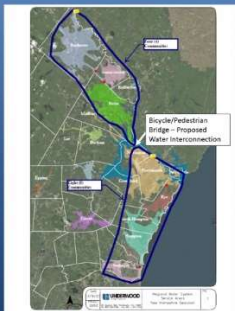
- New well complete and well screen installed
- Well purging/cleaning this week and next
- Pump testing and permitting to follow
- Final upgrade goal is to bring well back to its 400 gallon-per-minute capacity. Existing well is pumping at 227 gpm.

## Little Bay Water Transmission Main Replacement



- Wetlands permit proceeding with NHDES
- \$6.14 million – current total cost estimate
- Working with landowners for construction site access agreements
  - Two Durham properties
  - Newington – Town property
- Bid in June/July 2022
  - Allow time for contractor to procure pipe
- Construction, winter of 2022/2023

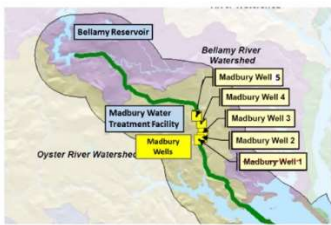
## Portsmouth – Dover Emergency Interconnection



- \$223,000 grant to fund design of pipe across bicycle/pedestrian bridge
- Construction in 2024
- We will continue to pursue other grant funds to pay for construction

Third line under bay for additional redundancy.  
70% of water from Madbury. Well #5 up and online this summer

## Madbury Well Upgrades



- - Project Underway
- - New Wells will be connected to system
  - Well 4R
  - Well 5
- - Brief shutdown after first of year to install new pipe

PFAS non-detect – gallons treatment

# Pease Water PFAS Treatment System Performance



## PEASE WATER TREATMENT FACILITY PFAS RESULTS - POST TREATMENT

SAMPLED	PFAS*	Gallons Treated
4/27/2021	ND	2,717,039
5/4/2021	ND	4,354,049
5/11/2021	ND	6,387,665
5/12/2021	ND	6,830,373
5/18/2021	ND	9,391,617
6/15/2021	ND	23,133,046
7/19/2021	ND	41,445,555
8/4/2021	ND	52,901,428
8/5/2021	ND	53,782,078
8/11/2021	ND	58,558,918
8/18/2021	ND	64,975,798
8/25/2021	ND	69,830,038
9/15/2021	ND	86,914,498
10/13/2021	ND	106,446,219
11/17/2021	ND	123,708,814

ND = None Detected at Method Reportable Limit (2 ppt)

15

## PFAS Average – 12 Month Rolling New Hampshire Regulated Compounds - All Sources In Compliance

	Parts Per Trillion (PPT)	NH MCL	RAW*	MADBURY WTP FINISHED	MADBURY WELL 2	MADBURY WELL 3	MADBURY WELL 4	PORTSMOUTH WELL	COLLINS WELL	GREENLAND WELL	PEASE WTP
PFHxS	ng/L	18	0	0	0	0	0	7	2	2	0
PFOS	ng/L	15	0	0	0	0	0	5	4	5	0
PFOA	ng/L	12	1	2	2	3	0	6	4	4	0
PFNA	ng/L	11	0	0	0	0	0	0	0	0	0

## PFPrA Finding

Pilot Study with National Research Defense Council (NRDC) to test tap samples for more expansive, targeted list of PFAS

One residential tap sample from City of Portsmouth was analyzed as part of the pilot study by Eurofins labs - sample analyzed for 70 PFAS

PFPrA detected at 35 ppt

Follow-up sampling will occur in early March 2022:

- Tap sample at DPW (previous sample location not available)
- Samples at Madbury Water Treatment Facility and Portsmouth Well
- EPA lab will analyze for PFPrA
- Duplicate samples with Eurofins laboratory

## Community Drinking Water Forum (Brian Goetz & Andrea Amico)

SWAG to host Community Drinking Water Forum during National Drinking Water Week (May 1-7, 2022)

Forming subcommittee to plan agenda, format and outreach.

Goal is to educate public on water quality and FAQs resources

Portsmouth Public Library/zoom as venue for evening meeting. Interactive tool for immediate feedback.



## Future Meetings & Goals (Brian Goetz & Andrea Amico) 2022-23

- Community Drinking Water Forum
- Legislative updates
- Private well owner outreach with NH DES
- Coakley Landfill update
- Monitor emerging contaminants, PFPrA, PFAS in runoff (PHS: from solar panels and scrap metal yard?)
- Community education on disposal of items containing PFAS
- Work with School Department to provide educational resources to students.
- Public education series, so as not to overwhelm, on chemicals in the environment, contaminants

### Meeting schedule:

February

April

August

November

Public Comment – no public comment.

Meeting adjourned at 8:30 pm.

