

# Safe Water Advisory Group

March 7th, 2023 | 6:30-8:30pm

Hybrid Meeting: Portsmouth City Hall Conference A and Zoom

# Agenda

1. SWAG survey results
2. Year in review 2022
3. Legislative update / EPA MCL update
4. Dover NH Tolend Landfill presentation
5. Q&A
6. Public Comment

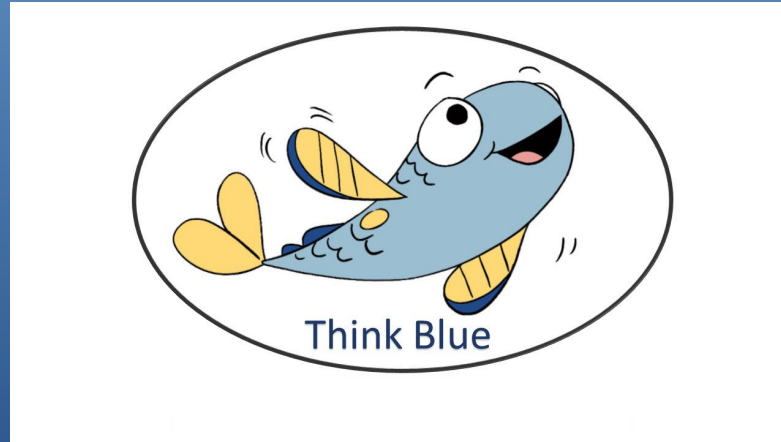
# SWAG Survey Update

- 10 SWAG members completed it
- Tuesday & Wednesdays were the best days to meet
- 6:30-8:30pm was the best meeting time

## Future Topics:

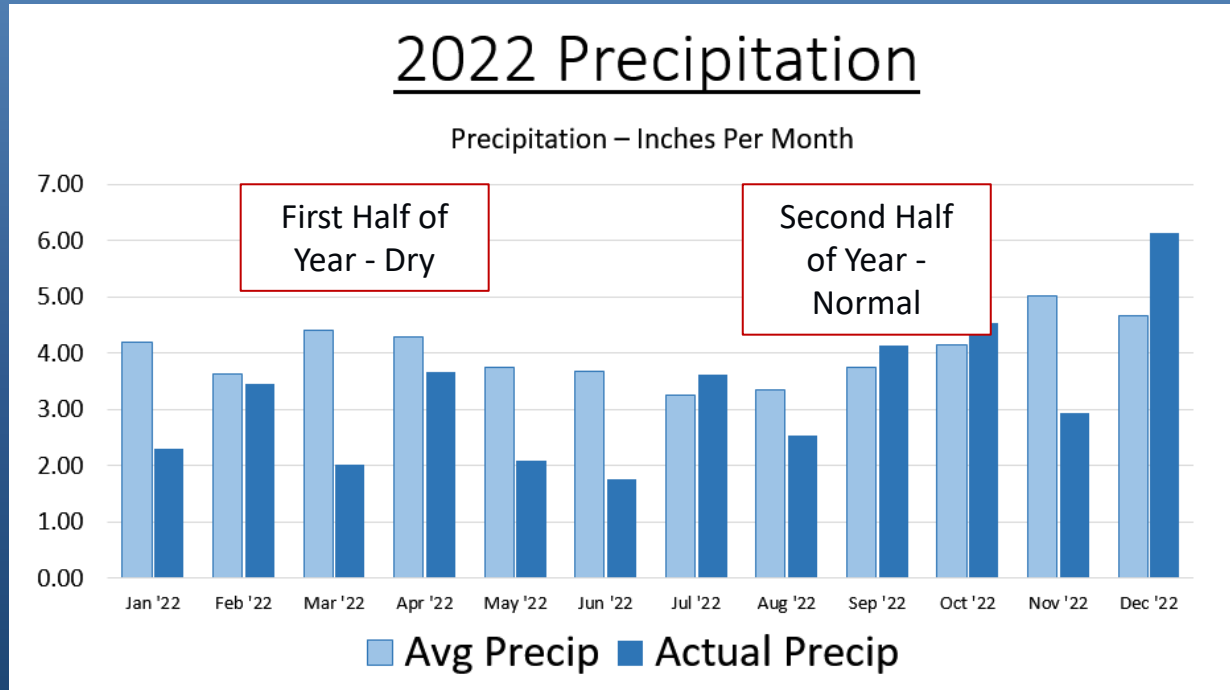
- Other sources of PFAS in the City that could impact water supply (ie artificial turf, car washes, solar panels, landfills) - 7 votes
- Public outreach around watershed and drinking water sources - 7 votes
- Legislative updates - 7 votes
- How City emergencies impact water supply - 4 votes
- Coakley Landfill's impacts to drinking water - 4 votes
- Legionnaires - 3 votes
- Overall Water Supply Infrastructure - 1 vote
- Wastewater - 1 vote
- Cesium-137 - 1 vote
- Lead & issues impacting children - 1 vote

# Portsmouth Water – 2022 Year in Review



Safe Water Advisory Group  
March 7, 2023

# 2022 Weather



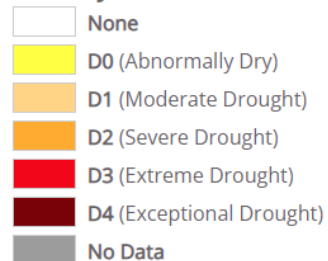
## New Hampshire

[Home](#) > [New Hampshire](#)

**Map released: Thurs. February 23,  
2023**

**Data valid: February 21, 2023 at 7 a.m. EST**

### Intensity



### Authors

United States and Puerto Rico Author(s):

[Richard Heim](#), NOAA/NCEI

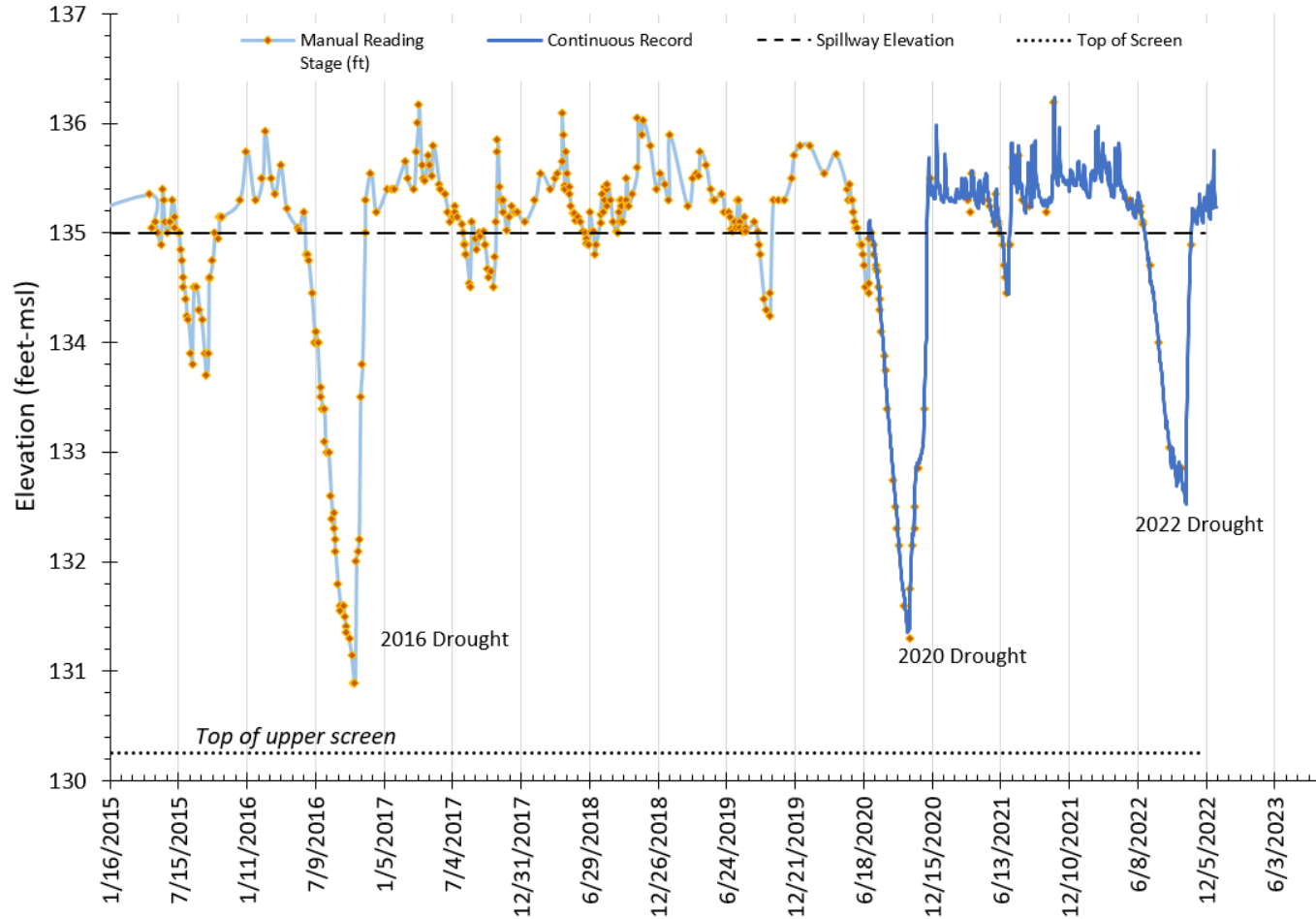
Pacific Islands and Virgin Islands Author(s):

[Rocky Bilotta](#), NOAA/NCEI

# 2022 Weather Summary (Boston Globe)

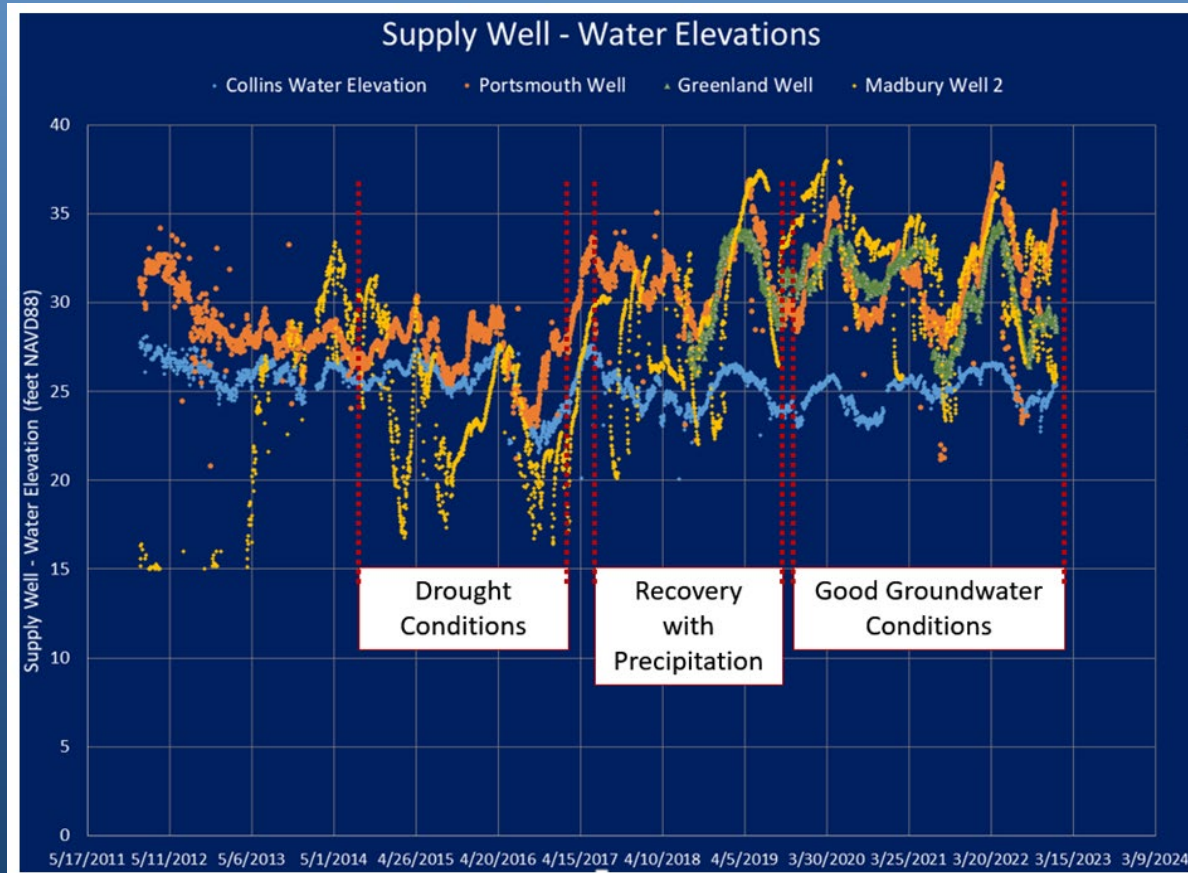
- Average Temperature was 53.7 degrees
  - 1.7 degrees above normal (since 1872)
- July – 3<sup>rd</sup> warmest (150 years)
- August – 3<sup>rd</sup> warmest (150 years)
- November – 7<sup>th</sup> warmest (150 years)

# Bellamy Reservoir Water Level

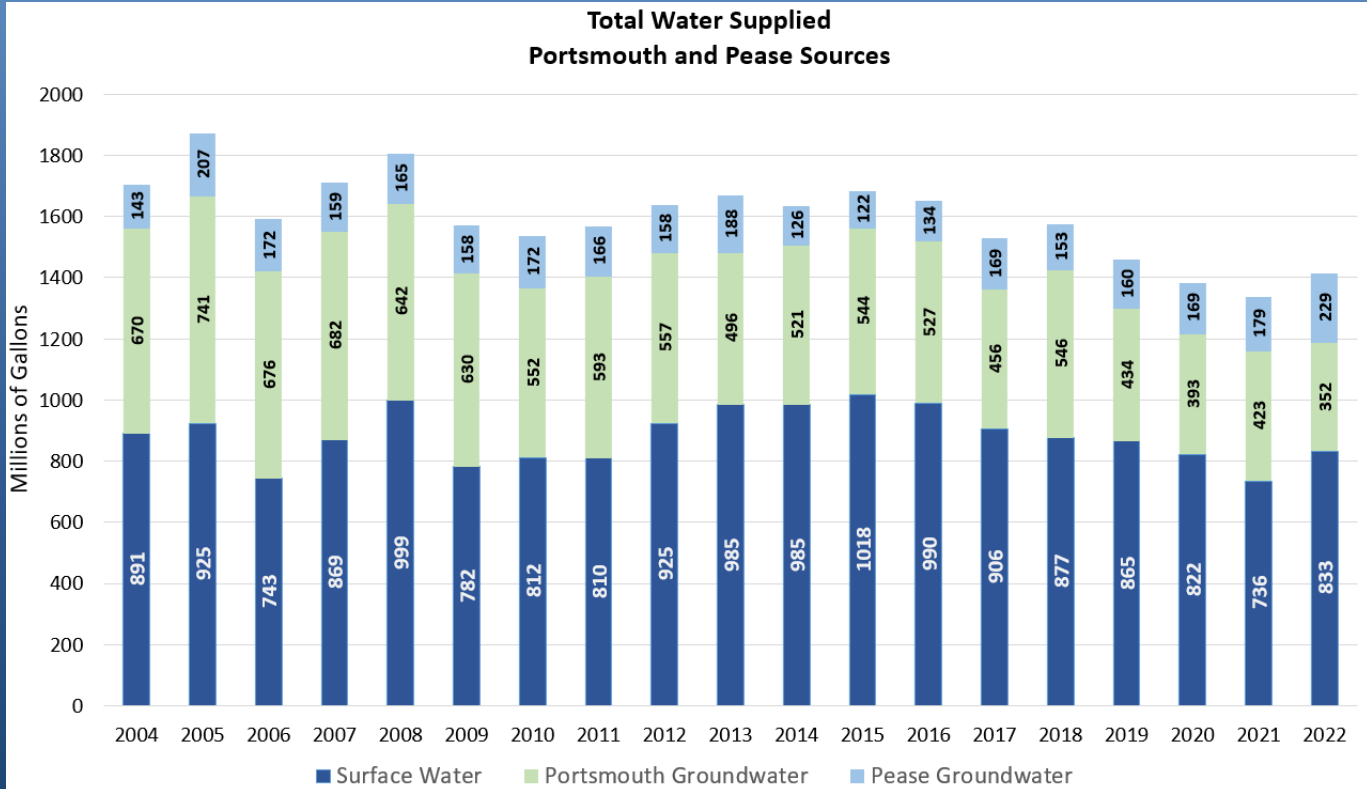




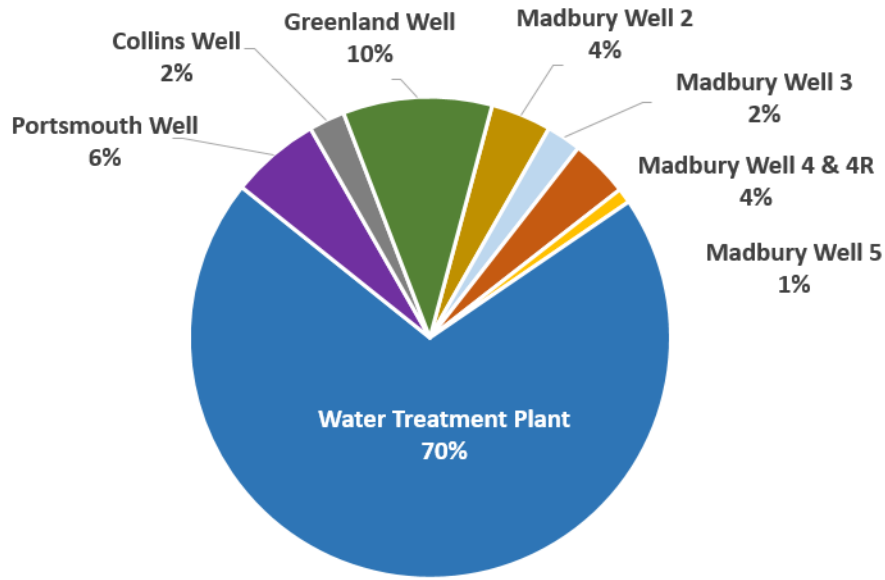
# Well Levels – 12 Year Trends: Good



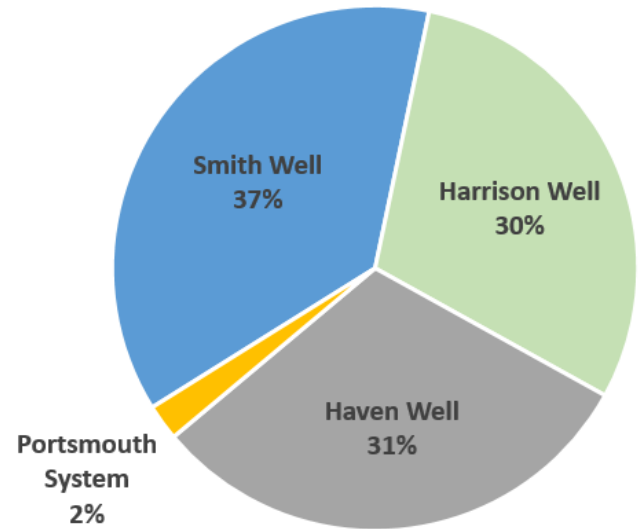
# Water Supply



### Portsmouth Water Sources Source Percentages in 2022

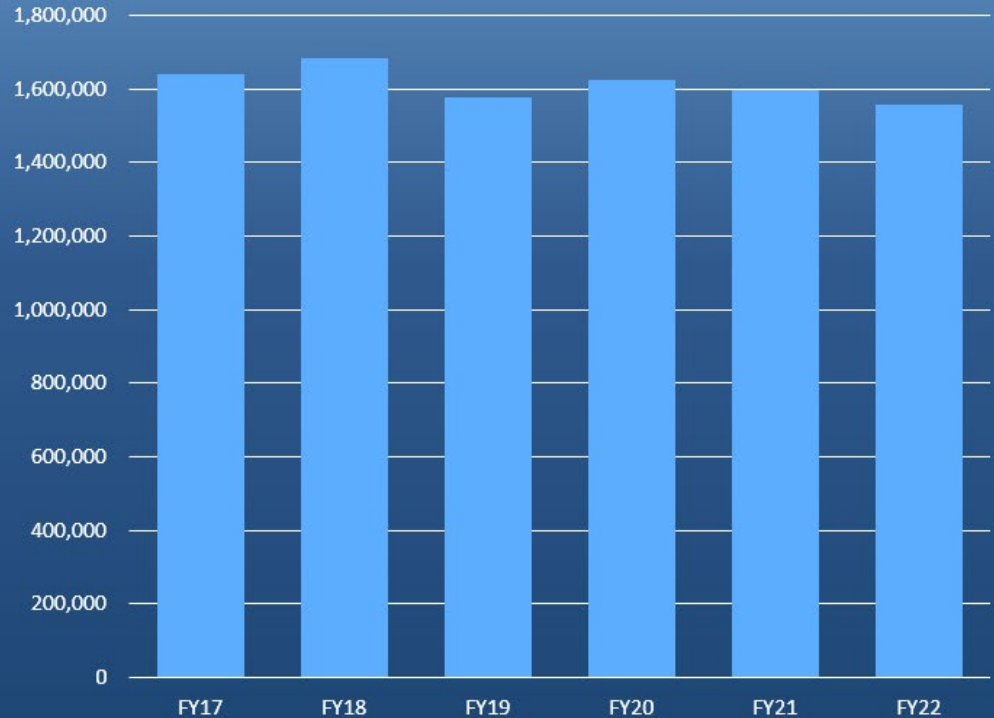


### Pease Supply Sources Source Percentages in 2022



# Water FY Sales Trend (Total Units)

	<b>Water Units Billed</b>
FY17	1,640,856
FY18	1,682,823
FY19	1,576,453
FY20	1,624,340
FY21	1,583,537
FY22	1,551,734



# Water Efficiency Rebates – Through FY22

## 1,496 Total Rebates

### City of Portsmouth - Water and Sewer Division Water Efficiency Rebate Program - Status Report



Date: 6/20/2022

#### Total Rebates Issued

Rebate Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	TOTAL	Rebate/ each	Total Rebates
Low-Flow Toilet	253	368	161	79	102	98	87	1148	\$100	\$114,800
High-Efficiency Washing Machine	34	24	26	36	68	95	65	348	\$150	\$52,200
	287	392	187	115	170	193	152	1496		\$167,000

# Portsmouth Water Savings Estimate – As of June 1, 2022

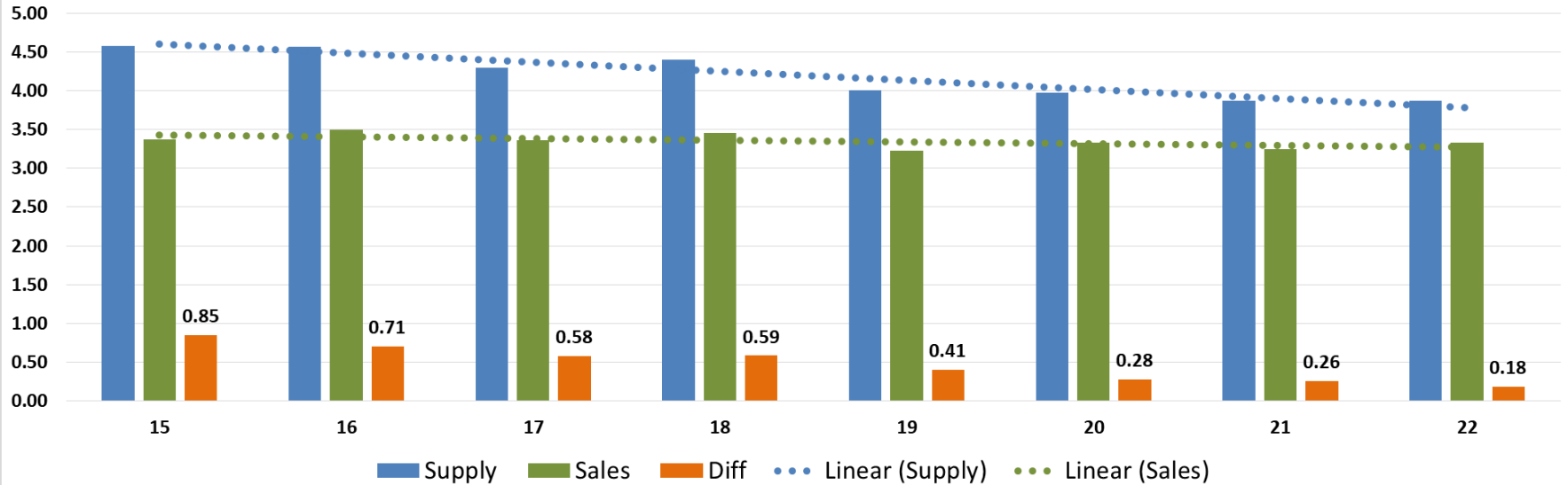
- **Typical Family of Four, each flushing 4x/day:**
  - 3.5 gallon toilet = 56 gallons/day
  - 1.28 gallons toilet = 20.5 gallons/day
    - **Savings of 13,000 gallons/year**
- **One Load of Laundry a Day:**
  - Older Top Loading Washer = 40 gallons/day
  - High Efficiency Washer = 13 gallons/day
    - **Savings of 10,000 gallons/year**

Rebate Type	TOTAL	Gal/Day Saved per Rebate	Total Gal/Day
Low-Flow Toilet	1,148	36	40,754
High-Efficiency Washing Machine	348	27	9,396
	1,496		50,150

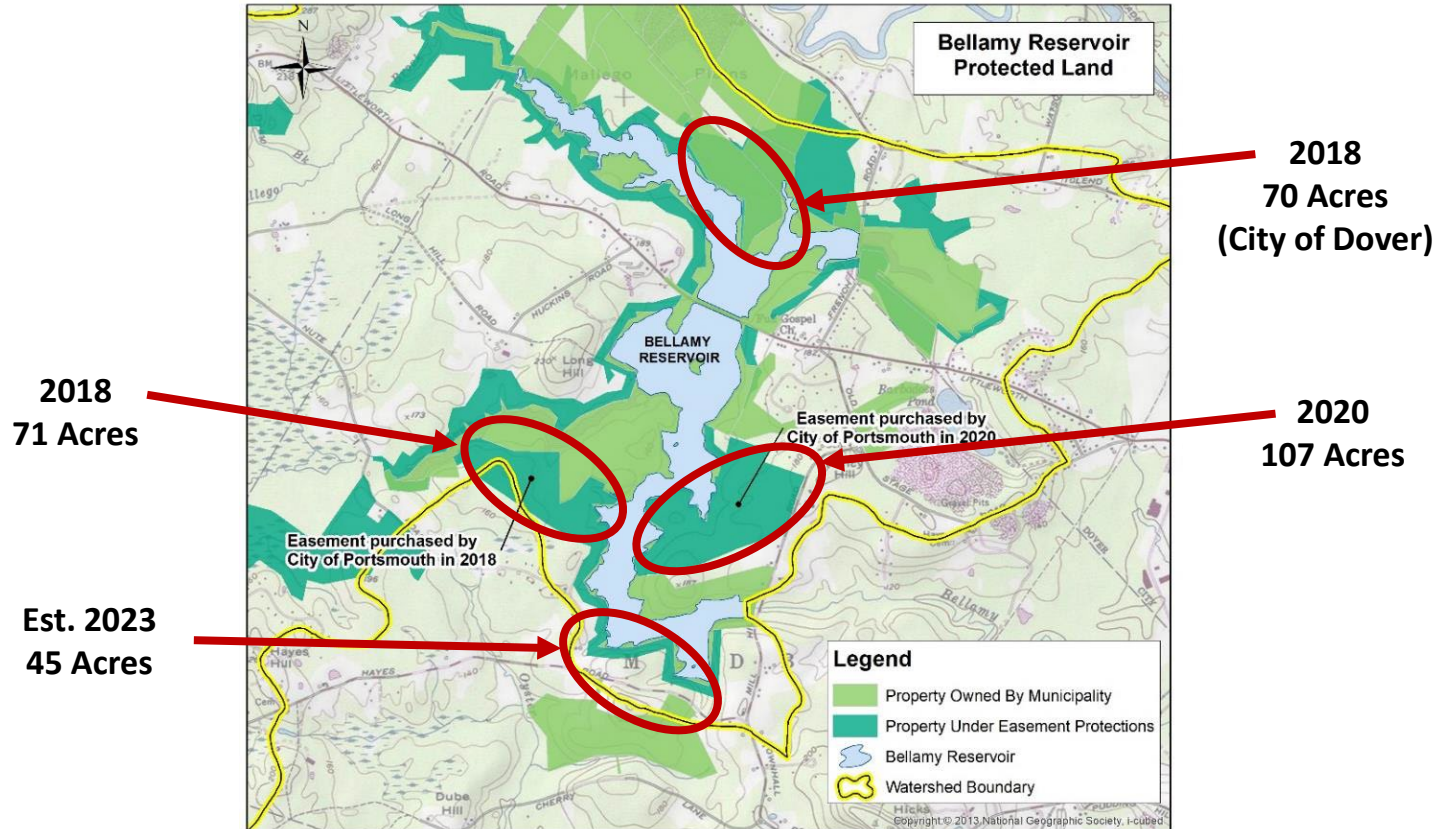
- **50,150 Gallons per day savings**
- **18.3 Million gallons per year**
- **Reduction of 1.4% of water demand**

# Water Balance

Production versus Sales and Non Revenue Trend (MGD)



# Portsmouth – Bellamy Reservoir Source Water Protection Efforts





SOURCE WATER PROTECTION														
LAND AND EASEMENT PURCHASE RECORD														
SOURCE	PARCEL/ PROJECT NAME	DATE PROTECTED	PROTECTION	PORTSMOUTH ROLE	BOOK & PAGE	ACRES	PROXIMITY TO SOURCE	CITY FUNDS	DWGTF	GBRPP	OWNER FUNDS	TOWN FUNDS	TOWN	
Harrison Well	Sherburne Rd Property	5/21/2003	City Property	Owner	4035-2172	4.34	Adjacent to Harrison Well Parcel							
Bellamy Reservoir	Souther Property	3/15/2018	Dover Owned	None	1506-295	69.3	Adjacent to Reservoir	\$0				\$125,000	Dover	
Bellamy Reservoir	Olson Easement	12/18/2018	Conservation Easement	Easement Holder	4624-0179	70.8	Adjacent to Reservoir	\$223,130	\$200,000					Madbury
Bellamy Reservoir	Haley-Rubinstein-Goodwill	2/21/2020	Conservation Easement	None	4735-874	210	Watershed	\$10,000	?			?	Barrington	
Bellamy Reservoir	Duffy Easement	12/29/2020	Conservation Easement	Easement Holder	4851-456	107	Adjacent to Reservoir	\$271,403	\$283,600	\$11,504	\$1,000	\$0	Madbury	
Greenland Well	Chick Property	11/6/2020	Portsmouth Property	Owner	6191-124	3.11	Within 400 ft SPA of Well	\$220,000					Greenland	
Bellamy Reservoir	Fernald Property		Conservation Easement	Easement Holder		45	Adjacent to Reservoir						Madbury	

# Collins Well Upgrades

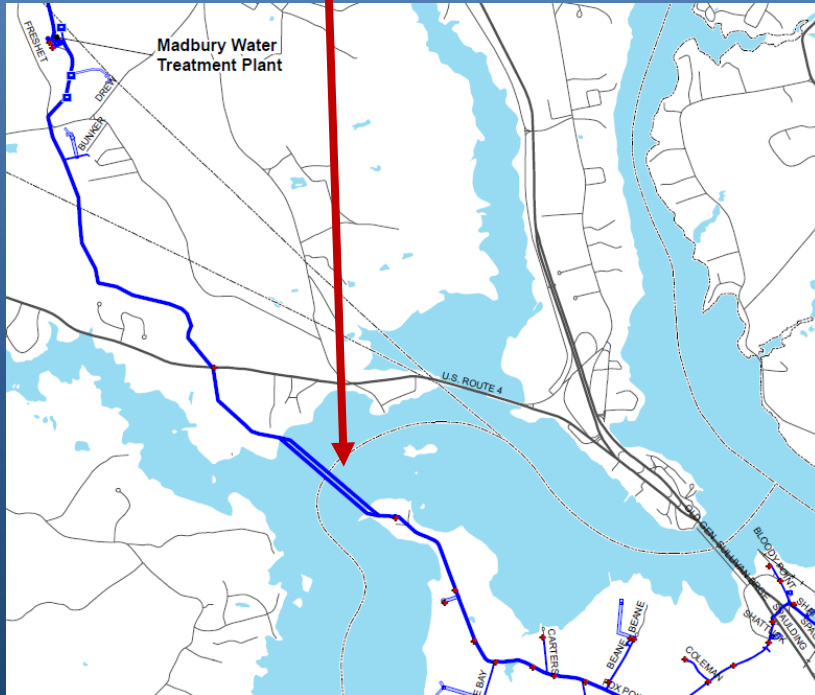


Existing  
Collins Well

New  
Collins Well B

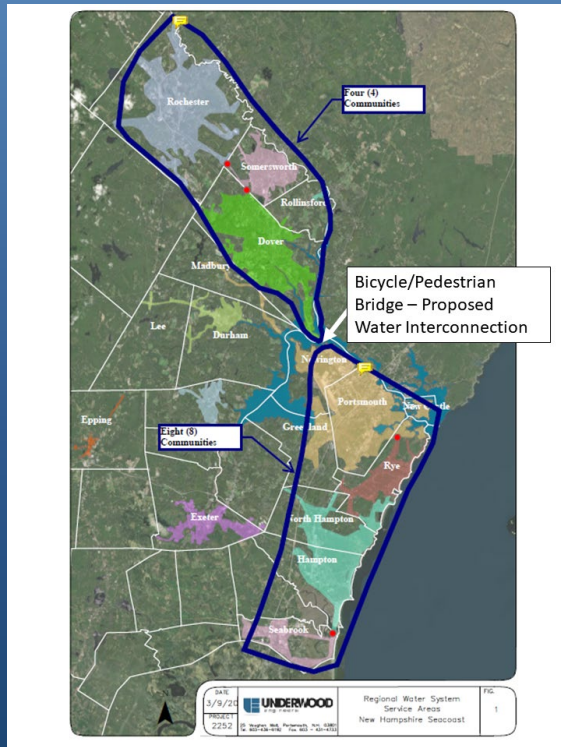
- New well complete and well screen installed
- Well purging/cleaning this week and next
- Pump testing complete
- Awaiting response from NHDES regarding approval


# Little Bay Water Transmission Main Replacement




- Wetlands permit proceeding with NHDES
- Working with landowners for construction site access agreements
  - Town of Durham:
    - Wagon Hill
    - 180 Piscataqua Way
  - Newington – Town property
- Bid in June/July 2023
  - Allow time for contractor to procure pipe
- Construction, winter of 2023/2024

# Portsmouth – Dover Emergency Interconnection





**NEW HAMPSHIRE DRINKING WATER  
& GROUNDWATER TRUST FUND**



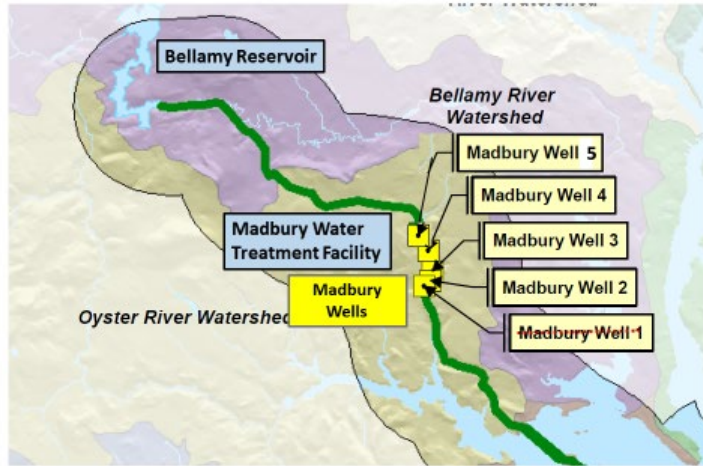
**Commission Members**      January 18, 2022

<p><b>Senator Chuck Morse,</b> Chair</p> <p><b>Senator Tom Sherman,</b> Vice Chair</p> <p><b>Bruce Cohen,</b> NH State Representative</p> <p><b>Linda Gould,</b> NH State Representative</p>	<p><b>Brian Goetz</b> (<a href="mailto:bgoetz@cityofportsmouth.com">bgoetz@cityofportsmouth.com</a>) Deputy Director Portsmouth Water Works 680 Peverly Hill Road Portsmouth, NH 03801</p>	<p><b>John Storer</b> (<a href="mailto:j.storer@dover.nh.gov">j.storer@dover.nh.gov</a>) Community Services Director Dover Water Department 271 Mast Road Dover, NH 03820</p>
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Subject: Portsmouth – Dover Emergency Interconnection

- \$223,000 grant to fund design of pipe across bicycle/pedestrian bridge
- \$7.2 Million cost estimate
- \$3.5 Million Congressional Earmark for Construction
- We will continue to pursue other grant funds to pay for construction

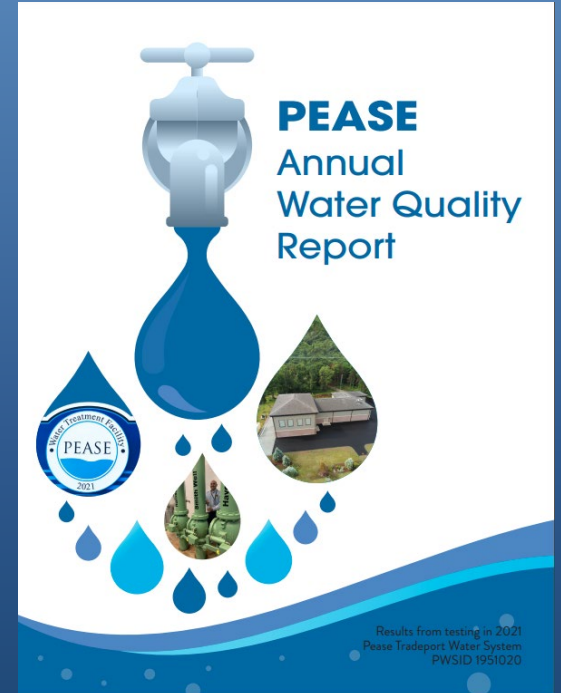
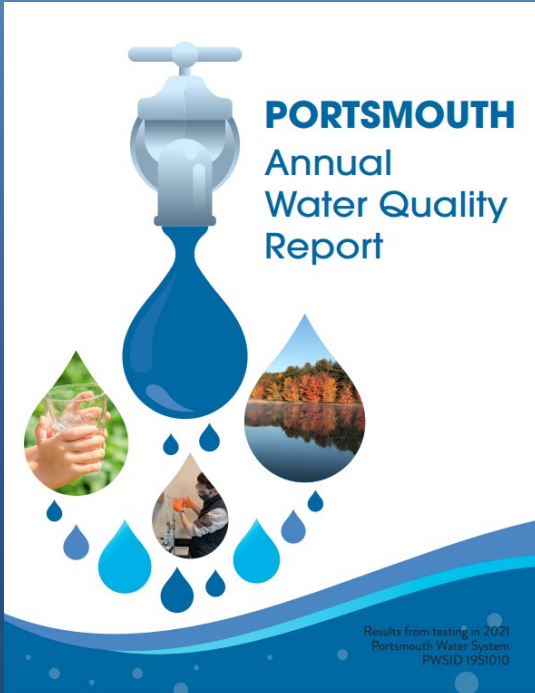
# Madbury Well Upgrades



- - Complete
  - Well 4R
  - New Well 5

# Water Quality

- Both water systems met all drinking water standards in 2022



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
12/14/2021	ND	135,102,720
1/12/2022	ND	145,754,577
2/10/2022	ND	160,343,640
2/16/2022	ND	163,485,793
3/16/2022	ND	174,946,090
4/13/2022	ND	189,692,270
5/17/2022	ND	207,992,500
6/16/2022	ND	228,834,350
7/18/2022	ND	256,890,179
8/16/2022	ND	287,679,548
9/20/2022	ND	315,416,836
10/19/2022	ND	332,261,840
11/16/2022	ND	345,721,188
12/14/2022	ND	359,024,412

\* NH Regulated PFAS (PFOA, PFOS, PFHxS & PFNA)

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

# Pease Water PFAS Treatment System Performance







# New Hampshire DES Annual Water System Site Visit December 22, 2022

- We commend the managers of the water system for a well operated system through continuous maintenance efforts and regularly planned capital improvements.
- The operators of the water utility continue to be pro-active in all aspects of operations including water conservation, communication with the stakeholders and the general public, and developing a succession plan for staffing.

# Legislative Update

Representative David Meuse

Bill #	Description	Analysis	Committee	Committee Vote	House Vote	Sponsors
HB 242-FN	relative to banning PFAS in food packaging	This bill bans the use of food packaging containing perfluoroalkyl and polyfluoroalkyl substances (PFAS).	Commerce			Rep. Dunn, Rock. 16; Rep. N. Murphy, Hills. 12; Rep. Rung, Hills. 12; Rep. W. Thomas, Hills. 12; Rep. K. Perez, Rock. 16; Sen. Carson, Dist 14
HB 414-FN	relative to health insurance coverage for preventative PFAS care	This bill requires insurers to cover preventative PFAS care.	Commerce			Rep. W. Thomas, Hills. 12; Rep. N. Murphy, Hills. 12
HB 465-FN	restricting use of perfluoroalkyl and polyfluoroalkyl substances in certain consumer products	This bill restricts the use of per and polyfluoroalkyl substances in rugs, carpets, and aftermarket stain and water resistant treatments sold in New Hampshire.	Commerce	RETAINED		Rep. Ebel, Merr. 7; Rep. Rung, Hills. 12; Rep. N. Murphy, Hills. 12; Rep. Grote, Rock. 24; Rep. Malloy, Rock. 24; Rep. Mooney, Hills. 12; Rep. Dunn, Rock. 16; Rep. B. Boyd, Hills. 12; Rep. Merner, Coos 1; Sen. Watters, Dist 4; Sen. Chandley, Dist 11; Sen. Ricciardi, Dist 9; Sen. Perkins Kwoka, Dist 21; Sen.
HB 56	relative to permits for the siting of new landfills	This bill establishes a formula for determining the distance for which a new landfill shall be located from a perennial river, lake, or coastal water.	Env. & Ag.			Rep. M. Murray, Hills. 37; Rep. Massimilla, Graf. 1; Rep. Almy, Graf. 17; Rep. Petrigno, Hills. 43; Rep. Hamer, Hills. 19; Rep. Stapleton, Sull. 6; Rep. Simpson, Rock. 33; Sen. Watters, Dist 4
HB 602-FN	relative to landfill siting	This bill establishes additional requirements for siting of landfills as permitted by the department of environmental services.	Env. & Ag.	RETAINED		Rep. Simon, Graf. 1; Rep. Mooney, Hills. 12; Rep. Rung, Hills. 12; Rep. Rochefort, Graf. 1

HB 342-FN	relative to lead testing in children	This bill establishes a blood lead level testing requirement for children entering day care and public schools.	Health, Human Services, Elder Affairs	3/8/2023		Rep. N. Murphy, Hills. 12; Rep. W. Thomas, Hills. 12; Rep. Rung, Hills. 12; Rep. Newell, Ches. 4; Rep. Vail, Hills. 6; Rep. Meuse, Rock. 37
HB 205	Relative to testing of private wells	This bill requires that installers of new well pumps test the water for certain contaminants. This bill also requires that property buyers be notified of the presence of certain contaminants in well water before the execution of a contract for purpose.	Resources & Recreation	3/8/2023		Rep. Meuse, Rock. 37; Rep. Grote, Rock. 24; Rep. Edgar, Rock. 29; Rep. Malloy, Rock. 24; Rep. W. Thomas, Hills. 12; Rep. N. Murphy, Hills. 12; Rep. Balboni, Rock. 38; Sen. Altschiller, Dist 24
HB 212-FN-A	appropriating funding for investigations, testing, and monitoring relative to per- and polyfluoroalkyl substances	This bill: I. Changes the name of the PFAS loan fund to the PFAS response fund. II. Adds duties to the department of environmental services relative to investigating, testing, and monitoring for PFAS in soil, groundwater, surface water, wastewater, air, biota, and other media. III. Makes an appropriation to the PFAS response fund.	Resources & Recreation	OTP 20-0	OTP VV (referred to Finance)	Rep. Rung, Hills. 12; Rep. N. Murphy, Hills. 12; Rep. Rombeau, Hills. 2; Rep. Dunn, Rock. 16; Rep. Lascelles, Hills. 14; Sen. Chandley, Dist 11; Sen. Carson, Dist 14
HB 247	relative to protective well radii	This bill removes encroachment waivers, requires the use of a setback reduction form, and removes certain requirements for amended septic system plans.	Resources & Recreation	OTP 20-0	OTP VV	Rep. McConkey, Carr. 8; Rep. Jonathan Smith, Carr. 5; Rep. Avellani, Carr. 4
HB 276-FN-A	establishing the cyanobacteria mitigation loan and grant fund	This bill establishes the cyanobacteria mitigation loan and grant program and the cyanobacteria mitigation fund.	Resources & Recreation	OTPA 17-3	OTPA DV 199-160	Rep. Rung, Hills. 12; Rep. N. Murphy, Hills. 12; Rep. Darby, Hills. 11; Rep. Coker, Belk. 2; Rep. J. MacDonald, Carr. 6; Rep. Crawford,

HB 310	requiring developers to secure hydrology analysis certifying adequate water capacity and potability when building new subdivisions	This bill requires developers to secure certain hydrological analysis for subdivisions.	Resources & Recreation	ITL 16-4	ITL VV	Rep. McGhee, Hills. 35; Rep. Grill, Hills. 18; Rep. Spier, Hills. 6
HB 398	relative to notice of PFAS and other groundwater contamination prior to the sale of real property	This bill requires certain notice of PFAS and other groundwater contamination prior to the sale of real property.	Resources & Recreation	3/8/2023		Rep. W. Thomas, Hills. 12; Rep. N. Murphy, Hills. 12
HB 534	relative to water assistance for natural disasters	This bill creates a water assistance fund to be used to repair and replace drinking water treatment sources damaged by natural disasters. The bill also makes an appropriation to the fund.	Resources & Recreation	OTP 11-9	OTP DV 179-177 (referred to Finance)	Rep. B. Boyd, Hills. 12; Rep. Petrigno, Hills. 43; Rep. L. Gould, Hills. 2; Rep. Hakken-Phillips, Graf. 12; Sen. Rosenwald, Dist 13
HB 592	relative to buffers around wetlands	This bill exempts temporary impacts and small impervious surface impacts projects from local overlay districts and permits for construction, excavation, or filling near wetlands.	Resources & Recreation	ITL 19-0	ITL VV	Rep. Horgan, Straf. 1
SB 60	relative to water quality	This bill makes changes to the timeline for certifications by the department of environmental services of activities that may result in a discharge into surface water bodies.	Energy and Natural Resources			Sen. Gray, Dist 6; Sen. Watters, Dist 4; Sen. Avard, Dist 12; Rep. Renzullo, Hills. 13
SB 61	relative to surface water setbacks for landfills	This bill enables the department of environmental services to adopt rules relative to surface water setbacks for landfills.	Energy and Natural Resources	OTPA 5-0		Sen. Avard, Dist 12; Sen. Lang, Dist 2; Sen. Ward, Dist 8; Sen. Watters, Dist 4; Sen. Carson, Dist 14

SB 62	relative to landowner liability under RSA 147-B, the hazardous waste cleanup fund	This bill clarifies landowner liability provisions relative to the hazardous waste cleanup fund and updates references to the term hazardous wastes and hazardous substances. The bill is a request of the department of environmental services.	Energy and Natural Resources			Sen. Avar, Dist 12; Sen. Watters, Dist 4; Sen. Murphy, Dist 16
SB 159-FN-L	relative to permits for the siting of new landfills	This bill prohibits the department of environmental services from permitting unrestricted landfills.	Energy and Natural Resources	OTP	OTP	Sen. Fenton, Dist 10; Sen. Altschiller, Dist 24; Sen. Watters, Dist 4; Rep. N. Murphy, Hills. 12; Rep. Read, Rock. 10; Rep. Bouldin, Hills. 25; Rep. Fedolfi, Hills. 30

# EPA PFAS MCL Update

Anticipate proposed MCLs very soon

# Tolend Landfill Presentation

City of Dover



Q&A

# Public Comment

# Next Meeting

- TBD – June 2023