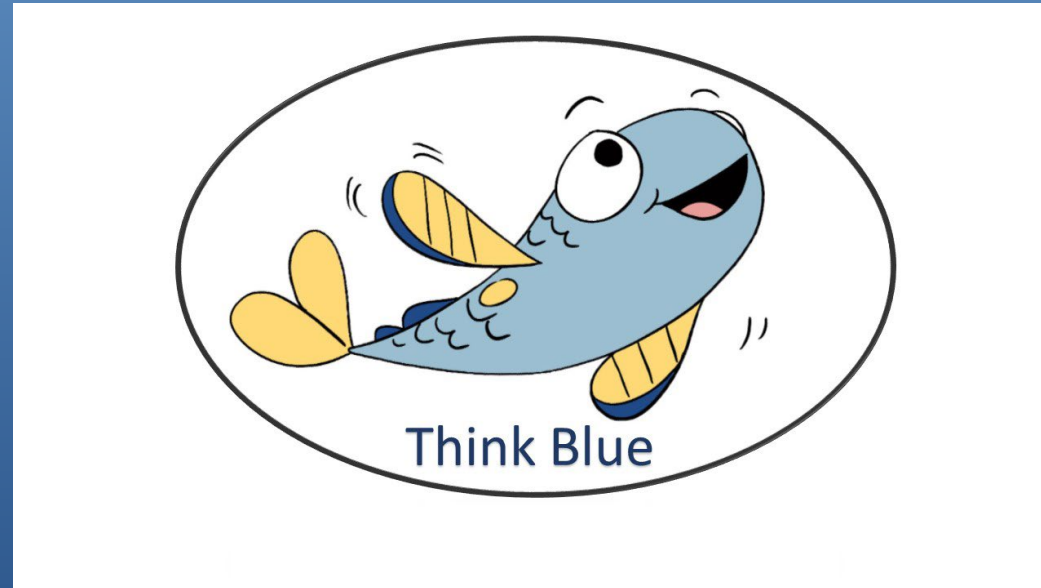
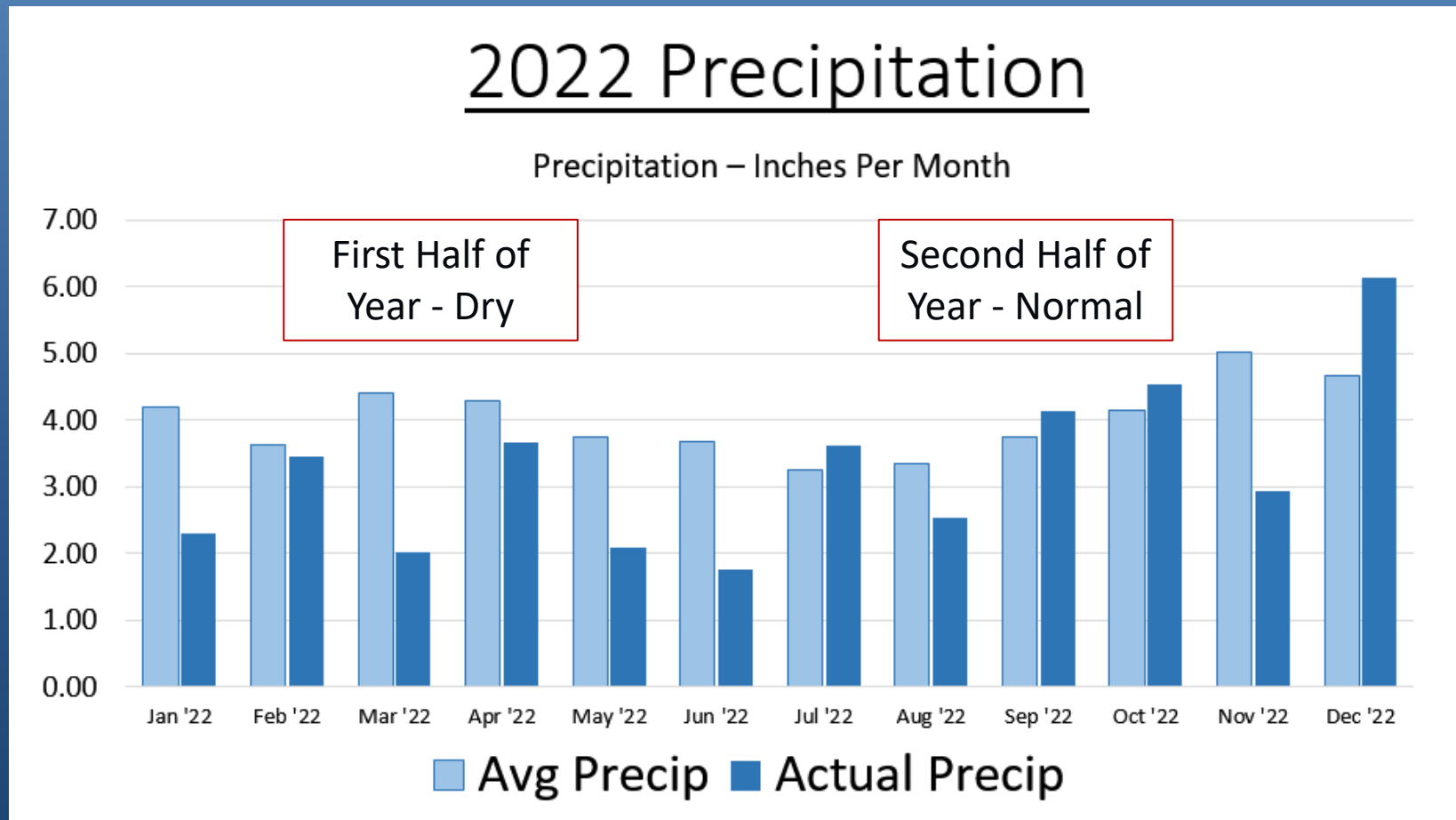


# Portsmouth Water – 2022 Year in Review



Safe Water Advisory Group  
March 7, 2023

# 2022 Weather



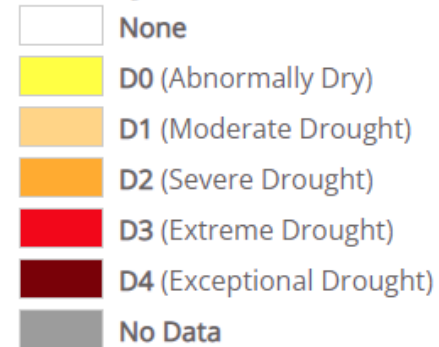
## New Hampshire

[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

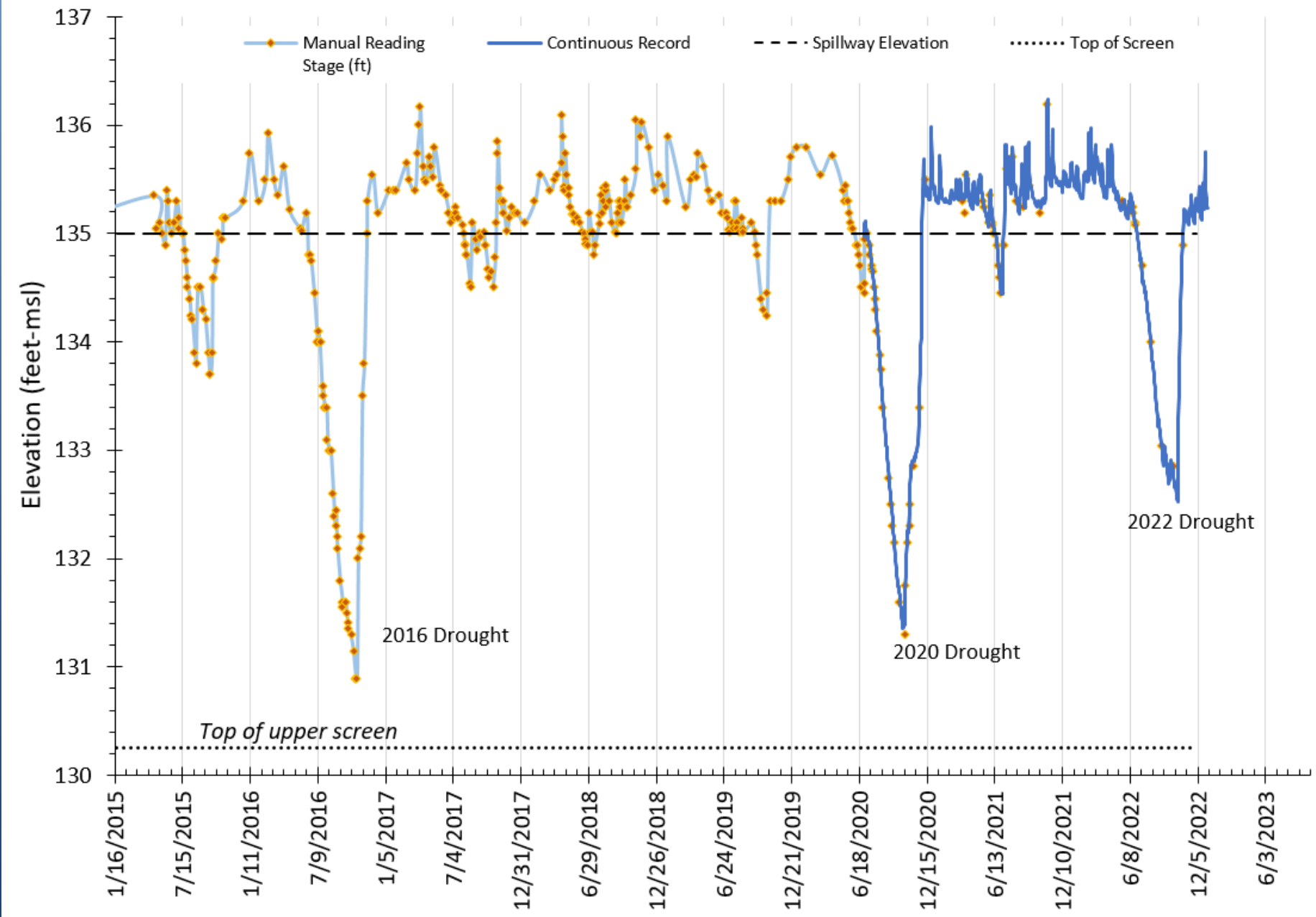
Pacific Islands and Virgin Islands Author(s):

**Rocky Bilotta**, NOAA/NCEI

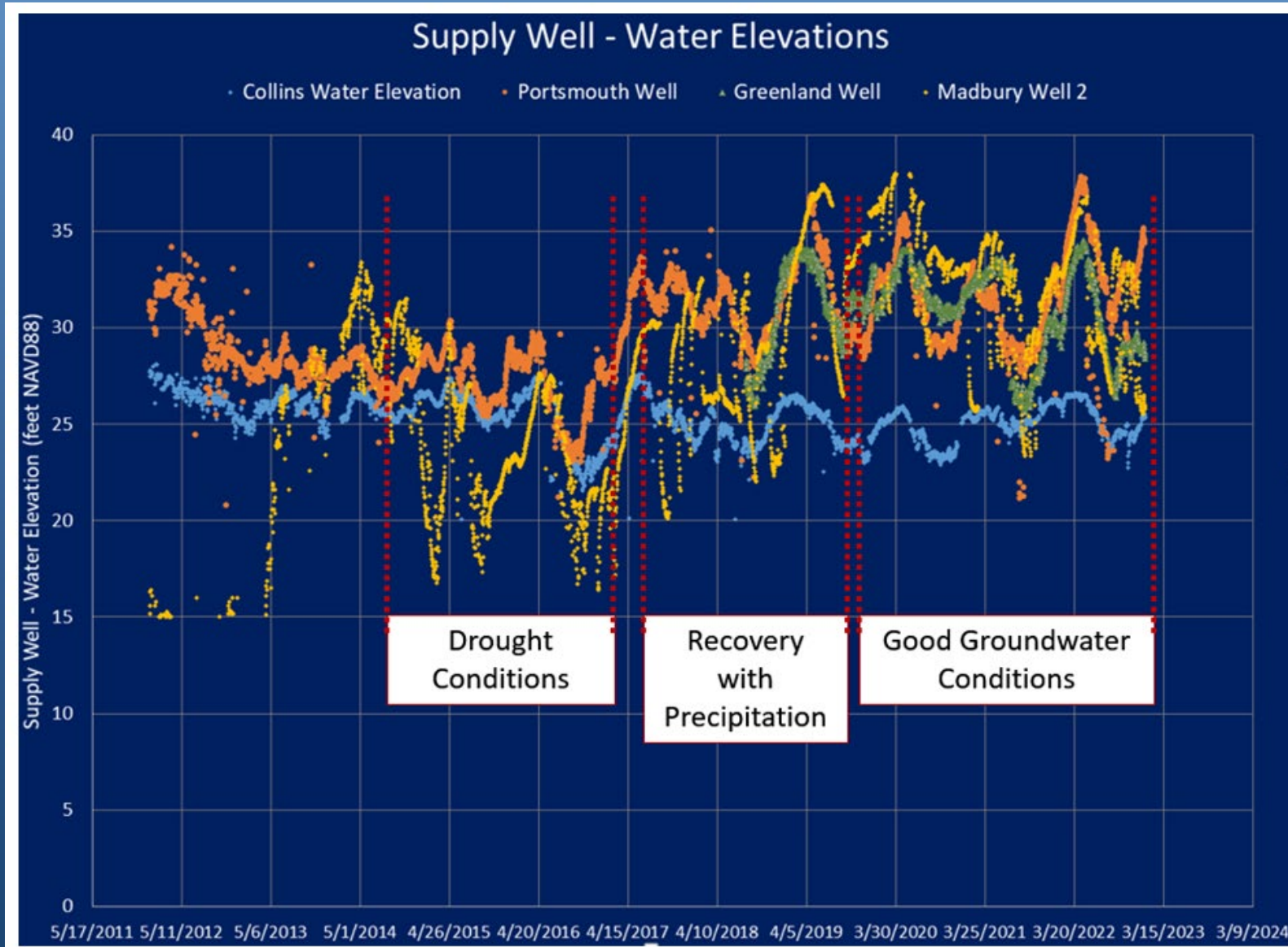
# 2022 Weather Summary (Boston Globe)

- 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)

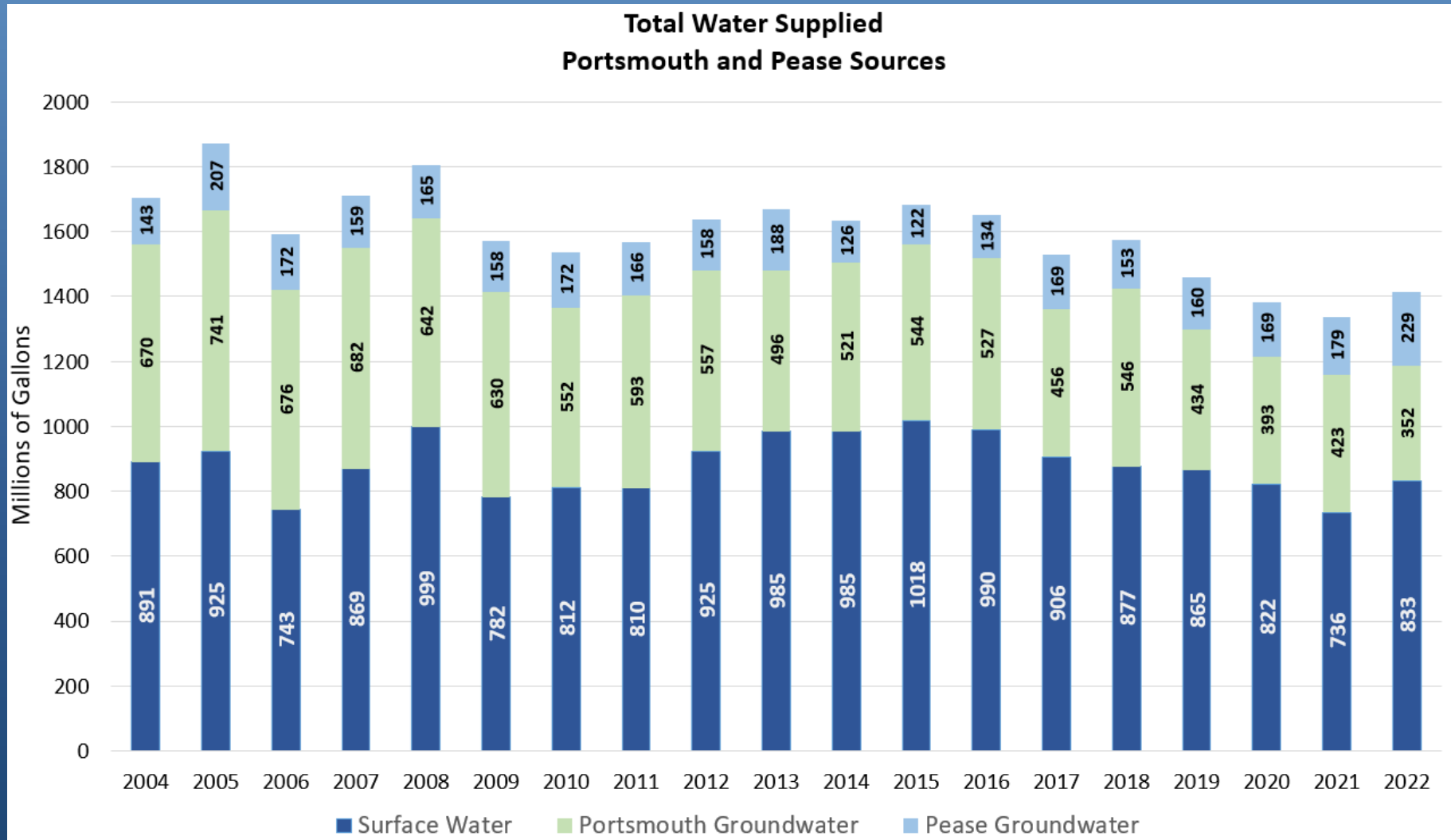
# Bellamy Reservoir Water Level



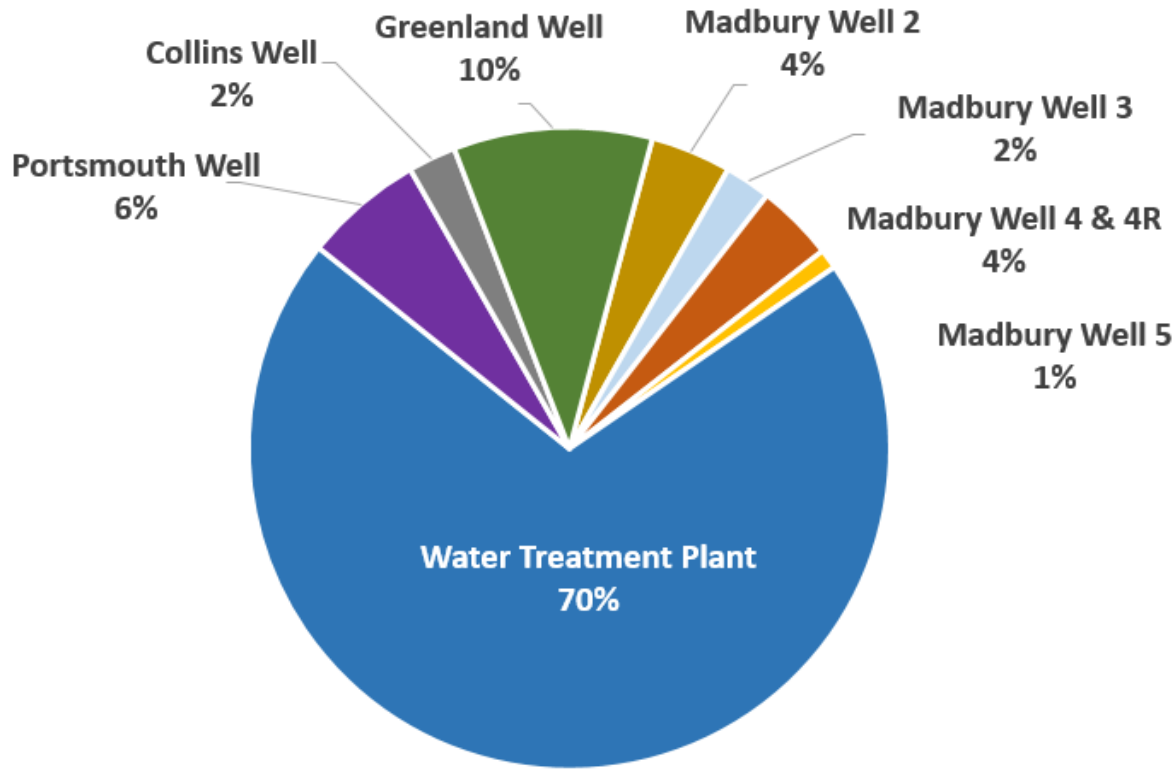
# Well Levels – 12 Year Trends: Good



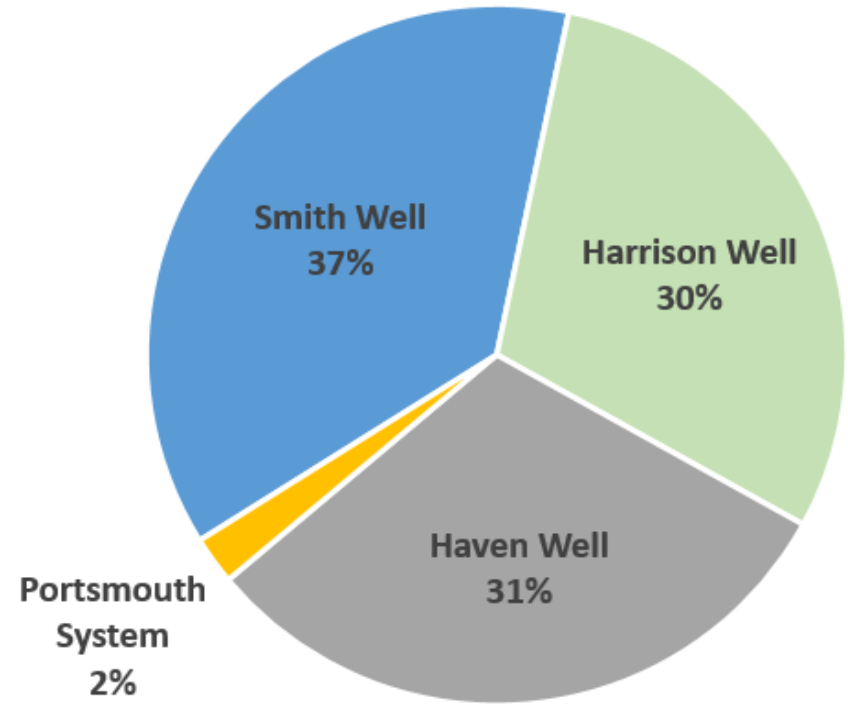
# Water Supply



**Portsmouth Water Sources  
Source Percentages in 2022**



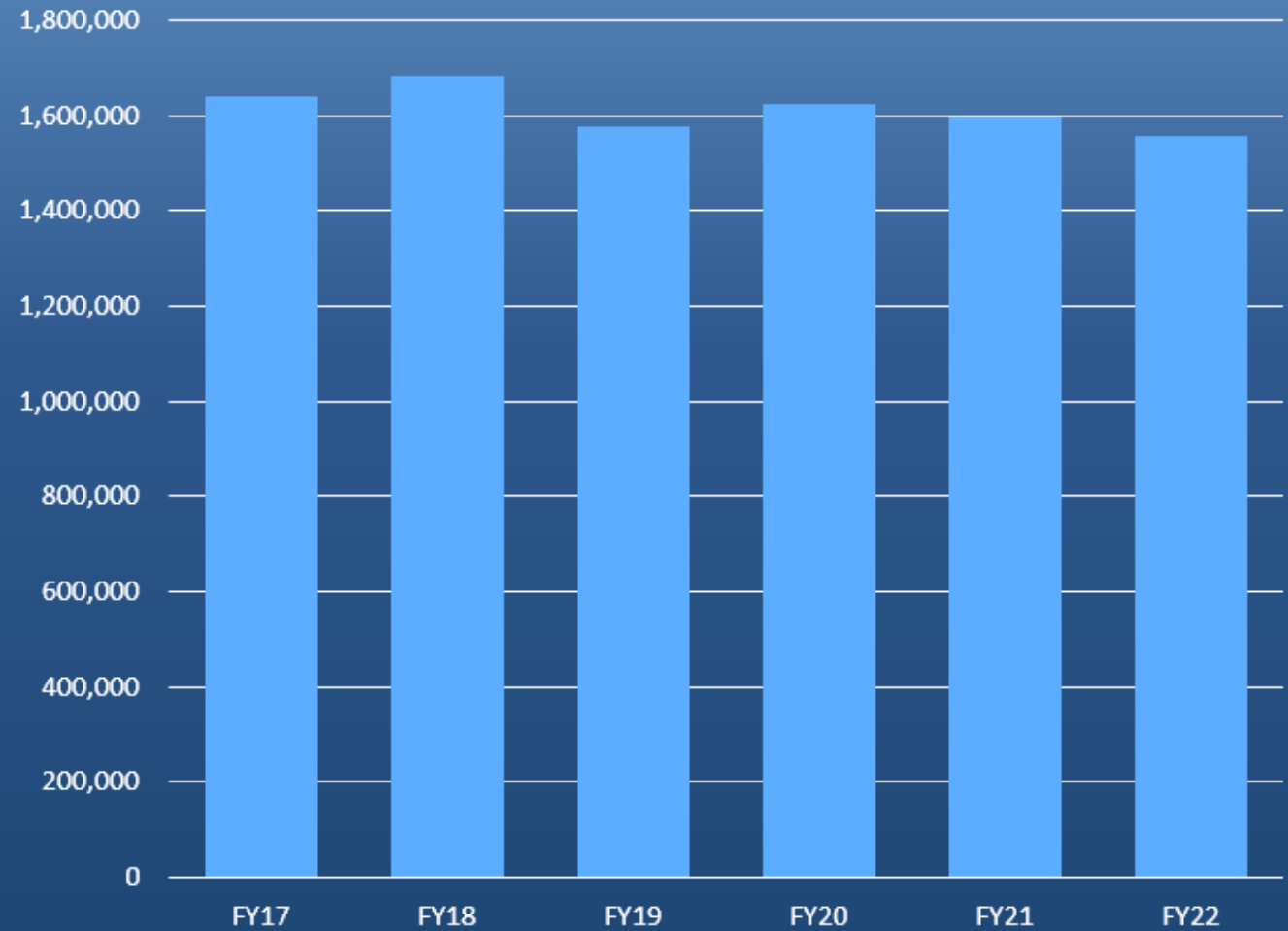
**Pease Supply Sources  
Source Percentages in 2022**





# Water FY Sales Trend (Total Units)

	Water Units Billed
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

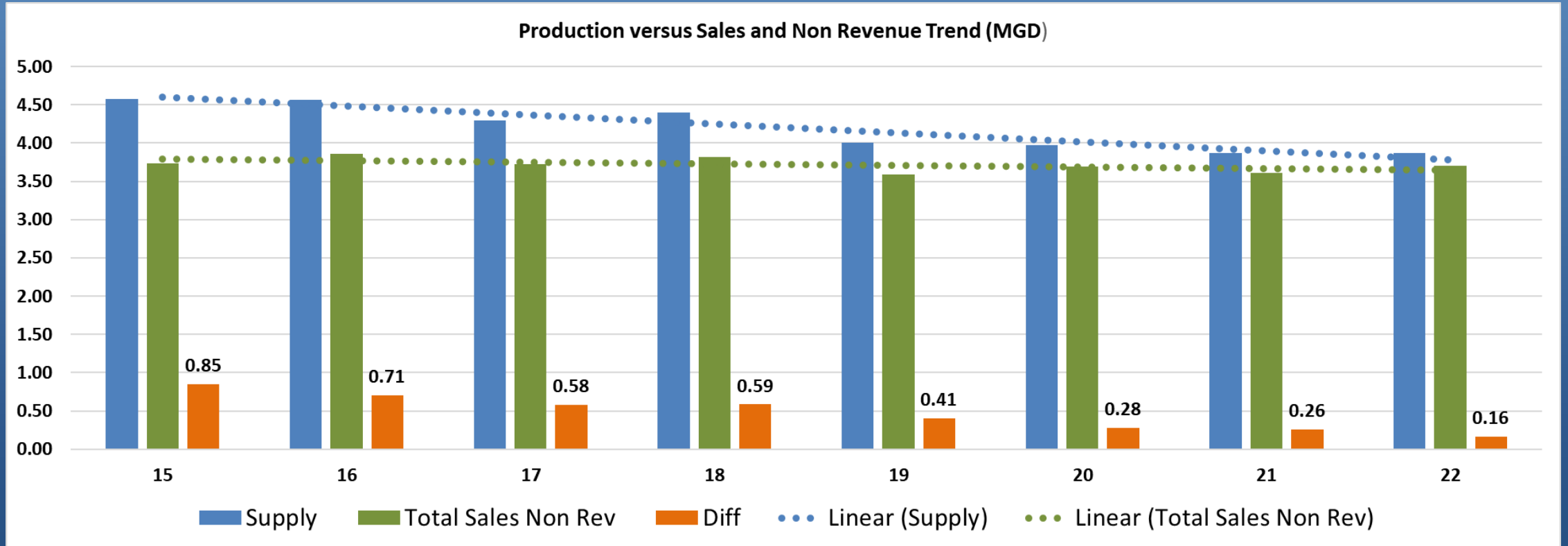
# Portsmouth Water Savings Estimate – As of June 1, 2022

- **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

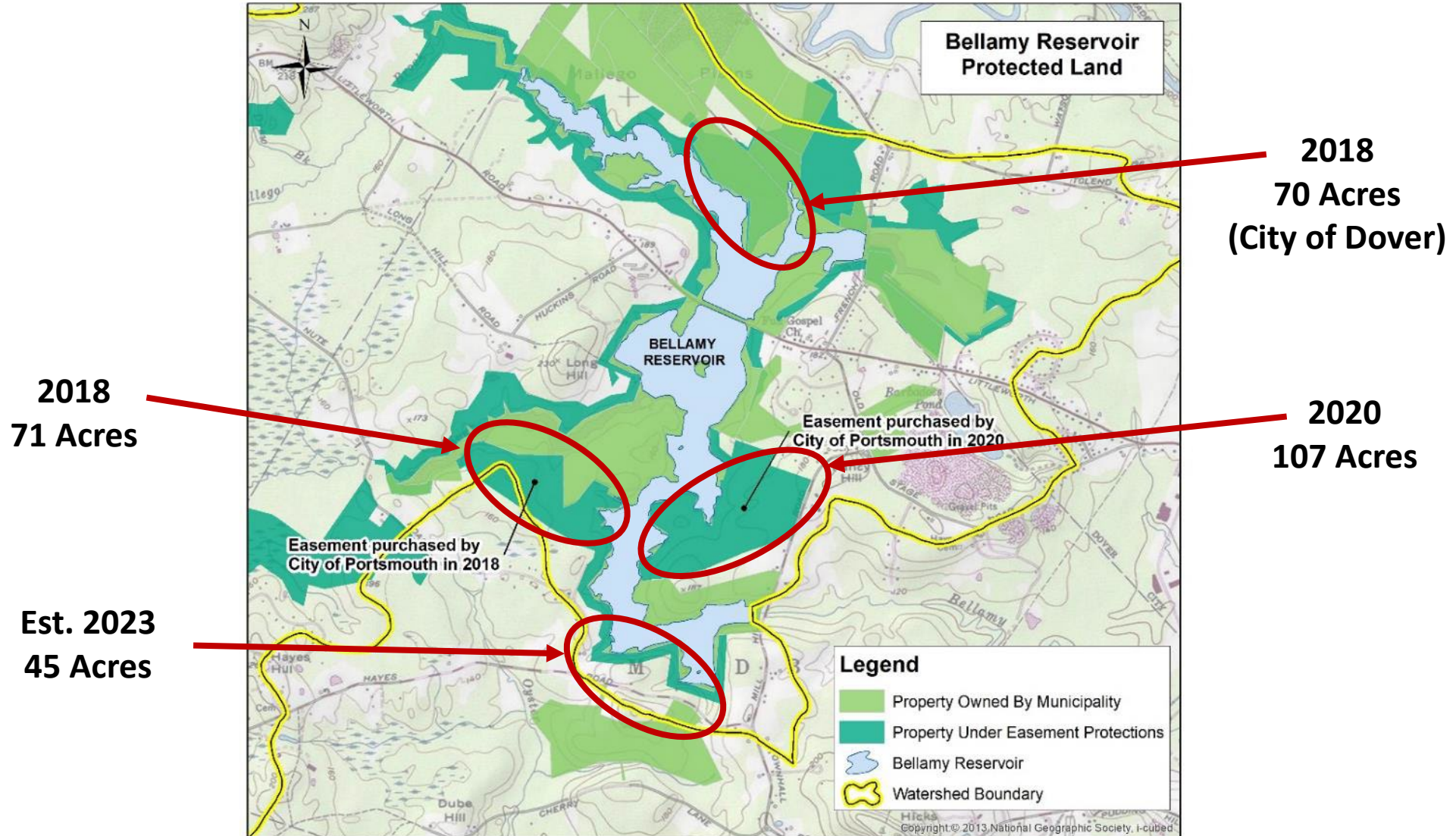
- **50,150 Gallons per day savings**
- **18.3 Million gallons per year**
- **Reduction of 1.4% of water demand**

# Water Balance



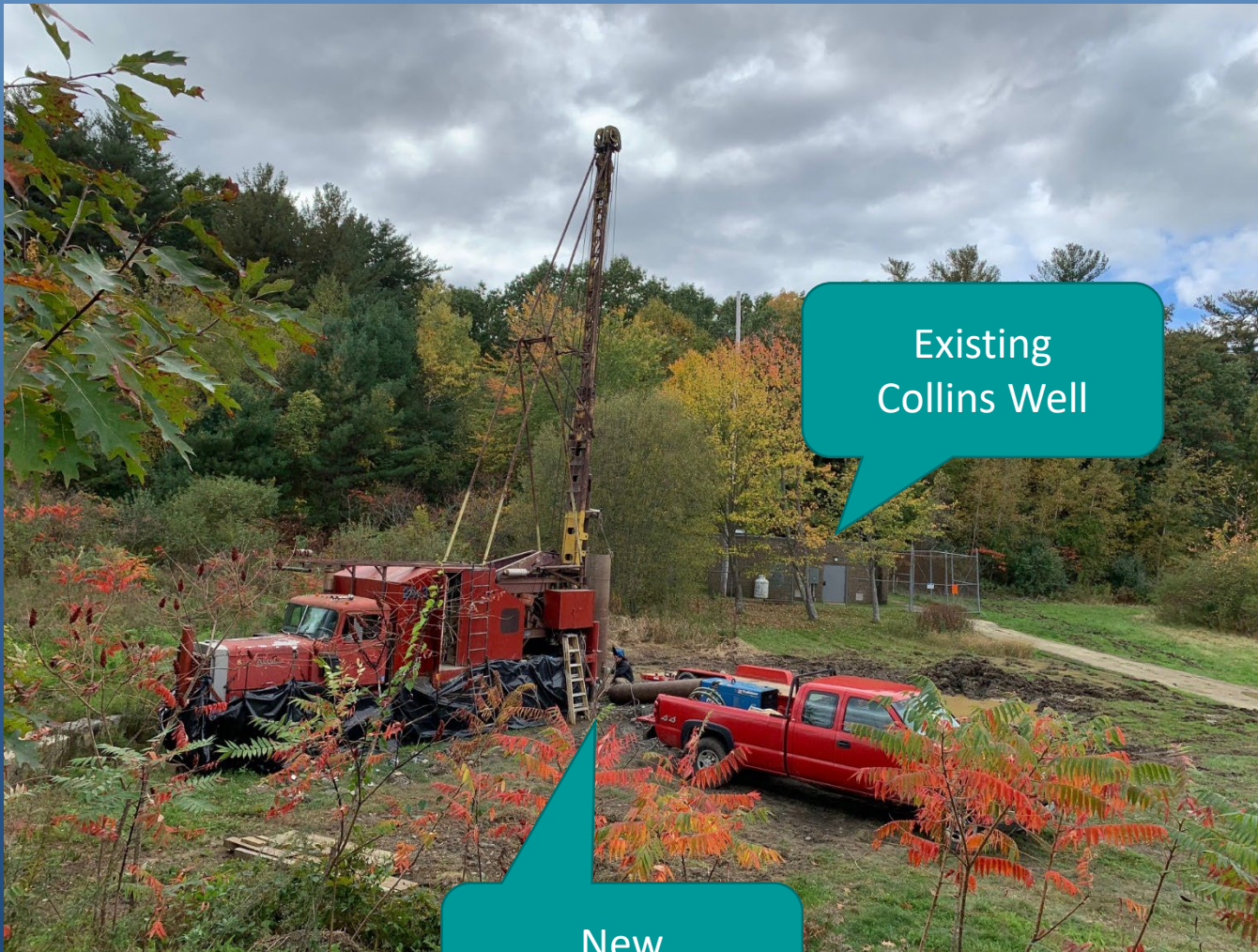
\* Updated March 9, 2023

# 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

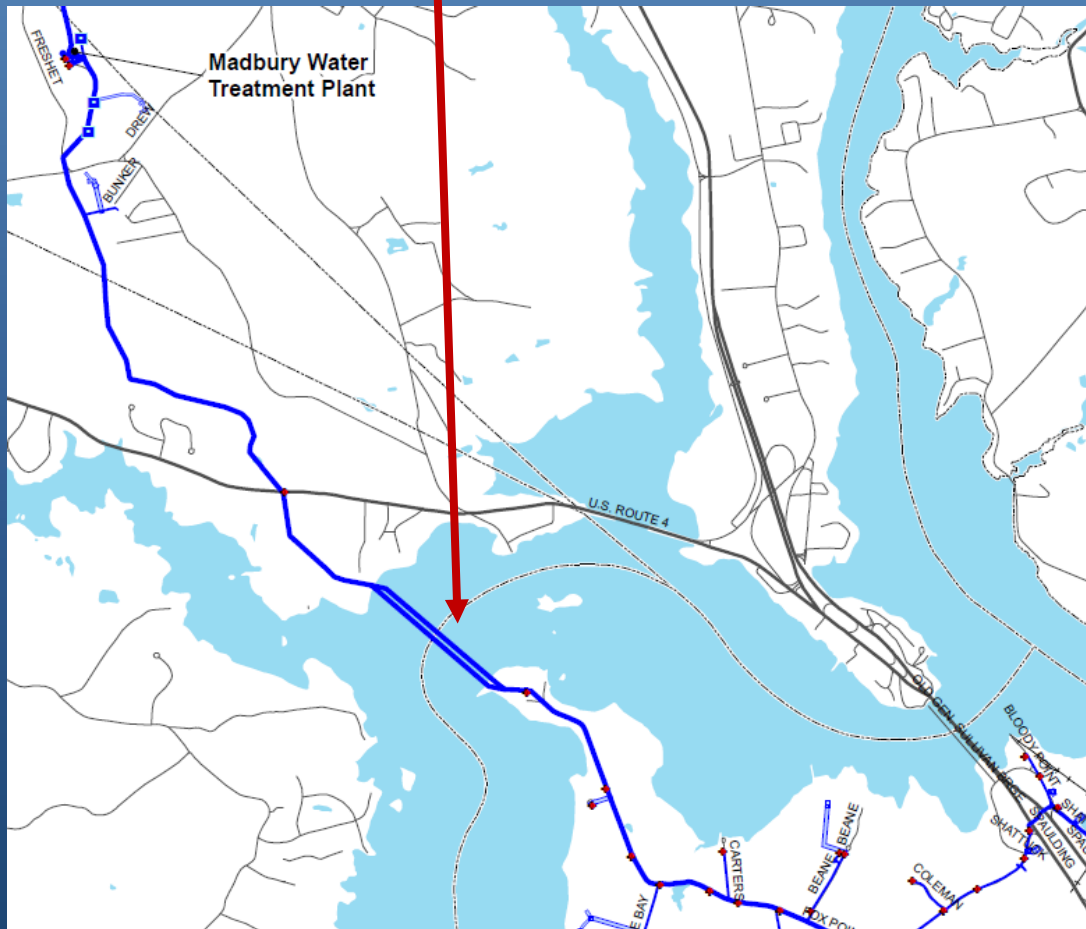


Existing  
Collins Well

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


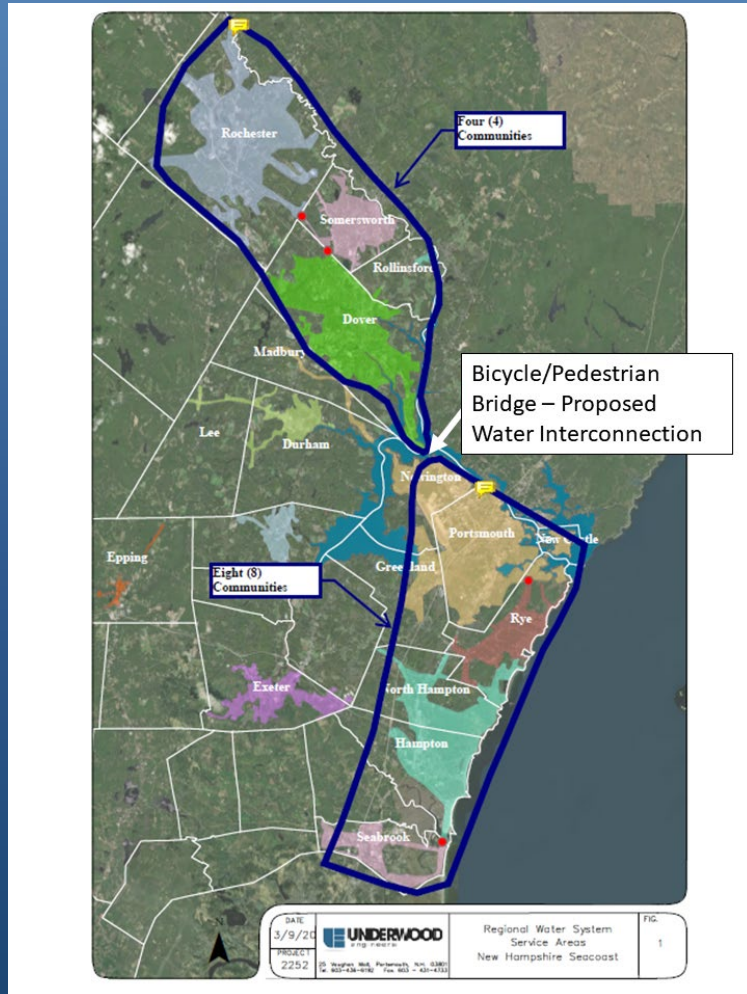
# Little Bay Water Transmission Main Replacement




- 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

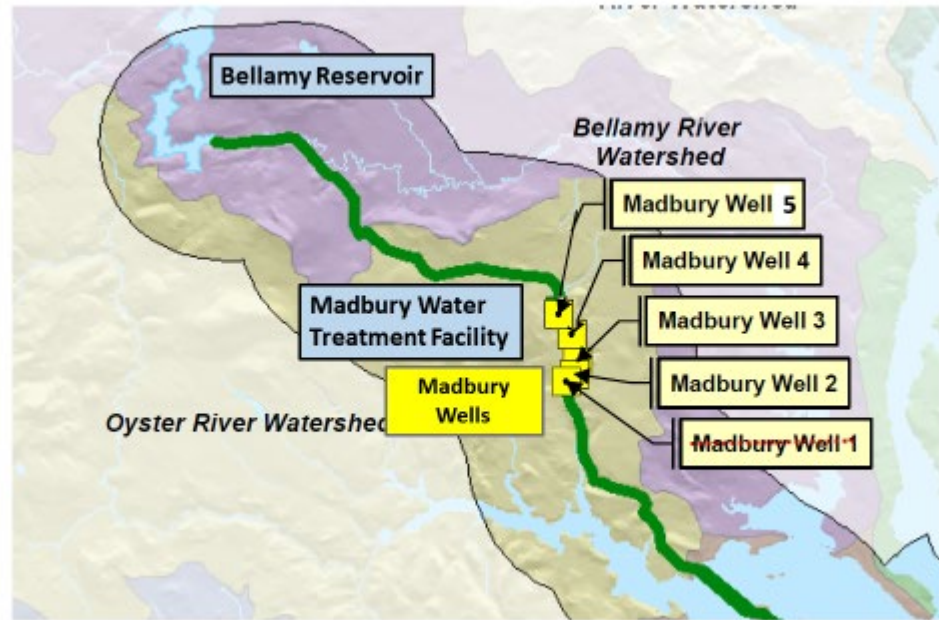
January 18, 2022

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

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

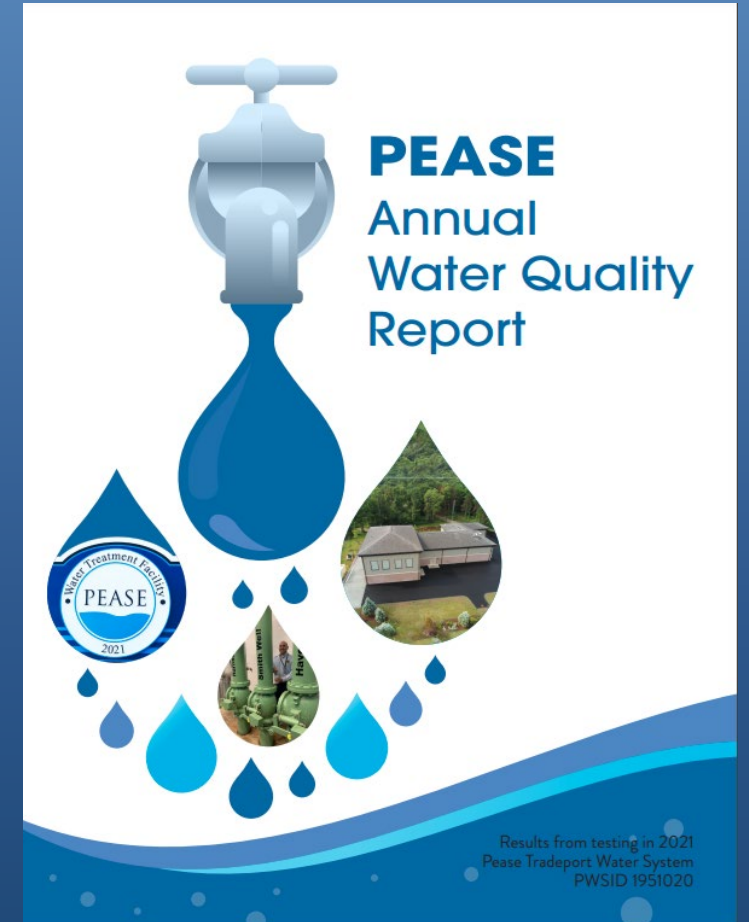
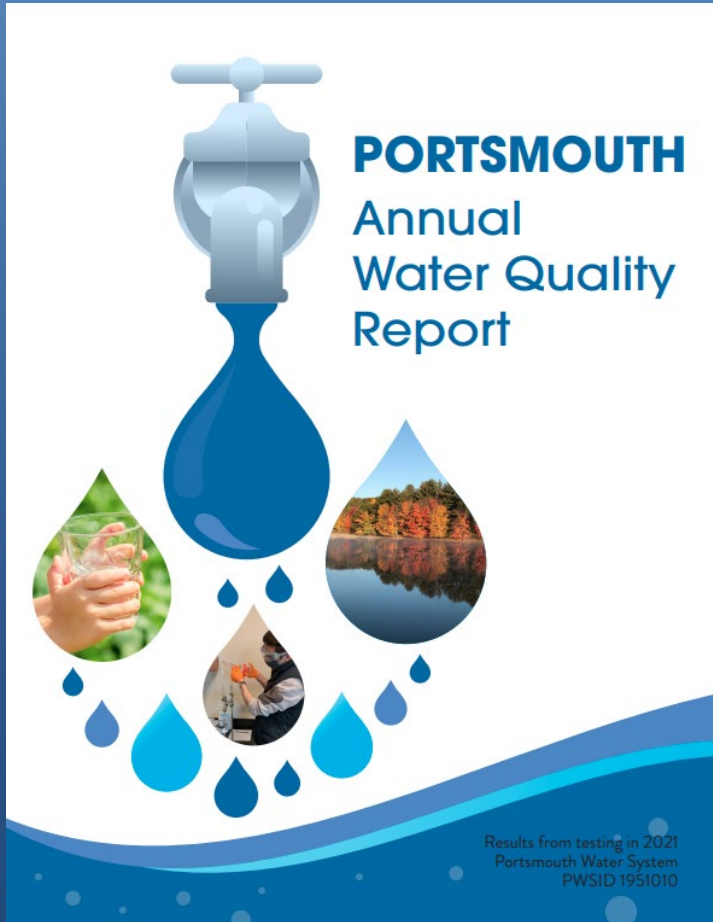
# Madbury Well Upgrades



- - Complete
  - Well 4R
  - New Well 5

# Water Quality

- Both water systems met all drinking water standards in 2023



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



