



Town of Chatham
Department of Public Works
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TO: Honorable Select Board
Jill R. Goldsmith, Town Manager

FROM: Rob Faley, Director, Department of Public Works

DATE: April 9, 2025 (for the April 15, 2025 SB Meeting)

SUBJECT: Chatham Wells, PFAS, and Drinking Water Testing and Pumping Update

The following is a water supply update for the month of March 2025:

Training Field Wells 5 and 8 - Permanent Treatment Facility

1. Project Update:
 - Exterior brick work has begun.
 - Green Sand Filter vessels have been installed.
 - Door and window frames have been installed.





Mill Pond Wells 10 and 11 - Pumping & Treatment Update

1. The Energy and Environmental Affairs Office and the Town are working through final edits to the Conservation Easement for Well 10. We are conducting a title search and hope to have all related agreements finalized and the in front of the Select Board soon.

Water Sampling

- 10 bacteria samples were taken for the month of March and the results reported to DEP. All samples were free of bacteria.
- Monthly treatment plant samples for Alkalinity and Orthophosphates were taken.

Station Maintenance

- Routine and annual maintenance and housekeeping was performed at all stations.
- Static and dynamic (drawdowns) water level readings were recorded for each well.
- A sanitary and security assessment was performed on both water storage tanks.
- Carbon monoxide detectors were installed in all pumping stations.
- South Shore Generator performed the preventative maintenance on all station generators.
- Hach serviced station analyzers

System Maintenance

- Bortolotti installed a new hydrant on Woodcarver Knoll.
- Installed new hydrant at end of Pleasant St
- 2" Blowoff on Mayflower Rd repaired
- Hydrant painting began.
- A shortened flushing program began.
- Curb stops replaced at 37 Collins Ln and 181 Champlain Rd

Meter Reading

- Water meter readings were completed for the month of March.

Compliance & Notes

- The 2024 Annual Statistical Report was submitted to DEP.
- Continued work to assist with chemical transfer at Wells 5 & 8
- Launched "On Tap" the water newsletter

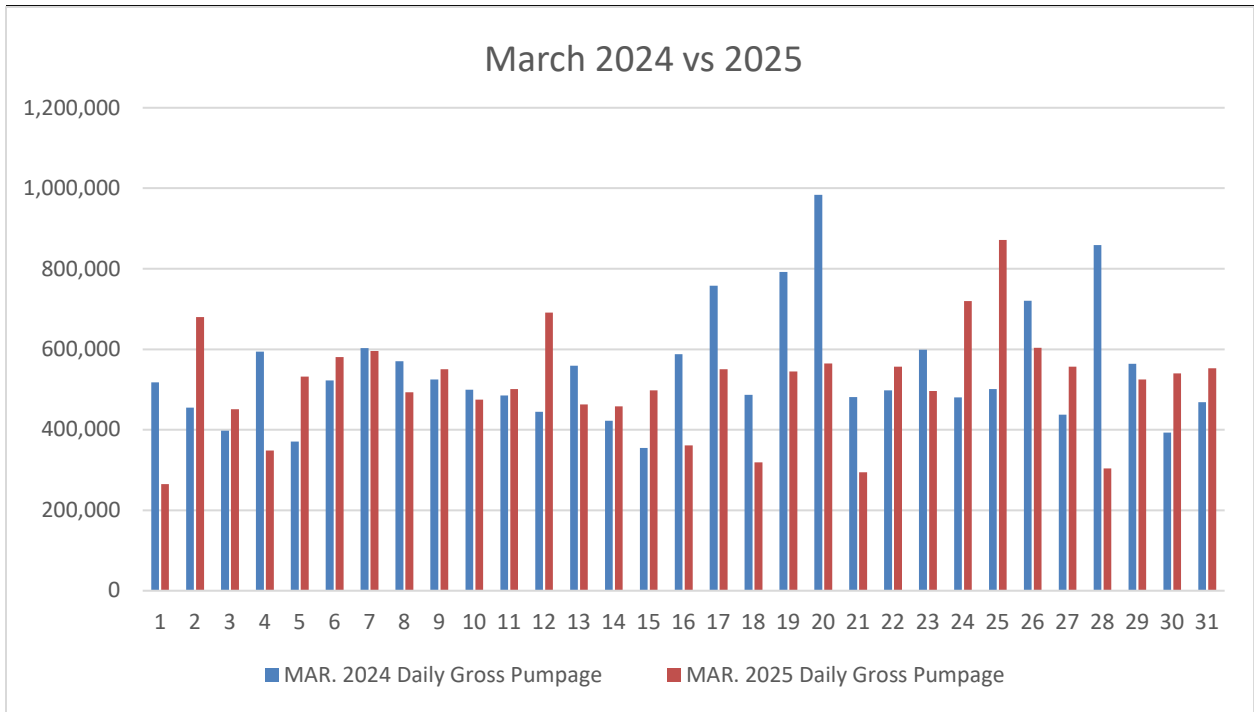
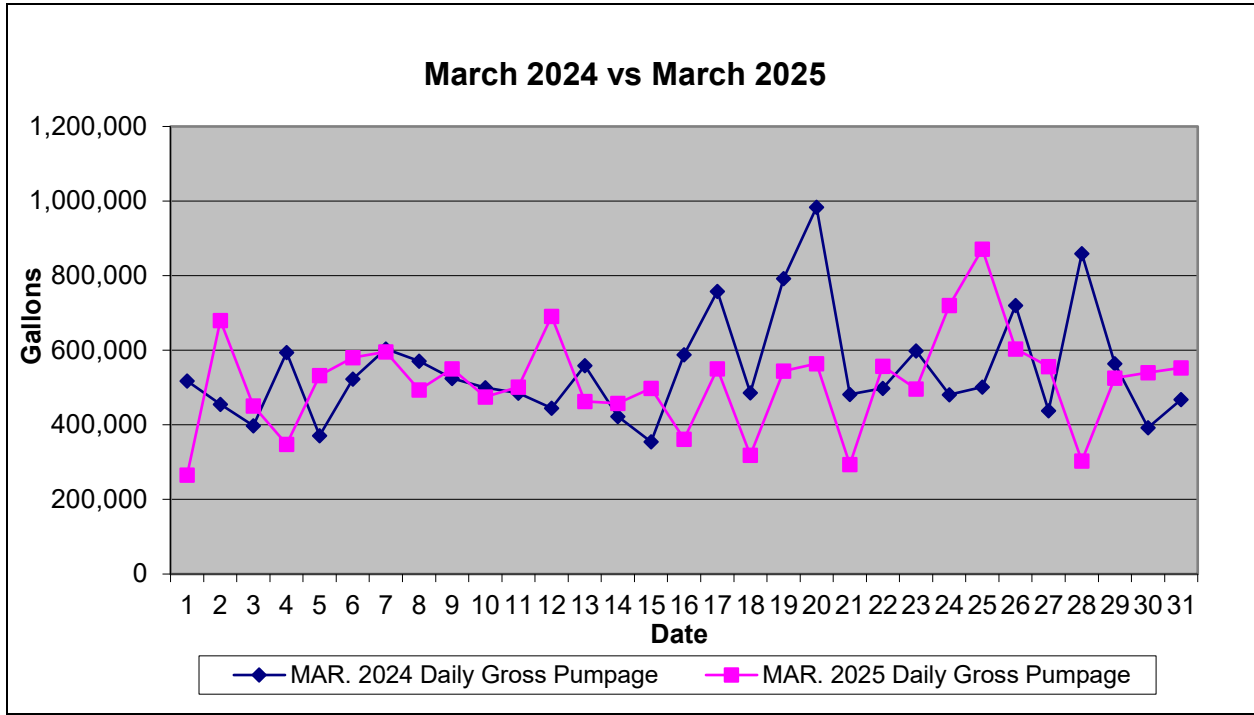
Meter Activities

Dig Safes	New	Final	Turn on/off	Repair	Replace & Install Radio	Inspections
265	3	14	125	11	11	13

March 2024 vs 2025 Pumping Comparison

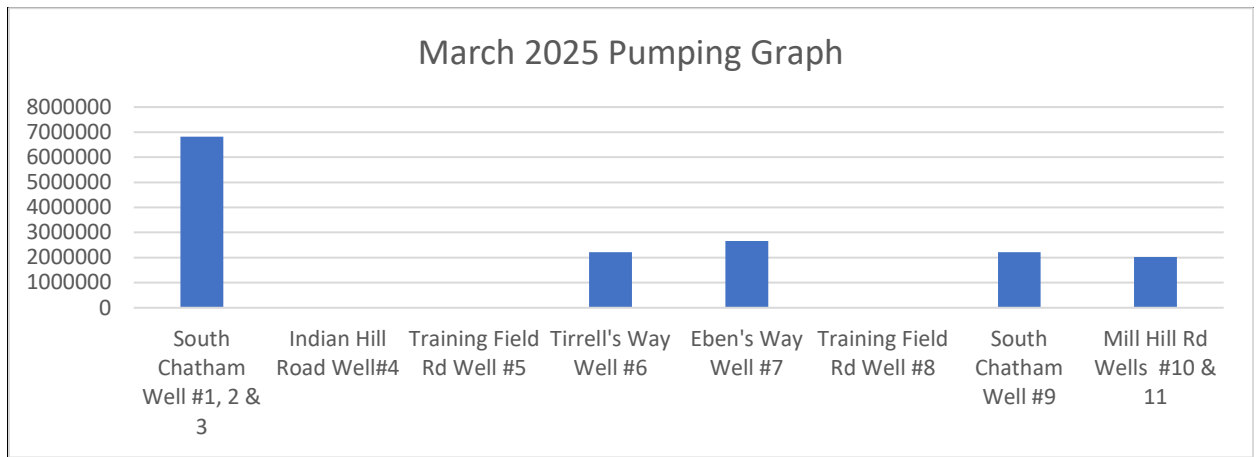
DATE	MAR. 2024 Daily Gross Pumpage	MAR. 2025 Daily Gross Pumpage	MAR. 2024 vs. MAR. 2025 Increase / Decrease (Gallons)	MAR. 2024 vs. MAR. 2025 Increase / Decrease (Percent)
1	518,000	265,300	(252,700)	-49%
2	455,000	679,600	224,600	49%
3	397,600	451,300	53,700	14%
4	593,900	348,000	(245,900)	-41%
5	371,000	532,000	161,000	43%
6	522,800	580,800	58,000	11%
7	603,200	595,800	(7,400)	-1%
8	570,600	493,400	(77,200)	-14%
9	524,600	550,300	25,700	5%
10	499,500	475,100	(24,400)	-5%
11	485,000	501,200	16,200	3%
12	444,900	691,300	246,400	55%
13	558,800	463,100	(95,700)	-17%
14	422,500	457,900	35,400	8%
15	354,400	497,900	143,500	40%
16	587,800	361,400	(226,400)	-39%
17	758,100	550,200	(207,900)	-27%
18	486,400	318,900	(167,500)	-34%
19	792,100	544,600	(247,500)	-31%
20	983,600	564,500	(419,100)	-43%
21	481,500	294,000	(187,500)	-39%
22	498,200	557,100	58,900	12%
23	598,800	496,000	(102,800)	-17%
24	480,700	720,100	239,400	50%
25	501,300	871,500	370,200	74%
26	720,400	603,600	(116,800)	-16%
27	437,700	556,800	119,100	27%
28	859,200	303,600	(555,600)	-65%
29	564,100	525,100	(39,000)	-7%
30	392,800	539,900	147,100	37%
31	468,400	553,000	84,600	18%
Total	16,932,900	15,943,300	(989,600)	-5.8%

March 2024 vs 2025 Pumping Comparison Graphs



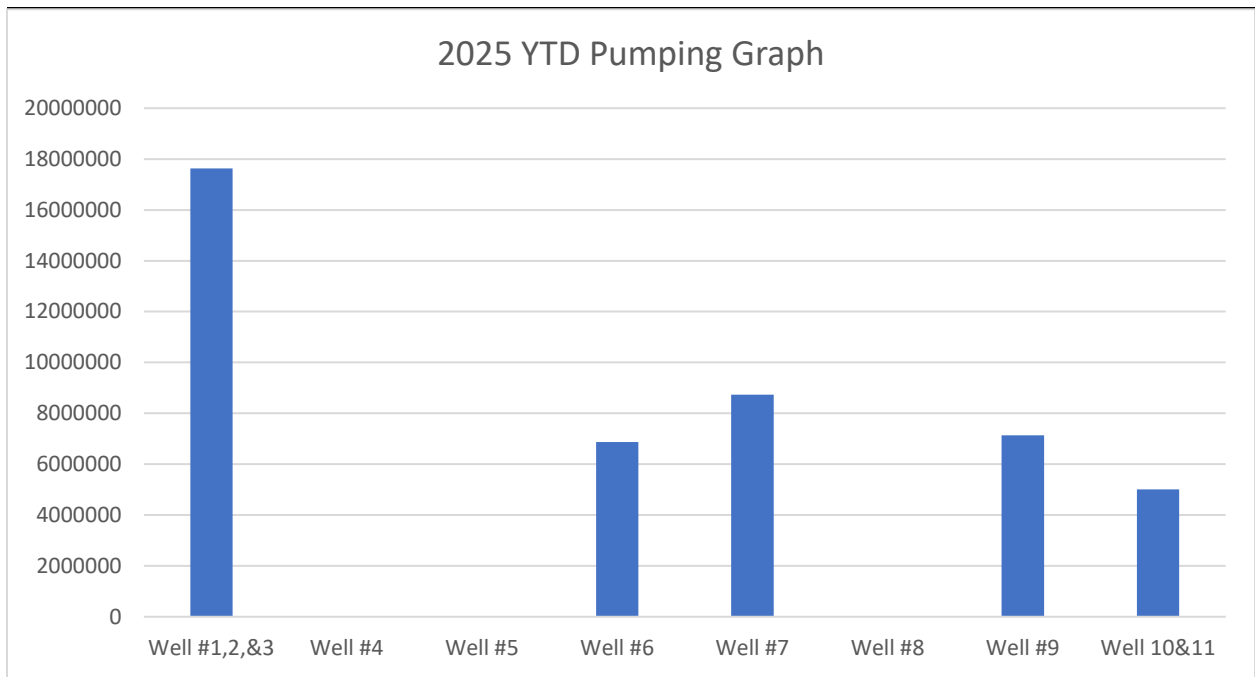
March 2025 Monthly Pumping Report

DATE	DAY	South Chatham Well #1, 2 & 3	Indian Hill Road Well#4	Training Field Rd Well #5	Tirrell's Way Well #6	Eben's Way Well #7	Training Field Rd Well #8	South Chatham Well #9	Mill Hill Rd Wells #10 & 11	Daily Gross Pumpage
1		114,400			44,500	58,700		47,700		265,300
2		345,000			88,600	119,500		115,700	10,800	679,600
3		122,100			92,700	125,600		74,800	36,100	451,300
4		138,000			28,200	34,000		36,600	111,200	348,000
5		170,800			77,000	102,000		119,500	62,700	532,000
6		194,900			77,400	98,500		79,900	130,100	580,800
7		166,600			166,600	101,800		81,400	79,400	595,800
8		184,400			76,200	99,000		82,000	51,800	493,400
9		218,200			87,100	118,900		86,100	40,000	550,300
10		177,500			67,200	85,400		80,100	64,900	475,100
11		181,000			74,600	98,800		80,600	66,200	501,200
12		262,800			97,800	130,300		106,500	93,900	691,300
13		338,800							124,300	463,100
14		352,200							105,700	457,900
15		401,200							96,700	497,900
16		310,400							51,000	361,400
17		420,400							129,800	550,200
18		250,800							68,100	318,900
19		416,100							128,500	544,600
20		97,100			128,000	163,900		140,500	35,000	564,500
21		89,800			45,800	65,000		45,200	48,200	294,000
22		191,200			78,200	103,100		84,000	100,600	557,100
23		141,900			104,100	137,900		112,100		496,000
24		46,900			184,000	239,000		195,000	55,200	720,100
25		373,500			121,100	159,000		130,000	87,900	871,500
26		180,200			180,200	97,900		80,000	65,300	603,600
27		188,200			90,400	119,200		96,700	62,300	556,800
28		115,100			55,400	73,300		59,800		303,600
29		222,200			89,400	117,700		95,800		525,100
30		217,300			94,600	125,500		102,500		539,900
31		189,100			71,000	93,800		76,300	122,800	553,000
Total		6,818,100			2,220,100	2,667,800		2,208,800	2,028,500	15,943,300
								Minimum		265,300
								Maximum		871,500
								Average		514,300



2025 YTD Pumping Report

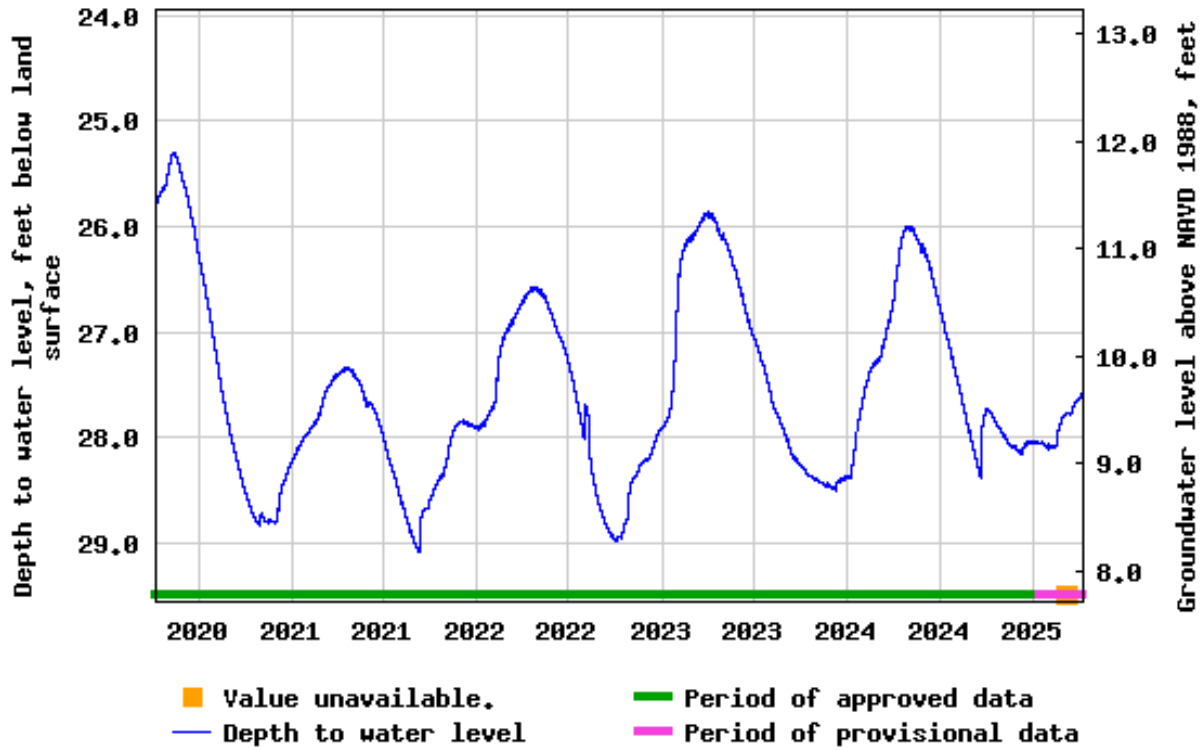
	Well #1,2,&3	Well #4	Well #5	Well #6	Well #7	Well #8	Well #9	Well 10&11	Monthly Total	Last Years Pumping	Variance
January	5,680,400	0	0	2,509,200	3,195,700	0	2,623,300	2,148,600	16,157,200	16,575,600	-418,400
February	5,126,000	0	0	2,143,400	2,872,300	0	2,301,200	832,200	13,275,100	14,695,600	-1,420,500
March	6,818,100	0	0	2,220,100	2,667,800	0	2,208,800	2,028,500	15,943,300	16,932,900	-989,600
April									0		0
May									0		0
June									0		0
July									0		0
August									0		0
September									0		0
October									0		0
November									0		0
December									0		0
Totals	17,624,500	0	0	6,872,700	8,735,800	0	7,133,300	5,009,300	45,375,600	48,204,100	-2,828,500



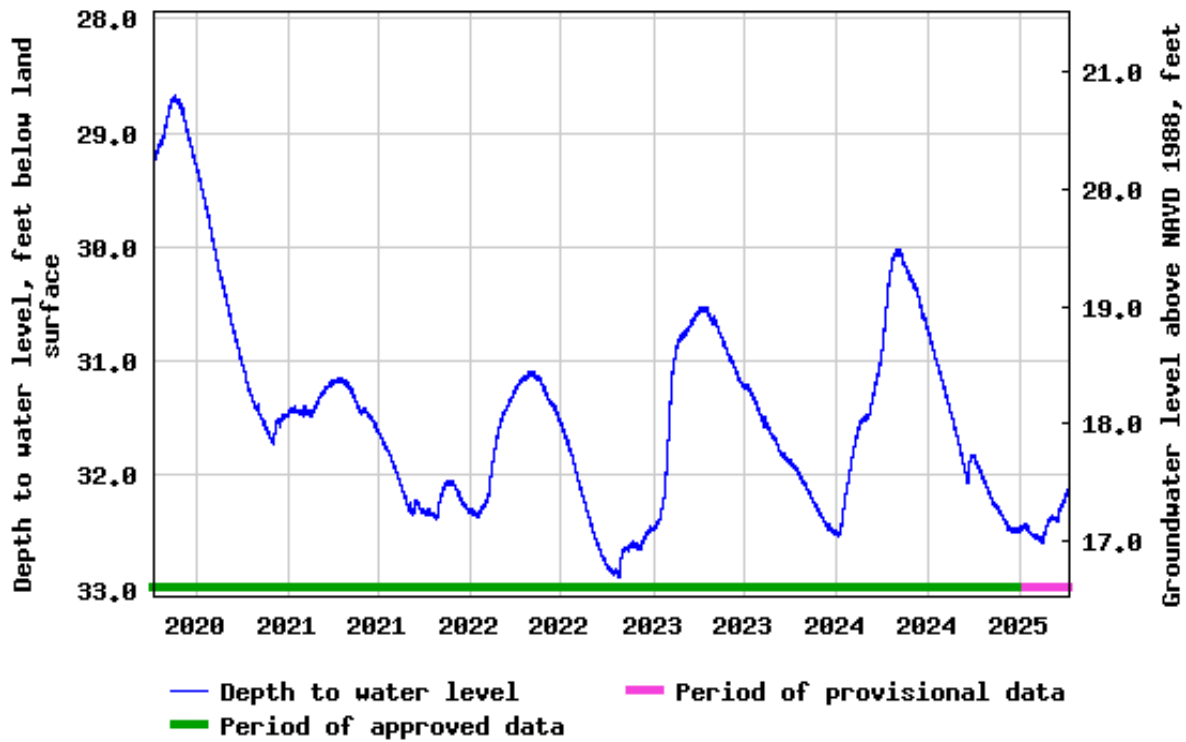
Chatham 5-year Pumping Comparison (Month of March)

March Date	March 2021 Daily Gross Pumpage	Hours	March 2022 Daily Gross Pumpage	Hours	March 2023 Daily Gross Pumpage	Hours	March 2024 Daily Gross Pumpage	Hours	March 2025 Daily Gross Pumpage	Hours	Average Daily Pumpage (gallons)	Average Daily Pumpage (hours)
1	526,600	4	727,000	4	570,900	3	518,000	7	265,300	4	521,560	4.4
2	553,900	4	546,200	4	596,300	3	455,000	6.5	679,600	7	566,200	4.9
3	572,900	4.5	479,100	4	553,900	3	397,600	7.25	451,300	5	490,960	4.8
4	525,000	4	552,600	3	555,600	2.75	593,900	7.5	348,000	4	515,020	4.3
5	552,000	4.5	507,500	4	696,400	3	371,000	4	532,000	5.5	531,780	4.2
6	669,500	4.5	624,900	4.25	514,600	3	522,800	2	580,800	6	582,520	4.0
7	550,100	4.75	584,700	4.25	440,900	3	603,200	4	595,800	6	554,940	4.4
8	566,900	4	582,100	4	561,200	3	570,600	3	493,400	5.25	554,840	3.9
9	626,900	4	494,700	4	535,000	3	524,600	2	550,300	5.75	546,300	3.8
10	483,300	3	561,700	4	501,600	4	499,500	6	475,100	5	504,240	4.4
11	552,700	3	456,400	3	486,900	3	485,000	6	501,200	5.25	496,440	4.1
12	556,900	3	600,900	4	641,800	3.5	444,900	5	691,300	7	587,160	4.5
13	590,700	4	665,300	4	505,800	3	558,800	6	463,100	5	556,740	4.4
14	628,400	3	488,200	4	529,100	3	422,500	6	457,900	5	505,220	4.2
15	558,400	3	747,300	7	457,400	3	354,400	7	497,900	5.25	523,080	5.1
16	484,800	3	516,900	3	597,200	3	587,800	4	361,400	4	509,620	3.4
17	535,900	5	515,100	4	584,700	3	758,100	4	550,200	5.75	588,800	4.4
18	512,400	5	532,000	4	579,600	3	486,400	4	318,900	4.5	485,860	4.1
19	607,500	6	489,100	4	626,700	3	792,100	6	544,600	5.5	612,000	4.9
20	572,200	3	611,000	3	584,900	3	983,600	10.5	564,500	6	663,240	5.1
21	628,500	6	671,800	42	564,300	3	481,500	5	294,000	4.25	528,020	12.1
22	695,500	3	559,800	2	573,200	3	498,200	4	557,100	5.75	576,760	3.6
23	615,900	5	655,900	3	569,500	3	598,800	5	496,000	5.25	587,220	4.3
24	646,500	4	449,200	3	748,200	4	480,700	6	720,100	7.25	608,940	4.9
25	562,300	3.5	434,400	4	588,100	3	501,300	6	871,500	7.75	591,520	4.9
26	737,600	4.25	576,900	4	725,400	3	720,400	8	603,600	6	672,780	5.1
27	630,900	4	514,900	5	598,300	4	437,700	7	556,800	5.5	547,720	5.1
28	570,400	3.25	556,800	5	545,500	4	859,200	7	303,600	4	567,100	4.7
29	724,800	4	495,300	5	565,700	4	564,100	6	525,100	5	575,000	4.8
30	769,900	5	797,900	4	593,800	3	392,800	5	539,900	5.25	618,860	4.5
31	652,600	3	680,900	4	615,000	2	468,400	4	553,000	5.5	593,980	3.7
Total	18,461,900	124	17,676,500	161	17,807,500	97	16,932,900	171	15,943,300	168	17,364,420	144.2

USGS 414101070011001 MA-CGM 138R CHATHAM, MA



USGS 414632070014901 MA-BMW 22R BREWSTER, MA



Drought update: The Energy and Environmental Affairs Office – Massachusetts Drought Task Force met on the morning of April 8th to discuss drought status conditions throughout Massachusetts. All of Massachusetts has seen some level of improvement except for the Cape Cod and Islands, which remain at **Level 2 - Significant Drought**. Precipitation levels through the end of March were used to make the decision to remain at Level 2 and didn't consider normal or above normal rainfall in early April. Descriptors such as "abnormally dry" and "slow to recharge" continue to describe conditions on the Cape. The prolonged rainfall deficit over the past 3-6 months was the primary driver behind the decision to remain at Level 2 as groundwater levels on the Cape tend to recover more slowly than the rest of Massachusetts. Precipitation over the past 6 months and Streamflow levels struggle the most to recover and remain at Level 3.

As temperatures begin to warm, vegetation will soon begin to draw more surface moisture which will further reduce the amount of water recharging the aquifer. As Chatham's population starts to climb for the summer, and the pursuit of outdoor activities (including irrigation) becomes more popular, Chatham's Water Commissioners should consider placing water restrictions on water use in Chatham.

The current drought level will be discussed at the Chatham Water and Sewer Advisory Committee to be held on April 14th. I will ask the Committee to make a formal recommendation to the Select Board to be considered at the April 29th Select Board meeting. The Drought Task Force reinforced that the timing of any water restriction messaging to the public is critical. Alerting the public of water restrictions too early may leave those messages forgotten when the timing becomes critical. Messaging water restrictions too frequently may cause the message to be lost in the background.

The decision matrix developed by the Water and Sewer Advisory Committee and presented to the Select Board previously is a useful tool to help make those difficult decisions. The decision matrix is attached for your use: