



40 Years of Water Use Under the MA Water Management Act (WMA)

2025 November Water Resource Commission Meeting
November 13, 2025

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Statewide Total Volumes by Water Use Type

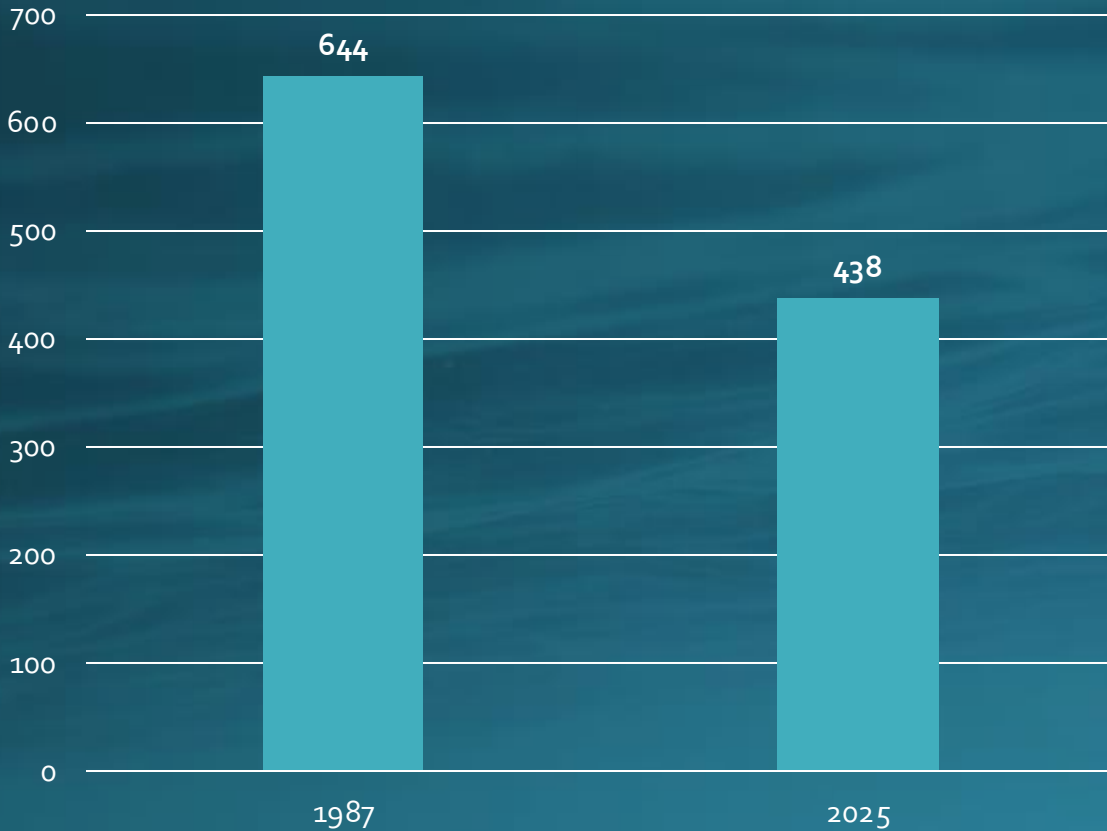
(All volumes in million gallons per day (MGD) (October 2025))

Water Use Type	Registered Volume	Permitted Volume	Total	% of Statewide Total	2024 Reported Use (MGD)
PWSs (262 Reg. & 198 Permits)	797.83	136.54	934.37	92.5	665.5
Golf (92 Reg. & 64 Permits)	10.53	8.22	18.75	1	12.96
Industrial (51 Reg. & 24 Permits)	34.09	14.89	48.98	4.7	16.47
Agricultural excluding Cranberry (24 Reg. & 5 Permits)	4.29	1.42	5.71	0.3	1.59
*Others (9 Reg. & 12 Permits)	12.13	5.16	17.29	1.5	13.77
Total excluding cranberry (438 Reg. & 303 Permit)	858.87	166.23	1025.1		710.29

*Others include Fish, Ski and Commercial

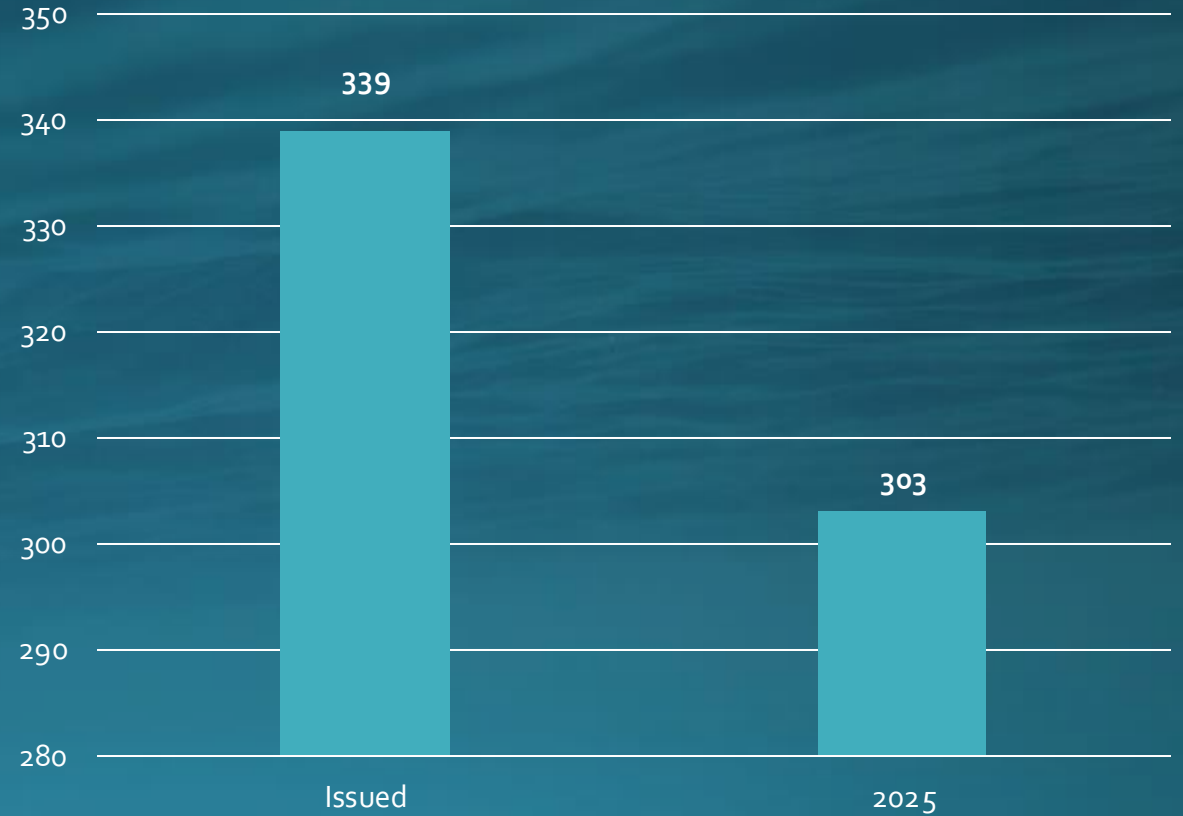
Total WMA Registrations and Permits Numbers (Excluding Cranberry Withdrawals)

WMA Registrations (excludes Cranberry)



Decreased: 208

#WMA Permits (excludes Cranberry)

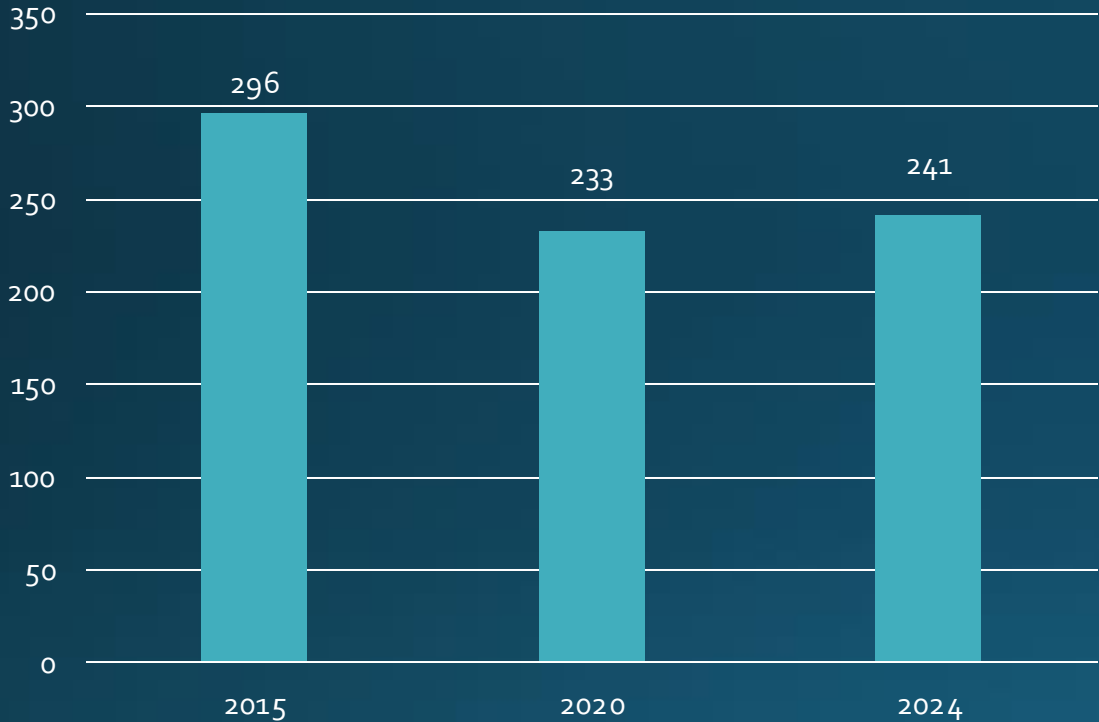


Decreased: 36

In 2023 registration renewal, 14 registrations closed
resulting in 7.93 MGD reduction in allocations

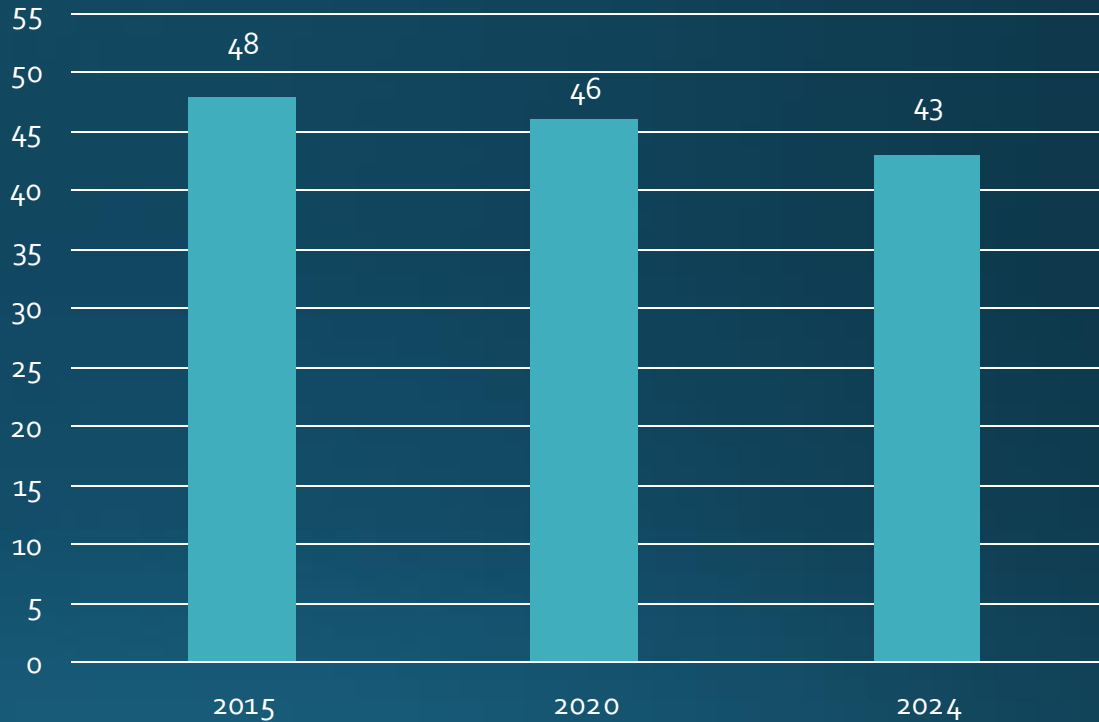
Total WMA Cranberry Registration and Permit Numbers

WMA Cranberry Registrations



■ # WMA Cranberry Registrations

WMA Cranberry Permits



■ # WMA Cranberry Permits

2015 Authorized Registered Acreages: 11,501.36 acres
2020 Authorized Registered Acreages: 9,744.87 acres
2024 Authorized Registered Acreages: 9,777.19 acres

2015 Authorized Permitted Acreages: 1,026.09 acres
2020 Authorized Permitted Acreages: 945.94 acres
2024 Authorized Permitted Acreages: 947.66 acres

Top 5 Surrendered WMA Registrations

Name	Basin	Use Type	Annualized Registered Volume (MGD)	Closure Date
Mt Tom Generating Company LLC	Connecticut	Industrial	113.6	12/31/2017
Ogden Martin System of Haverhill	Merrimack	Industrial	10.25	4/6/2006
American Optical Corporation	Quinebaug	Industrial	7.95	1/1/2008
Lenox Development LLC	Housatonic	Industrial	4.6	4/8/2023
Armstrong World Industries Inc	Boston Harbor	Industrial	3.34	6/30/1997

New Permits Issued since 2014

Basin	# of New Permits Issued since 2014 (increased volumes , new sources, new permits)
Cape Cod	5
South Coastal	3
Buzzards Bay	2
Islands, Taunton, Boston Harbor, North Coastal, Nashua	1 permit in each basin
Total	15
Volumes allocated	4.2 MGD additional allocation ----- 2.64 MGD actual increase in use from baseline period

Reasons for permit

- 1 New PWS replacing private wells
- 1 No increase but new source
- 7 Increased withdrawals
- 6 recognizing existing withdrawals

Volumes Reduced since 2014

Basin	# of Permits Reduced or Surrendered
Taunton	7
Concord	5
Boston Harbor, Charles, Buzzards Bay, Chicopee	3
Housatonic, Ipswich, Connecticut, Westfield	2
S. Coastal, Quinebaug, Merrimack, Cape Cod	1 permit in each basin
Total	36
Reduced Permit Vol.	19.64 MGD
Reduced Reg. Vol.	7.93 MGD

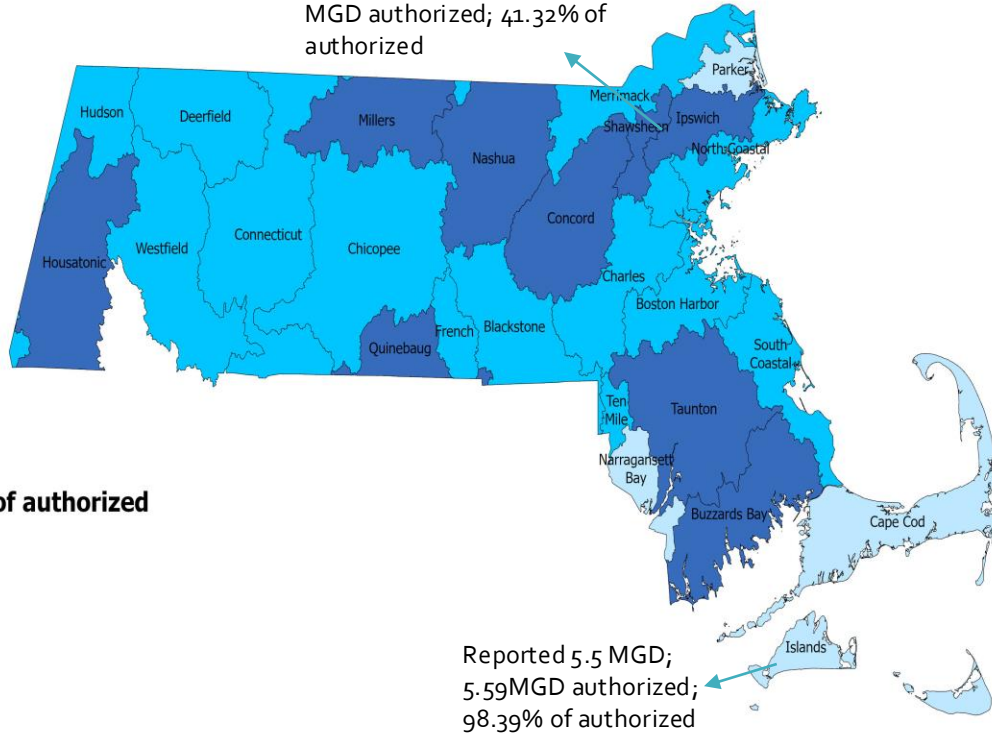
Reasons for reductions:

- 7 Gave up permits (9.43 MGD)
- 12 Held back volumes to avoid mitigation
- 15 Reduced volumes due to needs
- 2 Reduced for other reasons

2021 and 2022 reported water use to total authorized volumes

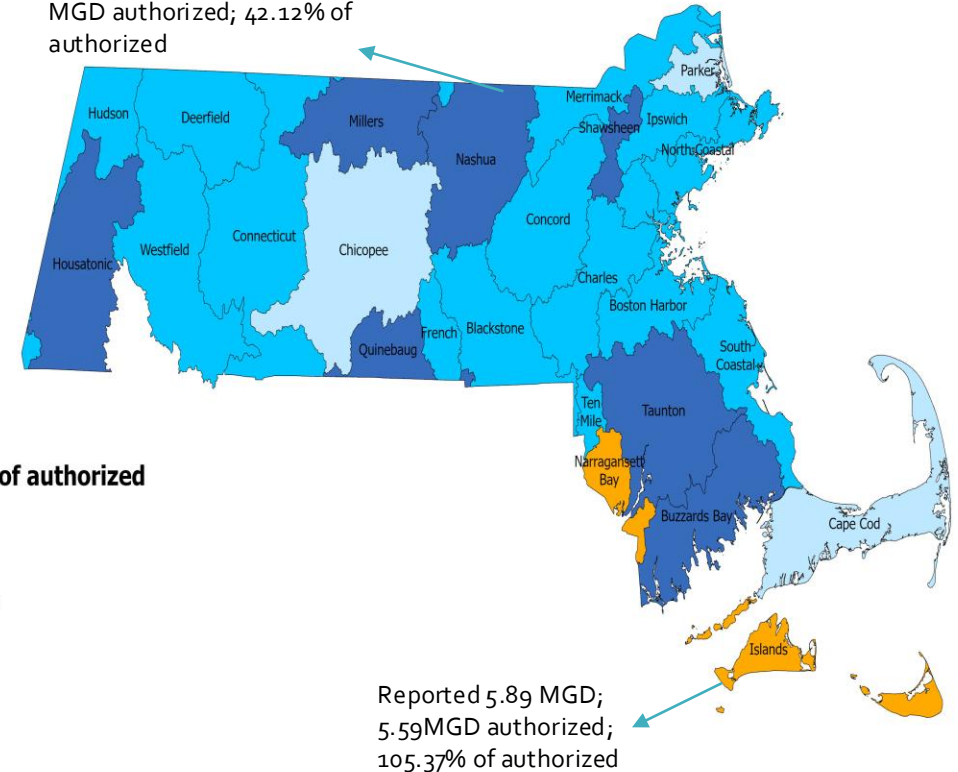
2021 reported water use to total authorized volumes by basins

Reported 2.07 MGD; 5.01 MGD authorized; 41.32% of authorized



2022 reported water use to total authorized volumes by basins

Reported 76.3 MGD; 181.16 MGD authorized; 42.12% of authorized

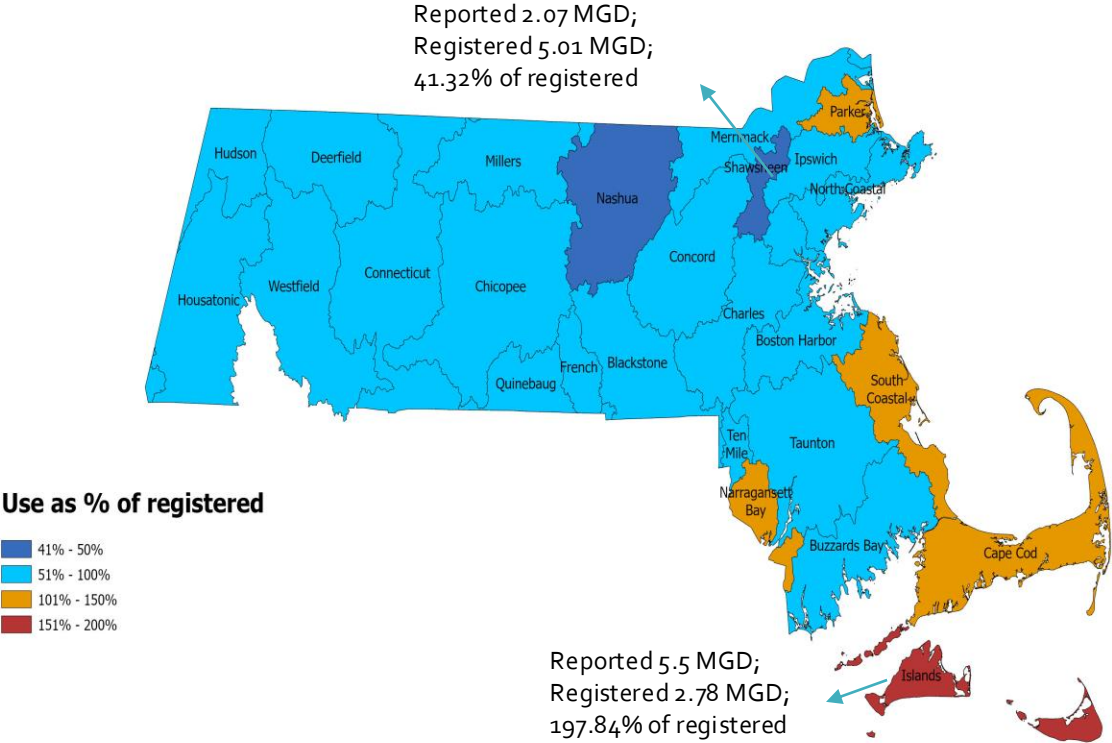


	Reported (MGD)	Authorized (MGD)	% reported/Authorized
Ipswich	17.24	32.54	53%
Charles	29.95	45.9	65.25%
Concord	20.27	34.75	58.33%
South Coastal	26.28	34.67	75.8%

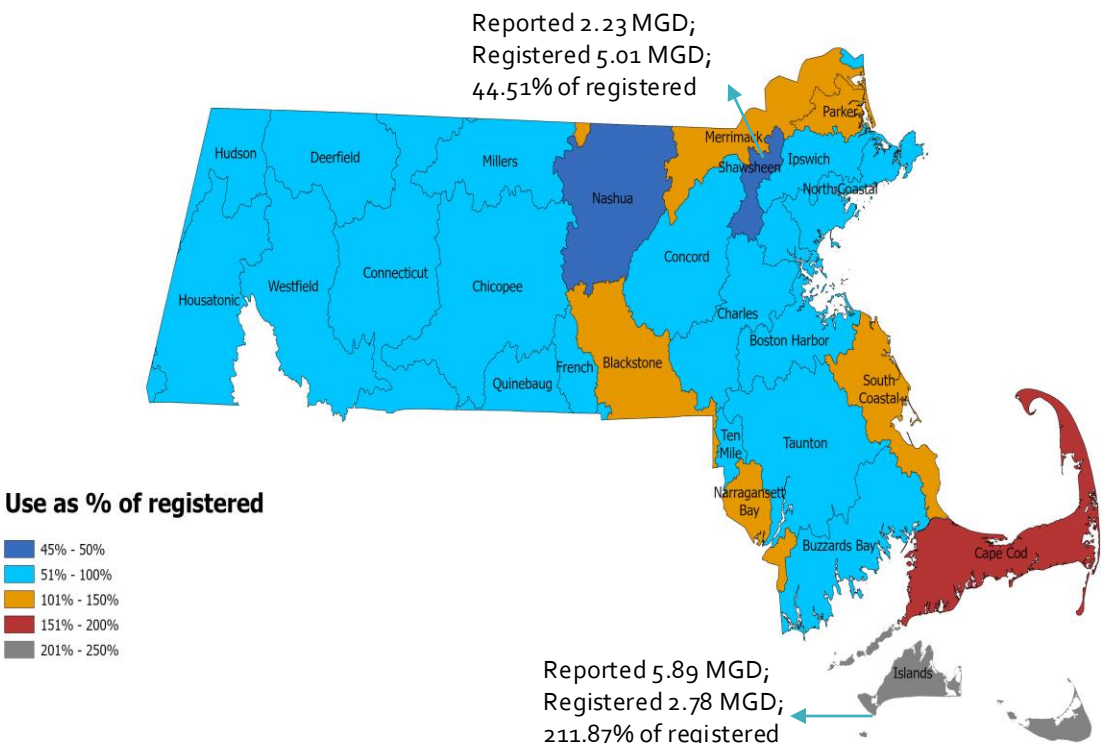
	Reported (MGD)	Authorized (MGD)	% reported/Authorized
Ipswich	19.7	32.54	60.51%
Charles	30.81	45.9	67.12%
Concord	22.72	34.75	65.38%
South Coastal	27.51	34.67	79.35%

2021 and 2022 reported water use to registered volumes

2021 reported water use to registered volumes by basins



2022 reported water use to registered volumes by basins

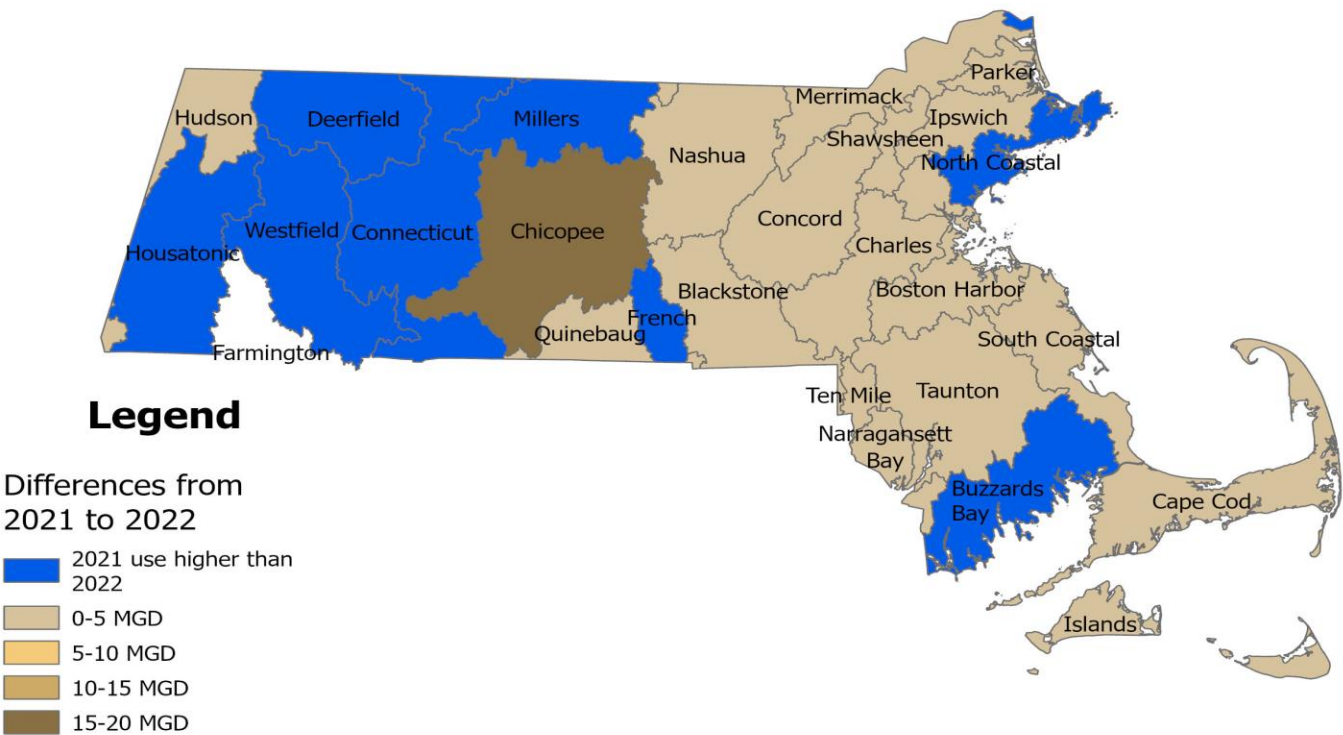


	Reported (MGD)	Registered (MGD)	% reported/ Registered
Ipswich	17.24	29.58	58.28%
Charles	29.95	34.08	87.88%
Concord	20.27	28.16	71.98%
South Coastal	26.28	24.42	107.62%

	Reported (MGD)	Registered (MGD)	% reported/ Registered
Ipswich	19.7	29.58	66.63%
Charles	30.29	34.08	88.9%
Concord	22.11	28.16	78.4%
South Coastal	26.96	24.42	110.4%

Reported Water Use Change from 2021 to 2022

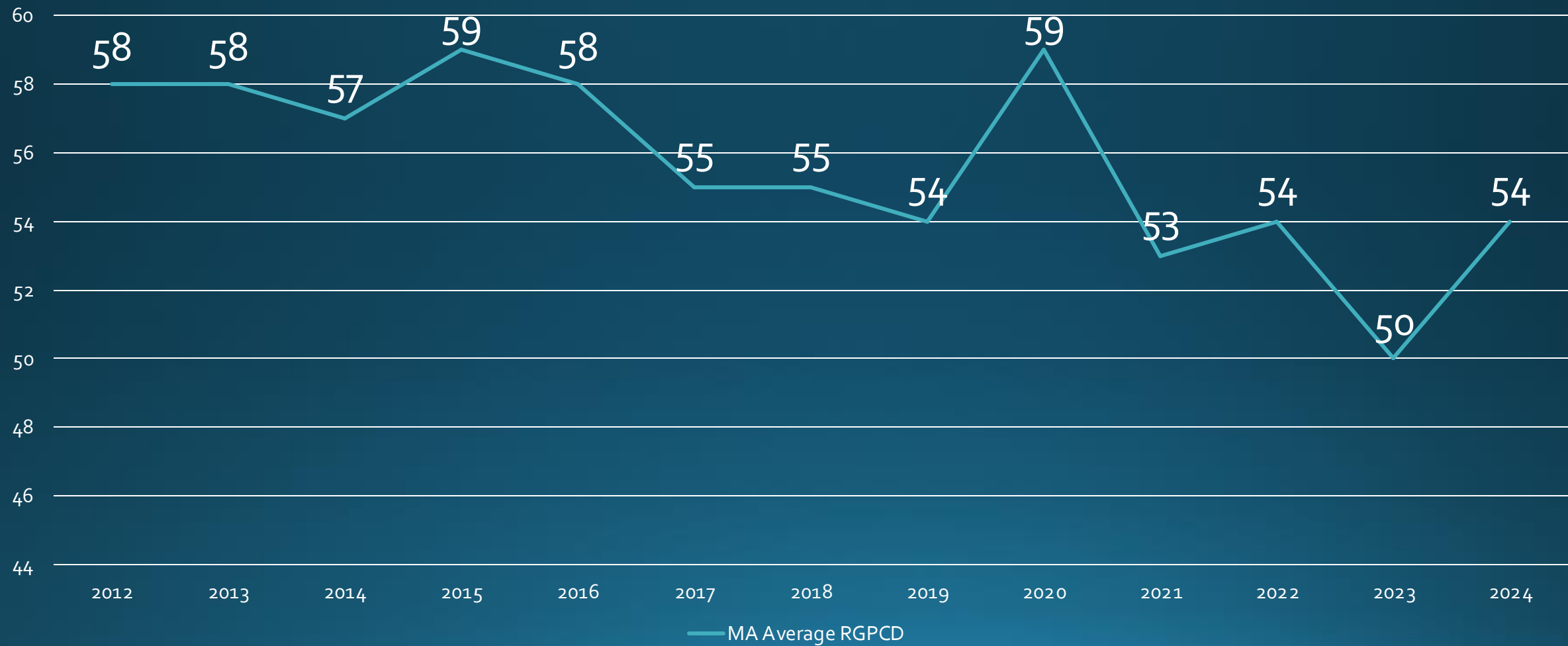
Reported Water Use Change from 2021 to 2022



	Total Reported Use
2021	663.5 MGD
2022	696.7 MGD

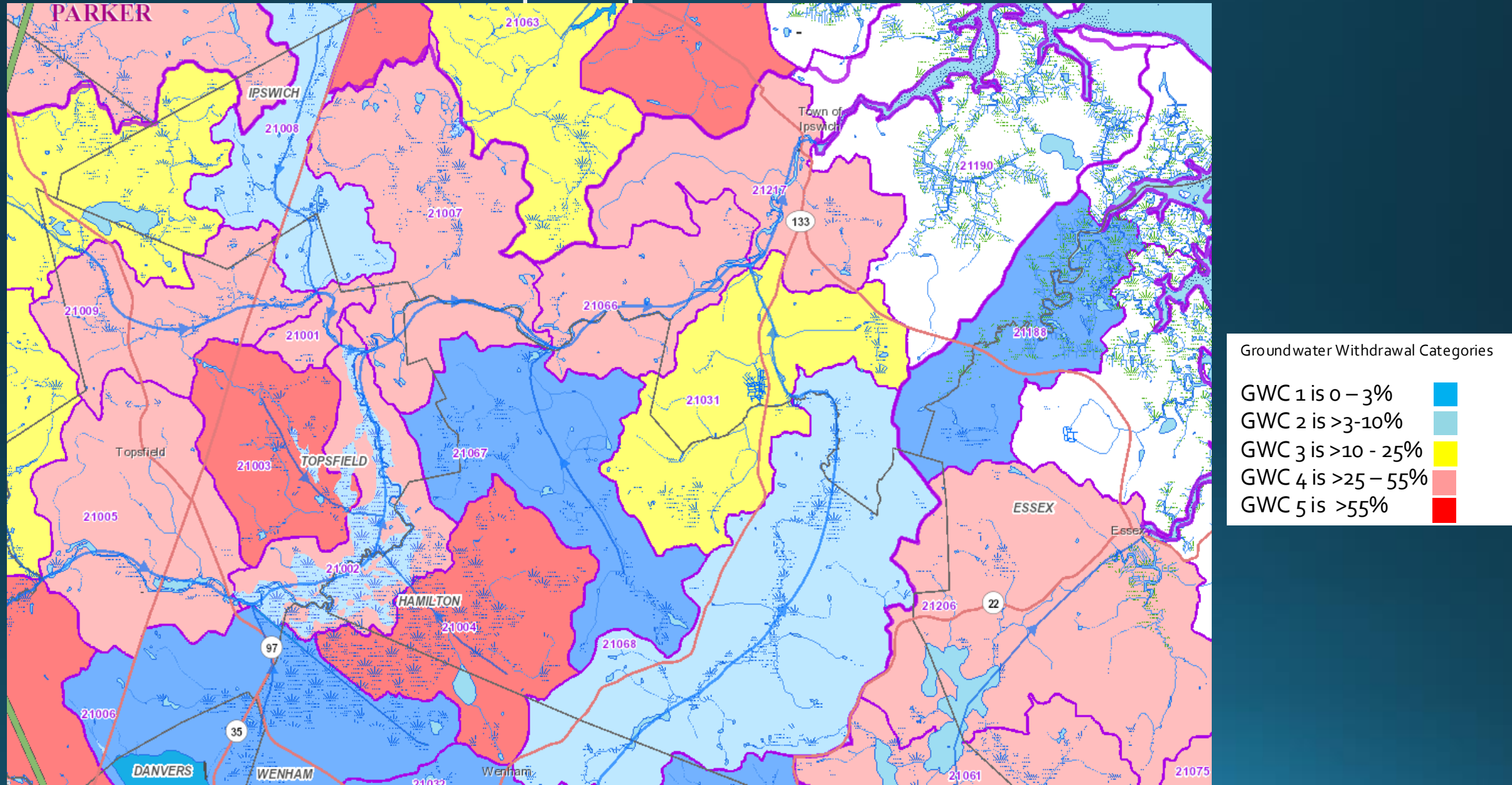
Basins	2021 Reported Use	2022 Reported Use	Differences
Chicopee	153.5 MGD	171.08 MGD	17.58 MGD
Blackstone	24.15 MGD	26.6 MGD	2.45 MGD
Merrimack	54.07 MGD	56.08 MGD	2.01 MGD
Connecticut	21.63 MGD	20.67 MGD	-0.96 MGD

MA Average Residential Gallons per Capita Day (RGPCD)



How is Water Use Impacting Categories

Example: Ipswich River Basin



Ipswich River Basin Authorized and Reported Volumes (MGD)

Name	Reg. Vol	Days	Reg. Annualized Vol.	2023 Perm. Vol	Total Authorized	2021 Annualized Reported Withdrawals	2022 Annualized Reported Withdrawals	2022 GW reported Withdrawals
DANVERS-MIDDLETON WATER DEPT.	3.14	365	3.14	0.58	3.72	2.93	3.02	0.09
HAMILTON WATER DEPT.	0.92	365	0.92	0.11	1.03	0.56	0.57	0.58
IPSWICH WATER DEPARTMENT	0.2	365	0.2		0.2	0.25	0.26	0.27
LYNN WATER & SEWER COMMISSION*	5.31	180	2.62		2.62	0.53	1.73	0
LYNNFIELD CENTER WD	0.29	365	0.29	0	0.29	0.36	0.39	0.39
NORTH READING WATER DEPT.	0.96	365	0.96		0.96	0	0	0
PEABODY DPS	3.89	365	3.89		3.89	1.23	1.54	0
READING DPW	2.57	365	2.57		2.57	0	0	0
SALEM BEVERLY WSB	10.17	365	10.17	2.27	12.44	8.8	9.53	0
TOPSFIELD WATER DEPT.	0.43	365	0.43		0.43	0.39	0.44	0.44
WENHAM WATER DEPT.	0.29	365	0.29		0.29	0.25	0.27	0.27
WILMINGTON WATER DEPT.	2.91	365	2.91		2.91	1.81	1.72	1.72
BOSTIK INC	0.79	365	0.79		0.79	0	0	0
CORLISS BROTHERS INC	0.22	147	0.09		0.09	0.02	0.02	0
MEADOW BROOK GOLF CLUB	0.16	90	0.04		0.04	0.02	0.05	0
MYOPIA HUNT CLUB	0.17	210	0.10		0.10	0.02	0.05	0
SAGAMORE SPRING GOLF CLUB	0.12	122	0.04		0.04	0.03	0.04	0
SHERATON FERNCROFT CC	0.12	153	0.05		0.05	0.02	0.02	0
THOMSON CLUB INC	0.15	210	0.09	0	0.09	0.01	0.05	0.04
Totals	32.81		29.58	2.96	32.54	17.24	19.70	3.80
* normal variation								

2022 Ipswich reported groundwater use scenario

Find by Subbasin ID: 21217
Find by PWS System Name:

Find by PWSID:
Find PWS by Town Name:

Click to use pull downs and to View All Subbasins

All Water Use Points in Subbasin Report

Calculation Tool Report

21217

Ipswich

Ipswich River-Nichols Brook to mouth

Subbasin Cumulative Data (includes this subbasin and all upstream contributing subbasins)

Subbasin Information	August Wastewater Discharges (mgd)	August Groundwater Withdrawals (mgd)	Additional GW Withdrawal Volume to Cause a Change in Existing GWC and BC:
Area (Square Miles): 150.03 Impervious Cover (%): 11.3 Surface water withdrawals exist in or upstream of subbasin: YES	Ground Water Discharge: 0.173 Septic Systems: + 4.325 <hr/> Total Subsurface Discharge: = 4.497 Surface Water (NPDES): 0.000	PWS and Commercial Wells: 8.972 Private Wells: + 1.135 <hr/> Total Groundwater Withdrawals: = 10.106	To Change GWC (mgd): 3.378 To Change BC (mgd): 0

Individual Subbasin Data (only includes this subbasin)

Net Groundwater Depletion (NGD)

Coldwater Fisheries Resource Exist: No	Net Groundwater Depletion (%): 22.9	Positive value indicates depleted. Negative value indicates surcharged.
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Unaffected streamflow, Ground Water withdrawals, Groundwater Withdrawal Category (GWC) and Biologic Category (BC).

Estimated August Condition	Proposed Changes to existing GW Withdrawal	Existing vs. Proposed
Affected Streamflow (mgd)* 18.919	Change (+/-) to existing GW Withdrawal (mgd) -5.17	<div>Calculate</div> <div>Clear</div>
Unaffected Streamflow (mgd)** 24.517	Unaffected Streamflow(mgd) 24.517	
GW Withdrawals (mgd)*** - 10.106	Proposed Total GW Withdrawal (mgd) - 4.935	
(Unaffected Streamflow) - (GW Withdrawals) = 14.411	(Unaffected Streamflow) - (Prop. GW Withdrawal) = 19.582	
(GW Withdrawals) / (Unaffected Streamflow) = 41.2%	(Proposed GW Withdrawal) / (Unaffected Streamflow) = 20.1%	-21.1% Percent Difference
Groundwater Withdrawal Category (1-5) GWC: 4	Proposed Groundwater Withdrawal Category (1-5) 3	YES Change in GWC?
Biologic Category (1-5) BC: 5	Proposed Biologic Category (1-5) 5	NO Change in BC?

USGS report SIR 2009-5272 ("Mass. Indicators") describes subbasin delineation, streamflow simulation, and water withdrawal and discharge volume calculations.
* August affected streamflow = Aug. unaffected streamflow – Aug. groundwater withdrawals + Aug. wastewater discharges
** August unaffected streamflow = median August streamflow simulated using 1960-2004 USGS records of measured daily streamflow.

Questions?/Comments?

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