Draft Massachusetts Integrated List of Waters for the Clean Water Act 2024/2026 Reporting Cycles

Appendix 24
Ipswich River Basin and Coastal Drainage Area Assessment and Listing Decision Summary

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Watershed Planning Program

The mission of the Watershed Planning Program (WPP) in the Massachusetts Department of Environmental Protection is to protect, enhance, and restore the quality and value of the waters of the Commonwealth. Guided by the federal Clean Water Act, WPP implements this mission statewide through five Sections that each have a different technical focus: (1) Surface Water Quality Standards; (2) Surface Water Quality Monitoring; (3) Data Management and Water Quality Assessment; (4) Total Maximum Daily Load; and (5) Nonpoint Source Management. Together with other MassDEP programs and state environmental agencies, WPP shares in the duty and responsibility to secure the environmental, recreational, and public health benefits of clean water for all people of the Commonwealth.

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Disclaimer

References to trade names, commercial products, manufacturers, or distributors in this report constituted neither endorsement nor recommendation by MassDEP.

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Notice of Availability

This report is available on the Massachusetts Department of Environmental Protection website.

Overview of Appendix Contents

This Integrated Report (IR) Appendix functions as a watershed-based Assessment and Listing Decision Summary that catalogs the most recent assessment decisions for each assessment unit (AU) that was updated as part of the 2024/2026 IR cycle.

The appendix begins with 2024/26 Cycle Impairment Changes, a comprehensive table summarizing all impairments that were either added, removed, changed, or unchanged between the 2022 and 2024/2026 reporting cycles. This table presents the overall impairment status at the waterbody scale, across all designated uses. The table does not detail use-specific impairment changes; those details are provided in subsequent sections of the appendix.

Following 2024/26 Cycle Impairment Changes, the appendix provides an individual section for each AU updated during the 2024/2026 cycle. Each AU section details the supporting data and rationale for each designated use attainment determination, including any associated impairment removal decisions. Changes in impairment status at the designated use level are documented in full within the corresponding Designated Use Attainment Decision. AUs where no usable data were available for the 2024/2026 IR cycle are included, but with the assessment information from the 2022 cycle is carried forward.

The following abbreviations are used when referencing designated uses:

- ALU - Aquatic Life Use
- FC - Fish Consumption Use
- SH - Shellfish Harvesting Use
- AES - Aesthetic Use
- PCR - Primary Contact Recreation Use
- SCR - Secondary Contact Recreation Use

When listing an impairment, parentheses and an asterisk (*) are utilized to denote “pollution” or non-pollutant impairments that do not require the development of a Total Maximum Daily Load (TMDL). Where applicable, further explanation of the ATTAINS impairment code is provided within square brackets [].

Table of Contents

2024/26 Cycle Impairment Changes

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Bear Meadow Brook	MA92-07	2	2	None	--	Unchanged
Beaver Pond	MA92002	3	3	None	--	Unchanged
Berry Pond	MA92003	2	5	Enterococcus	--	Added
Black Brook	MA92-19	3	3	None	--	Unchanged
Boston Brook	MA92-13	5	5	Benthic Macroinvertebrates	--	Unchanged
Boston Brook	MA92-13	5	5	Dissolved Oxygen	--	Unchanged
Brackett Pond	MA92004	5	5	Turbidity	--	Unchanged
Bradford Pond	MA92005	3	3	None	--	Unchanged
Collins Pond	MA92010	5	5	Algae	--	Unchanged
Collins Pond	MA92010	5	5	Turbidity	--	Unchanged
Creighton Pond	MA92011	3	3	None	--	Unchanged
Crystal Pond	MA92013	5	5	Algae	--	Unchanged
Crystal Pond	MA92013	5	5	Chlorophyll-a	--	Unchanged
Crystal Pond	MA92013	5	5	Phosphorus, Total	--	Unchanged
Crystal Pond	MA92013	5	5	Transparency / Clarity	--	Unchanged
Devils Dishfull Pond	MA92015	5	5	(Aquatic Plants (Macrophytes)*)	--	Added
Devils Dishfull Pond	MA92015	5	5	(Eurasian Water Milfoil, Myriophyllum Spicatum*)	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Devils Dishfull Pond	MA92015	5	5	Chlorophyll-a	--	Unchanged
Devils Dishfull Pond	MA92015	5	5	Dissolved Oxygen	--	Unchanged
Devils Dishfull Pond	MA92015	5	5	Phosphorus, Total	--	Unchanged
Devils Dishfull Pond	MA92015	5	5	Turbidity	--	Unchanged
Eisenhaures Pond	MA92016	3	3	None	--	Unchanged
Elginwood Pond	MA92017	3	3	None	--	Unchanged
Emerson Brook Reservoir (Forest Street Pond)	MA92021	3	3	None	--	Unchanged
Farnum Street Pond	MA92018	3	3	None	--	Unchanged
Field Pond	MA92019	4c	4c	(Fanwort*)	--	Unchanged
Field Pond	MA92019	4c	4c	(Non-Native Aquatic Plants*)	--	Unchanged
Fish Brook	MA92-14	5	5	Benthic Macroinvertebrates	--	Unchanged
Fish Brook	MA92-14	5	5	Dissolved Oxygen	--	Unchanged
Fish Brook	MA92-14	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Fourmile Pond	MA92022	3	3	None	--	Unchanged
Frye Pond	MA92023	5	5	Algae	--	Unchanged
Frye Pond	MA92023	5	5	Enterococcus	--	Added

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Gravelly Brook	MA92-18	5	5	Benthic Macroinvertebrates	--	Unchanged
Gravelly Brook	MA92-18	5	5	Lack of a Coldwater Assemblage	--	Unchanged
Hood Pond	MA92025	4a	4a	Mercury in Fish Tissue	33880	Unchanged
Howlett Brook	MA92-17	5	5	(Fish Passage Barrier*)	--	Unchanged
Howlett Brook	MA92-17	5	5	Dissolved Oxygen	--	Unchanged
Howlett Brook	MA92-17	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Howlett Brook	MA92-17	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Idlewild Brook	MA92-24	3	3	None	--	Unchanged
Ipswich River	MA92-02	5	5	Dissolved Oxygen	--	Unchanged
Ipswich River	MA92-02	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Ipswich River	MA92-06	5	5	(Dewatering*)	--	Unchanged
Ipswich River	MA92-06	5	5	(Fish Passage Barrier*)	--	Unchanged
Ipswich River	MA92-06	5	5	Benthic Macroinvertebrates	--	Unchanged
Ipswich River	MA92-06	5	5	Dissolved Oxygen	--	Unchanged
Ipswich River	MA92-06	5	5	Escherichia Coli (E. Coli)	--	Unchanged
Ipswich River	MA92-06	5	5	Fish Bioassessments	--	Unchanged
Ipswich River	MA92-06	5	5	Mercury in Fish Tissue	--	Unchanged
Ipswich River	MA92-15	5	5	(Dewatering*)	--	Unchanged
Ipswich River	MA92-15	5	5	(Fish Passage Barrier*)	--	Unchanged
Ipswich River	MA92-15	5	5	Dissolved Oxygen	--	Unchanged
Ipswich River	MA92-15	5	5	Fish Bioassessments	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Ipswich River	MA92-15	5	5	Mercury in Fish Tissue	--	Unchanged
Kimball Brook	MA92-21	5	5	Dissolved Oxygen	--	Unchanged
Kimball Brook	MA92-21	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Kimball Brook	MA92-21	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Kimballs Pond	MA92027	3	3	None	--	Unchanged
Labor in Vain Creek	MA92-22	5	5	Dissolved Oxygen	--	Unchanged
Labor in Vain Creek	MA92-22	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Long Causeway Brook	MA92-20	3	3	None	--	Unchanged
Longham Reservoir	MA92030	3	3	None	--	Unchanged
Lowe Pond	MA92034	5	5	(Fanwort*)	--	Unchanged
Lowe Pond	MA92034	5	5	Mercury in Fish Tissue	--	Unchanged
Lower Four Mile Pond	MA92032	4c	4c	(Non-Native Aquatic Plants*)	--	Unchanged
Lubbers Brook	MA92-05	5	5	(Dewatering*)	--	Unchanged
Lubbers Brook	MA92-05	5	5	Dissolved Oxygen	--	Unchanged
Lubbers Brook	MA92-05	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Maple Meadow Brook	MA92-04	5	5	(Dewatering*)	--	Unchanged
Maple Meadow Brook	MA92-04	5	5	Dissolved Oxygen	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Martins Brook	MA92-08	5	5	Benthic Macroinvertebrates	--	Unchanged
Martins Brook	MA92-08	5	5	Dissolved Oxygen	--	Unchanged
Martins Brook	MA92-08	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Martins Brook	MA92-08	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Martins Pond	MA92038	5	5	(Fanwort*)	--	Unchanged
Martins Pond	MA92038	5	5	Algae	--	Unchanged
Martins Pond	MA92038	5	5	Harmful Algal Blooms	--	Added
Martins Pond	MA92038	5	5	Mercury in Fish Tissue	33880	Unchanged
Martins Pond	MA92038	5	5	Turbidity	--	Unchanged
Middleton Pond	MA92039	3	3	None	--	Unchanged
Mile Brook	MA92-16	3	3	None	--	Unchanged
Miles River	MA92-03	5	5	Benthic Macroinvertebrates	--	Unchanged
Miles River	MA92-03	5	5	Dissolved Oxygen	--	Unchanged
Mill Pond	MA92041	4a	4a	Mercury in Fish Tissue	33880	Unchanged
Nichols Brook	MA92-25	3	3	None	--	Unchanged
Norris Brook	MA92-11	5	5	Dissolved Oxygen	--	Unchanged
Pierces Pond	MA92048	3	3	None	--	Unchanged
Pleasant Pond	MA92049	5	5	Mercury in Fish Tissue	--	Unchanged
Putnamville Reservoir	MA92052	3	3	None	--	Unchanged
Salem Pond	MA92057	5	5	Turbidity	--	Unchanged
Salem Street Pond	MA92076	3	3	None	--	Unchanged
Silver Lake	MA92059	5	5	DDT in Fish Tissue	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Silver Lake	MA92059	5	5	Mercury in Fish Tissue	33880	Unchanged
Spofford Pond	MA92060	3	3	None	--	Unchanged
Stearns Pond	MA92061	2	2	None	--	Unchanged
Stevens Pond	MA92062	4c	4c	(European Water Clover*)	--	Unchanged
Stiles Pond	MA92063	3	5	DDT in Fish Tissue	--	Added
Sudden Pond	MA92064	3	3	None	--	Unchanged
Suntaug Lake	MA92065	3	3	None	--	Unchanged
Swan Pond	MA92066	3	3	None	--	Unchanged
Towne Pond	MA92068	3	3	None	--	Unchanged
Unnamed Tributary	MA92-09	5	5	Fish Bioassessments	--	Unchanged
Unnamed Tributary	MA92-12	5	5	(Flow Regime Modification*)	--	Unchanged
Unnamed Tributary	MA92-12	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Unnamed Tributary	MA92-12	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Unnamed Tributary	MA92-12	5	5	Flocculant Masses	--	Unchanged
Unnamed Tributary	MA92-23	5	4a	Fecal Coliform	R1_MA_2024_04	Changed
Unnamed Tributary	MA92-26	5	5	Chloride	--	Unchanged
Wenham Lake	MA92073	5	5	DDT in Fish Tissue	--	Unchanged
Wenham Lake	MA92073	5	5	Mercury in Fish Tissue	33880	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Wills Brook	MA92-10	2	3	None	--	Unchanged
Winona Pond	MA92077	3	3	None	--	Unchanged

Bear Meadow Brook (MA92-07)

Location:	Headwaters in Cedar Swamp, Reading to confluence with Ipswich River, Reading/North Reading.
AU Type:	RIVER
AU Size:	2.8 MILES
Classification/Qualifier:	B

No usable data were available for Bear Meadow Brook (MA92-07) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
2	2	None	--	Unchanged

Beaver Pond (MA92002)

Location:	Beverly.
AU Type:	FRESHWATER LAKE
AU Size:	19 ACRES
Classification/Qualifier:	B

No usable data were available for Beaver Pond (MA92002) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Berry Pond (MA92003)

Location:	North Andover.
AU Type:	FRESHWATER LAKE
AU Size:	4 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
2	5	Enterococcus	--	Added

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Enterococcus	Source Unknown (N)	--	--	--	X	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Berry Pond (MA92003) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Berry Pond (MA92003) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Berry Pond (MA92003) is assessed as Not Supporting. An *Enterococcus* impairment is being added due to DPH Beach Closures data not meeting the threshold at Berry Pond Beach (DCR) [Beach ID: 4758]. Berry Pond (MA92003) has a beach with DPH Beach Closure data: Berry Pond (DCR) [Beach ID: 4758] beach in North Andover. Beaches were posted for >10% of the swimming season at Berry Pond Beach (DCR) in 2021 (21%) and 2022 (37%) indicating an *Enterococcus* impairment.

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 2)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
4758	Berry Pond Beach (DCR)/ North Andover	42.62050, -71.08750	42.62007, -71.08730	0%	0%	0%	0%	2%	2%	2%	21%	37%	2

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
No bacteria data are available to assess the Secondary Contact Recreation Use for Berry Pond (MA92003) so it is assessed as having Insufficient Information. Berry Pond (MA92003) has a beach with DPH Beach Closure data: Berry Pond (DCR) [Beach ID: 4758] beach in North Andover. Available DPH Beach Closure data cannot be used to positively assess the Secondary Contact Recreation Use since beaches were posted for >10% of the swimming season: Berry Pond Beach (DCR) in 2021 and 2022.

Black Brook (MA92-19)

Location:	Outlet Cutler Pond, Hamilton to confluence with Ipswich River, Hamilton.
AU Type:	RIVER
AU Size:	3.6 MILES
Classification/Qualifier:	B

No usable data were available for Black Brook (MA92-19) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

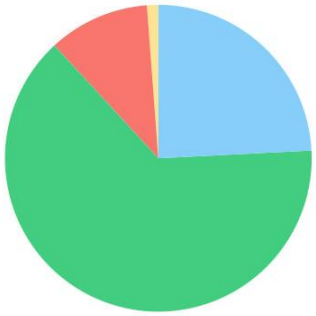
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Boston Brook (MA92-13)

Location:	Outlet of Towne Street Pond, North Andover to confluence with the Ipswich River, Middleton (excluding approximately 0.3 miles through Salem Street Pond segment MA92076), (through former 2014 segments: Upper Boston Brook Pond MA92070 and Lower Boston Brook Pond MA92031).
AU Type:	RIVER
AU Size:	7.2 MILES
Classification/Qualifier:	B

Boston Brook (MA92-13)

Watershed Area: 10.88 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	10.88	4.76	3.51	1.70
Agriculture	1.2%	1.4%	2%	2.9%
Developed	10.7%	8%	9.5%	5.6%
Natural	63.9%	64.6%	60.3%	59.1%
Wetland	24.2%	26%	28.2%	32.4%
Impervious	5.6%	4.4%	5.1%	2.9%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Boston Brook (MA92-13) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Boston Brook (MA92-13) continues to be assessed as Fully Supporting. MassDEP staff recorded aesthetics observations at one station three-quarters of the way down this Boston Brook AU ~900 feet upstream/west of Liberty Street, Middleton (W2542) during the summers of 2015 and 2016 (n=4/yr) as part of the Reference Site Network monitoring project. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2542	MassDEP	Water Quality	Boston Brook	[approximately 900 feet upstream/west of Liberty Street, Middleton]	42.618394	-71.021129

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)

[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2542	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2542 on Boston Brook (MA92-13) during 4 site visits between May 2015 and Aug 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2542	2016	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2542 on Boston Brook (MA92-13) during 4 site visits between May 2016 and Aug 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2542	2015	4	4	0
W2542	2016	4	3	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 7)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2542	Boston Brook	2015	Aesthetics Impaired?	No	4	4
W2542	Boston Brook	2015	Aquatic Plant Density, Overall	None	3	4
W2542	Boston Brook	2015	Aquatic Plant Density, Overall	Sparse	1	4
W2542	Boston Brook	2015	Color	Brownish	1	4
W2542	Boston Brook	2015	Color	Light Yellow/Tan	2	4
W2542	Boston Brook	2015	Color	None	1	4
W2542	Boston Brook	2015	Objectionable Deposits	No	4	4
W2542	Boston Brook	2015	Odor	None	4	4
W2542	Boston Brook	2015	Periphyton Density, Filamentous	None	3	4
W2542	Boston Brook	2015	Periphyton Density, Filamentous	Sparse	1	4
W2542	Boston Brook	2015	Periphyton Density, Film	None	3	4
W2542	Boston Brook	2015	Periphyton Density, Film	Sparse	1	4
W2542	Boston Brook	2015	Scum	No	4	4
W2542	Boston Brook	2015	Turbidity	Moderately Turbid	1	4
W2542	Boston Brook	2015	Turbidity	Slightly Turbid	3	4

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2542	Boston Brook	2016	Aesthetics Impaired?	No	4	4
W2542	Boston Brook	2016	Aquatic Plant Density, Overall	None	2	4
W2542	Boston Brook	2016	Aquatic Plant Density, Overall	Sparse	1	4
W2542	Boston Brook	2016	Aquatic Plant Density, Overall	Unobservable	1	4
W2542	Boston Brook	2016	Color	Brownish	1	4
W2542	Boston Brook	2016	Color	Light Yellow/Tan	3	4
W2542	Boston Brook	2016	Objectionable Deposits	No	4	4
W2542	Boston Brook	2016	Odor	Musty (Basement)	1	4
W2542	Boston Brook	2016	Odor	None	3	4
W2542	Boston Brook	2016	Periphyton Density, Filamentous	None	2	4
W2542	Boston Brook	2016	Periphyton Density, Filamentous	Sparse	1	4
W2542	Boston Brook	2016	Periphyton Density, Filamentous	Unobservable	1	4
W2542	Boston Brook	2016	Periphyton Density, Film	None	3	4
W2542	Boston Brook	2016	Periphyton Density, Film	Unobservable	1	4
W2542	Boston Brook	2016	Scum	No	4	4
W2542	Boston Brook	2016	Turbidity	Moderately Turbid	2	4
W2542	Boston Brook	2016	Turbidity	None	2	4

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
No bacteria data are available to assess the Primary Contact Recreation Use for Boston Brook (MA92-13) and available aesthetics observations for this AU did not result in any impairment, so it is assessed as having Insufficient Information.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

No bacteria data are available to assess the Secondary Contact Recreation Use for Boston Brook (MA92-13) and available aesthetics observations for this AU did not result in any impairment, so it is assessed as having Insufficient Information. MassDEP staff collected *E. coli* bacteria samples in Boston Brook (MA92-13) at W0130 [Liberty St, Middleton] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0130 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 16 CFU/100ml. Historic *E. coli* data from W0130 meet 2024 CALM guidance. Since these data were collected prior to the current IR window (2011-2022) the Secondary Contact Recreation Use cannot be positively assessed using bacteria data.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0130	MassDEP	Water Quality	Boston Brook/Upper Boston Brook Pond	[Liberty Street, Middleton]	42.620690	-71.020256

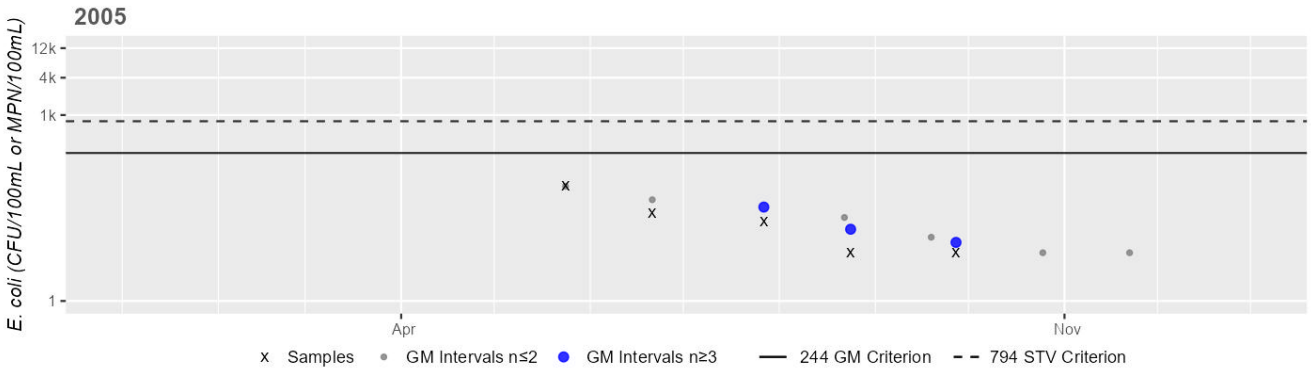
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0130	MassDEP	E. coli	05/24/05	09/27/05	5	6	71	16

Station MASSDEP_W0130 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	16
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Brackett Pond (MA92004)

Location:	Andover.
AU Type:	FRESHWATER LAKE
AU Size:	16 ACRES
Classification/Qualifier:	B

No usable data were available for Brackett Pond (MA92004) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Turbidity	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Turbidity	Source Unknown (N)	--	--	X	X	X

Bradford Pond (MA92005)

Location:	North Reading.
AU Type:	FRESHWATER LAKE
AU Size:	14 ACRES
Classification/Qualifier:	B

No usable data were available for Bradford Pond (MA92005) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Collins Pond (MA92010)

Location:	Andover.
AU Type:	FRESHWATER LAKE
AU Size:	2 ACRES
Classification/Qualifier:	B

No usable data were available for Collins Pond (MA92010) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Algae	--	Unchanged
5	5	Turbidity	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Algae	Source Unknown (N)	--	--	X	X	X
Turbidity	Source Unknown (N)	--	--	X	X	X

Creighton Pond (MA92011)

Location:	Middleton.
AU Type:	FRESHWATER LAKE
AU Size:	19 ACRES
Classification/Qualifier:	B

No usable data were available for Creighton Pond (MA92011) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Crystal Pond (MA92013)

Location:	Peabody.
AU Type:	FRESHWATER LAKE
AU Size:	9 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Algae	--	Unchanged
5	5	Chlorophyll-a	--	Unchanged
5	5	Phosphorus, Total	--	Unchanged
5	5	Transparency / Clarity	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Algae	Source Unknown (N)	X	--	X	X	X
Chlorophyll-a	Source Unknown (N)	X	--	--	--	--
Phosphorus, Total	Source Unknown (N)	X	--	--	--	--
Transparency / Clarity	Source Unknown (N)	--	--	--	X	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted recently, so the Fish Consumption Use for Crystal Pond (MA92013) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Crystal Pond (MA92013) continues to be assessed as Not Supporting with the Algae impairment carried forward. Since the Transparency/Clarity impairment was redundantly duplicated across multiple uses for this waterbody, the Transparency/Clarity impairment is being removed from the Aesthetics Use but will continue to be maintained under the Primary Contact Recreation Use. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Aesthetics Use, but will continue to be maintained under the Aquatic Life Use. No new data are available to evaluate the Aesthetics Use for this Crystal Pond AU.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Crystal Pond (MA92013) are available, so the Primary Contact Recreation Use continues to be assessed as Not Supporting. The prior Transparency / Clarity impairment is being carried forward and the prior Algae impairment (from the Aesthetics Use) is being carried forward. Since the Total Phosphorus impairment is being removed from the Aesthetics Use this cycle, this impairment is also being removed from the Primary Contact Recreation Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Crystal Pond (MA92013) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use continues to be assessed as Not Supporting. The prior Algae impairment (from the Aesthetics Use) is being carried forward. Since the Total Phosphorus and Transparency / Clarity impairments are being removed from the Aesthetics Use this cycle, these impairments are also being removed from the Secondary Contact Recreation Use.

Devils Dishfull Pond (MA92015)

Location:	Peabody.
AU Type:	FRESHWATER LAKE
AU Size:	14 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Aquatic Plants (Macrophytes)*)	--	Added
5	5	(Eurasian Water Milfoil, Myriophyllum Spicatum*)	--	Unchanged
5	5	Chlorophyll-a	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Phosphorus, Total	--	Unchanged
5	5	Turbidity	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Aquatic Plants (Macrophytes)*)	Source Unknown (N)	--	--	X	X	X
(Eurasian Water Milfoil, Myriophyllum Spicatum*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
Chlorophyll-a	Source Unknown (N)	--	--	X	X	X
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Phosphorus, Total	Source Unknown (N)	X	--	--	--	--
Turbidity	Source Unknown (N)	--	--	X	X	X

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Devils Dishfull Pond (MA92015) is Not Assessed.

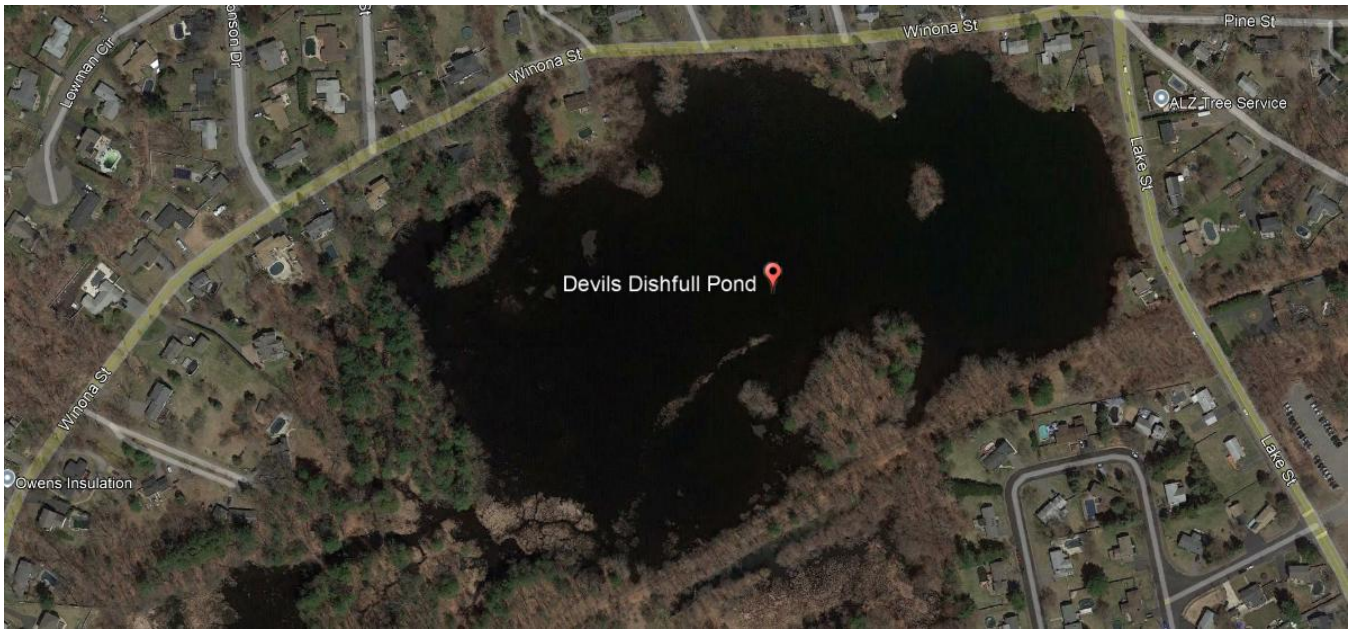
Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Devils Dishfull Pond (MA92015) continues to be assessed as Not Supporting with the Turbidity and Chlorophyll-*a* impairments being carried forward and an Aquatic Plants (Macrophytes) non-pollutant impairment being added. Since the Eurasian Water Milfoil (*Myriophyllum Spicatum*) impairment was redundantly duplicated across multiple uses for this waterbody, the Eurasian Water Milfoil (*Myriophyllum Spicatum*) impairment is being removed from the Aesthetics Use, but will continue to be maintained under the Aquatic Life Use. Since MassDEP staff noted a high percentage of biovolume occupied by aquatic macrophytes based on a 1995 synoptic survey which indicated ~75% of the pond was covered with very dense floating leaf vegetation (MassDEP 1995) and Google Earth images from August 2013 through June 2019 (Google Earth Pro Undated) show the majority of this pond to be filled in with submergent and emergent vegetation, an Aquatic Plants (Macrophytes) non-pollutant impairment is being added in the place of the Eurasian Water Milfoil (*Myriophyllum Spicatum*) impairment at this time. No new data are available to evaluate the Aesthetics Use for this Devils Dishfull Pond AU.

Aesthetic Observations

Devils Dishfull Pond (MA92015) Google Earth Imagery: Pond Outline (April 2018) Followed by Imagery from Aug 2013 and June 2019 Showing Dense/Very Dense Vegetation Covering >25% of the Pond's Surface (Google Earth Pro Undated)


Winona St
Pine St
Lowman Cir
Winona St
ALZ Tree Service
Lake St
Devils Dishfull Pond
Winona St
Owens Insulation
Lake St


Winona St
Pine St
Lowman Cir
Winona St
ALZ Tree Service
Lake St
Devils Dishfull Pond
Winona St
Owens Insulation
Lake St

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Devils Dishfull Pond (MA92015) are available, so the Primary Contact Recreation Use continues to be assessed as Not Supporting. The prior Chlorophyll-*a* and Turbidity impairments (from the Aesthetics Use) are being carried forward. An Aquatic Plants (Macrophytes) impairment is being added (from the Aesthetics Use). Since the Eurasian Water Milfoil (*Myriophyllum spicatum*) impairment is being removed from the Aesthetics Use this cycle, this impairment is also being removed from the Primary Contact Recreation Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Devils Dishfull Pond (MA92015) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use continues to be assessed as Not Supporting. The prior Chlorophyll-*a* and Turbidity impairments (from the Aesthetics Use) are being carried forward. An Aquatic Plants (Macrophytes) impairment is being added (from the Aesthetics Use). Since the Eurasian Water Milfoil (*Myriophyllum spicatum*) impairment is being removed from the Aesthetics Use this cycle, this impairment is also being removed from the Secondary Contact Recreation Use.

Eisenhaures Pond (MA92016)

Location:	North Reading.
AU Type:	FRESHWATER LAKE
AU Size:	12 ACRES
Classification/Qualifier:	B

No usable data were available for Eisenhaures Pond (MA92016) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Elginwood Pond (MA92017)

Location:	Peabody.
AU Type:	FRESHWATER LAKE
AU Size:	9 ACRES
Classification/Qualifier:	B

No usable data were available for Elginwood Pond (MA92017) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Emerson Brook Reservoir (Forest Street Pond) (MA92021)

Location:	Middleton/North Reading.
AU Type:	FRESHWATER LAKE
AU Size:	196 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Emerson Brook Reservoir (Forest Street Pond) (MA92021) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Farnum Street Pond (MA92018)

Location:	North Andover.
AU Type:	FRESHWATER LAKE
AU Size:	9 ACRES
Classification/Qualifier:	B

No usable data were available for Farnum Street Pond (MA92018) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Field Pond (MA92019)

Location:	Andover.
AU Type:	FRESHWATER LAKE
AU Size:	57 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4c	4c	(Fanwort*)	--	Unchanged
4c	4c	(Non-Native Aquatic Plants*)	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fanwort*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
(Non-Native Aquatic Plants*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--

Recommendations

2024/26 Recommendations
2024 IR [HARMFUL ALGAL BLOOMS, MEDIUM] Follow-up monitoring should be conducted in Field Pond (MA92019) to determine if Harmful Algal Blooms may be impairing the Recreational and Aesthetic uses. Monitoring should include observational data and collection of cyanobacteria cell count data, as well as continued reporting of algal blooms to MDPH. Additional sampling is recommended due to cyanobacteria cell count exceeding 70,000 cells/ml on Jul 17, 2017 (n=6) at {W2711}.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Field Pond (MA92019) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Field Pond (MA92019) is assessed as Fully Supporting based on observations made by MassDEP staff in 2017. MassDEP staff recorded aesthetics observations as part of the MAP2 lake monitoring project in summer 2017 at two stations in Andover, for this Field Pond AU, at the northern edge of pond, from the public access area south of Harold Parker Road (W2711/MAP2L-164S, n=5) and at the deep hole index station (W2710/MAP2L-164, n=3). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, or littoral zone duckweed recorded in ten shoreline plots (n=1), though shoreline algal blooms were noted on Aug 07. During the MAP2 macrophyte mapping survey (n=1) in Aug 2017, less than 25% (23.1%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2710	MassDEP	Water Quality	Field Pond	[index site, Andover]	42.607480	-71.109783
W2711	MassDEP	Water Quality	Field Pond	[northern edge of pond, from the public access area south of Harold Parker Road, Andover]	42.610357	-71.107529

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)

[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2710	2017	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2710 (MAP2L-164) on Field Pond (MA92019) during 3 site visits between Jun 2017 and Sep 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. During the MAP2 macrophyte mapping survey (n=1) in Aug 2017, less than 25% (23.1%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%.
W2711	2017	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2711 (MAP2L-164S) on Field Pond (MA92019) during 5 site visits between May 2017 and Sep 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. During the MAP2 littoral survey (n=1), duckweed was not noted in any of the 10 shoreline plots. Shoreline algal blooms were noted by DEP field crews on Aug 07, 2017.

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 7)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2710	Field Pond	2017	Aesthetics Impaired?	No	2	3
W2710	Field Pond	2017	Aesthetics Impaired?	NR	1	3
W2710	Field Pond	2017	Aquatic Plant Density, Overall	None	1	3
W2710	Field Pond	2017	Aquatic Plant Density, Overall	NR	1	3
W2710	Field Pond	2017	Aquatic Plant Density, Overall	Unobservable	1	3
W2710	Field Pond	2017	Aquatic Plant Density, Whole Lake	Unobservable	1	1
W2710	Field Pond	2017	Color	Light Yellow/Tan	3	3
W2710	Field Pond	2017	Duckweed Density, Whole Lake	Unobservable	1	1
W2710	Field Pond	2017	Objectionable Deposits	No	3	3
W2710	Field Pond	2017	Odor	None	3	3
W2710	Field Pond	2017	Scum	No	2	3
W2710	Field Pond	2017	Scum	Yes	1	3
W2710	Field Pond	2017	Turbidity	None	1	3
W2710	Field Pond	2017	Turbidity	Slightly Turbid	2	3
W2711	Field Pond	2017	Aesthetics Impaired?	No	5	5
W2711	Field Pond	2017	Color	Light Yellow/Tan	1	5
W2711	Field Pond	2017	Color	None	4	5
W2711	Field Pond	2017	Objectionable Deposits	No	5	5
W2711	Field Pond	2017	Odor	None	5	5

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2711	Field Pond	2017	Scum	No	3	5
W2711	Field Pond	2017	Scum	Yes	2	5
W2711	Field Pond	2017	Turbidity	None	5	5

Primary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	YES

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for Field Pond (MA92019) is assessed as Fully Supporting. An Alert is being identified for Harmful Algal Bloom and additional sampling is recommended for this AU. In Field Pond (MA92019), MassDEP collected Secchi and cyanobacteria cell count data at W2710 [MAP2L-164, Index-deep hole] (2017) and cyanobacteria cell count and cyanotoxins data at W2711 [MAP2L-164S, Shoreline] (2017). Secchi depth data indicated water clarity meeting the 1.2m (4ft) threshold at W2710 in 2017 (n=2, 2.54-2.65m). The cyanobacteria cell count exceeded 70,000 cells/ml for a single sample on Jul 17, 2017 in 2017 (n=6). The elevated cyanobacteria cell count measurement is indicative of a Harmful Algal Bloom Alert. Analysis of microcystins and cylindrospermopsin samples from W2711 in 2017 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L. MassDEP staff collected *E. coli* bacteria samples in Field Pond (MA92019) at W2711 [northern edge of pond, from the public access area S of Harold Parker Rd, Andover] from May-Sep 2017 (n=5). Analysis of the single year limited frequency *E. coli* dataset from W2711 indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 10 CFU/100ml. *E. coli* data from W2711 meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2710	MassDEP	Water Quality	Field Pond	[index site, Andover]	42.607480	-71.109783
W2711	MassDEP	Water Quality	Field Pond	[northern edge of pond, from the public access area south of Harold Parker Road, Andover]	42.610357	-71.107529

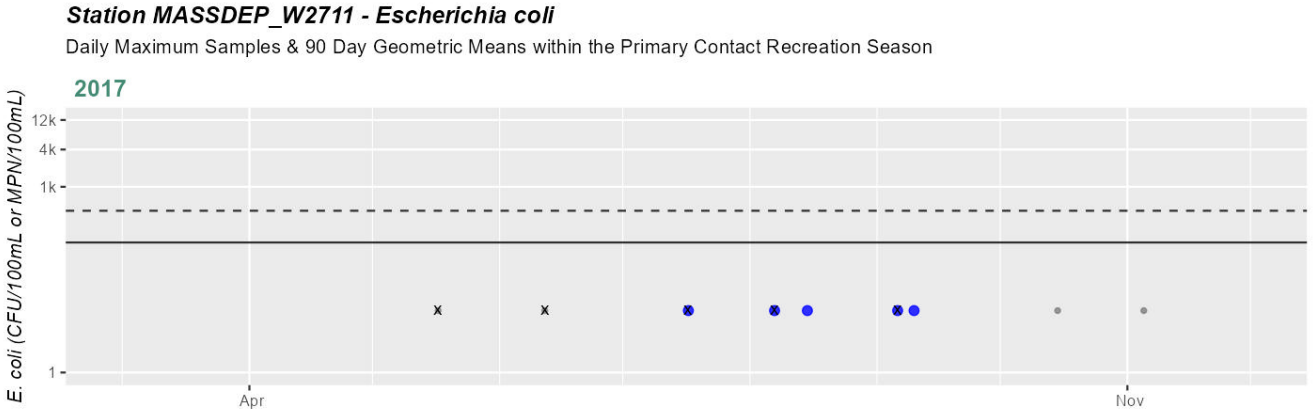
Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)

(MassDEP Undated 7) (MassDEP Undated 4)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2711	MassDEP	E. coli	05/17/17	09/06/17	5	10	10	10



Variable*	Result
Samples	5
SeasGM	10
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Other Indicators

Summary Statement for 2011-2022 Cyanobacteria Cell Count and Cyanotoxin Data, and Secchi Depth Data (MassDEP Undated 7) (MassDEP Undated 4)

Data Year(s)	Summary
2017	In Field Pond (MA92019) in 2017, MassDEP collected Secchi and cyanobacteria cell count data at W2710 [MAP2L-164, Index-deep hole], and cyanobacteria cell count and cyanotoxin data at W2711 [MAP2L-164S, Shoreline]. At station W2710 (station depth=3.1 m) the Secchi depth measurements ranged from 2.54-2.65 m (n=2) indicating water clarity meeting the 1.2 m (4 ft) threshold. The cyanobacteria cell count exceeded 70,000 cells/mL for a single sample on Jul 17, 2017 (n=6). The elevated cyanobacteria cell count measurement is indicative of a Harmful Algal Blooms Alert. Analysis of microcystins and cylindrospermopsin samples from the shoreline station W2711 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L.

MassDEP Cyanobacteria Cell Count Data Collected at Lakes and Impoundments (2016-2018) (MassDEP Undated 7) (MassDEP Undated 4)

Station Code	Waterbody	Station Type	Data Year	Sample Count	Count >70,000 cells/mL	Exceedance Date(s)
W2710	Field Pond	Index	2017	3	0	NA
W2711	Field Pond	Shoreline	2017	3	1	7/17/2017

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	YES

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for Field Pond (MA92019) is assessed as Fully Supporting. An Alert is being identified for Harmful Algal Bloom and additional sampling is recommended for this AU. In Field Pond (MA92019), MassDEP collected cyanobacteria cell count data at W2710 [MAP2L-164, Index-deep hole] (2017) and cyanobacteria cell count and cyanotoxins data at W2711 [MAP2L-164S, Shoreline] (2017). The cyanobacteria cell count exceeded 70,000 cells/ml for a single sample on Jul 17, 2017 in 2017 (n=6). The elevated cyanobacteria cell count measurement is indicative of a Harmful Algal Bloom Alert. Analysis of microcystins and cylindrospermopsin samples from W2711 in 2017 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L. MassDEP staff collected *E. coli* bacteria samples in Field Pond (MA92019) at W2711 [northern edge of pond, from the public access area S of Harold Parker Rd, Andover] from May-Sep 2017 (n=5). Analysis of the single year limited frequency *E. coli* dataset from W2711 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 10 CFU/100ml. *E. coli* data from W2711 meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2711	MassDEP	Water Quality	Field Pond	[northern edge of pond, from the public access area south of Harold Parker Road, Andover]	42.610357	-71.107529

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)

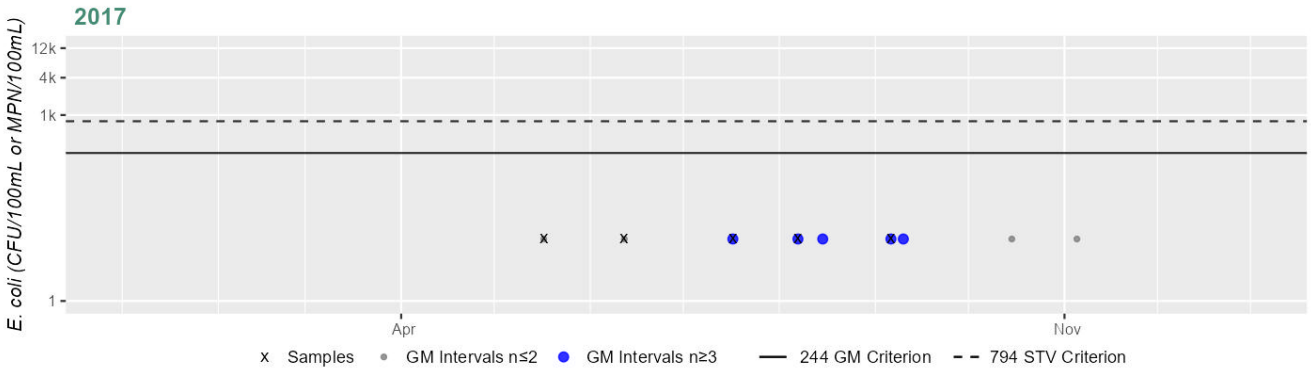
(MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2711	MassDEP	E. coli	05/17/17	09/06/17	5	10	10	10

Station MASSDEP_W2711 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	10
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Fish Brook (MA92-14)

Location:	Headwater, outlet Stiles Pond, Boxford to confluence with Ipswich River, Topsfield/Boxford (through former 2014 segment: Howes Pond MA92026).
AU Type:	RIVER
AU Size:	8.2 MILES
Classification/Qualifier:	B

Fish Brook (MA92-14)

Watershed Area: 17.98 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	17.98	5.75	6.29	2.60
Agriculture	1.7%	1.3%	1.8%	1.4%
Developed	14%	15.4%	11.6%	12.7%
Natural	60.6%	65.4%	57.8%	59.7%
Wetland	23.7%	17.9%	28.8%	26.2%
Impervious	7.2%	7.5%	5.8%	5.9%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Escherichia Coli (E. Coli)	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Fish Brook (MA92-14) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Fish Brook (MA92-14) continues to be assessed as Fully Supporting. MassDEP staff recorded aesthetics observations at one station close to the downstream end of this Fish Brook AU, ~550 feet downstream/south of River Road/Fuller Lane, Topsfield/Boxford (W2521, n=5), as part of the MAP2 monitoring project in summer 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2521	MassDEP	Water Quality	Fish Brook	[approximately 550 feet downstream/south of River Road/Fuller Lane, Topsfield/Boxford]	42.633923	-70.974737

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)

[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2521	2015	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2521 on Fish Brook (MA92-14) during 5 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2521	2015	5	4	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 7)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2521	Fish Brook	2015	Aesthetics Impaired?	No	5	5
W2521	Fish Brook	2015	Aquatic Plant Density, Overall	NR	1	5
W2521	Fish Brook	2015	Aquatic Plant Density, Overall	Sparse	3	5
W2521	Fish Brook	2015	Aquatic Plant Density, Overall	Unobservable	1	5
W2521	Fish Brook	2015	Color	Light Yellow/Tan	5	5
W2521	Fish Brook	2015	Objectionable Deposits	No	4	5
W2521	Fish Brook	2015	Objectionable Deposits	Unobservable	1	5
W2521	Fish Brook	2015	Odor	None	5	5
W2521	Fish Brook	2015	Periphyton Density, Filamentous	None	2	5
W2521	Fish Brook	2015	Periphyton Density, Filamentous	Sparse	2	5
W2521	Fish Brook	2015	Periphyton Density, Filamentous	Unobservable	1	5
W2521	Fish Brook	2015	Periphyton Density, Film	Moderate	1	5
W2521	Fish Brook	2015	Periphyton Density, Film	None	2	5
W2521	Fish Brook	2015	Periphyton Density, Film	NR	1	5
W2521	Fish Brook	2015	Periphyton Density, Film	Unobservable	1	5

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2521	Fish Brook	2015	Scum	No	4	5
W2521	Fish Brook	2015	Scum	Unobservable	1	5
W2521	Fish Brook	2015	Turbidity	None	2	5
W2521	Fish Brook	2015	Turbidity	Slightly Turbid	2	5
W2521	Fish Brook	2015	Turbidity	Unobservable	1	5

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for Fish Brook (MA92-14) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward based on bacteria data not meeting the threshold at W2521. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in Fish Brook (MA92-14) from 2015-2022 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: IRWA_FB-LL [Lockwood Ln., Boxford] from Aug-Oct 2022 (n=4), IRWA_FB-RI [River Rd., Topsfield] from Jul 2022 (n=1), W2521 [~550 ft downstream/S of River Rd/Fuller Lane, Topsfield/Boxford] from May-Sep 2015 (n=5). Analysis of the single year limited frequency *E. coli* dataset from IRWA_FB-LL indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 21 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2521 indicated 100% of intervals had GMs >126 CFU/100ml, 2 samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 333 CFU/100ml. *E. coli* data from IRWA_FB-RI are too limited according to the 2024 CALM to assess the Primary Contact Recreation Use. While *E. coli* data from IRWA_FB-LL meet 2024 CALM guidance*, E. coli* data from W2521 are indicative of an *E. coli* impairment.

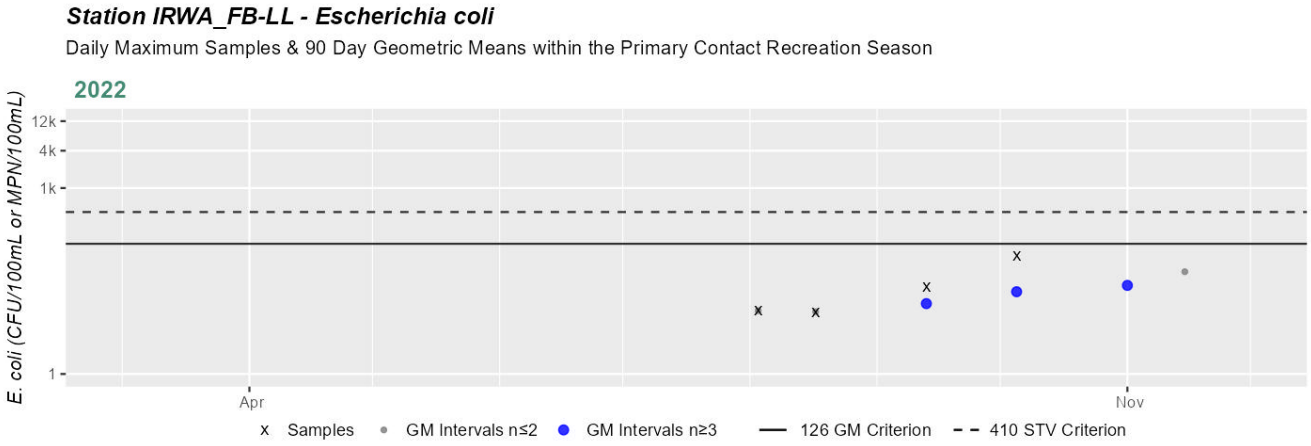
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_FB-LL	Ipswich River Watershed Association	Water Quality	Fish Brook	Lockwood Ln., Boxford	42.645247	-70.989189
IRWA_FB-RI	Ipswich River Watershed Association	Water Quality	Fish Brook	River Rd., Topsfield	42.634808	-70.974772
W2521	MassDEP	Water Quality	Fish Brook	[approximately 550 feet downstream/south of River Road/Fuller Lane, Topsfield/Boxford]	42.633923	-70.974737

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 2) (MassDEP Undated 7) (MassDEP Undated 4)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_FB-LL	Ipswich River Watershed Association	E. coli	08/03/22	10/05/22	4	9	79	21
IRWA_FB-RI	Ipswich River Watershed Association	E. coli	07/20/22	07/20/22	1	57	57	57
W2521	MassDEP	E. coli	05/06/15	09/01/15	5	150	960	333



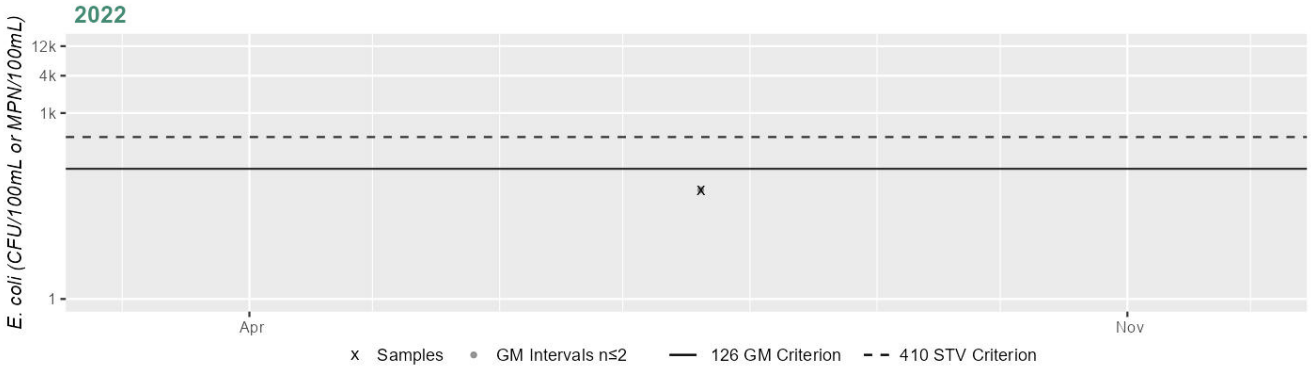
Variable*	Result
Samples	4
SeasGM	21
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_FB-RI - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



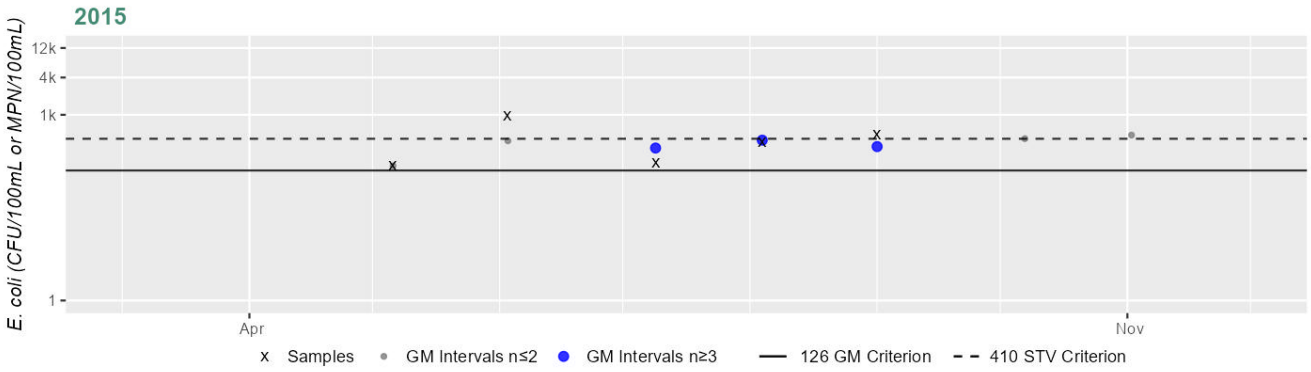
Variable*	Result
Samples	1
SeasGM	57
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2521 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	333
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	2
%n>STV	40%

Cumulative %GMI Exceedance
Current (2011-2022)
100%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Fish Brook (MA92-14) is assessed as Not Supporting. An *Escherichia coli (E. coli)* impairment is being added based on a re-evaluation of bacteria data not meeting the threshold at W2521. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in Fish Brook (MA92-14) from 2005-2022 at 4 stations. Samples were collected from the following stations/sample years from upstream to downstream: IRWA_FB-LL [Lockwood Ln., Boxford] from Aug-Oct 2022 (n=4), IRWA_FB-RI [River Rd., Topsfield] from Jul 2022 (n=1), W2521 [~550 ft downstream/S of River Rd/Fuller Lane, Topsfield/Boxford] from May-Sep 2015 (n=5), W0128 [Washington St/Endicott Rd, Topsfield/Boxford] from May-Sep 2005 (n=5). Analysis of the single year limited frequency *E. coli* dataset from IRWA_FB-LL indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 21 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2521 indicated 100% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 333 CFU/100ml. *E. coli* data from IRWA_FB-RI are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use. While *E. coli* data from IRWA_FB-LL meet 2024 CALM guidance, *E. coli* data from W2521 are indicative of an *E. coli* impairment.

Monitoring Stations

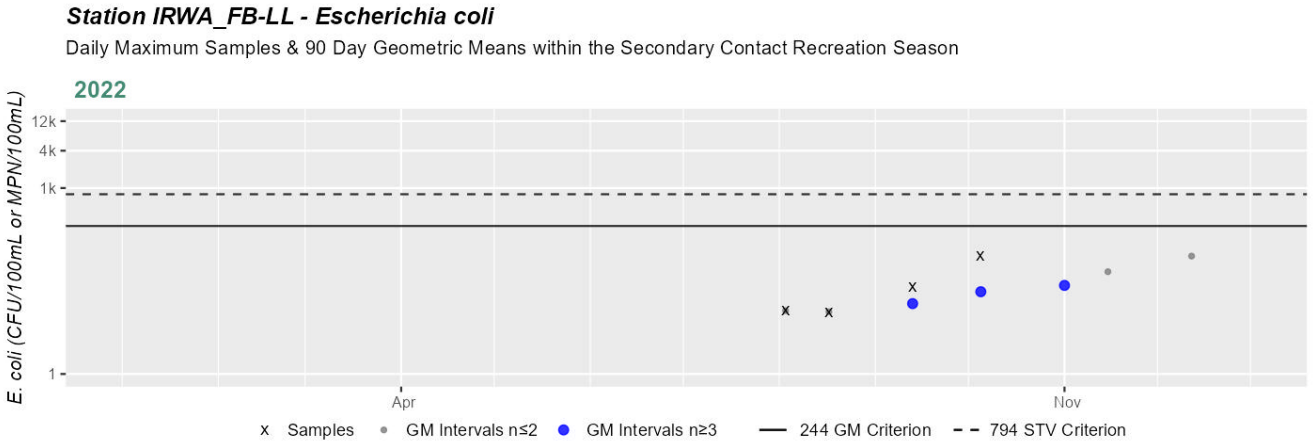
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_FB-LL	Ipswich River Watershed Association	Water Quality	Fish Brook	Lockwood Ln., Boxford	42.645247	-70.989189
IRWA_FB-RI	Ipswich River Watershed Association	Water Quality	Fish Brook	River Rd., Topsfield	42.634808	-70.974772
W0128	MassDEP	Water Quality	Fish Brook	[Washington Street/Endicott Road, Topsfield/Boxford]	42.630589	-70.973733
W2521	MassDEP	Water Quality	Fish Brook	[approximately 550 feet downstream/south of River Road/Fuller Lane, Topsfield/Boxford]	42.633923	-70.974737

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 1) (MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_FB-LL	Ipswich River Watershed Association	E. coli	08/03/22	10/05/22	4	9	79	21
IRWA_FB-RI	Ipswich River Watershed Association	E. coli	07/20/22	07/20/22	1	57	57	57
W0128	MassDEP	E. coli	05/24/05	09/27/05	5	100	530	216
W2521	MassDEP	E. coli	05/06/15	09/01/15	5	150	960	333



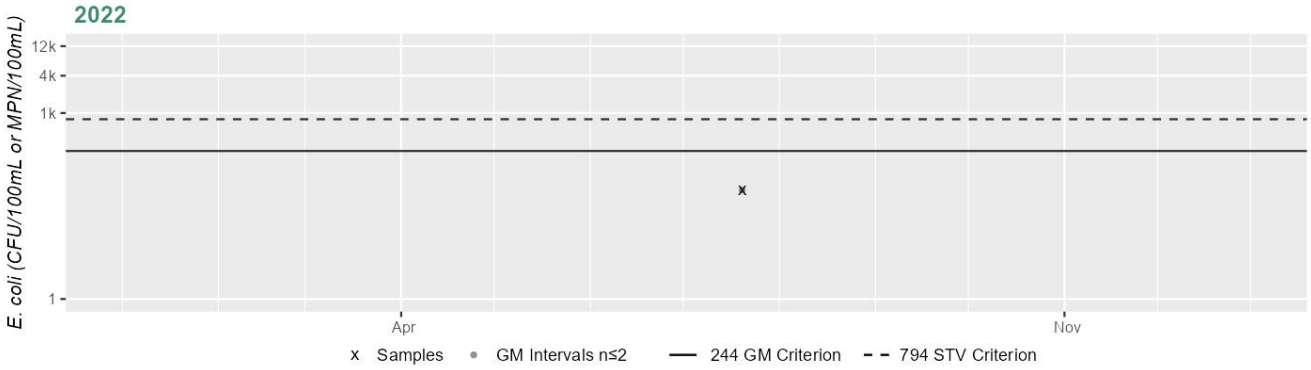
Variable*	Result
Samples	4
SeasGM	21
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_FB-RI - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



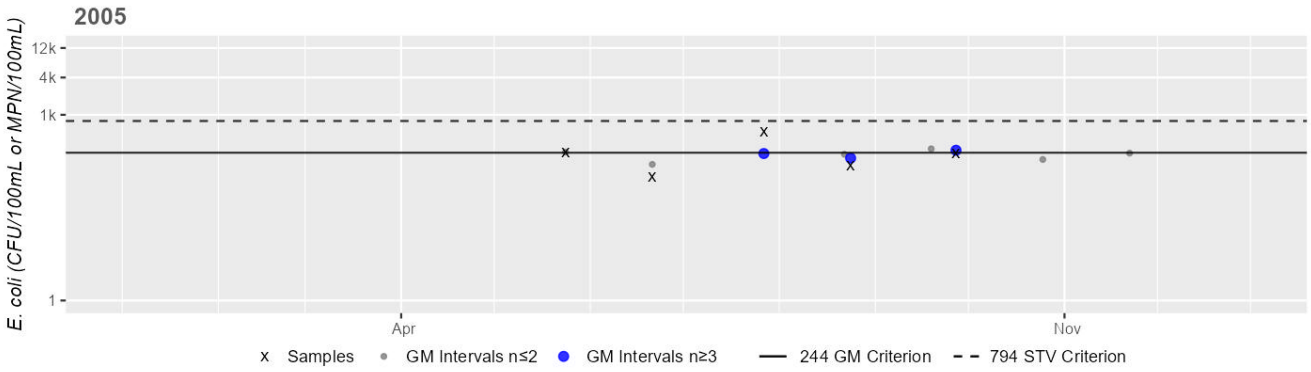
Variable*	Result
Samples	1
SeasGM	57
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W0128 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



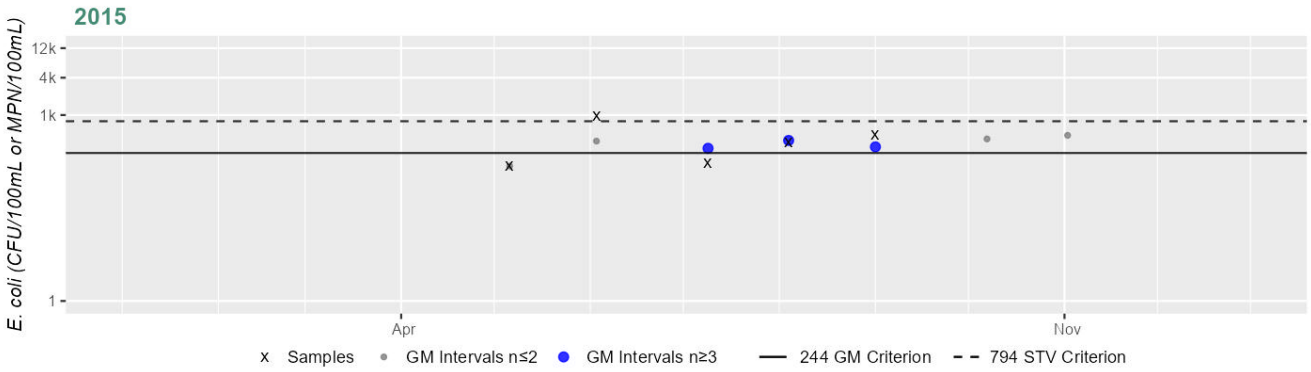
Variable*	Result
Samples	5
SeasGM	216
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
33%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2521 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	333
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Current (2011-2022)
100%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Fourmile Pond (MA92022)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	29 ACRES
Classification/Qualifier:	B

No usable data were available for Fourmile Pond (MA92022) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Frye Pond (MA92023)

Location:	Andover (formerly reported as 1998 segment: Frye Pond MA84082).
AU Type:	FRESHWATER LAKE
AU Size:	7 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Algae	--	Unchanged
5	5	Enterococcus	--	Added

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Algae	Source Unknown (N)	--	--	X	X	X
Enterococcus	Source Unknown (N)	--	--	--	X	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Frye Pond (MA92023) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert

Not Supporting	NO

2024/26 Use Attainment Summary
There are no new data available, so the Aesthetics Use for Frye Pond (MA92023) continues to be assessed as Not Supporting with the prior impairment for Algae being carried forward.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Frye Pond (MA92023) continues to be assessed as Not Supporting. The prior Algae impairment (from the Aesthetics Use) is being carried forward. An *Enterococcus* impairment is being added due to DPH Beach Closures data not meeting the threshold at Frye Pond Beach (DCR) [Beach ID: 4759]. Frye Pond (MA92023) has a beach with DPH Beach Closure data: Frye Pond (DCR) [Beach ID: 4759] beach in North Andover. Beaches were posted for >10% of the swimming season at Frye Pond Beach (DCR) in 2020 (13%), 2021 (35%), and 2022 (28%) indicating an *Enterococcus* impairment.

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 2)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
4759	Frye Pond Beach (DCR)/ North Andover	42.60620, -71.09040	42.60574, -71.09020	2%	0%	0%	0%	4%	2%	13%	35%	28%	3

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for Frye Pond (MA92023) continues to be assessed as Not Supporting. The prior Algae impairment (from the Aesthetics Use) is being carried forward. Frye Pond (MA92023) has a beach with DPH Beach Closure data: Frye Pond (DCR) [Beach ID: 4759] beach in North Andover. Available DPH Beach Closure data cannot be used to positively assess the Secondary Contact Recreation Use since beaches were posted for >10% of the swimming season: Frye Pond Beach (DCR) in 2020, 2021, and 2022.

Gravelly Brook (MA92-18)

Location:	Headwaters, Willowdale State Forest, Ipswich to confluence with Ipswich River, Ipswich.
AU Type:	RIVER
AU Size:	1.5 MILES
Classification/Qualifier:	B

Gravelly Brook (MA92-18)

Watershed Area: 1.97 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.97	1.97	0.49	0.49
Agriculture	0%	0%	0%	0%
Developed	7.1%	7.1%	5.4%	5.4%
Natural	59%	59%	49.1%	49.1%
Wetland	33.9%	33.9%	45.5%	45.5%
Impervious	2.6%	2.6%	2.4%	2.4%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Lack of a Coldwater Assemblage	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Lack of a Coldwater Assemblage	Source Unknown (N)	X	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Gravelly Brook (MA92-18) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Gravelly Brook (MA92-18) is assessed as Fully Supporting. MassDEP staff recorded aesthetics observations at one station close to the downstream end of this Gravelly Brook AU, ~200 feet upstream/north of Topsfield Road, Ipswich (W2890, n=4), during the summer of 2019 as part of the Reference Site Network monitoring project. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2890	MassDEP	Water Quality	Gravelly Brook	[approximately 200 feet upstream/north of Topsfield Road, Ipswich]	42.660748	-70.903711

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)

[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2890	2019	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2890 on Gravelly Brook (MA92-18) during 4 site visits between Jun 2019 and Sep 2019. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2890	2019	4	4	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 7)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2890	Gravelly Brook	2019	Aesthetics Impaired?	No	4	4
W2890	Gravelly Brook	2019	Aquatic Plant Density, Overall	None	3	4
W2890	Gravelly Brook	2019	Aquatic Plant Density, Overall	Sparse	1	4
W2890	Gravelly Brook	2019	Color	Light Yellow/Tan	3	4
W2890	Gravelly Brook	2019	Color	None	1	4
W2890	Gravelly Brook	2019	Objectionable Deposits	No	4	4
W2890	Gravelly Brook	2019	Odor	None	4	4
W2890	Gravelly Brook	2019	Periphyton Density, Filamentous	None	4	4
W2890	Gravelly Brook	2019	Periphyton Density, Film	None	4	4
W2890	Gravelly Brook	2019	Scum	No	4	4
W2890	Gravelly Brook	2019	Turbidity	None	4	4

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
No bacteria data are available to assess the Primary Contact Recreation Use for Gravelly Brook (MA92-18) and available aesthetics observations for this AU did not result in any impairment, so it is assessed as having Insufficient Information.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

No bacteria data are available to assess the Secondary Contact Recreation Use for Gravelly Brook (MA92-18) and available aesthetics observations for this AU did not result in any impairment, so it is assessed as having Insufficient Information.

Hood Pond (MA92025)

Location:	Ipswich/Topsfield.
AU Type:	FRESHWATER LAKE
AU Size:	68 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4a	4a	Mercury in Fish Tissue	33880	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Mercury in Fish Tissue	Atmospheric Deposition (Y)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Hood Pond (MA92025) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Hood Pond (referred to by MDPH as ''Hood (or Hoods) Pond'') in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Hood Pond (MA92025) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Hood Pond (MA92025) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

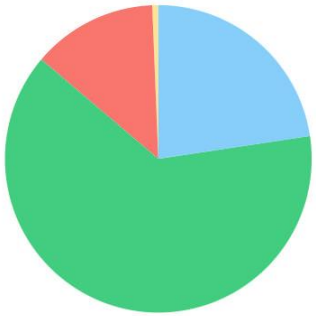
2024/26 Use Attainment Summary
No bacteria or other indicator data for Hood Pond (MA92025) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Howlett Brook (MA92-17)

Location:	Headwaters north of Great Hill, Topsfield to confluence with Ipswich River, Topsfield.
AU Type:	RIVER
AU Size:	2.7 MILES
Classification/Qualifier:	B

Howlett Brook (MA92-17)

Watershed Area: 10.30 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	10.30	6.50	4.04	2.66
Agriculture	0.6%	0.8%	0.5%	0.8%
Developed	13.2%	13.2%	9.9%	9.2%
Natural	63.6%	61.1%	56.5%	52.1%
Wetland	22.6%	24.9%	33%	38%
Impervious	6.7%	6.2%	5.1%	4.1%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Fish Passage Barrier*)	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Fecal Coliform	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Fecal Coliform	Source Unknown (N)	--	--	--	X	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Escherichia Coli (E. Coli)	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Howlett Brook (MA92-17) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Howlett Brook (MA92-17) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Howlett Brook (MA92-17) continues to be assessed at Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward. IRWA staff/volunteers collected *E. coli* bacteria samples in Howlett Brook (MA92-17) at IRWA_HB [Ipswich Rd, Topsfield] from Jun-Sep 2022 (n=5). Analysis of the single year limited frequency *E. coli* dataset from IRWA_HB indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 83 CFU/100ml. While *E. coli* data from IRWA_HB meet 2024 CALM guidance, the prior impairments are being carried forward because IRWA_HB is downstream of Howlett's Brook Dam and the historical stations that led to the current impairments (W0126 and W2168).

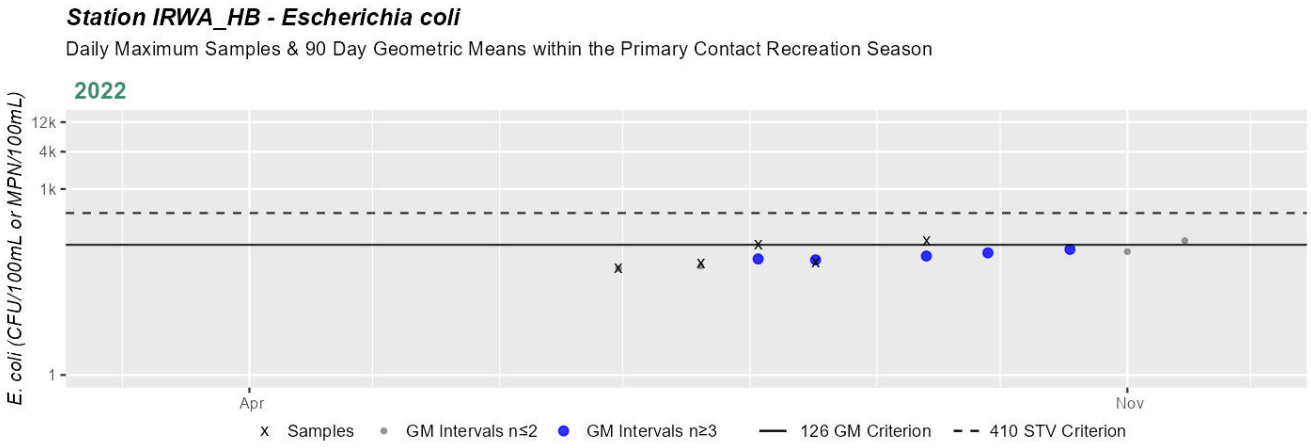
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_HB	Ipswich River Watershed Association	Water Quality	Howlett Brook	Ipswich Road, Topsfield	42.655120	-70.917110

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 2)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_HB	Ipswich River Watershed Association	E. coli	06/30/22	09/13/22	5	52	146	83



Variable*	Result
Samples	5
SeasGM	83
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Howlett Brook (MA92-17) is assessed as Fully Supporting. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in Howlett Brook (MA92-17) from 2005-2022 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2168 [~2300 ft upstream of N St, Topsfield] from Jun-Oct 2010 (n=4), W0126 [N St, Topsfield] from May-Sep 2005 (n=5), IRWA_HB [Ipswich Rd, Topsfield] from Jun-Sep 2022 (n=5). Analysis of the single year limited frequency *E. coli* dataset from IRWA_HB indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 83 CFU/100ml. *E. coli* data from IRWA_HB meet 2024 CALM guidance.

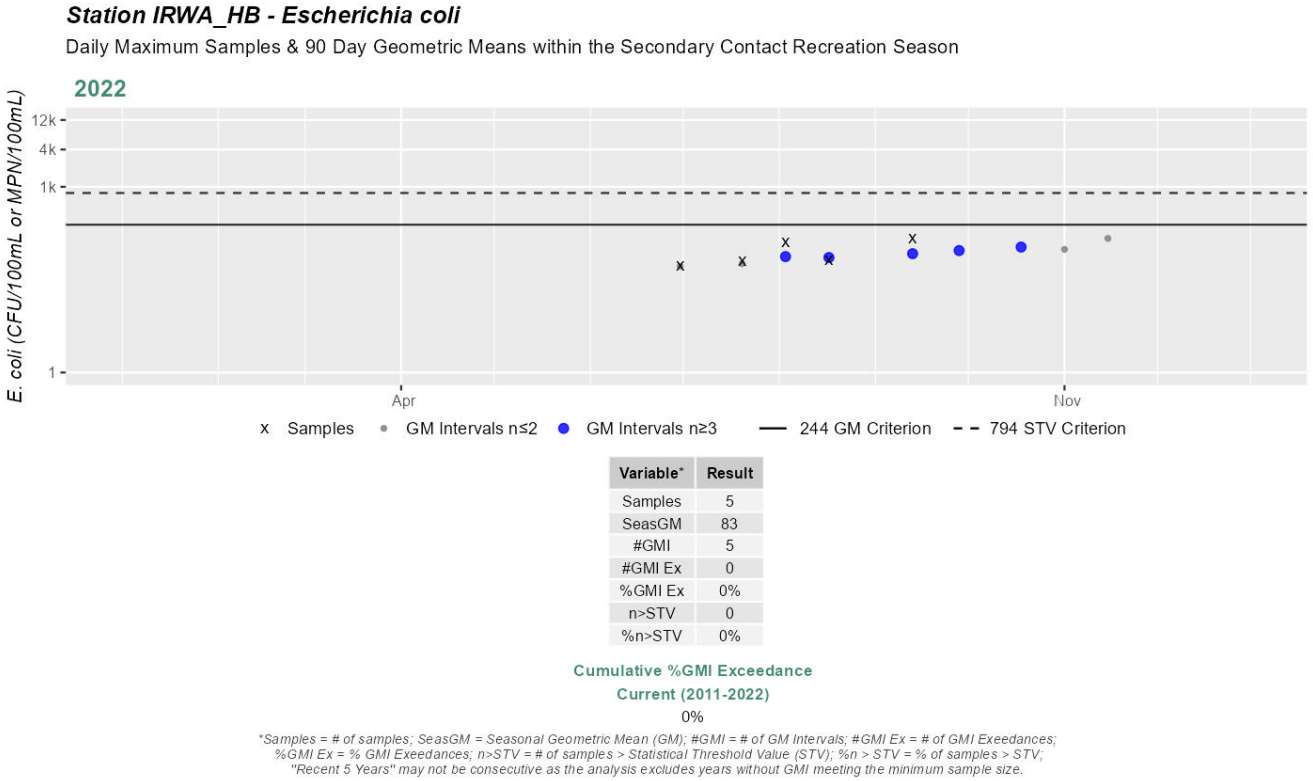
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_HB	Ipswich River Watershed Association	Water Quality	Howlett Brook	Ipswich Road, Topsfield	42.655120	-70.917110
W0126	MassDEP	Water Quality	Howlett Brook	[North Street, Topsfield]	42.660475	-70.933064
W2168	MassDEP	Water Quality	Howlett Brook	[approximately 2300 feet upstream of North Street, Topsfield]	42.657331	-70.939659

Bacteria Data

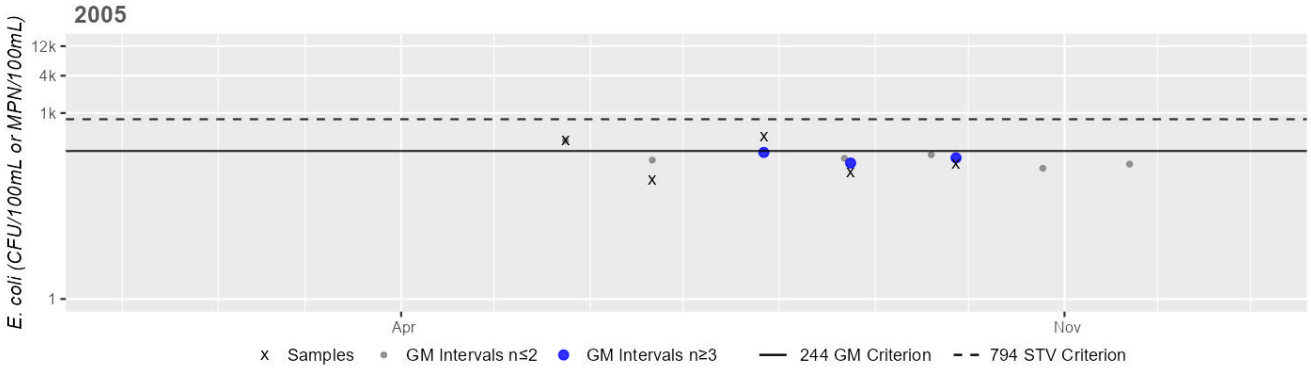
Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 1) (MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_HB	Ipswich River Watershed Association	E. coli	06/30/22	09/13/22	5	52	146	83
W0126	MassDEP	E. coli	05/24/05	09/27/05	5	84	410	182
W2168	MassDEP	E. coli	06/17/10	10/05/10	4	100	350	159



Station MASSDEP_W0126 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



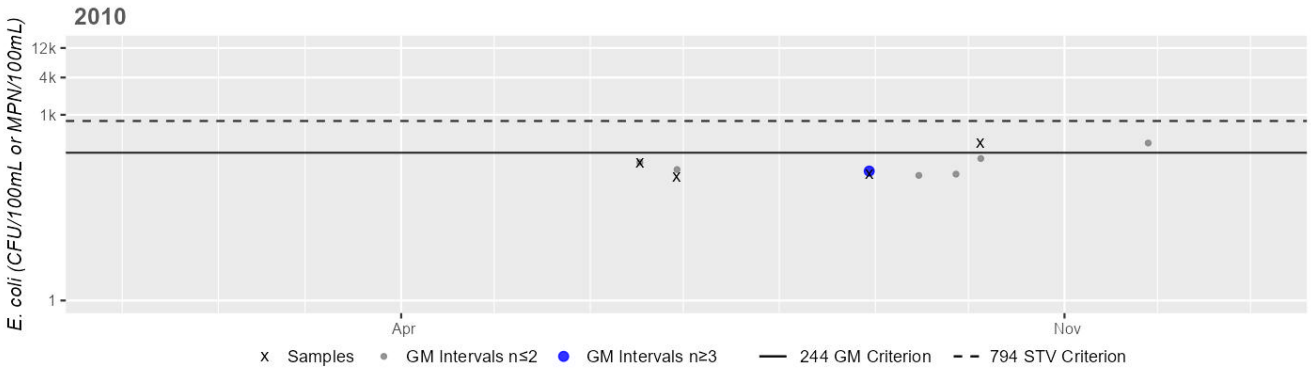
Variable*	Result
Samples	5
SeasGM	182
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2168 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	4
SeasGM	159
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Idlewild Brook (MA92-24)

Location:	Outlet of Pleasant Pond, Hamilton to confluence with Ipswich River, Hamilton.
AU Type:	RIVER
AU Size:	1.1 MILES
Classification/Qualifier:	B

No usable data were available for Idlewild Brook (MA92-24) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Ipswich River (MA92-02)

Location:	Ipswich Mills Dam (formerly known as Sylvania Dam), Ipswich to mouth at Ipswich Bay, Ipswich.
AU Type:	ESTUARY
AU Size:	0.39 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Dissolved Oxygen	--	Unchanged
5	5	Fecal Coliform	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--	--
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	X	--	--	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Recommendations

2024/26 Recommendations
2024 IR [*ENTEROCOCCUS*, MEDIUM] Additional monitoring is recommended at {IRWA_IP26} due to limited, but all elevated, *Enterococcus* samples collected in 2022.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Ipswich River (MA92-02) is Not Assessed.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Ipswich River (MA92-02): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.3853 sq mi (98%). The approved shellfish growing area represents 0 sq mi (0%). The Shellfish Harvesting Use is assessed as Not Supporting because the growing area (normalized to the AU area) is < 100% approved. Based on the new growing area classifications and the prior classifications, the existing Fecal Coliform impairment is being retained.

Shellfish Growing Area Classifications

MassDFG-Division of Marine Fisheries Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
N5.0	Ipswich River	Conditionally Approved	0.27304	69.6%
N5.1	Fox and Treadwell Island Creeks	Conditionally Approved	0.00000	0.0%
N5.3	Neck Cove	Conditionally Approved	0.01886	4.8%
N5.4	Neck Creek	Conditionally Approved	0.00042	0.1%
N5.5	Greenwoods	Prohibited	0.02600	6.6%
N5.6	Labor-in-Vain Creek	Conditionally Approved	0.00063	0.2%
N5.7	Upper Ipswich River	Prohibited	0.06536	16.7%
N6.1	Steep Hill Beach	Prohibited	0.00101	0.3%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Ipswich River (MA92-02) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	YES

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for the Ipswich River (MA92-02) is assessed as Fully Supporting. An Alert is being identified for *Enterococcus* and additional sampling is recommended for this AU. Ipswich River (MA92-02) has 2 beaches with DPH Beach Closure data: Steep Hill [Beach ID: 2922] and Little Neck [Beach ID: 2925] beaches in Ipswich. All beaches were rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (0.3853 sq mi) in this AU are less than 100% approved (0 sq mi, 0%). The data were too limited to assess Primary Contact Recreation Use of Ipswich River (MA92-02) based on shellfish classification data. IRWA staff/volunteers collected *Enterococcus* bacteria samples in the Ipswich River (MA92-02) at IRWA_IP26 [Town Landing, Ipswich] from Sep-Oct 2022 (n=2). Analysis of the single year limited frequency *Enterococcus* dataset from IRWA_IP26 indicated 100% of intervals had GMs >35 CFU/100ml, 2 samples exceeded the 130 CFU/100ml STV, and the seasonal GM was 774 CFU/100ml. While *Enterococcus* concentrations were elevated at IRWA_IP26, the dataset is limited (n=2). An *Enterococcus* Alert is being added due to elevated bacteria concentrations at IRWA_IP26.

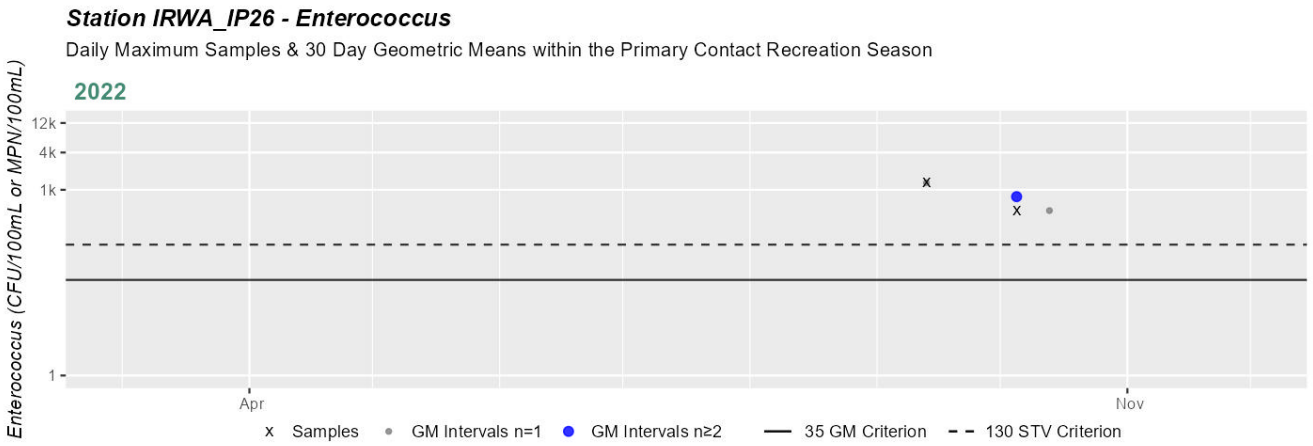
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_IP26	Ipswich River Watershed Association	Water Quality	Ipswich River	Town Landing, Ipswich	42.684010	-70.827080

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (30-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 2)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP26	Ipswich River Watershed Association	Enterococcus	09/13/22	10/05/22	2	461	1299	774



Variable*	Result
Samples	2
SeasGM	774
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	2
%n>STV	100%

Cumulative %GMI Exceedance
Current (2011-2022)
100%

*Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 2)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
2922	Steep Hill/ Ipswich	42.69250, -70.78980	42.69099, -70.77950	0%	0%	0%	0%	0%	0%	0%	0%	0%	0
2925	Little Neck/ Ipswich	42.69391, -70.79350	42.69400, -70.79280	0%	0%	0%	0%	0%	0%	0%	0%	0%	0

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Summary
Ipswich River (MA92-02): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.3853 sq mi (98%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than "approved", the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	YES

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for the Ipswich River (MA92-02) continues to be assessed as Fully Supporting. An Alert is being identified for *Enterococcus* and additional sampling is recommended for this AU. Ipswich River (MA92-02) has 2 beaches with DPH Beach Closure data: Steep Hill [Beach ID: 2922] and Little Neck [Beach ID: 2925] beaches in Ipswich. All beaches were rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (0.3853 sq mi) in this AU are less than 100% approved (0 sq mi, 0%). The data were too limited to assess Secondary Contact Recreation Use of Ipswich River (MA92-02) based on shellfish classification data. IRWA staff/volunteers collected *Enterococcus* bacteria samples in the Ipswich River (MA92-02) at IRWA_IP26 [Town Landing, Ipswich] from Sep-Oct 2022 (n=2). The available *Enterococcus* data at IRWA_IP26 are too limited to assess according to the 2024 CALM. Note that samples exceeded the 252 CFU/100ml STV in 2022 (n=2). *Enterococcus* data from IRWA_IP26 are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use. An Alert is being identified for *Enterococcus* at IRWA_IP26.

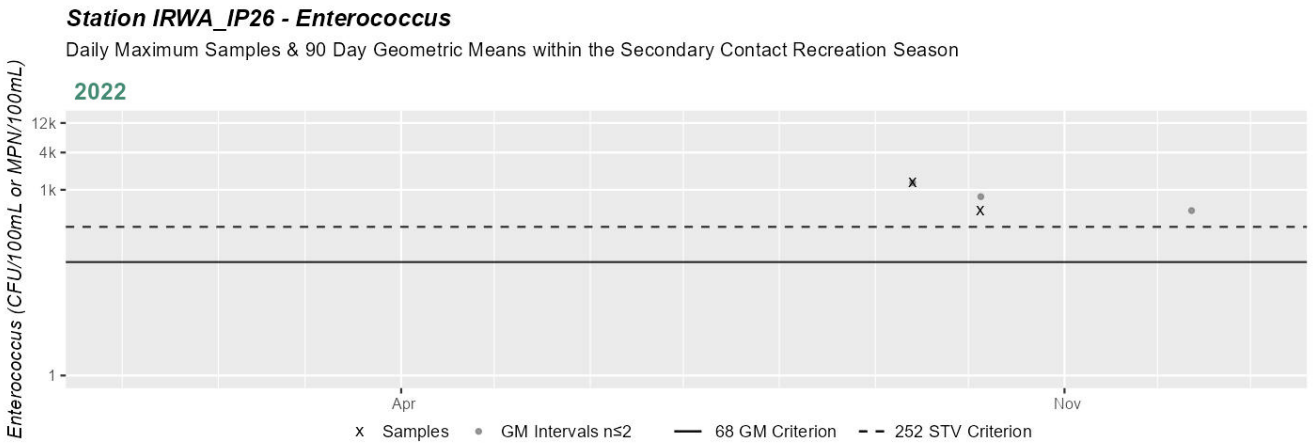
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_IP26	Ipswich River Watershed Association	Water Quality	Ipswich River	Town Landing, Ipswich	42.684010	-70.827080

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 1)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP26	Ipswich River Watershed Association	Enterococci	09/13/22	10/05/22	2	461	1299	774



Variable*	Result
Samples	2
SeasGM	774
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

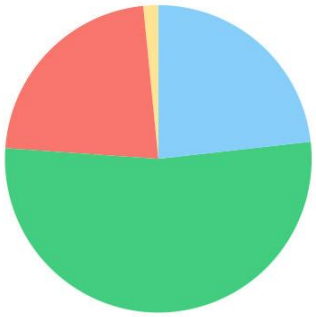
Summary
Ipswich River (MA92-02): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.3853 sq mi (98%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Ipswich River (MA92-06)

Location:	Source at confluence of Maple Meadow Brook and Lubbers Brook, Wilmington, to Salem Beverly Waterway Canal, Topsfield (formerly part of 1996 segment: Ipswich River MA92-01).
AU Type:	RIVER
AU Size:	20.4 MILES
Classification/Qualifier:	B: TWS, WWF, HQW

Ipswich River (MA92-06)

Watershed Area: 99.65 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	99.65	9.26	32.00	3.17
Agriculture	1.6%	5.3%	1.6%	4.4%
Developed	22.3%	23.9%	13.7%	18.6%
Natural	52.9%	52.2%	52.4%	42.8%
Wetland	23.2%	18.6%	32.2%	34.2%
Impervious	11.7%	11.9%	7%	8.7%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Dewatering*)	--	Unchanged
5	5	(Fish Passage Barrier*)	--	Unchanged
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	--	Unchanged
5	5	Fish Bioassessments	--	Unchanged
5	5	Mercury in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Dewatering*)	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--
Fish Bioassessments	Source Unknown (N)	X	--	--	--	--
Mercury in Fish Tissue	Atmospheric Deposition (N)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Recommendations

2024/26 Recommendations
2024 IR [*E. COLI*, MEDIUM] Additional monitoring is recommended at {W2526} due to elevated *E. coli* concentrations in 2015.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Ipswich River (MA92-06) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Ipswich River (referred to by MDPH as ''Ipswich River (between the Bostik Findley Dam in Middleton and the Sylvania Dam in Ipswich)'') in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Ipswich River (MA92-06) continues to be assessed as Fully Supporting. MassDEP staff recorded aesthetics observations as part of the MAP2 wadeable streams monitoring project in summer 2015, at three stations throughout this Ipswich River AU: in the upstream half of the AU ~200 feet downstream/north of Peabody Street, Middleton (W2506, n=5) and ~2500 feet downstream/north of Rt. 114, Middleton/Danvers (W2515, n=5); and in the downstream half of the AU ~175 feet downstream/east of Chestnut Street, North Reading (W2526, n=5). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at any of the stations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2506	MassDEP	Water Quality	Ipswich River	[approximately 200 feet downstream/north of Peabody Street, Middleton]	42.616929	-70.996412
W2515	MassDEP	Water Quality	Ipswich River	[approximately 2500 feet downstream/north of Route 114, Middleton/Danvers]	42.579028	-70.991536
W2526	MassDEP	Water Quality	Ipswich River	[approximately 175 feet downstream/east of Chestnut Street, North Reading]	42.571829	-71.096255

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)

[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2506	2015	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2506 on Ipswich River (MA92-06) during 5 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2515	2015	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2515 on Ipswich River (MA92-06) during 5 site visits between May 2015 and Aug 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2526	2015	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2526 on Ipswich River (MA92-06) during 5 site visits between May 2015 and Aug 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2506	2015	5	1	0
W2515	2015	5	4	0
W2526	2015	5	3	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 7)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2506	Ipswich River	2015	Aesthetics Impaired?	No	5	5
W2506	Ipswich River	2015	Aquatic Plant Density, Overall	Dense	1	5
W2506	Ipswich River	2015	Aquatic Plant Density, Overall	Sparse	1	5
W2506	Ipswich River	2015	Aquatic Plant Density, Overall	Unobservable	3	5
W2506	Ipswich River	2015	Color	Light Yellow/Tan	4	5
W2506	Ipswich River	2015	Color	None	1	5
W2506	Ipswich River	2015	Objectionable Deposits	No	3	5
W2506	Ipswich River	2015	Objectionable Deposits	Unobservable	2	5
W2506	Ipswich River	2015	Odor	None	5	5
W2506	Ipswich River	2015	Periphyton Density, Filamentous	None	1	5
W2506	Ipswich River	2015	Periphyton Density, Filamentous	NR	1	5
W2506	Ipswich River	2015	Periphyton Density, Filamentous	Unobservable	3	5
W2506	Ipswich River	2015	Periphyton Density, Film	None	1	5
W2506	Ipswich River	2015	Periphyton Density, Film	NR	1	5
W2506	Ipswich River	2015	Periphyton Density, Film	Unobservable	3	5
W2506	Ipswich River	2015	Scum	No	4	5
W2506	Ipswich River	2015	Scum	Unobservable	1	5
W2506	Ipswich River	2015	Turbidity	None	2	5
W2506	Ipswich River	2015	Turbidity	Slightly Turbid	3	5
W2515	Ipswich River	2015	Aesthetics Impaired?	No	5	5
W2515	Ipswich River	2015	Aquatic Plant Density, Overall	Moderate	2	5

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2515	Ipswich River	2015	Aquatic Plant Density, Overall	Sparse	3	5
W2515	Ipswich River	2015	Color	Light Yellow/Tan	5	5
W2515	Ipswich River	2015	Objectionable Deposits	No	5	5
W2515	Ipswich River	2015	Odor	None	5	5
W2515	Ipswich River	2015	Periphyton Density, Filamentous	None	4	5
W2515	Ipswich River	2015	Periphyton Density, Filamentous	Unobservable	1	5
W2515	Ipswich River	2015	Periphyton Density, Film	None	4	5
W2515	Ipswich River	2015	Periphyton Density, Film	Unobservable	1	5
W2515	Ipswich River	2015	Scum	No	5	5
W2515	Ipswich River	2015	Turbidity	None	2	5
W2515	Ipswich River	2015	Turbidity	Slightly Turbid	3	5
W2526	Ipswich River	2015	Aesthetics Impaired?	No	5	5
W2526	Ipswich River	2015	Aquatic Plant Density, Overall	None	1	5
W2526	Ipswich River	2015	Aquatic Plant Density, Overall	Sparse	2	5
W2526	Ipswich River	2015	Aquatic Plant Density, Overall	Unobservable	2	5
W2526	Ipswich River	2015	Color	Light Yellow/Tan	4	5
W2526	Ipswich River	2015	Color	Reddish	1	5
W2526	Ipswich River	2015	Objectionable Deposits	No	4	5
W2526	Ipswich River	2015	Objectionable Deposits	Unobservable	1	5
W2526	Ipswich River	2015	Odor	None	5	5
W2526	Ipswich River	2015	Periphyton Density, Filamentous	None	3	5
W2526	Ipswich River	2015	Periphyton Density, Filamentous	Unobservable	2	5
W2526	Ipswich River	2015	Periphyton Density, Film	None	3	5
W2526	Ipswich River	2015	Periphyton Density, Film	Unobservable	2	5
W2526	Ipswich River	2015	Scum	No	4	5
W2526	Ipswich River	2015	Scum	Yes	1	5
W2526	Ipswich River	2015	Turbidity	Moderately Turbid	2	5
W2526	Ipswich River	2015	Turbidity	None	2	5
W2526	Ipswich River	2015	Turbidity	Slightly Turbid	1	5

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for the Ipswich River (MA92-06) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward based on bacteria data not meeting the threshold at W2526. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in the Ipswich River (MA92-06) from 2015-2022 at 7 stations. Samples were collected from the following stations/sample years from upstream to downstream: IRWA_IP01 [Mill St., Reading] from Jul-Oct 2022 (n=5), W2526 [~175 ft downstream/E of Chestnut St, N Reading] from May-Aug 2015 (n=5), IRWA_IP03 [Central St., N Reading] from Jun-Oct 2022 (n=6), W2515 [~2500 ft downstream/N of Rt. 114, Middleton/Danvers] from May-Aug 2015 (n=5), IRWA_IP11 [Peabody St, Middleton] from Jul-Oct 2022 (n=5), W2506 [~200 ft downstream/N of Peabody St, Middleton] from May-Sep 2015 (n=5), IRWA_IP14 [Salem Rd, Topsfield] from Jun-Oct 2022 (n=6). Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP01 indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 57 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2526 indicated 100% of intervals had GMs >126 CFU/100ml, 3 samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 316 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP03 indicated 14% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 83 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2515 indicated 0% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 74 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP11 indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 42 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2506 indicated 0% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 46 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP14 indicated 42% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 120 CFU/100ml. E. *coli* data from W2515, W2506, and IRWA_IP14 are inconclusive according to the 2024 CALM to assess the Primary Contact Recreation Use because this single year, limited frequency dataset included both GMs below the threshold and STV exceedance of the threshold. While *E. coli* data from IRWA_IP01, IRWA_IP03, and IRWA_IP11 meet 2024 CALM guidance, *E. coli* data from W2526 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_IP01	Ipswich River Watershed Association	Water Quality	Ipswich River	Mill St., Reading	42.561350	-71.110720
IRWA_IP03	Ipswich River Watershed Association	Water Quality	Ipswich River	Central St., North Reading	42.572460	-71.089820
IRWA_IP11	Ipswich River Watershed Association	Water Quality	Ipswich River	Peabody Street, Middleton	42.616490	-70.996930
IRWA_IP14	Ipswich River Watershed Association	Water Quality	Ipswich River	Salem Road, Topsfield	42.625760	-70.949840
W2506	MassDEP	Water Quality	Ipswich River	[approximately 200 feet downstream/north of Peabody Street, Middleton]	42.616929	-70.996412
W2515	MassDEP	Water Quality	Ipswich River	[approximately 2500 feet downstream/north of Route 114, Middleton/Danvers]	42.579028	-70.991536
W2526	MassDEP	Water Quality	Ipswich River	[approximately 175 feet downstream/east of Chestnut Street, North Reading]	42.571829	-71.096255

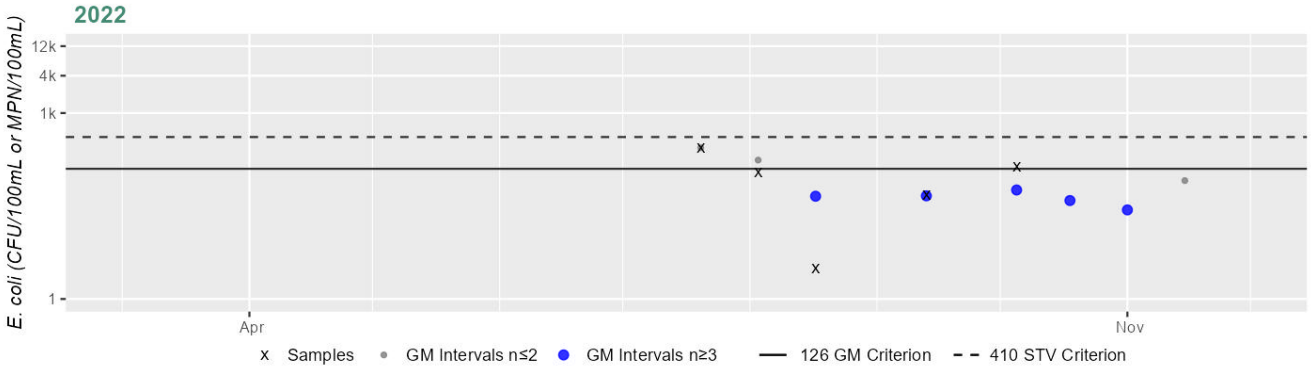
Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 2) (MassDEP Undated 7) (MassDEP Undated 4)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP01	Ipswich River Watershed Association	E. coli	07/20/22	10/05/22	5	3	275	57
IRWA_IP03	Ipswich River Watershed Association	E. coli	06/16/22	10/05/22	6	32	204	83
IRWA_IP11	Ipswich River Watershed Association	E. coli	07/20/22	10/05/22	5	12	193	42
IRWA_IP14	Ipswich River Watershed Association	E. coli	06/16/22	10/05/22	6	48	456	120
W2506	MassDEP	E. coli	05/06/15	09/01/15	5	10	660	46
W2515	MassDEP	E. coli	05/05/15	08/27/15	5	31	960	74
W2526	MassDEP	E. coli	05/05/15	08/27/15	5	41	1900	316

Station IRWA_IP01 & MASSDEP_W0113 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



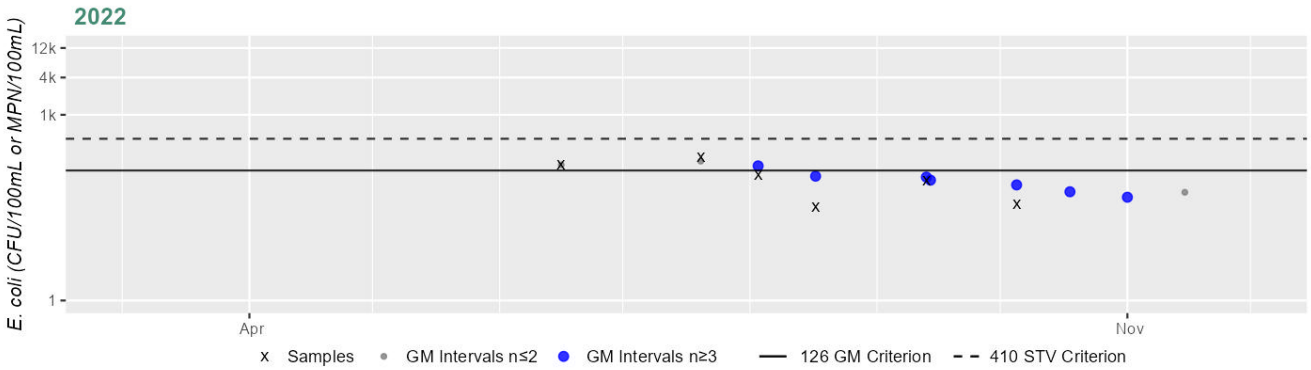
Variable*	Result
Samples	5
SeasGM	57
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_IP03 & MASSDEP_W0112 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



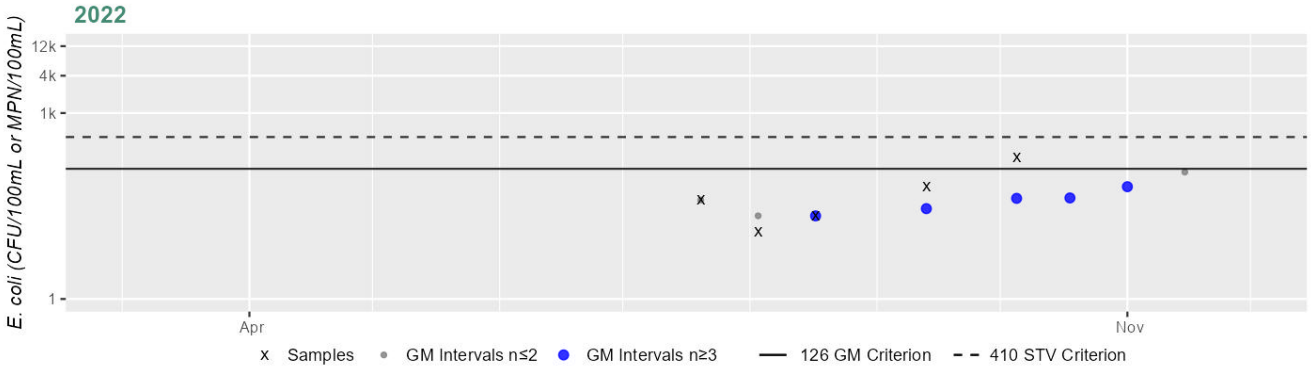
Variable*	Result
Samples	6
SeasGM	83
#GMI	7
#GMI Ex	1
%GMI Ex	14%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
14%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_IP11 & MASSDEP_W0110 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



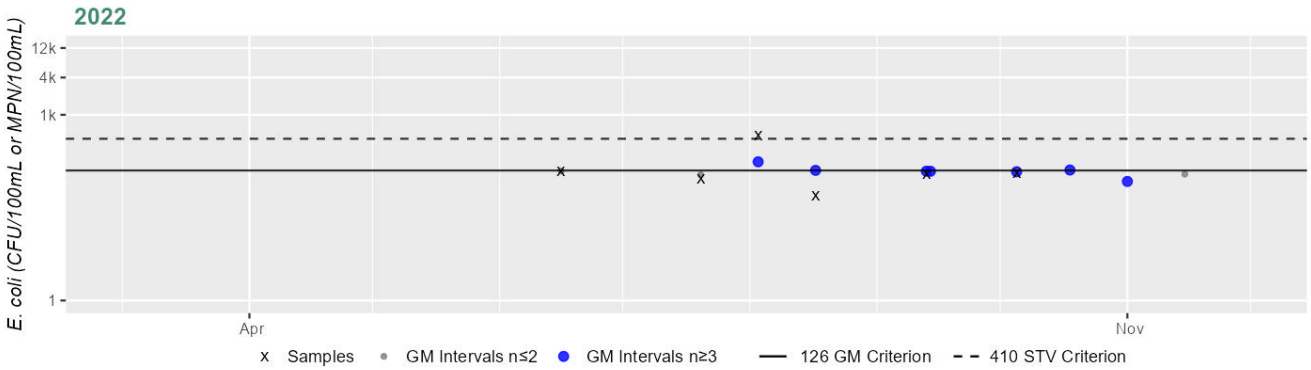
Variable*	Result
Samples	5
SeasGM	42
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_IP14 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



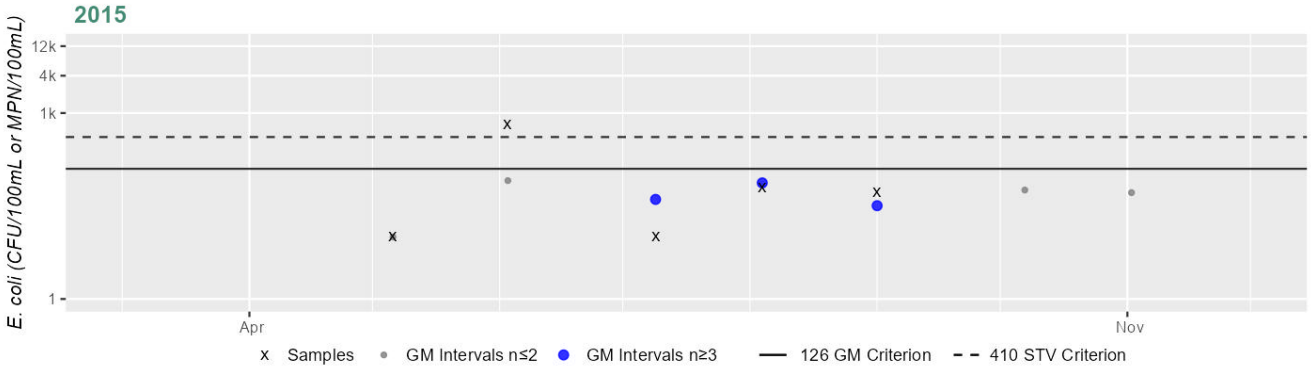
Variable*	Result
Samples	6
SeasGM	120
#GMI	7
#GMI Ex	3
%GMI Ex	42%
n>STV	1
%n>STV	16%

Cumulative %GMI Exceedance
Current (2011-2022)
42%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2506 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



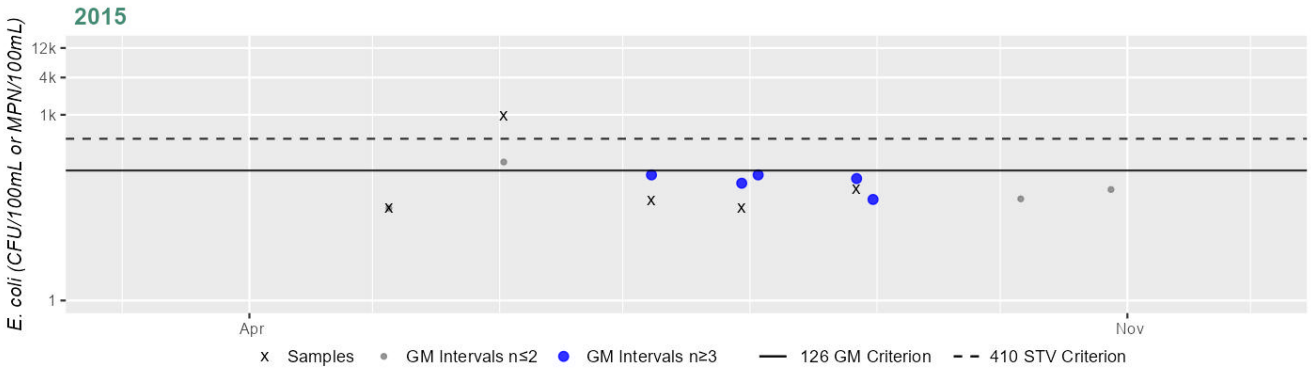
Variable*	Result
Samples	5
SeasGM	46
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2515 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



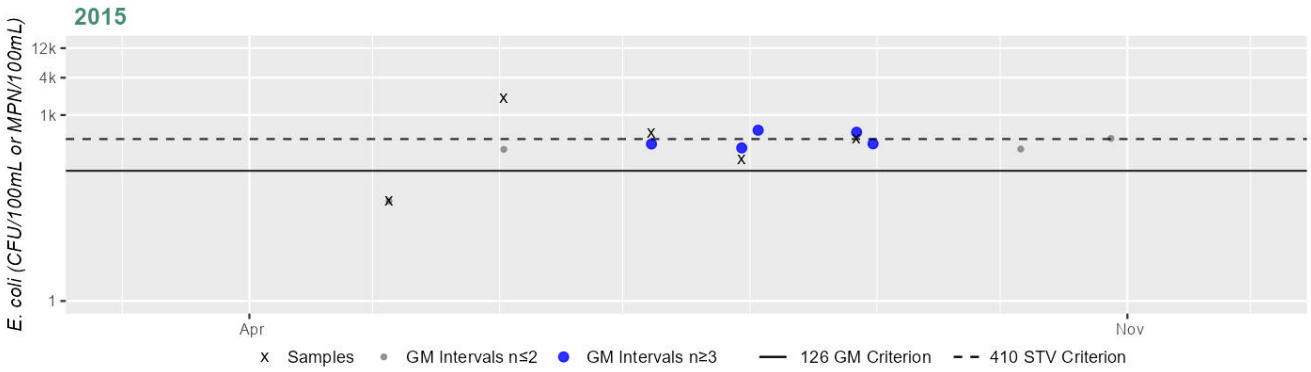
Variable*	Result
Samples	5
SeasGM	74
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2526 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	316
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	3
%n>STV	60%

Cumulative %GMI Exceedance
Current (2011-2022)
100%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	YES

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for the Ipswich River (MA92-06) is assessed as Fully Supporting. An *Escherichia coli (E. coli)* Alert is being added based on elevated bacteria concentrations at W2526 in 2015. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Ipswich River (MA92-06) from 2005-2022 at 7 stations. Samples were collected from the following stations/sample years from upstream to downstream: IRWA_IP01 & W0113 [Mill St, N Reading/Reading & Mill St., Reading] from May-Sep 2005 (historic n=5) and Jul-Oct 2022 (current n=5), W2526 [~175 ft downstream/E of Chestnut St, N Reading] from May-Aug 2015 (n=5), IRWA_IP03 & W0112 [Central St, N Reading & Central St., N Reading] from May-Sep 2005 (historic n=5) and Jun-Oct 2022 (current n=6), W2515 [~2500 ft downstream/N of Rt. 114, Middleton/Danvers] from May-Aug 2015 (n=5), IRWA_IP11 & W0110 [Peabody St, Middleton] from May-Sep 2005 (historic n=5) and Jul-Oct 2022 (current n=5), W2506 [~200 ft downstream/N of Peabody St, Middleton] from May-Sep 2015 (n=5), IRWA_IP14 [Salem Rd, Topsfield] from Jun-Oct 2022 (n=6). Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP01 & W0113 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 57 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2526 indicated 100% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 316 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP03 & W0112 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 83 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2515 indicated 0% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 74 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP11 & W0110 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 42 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2506 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 46 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP14 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 120 CFU/100ml. *E. coli* data from W2515 are inconclusive according to the 2024 CALM to assess the Secondary Contact Recreation Use because this single year, limited frequency dataset included both GMs below the threshold and STV exceedance of the threshold. *E. coli* data from IRWA_IP01 & W0113, IRWA_IP03 & W0112, IRWA_IP11 & W0110, W2506, and IRWA_IP14 meet 2024 CALM guidance. While *E. coli* data from W2526 in 2015 are indicative of an *E. coli* impairment, the nearest downstream station (IRWA_IP03 & MASSDEP_W0112) met CALM guidance in 2022. An Alert is being added due to elevated *E. coli* concentrations at W2526 in 2015.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_IP01	Ipswich River Watershed Association	Water Quality	Ipswich River	Mill St., Reading	42.561350	-71.110720
IRWA_IP03	Ipswich River Watershed Association	Water Quality	Ipswich River	Central St., North Reading	42.572460	-71.089820
IRWA_IP11	Ipswich River Watershed Association	Water Quality	Ipswich River	Peabody Street, Middleton	42.616490	-70.996930
IRWA_IP14	Ipswich River Watershed Association	Water Quality	Ipswich River	Salem Road, Topsfield	42.625760	-70.949840
W0110	MassDEP	Water Quality	Ipswich River	[Peabody Street, Middleton]	42.616470	-70.997006
W0112	MassDEP	Water Quality	Ipswich River	[Central Street, North Reading]	42.572291	-71.089841
W0113	MassDEP	Water Quality	Ipswich River	[Mill Street, North Reading/Reading]	42.561165	-71.110602
W2506	MassDEP	Water Quality	Ipswich River	[approximately 200 feet downstream/north of Peabody Street, Middleton]	42.616929	-70.996412
W2515	MassDEP	Water Quality	Ipswich River	[approximately 2500 feet downstream/north of Route 114, Middleton/Danvers]	42.579028	-70.991536
W2526	MassDEP	Water Quality	Ipswich River	[approximately 175 feet downstream/east of Chestnut Street, North Reading]	42.571829	-71.096255

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)

(IRWA 2022) (MassDEP Undated 1) (MassDEP Undated 7) (MassDEP Undated 3)

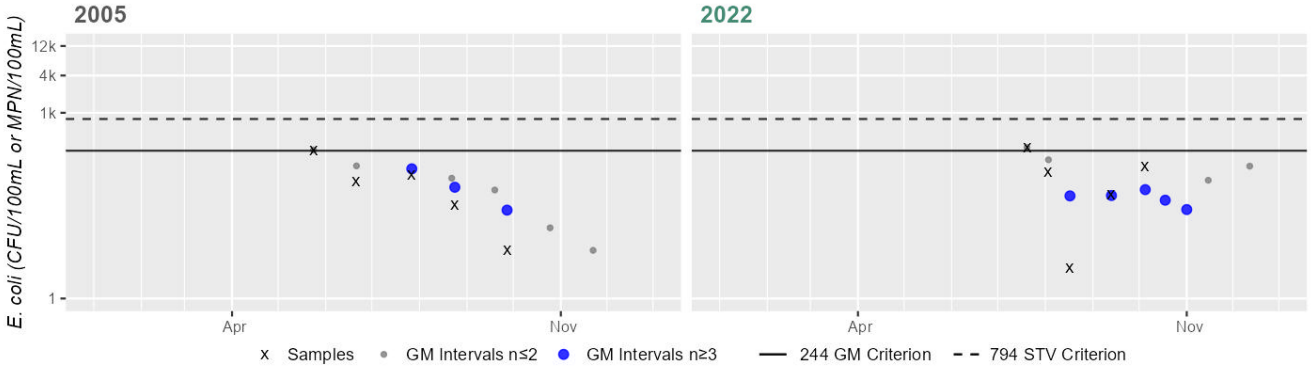
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP01	Ipswich River Watershed Association	E. coli	07/20/22	10/05/22	5	3	275	57
IRWA_IP03	Ipswich River Watershed Association	E. coli	06/16/22	10/05/22	6	32	204	83
IRWA_IP11	Ipswich River Watershed Association	E. coli	07/20/22	10/05/22	5	12	193	42

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP14	Ipswich River Watershed Association	E. coli	06/16/22	10/05/22	6	48	456	120
W0110	MassDEP	E. coli	05/24/05	09/27/05	5	27	310	70
W0112	MassDEP	E. coli	05/24/05	09/27/05	5	26	330	116
W0113	MassDEP	E. coli	05/24/05	09/27/05	5	6	250	51
W2506	MassDEP	E. coli	05/06/15	09/01/15	5	10	660	46
W2515	MassDEP	E. coli	05/05/15	08/27/15	5	31	960	74
W2526	MassDEP	E. coli	05/05/15	08/27/15	5	41	1900	316

Station IRWA_IP01 & MASSDEP_W0113 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	51
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	57
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

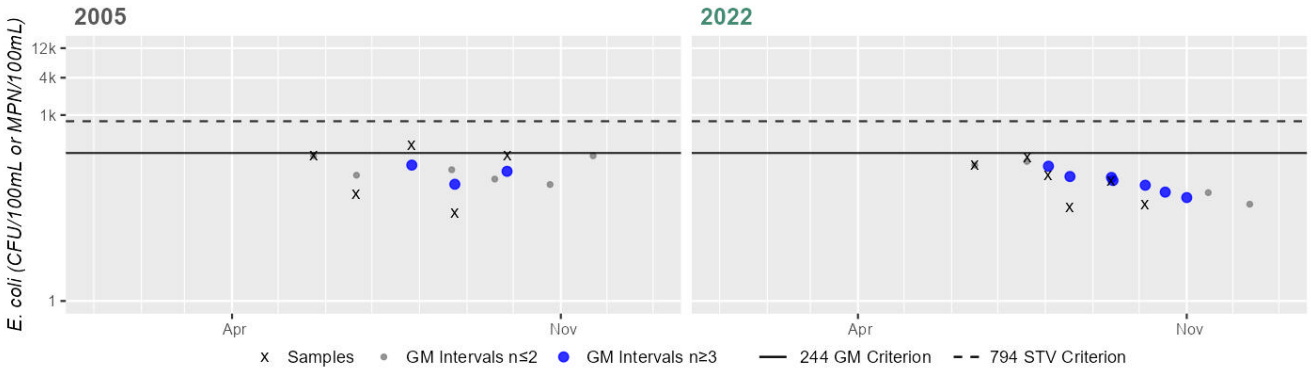
Cumulative %GMI Exceedance Historic (1997-2010)
0%

Cumulative %GMI Exceedance Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_IP03 & MASSDEP_W0112 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	116
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	6
SeasGM	83
#GMI	7
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

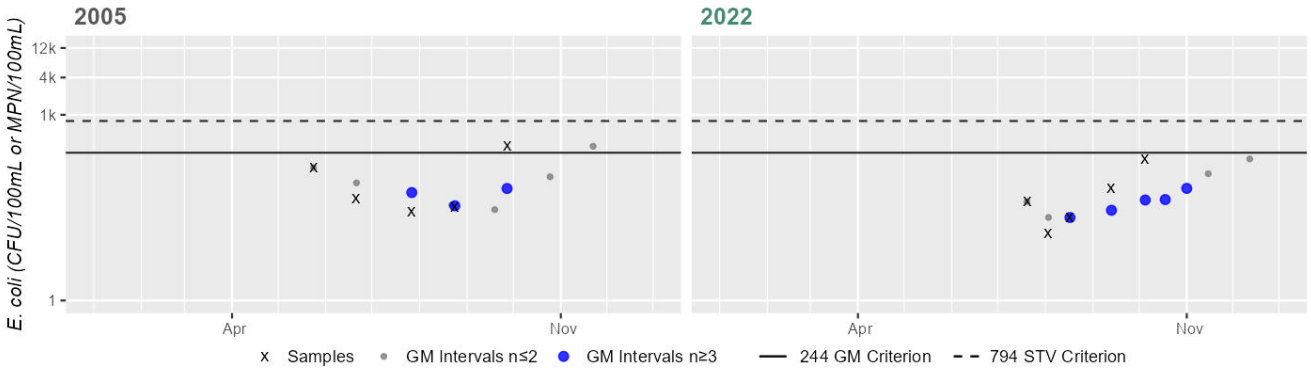
Cumulative %GMI Exceedance Historic (1997-2010)
0%

Cumulative %GMI Exceedance Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_IP11 & MASSDEP_W0110 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	70
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	42
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

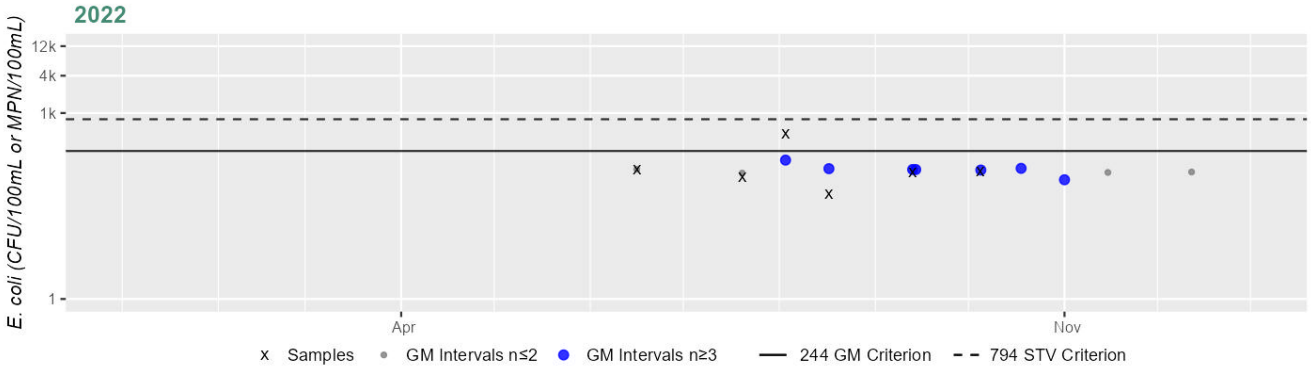
Cumulative %GMI Exceedance Historic (1997-2010)
0%

Cumulative %GMI Exceedance Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station IRWA_IP14 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



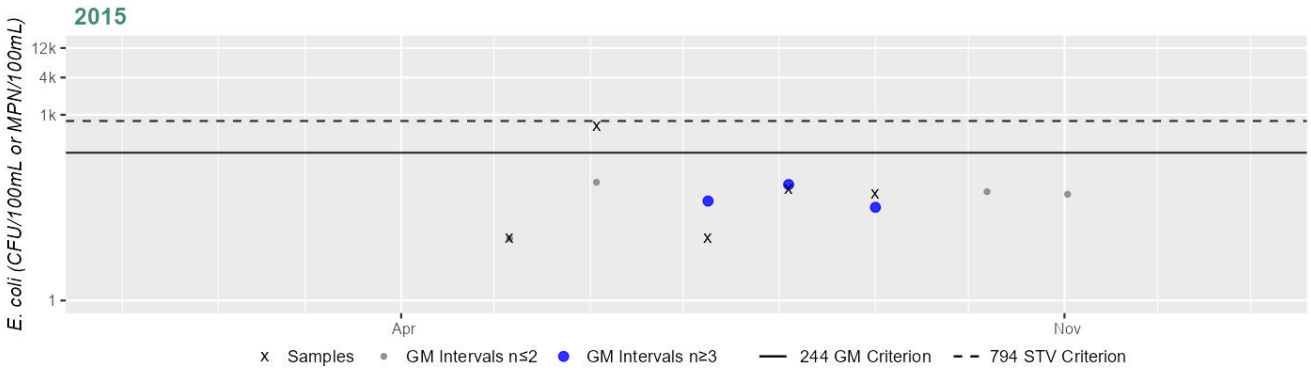
Variable*	Result
Samples	6
SeasGM	120
#GMI	7
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2506 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



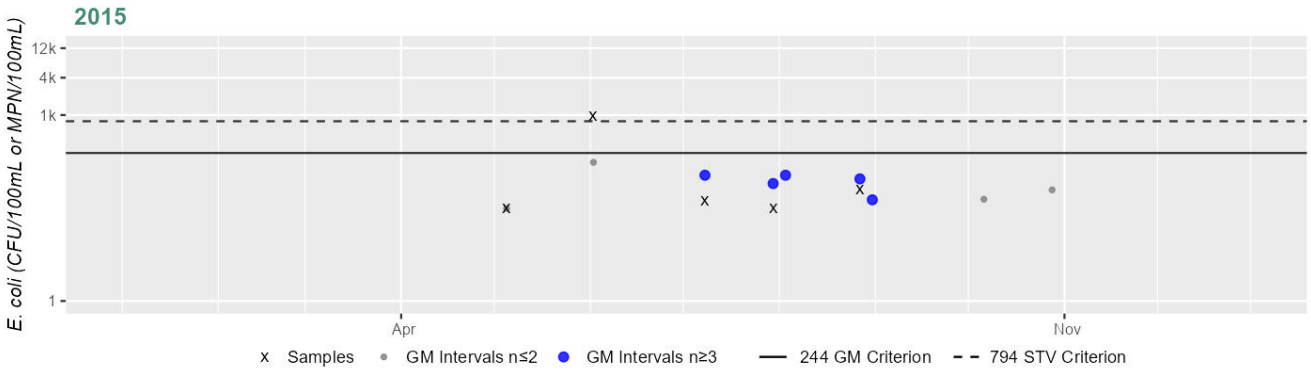
Variable*	Result
Samples	5
SeasGM	46
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2515 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



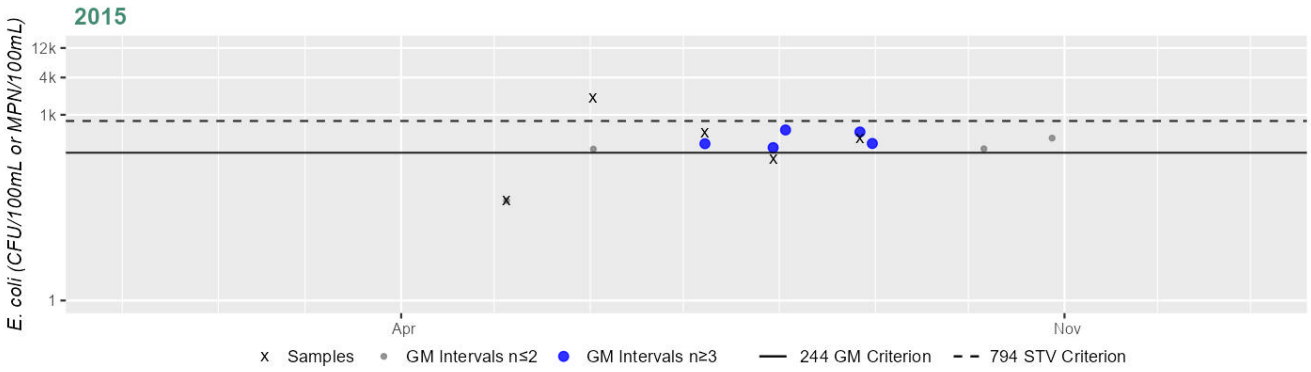
Variable*	Result
Samples	5
SeasGM	74
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W2526 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	316
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Current (2011-2022)
100%

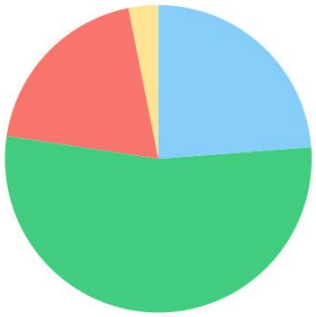
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Ipswich River (MA92-15)

Location:	Salem Beverly Waterway Canal, Topsfield to Ipswich Mills Dam (formerly known as Sylvania Dam), Ipswich (formerly part of 1996 segment: Ipswich River MA92-01).
AU Type:	RIVER
AU Size:	11 MILES
Classification/Qualifier:	B: WWF, HQW

Ipswich River (MA92-15)

Watershed Area: 148.09 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	148.09	9.73	50.26	3.22
Agriculture	3.1%	17.4%	3.1%	18.2%
Developed	19.5%	13.1%	12.2%	9.6%
Natural	53.6%	48.5%	52%	39.5%
Wetland	23.8%	21%	32.8%	32.7%
Impervious	10%	5.9%	6.1%	4.6%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Dewatering*)	--	Unchanged
5	5	(Fish Passage Barrier*)	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Fish Bioassessments	--	Unchanged
5	5	Mercury in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Dewatering*)	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Dissolved Oxygen	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--
Fish Bioassessments	Source Unknown (N)	X	--	--	--	--
Mercury in Fish Tissue	Atmospheric Deposition (N)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Ipswich River (MA92-15) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Ipswich River (referred to by MDPH as ''Ipswich River (between the Bostik Findley Dam in Middleton and the Sylvania Dam in Ipswich)'') in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Ipswich River (MA92-15) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Too limited bacteria data are available to assess the Primary Contact Recreation Use for the Ipswich River (MA92-15) so it is assessed as having Insufficient Information. IRWA staff/volunteers collected *E. coli* bacteria samples in the Ipswich River (MA92-15) at IRWA_IP20 [Winthrop St, Ipswich] from Jun-Oct 2022 (n=5). Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP20 indicated 60% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 81 CFU/100ml. *E. coli* data from IRWA_IP20 are inconclusive according to the 2024 CALM to assess the Primary Contact Recreation Use because this single year, limited frequency dataset included both GMs below the threshold and STV exceedance of the threshold.

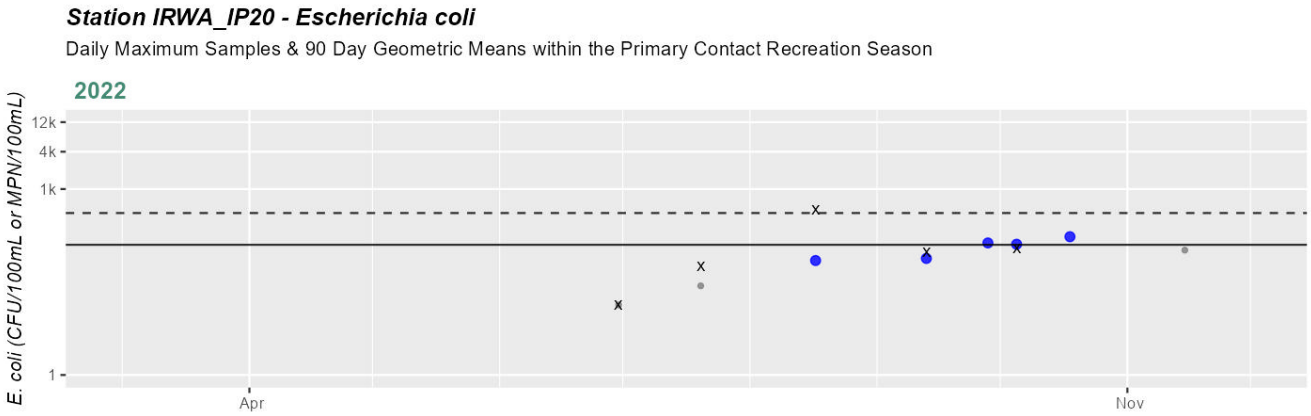
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_IP20	Ipswich River Watershed Association	Water Quality	Ipswich River	Winthrop Street, Ipswich	42.658740	-70.890510

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 2)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP20	Ipswich River Watershed Association	E. coli	06/30/22	10/05/22	5	13	461	81



Variable*	Result
Samples	5
SeasGM	81
#GMI	5
#GMI Ex	3
%GMI Ex	60%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Current (2011-2022)
60%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for the Ipswich River (MA92-15) is assessed as Fully Supporting. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Ipswich River (MA92-15) from 2005-2022 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W0107 [off Topsfield Rd, Ipswich (upstream from confluence of Gravelly Brook)] from May-Sep 2005 (n=5), IRWA_IP20 [Winthrop St, Ipswich] from Jun-Oct 2022 (n=5), W1394 [Mill Rd/Highland St, Ipswich/Hamilton] from May-Sep 2005 (n=5). Analysis of the single year limited frequency *E. coli* dataset from IRWA_IP20 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 81 CFU/100ml. *E. coli* data from IRWA_IP20 meet 2024 CALM guidance.

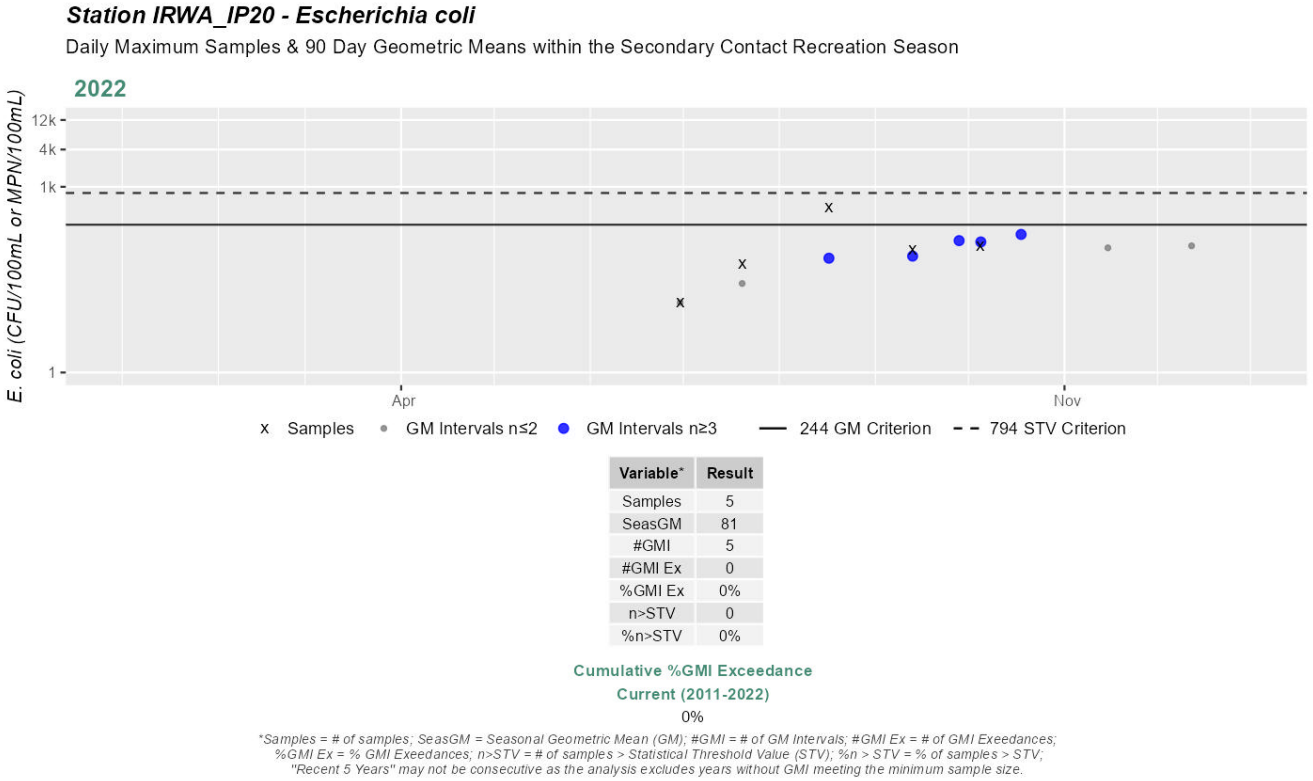
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_IP20	Ipswich River Watershed Association	Water Quality	Ipswich River	Winthrop Street, Ipswich	42.658740	-70.890510
W0107	MassDEP	Water Quality	Ipswich River	[off Topsfield Road, Ipswich (upstream from confluence of Gravelly Brook)]	42.659858	-70.902854
W1394	MassDEP	Water Quality	Ipswich River	[Mill Road/Highland Street, Ipswich/Hamilton]	42.658379	-70.861835

Bacteria Data

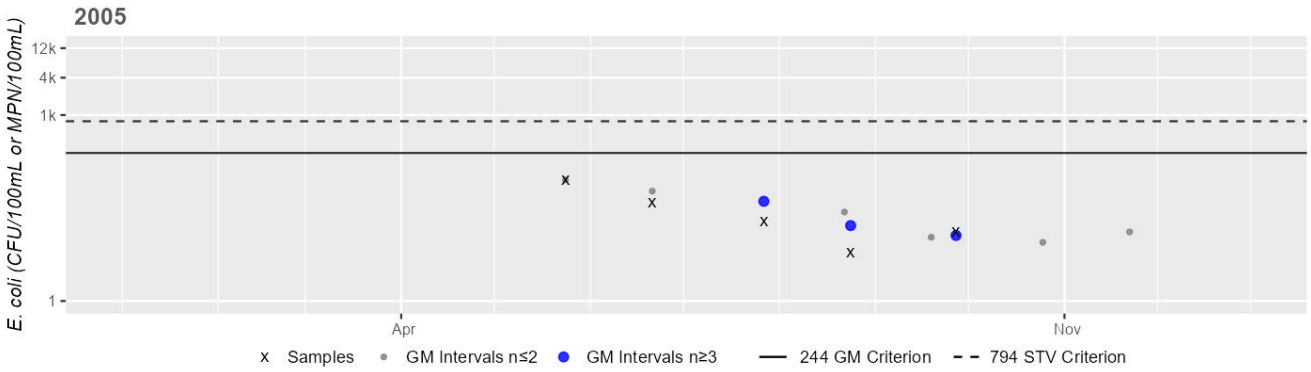
Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 1) (MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_IP20	Ipswich River Watershed Association	E. coli	06/30/22	10/05/22	5	13	461	81
W0107	MassDEP	E. coli	05/24/05	09/27/05	5	6	90	22
W1394	MassDEP	E. coli	05/24/05	09/27/05	5	13	190	48



Station MASSDEP_W0107 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



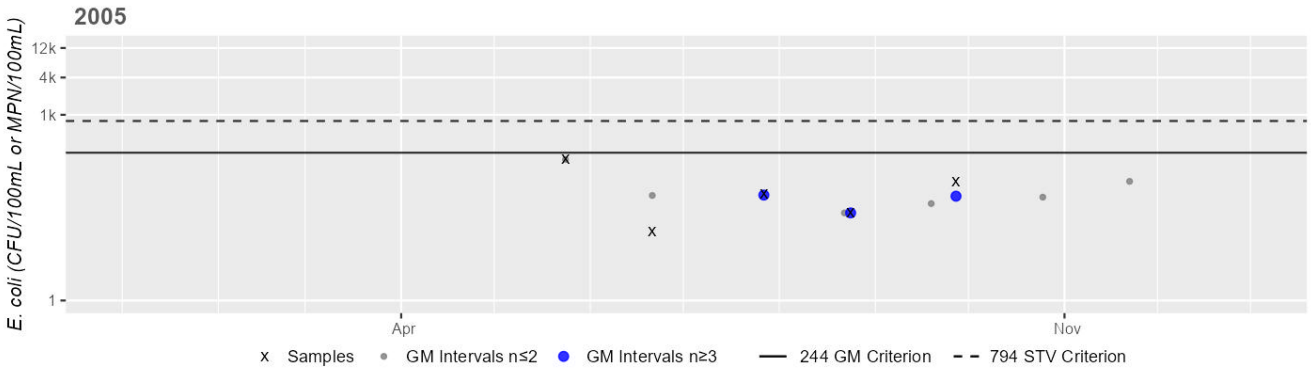
Variable*	Result
Samples	5
SeasGM	22
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Station MASSDEP_W1394 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	48
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Kimball Brook (MA92-21)

Location:	Headwaters, west of Scott Hill, Ipswich to confluence with Ipswich River, Ipswich.
AU Type:	RIVER
AU Size:	2.2 MILES
Classification/Qualifier:	B

Kimball Brook (MA92-21)

Watershed Area: 1.03 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.03	1.03	0.28	0.28
Agriculture	10.4%	10.4%	17.2%	17.2%
Developed	21.1%	21.1%	20.9%	20.9%
Natural	57.5%	57.5%	38.1%	38.1%
Wetland	11%	11%	23.8%	23.8%
Impervious	11.3%	11.3%	11.9%	11.9%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Fecal Coliform	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--
Fecal Coliform	Source Unknown (N)	--	--	--	X	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Escherichia Coli (E. Coli)	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Recommendations

2024/26 Recommendations
2022 IR {TURBIDITY, LOW] Additional turbidity monitoring is recommended due to conditions observed by MassDEP field staff at Heard Drive, Ipswich {W0120} in 2005.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Kimball Brook (MA92-21) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	YES

2024/26 Use Attainment Summary
There are no data available to assess the status of the Aesthetics Use for Kimball Brook (MA92-21), so it is Not Assessed. The prior Alert identified for Turbidity, observed by MassDEP field staff at Heard Drive, Ipswich (W0120) in 2005, is being carried forward.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Kimball Brook (MA92-21) are available, so the Primary Contact Recreation Use continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward. The prior Alert for Turbidity (from Aesthetics Use) is also being removed and will be maintained under the Aesthetics Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Kimball Brook (MA92-21) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed. The prior Alert for Turbidity (from Aesthetics Use) is also being removed and will be maintained under the Aesthetics Use. MassDEP staff collected *E. coli* bacteria samples in Kimball Brook (MA92-21) at W0120 [Heard Drive, Ipswich] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0120 indicated 33% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 273 CFU/100ml. Historic *E. coli* data from W0120 meet 2024 CALM guidance. Since these data were collected prior to the current IR window (2011-2022) the Secondary Contact Recreation Use cannot be positively assessed using bacteria data.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0120	MassDEP	Water Quality	Kimball Brook	[Heard Drive, Ipswich]	42.674986	-70.849949

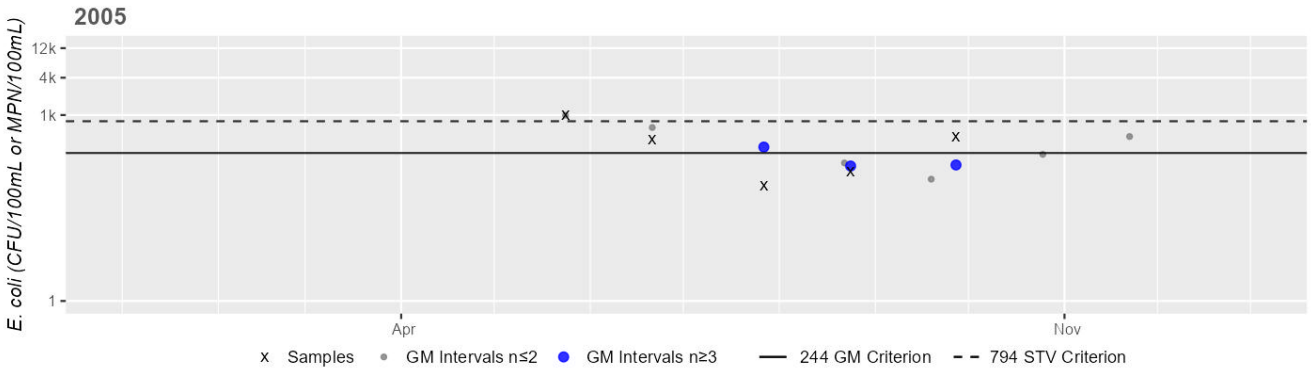
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0120	MassDEP	E. coli	05/24/05	09/27/05	5	71	990	273

Station MASSDEP_W0120 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	273
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Historic (1997-2010)
33%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Kimballs Pond (MA92027)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	8 ACRES
Classification/Qualifier:	B

No usable data were available for Kimballs Pond (MA92027) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Labor in Vain Creek (MA92-22)

Location:	Headwaters (excluding intermittent portion) south of Argilla Road, Ipswich to confluence with estuarine portion of Ipswich River, Ipswich.
AU Type:	ESTUARY
AU Size:	0.03 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Dissolved Oxygen	--	Unchanged
5	5	Fecal Coliform	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--	--
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Labor in Vain Creek (MA92-22) is Not Assessed.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Labor in Vain Creek (MA92-22): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0241 sq mi (77%). The approved shellfish growing area represents 0 sq mi (0%). The Shellfish Harvesting Use is assessed as Not Supporting because the growing area (normalized to the AU area) is < 100% approved. Based on the new growing area classifications and the prior classifications, the existing Fecal Coliform impairment is being retained.

Shellfish Growing Area Classifications

MassDFG-Division of Marine Fisheries Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
N5.0	Ipswich River	Conditionally Approved	0.00000	0.0%
N5.6	Labor-in-Vain Creek	Conditionally Approved	0.02411	77.2%
N5.7	Upper Ipswich River	Prohibited	0.00001	0.0%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Labor in Vain Creek (MA92-22) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

No bacteria data are available to assess the Primary Contact Recreation Use for Labor in Vain Creek (MA92-22) so it is assessed as having Insufficient Information. The shellfish growing areas (0.0241 sq mi) in this AU are less than 100% approved (0 sq mi, 0%). The data were too limited to assess Primary Contact Recreation Use of Labor in Vain Creek (MA92-22) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Summary
Labor in Vain Creek (MA92-22): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0241 sq mi (77%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than "approved", the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
No bacteria data are available to assess the Secondary Contact Recreation Use for Labor in Vain Creek (MA92-22) so it is assessed as having Insufficient Information. The shellfish growing areas (0.0241 sq mi) in this AU are less than 100% approved (0 sq mi, 0%). The data were too limited to assess Secondary Contact Recreation Use of Labor in Vain Creek (MA92-22) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Summary
Labor in Vain Creek (MA92-22): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0241 sq mi (77%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than "approved", the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Long Causeway Brook (MA92-20)

Location:	Headwaters (excluding intermittent portion) near Boston & Maine Railroad, south of Pigeon Hill, Hamilton to confluence with Miles River, Hamilton/Ipswich.
AU Type:	RIVER
AU Size:	1 MILES
Classification/Qualifier:	B

No usable data were available for Long Causeway Brook (MA92-20) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Longham Reservoir (MA92030)

Location:	Wenham/Beverly.
AU Type:	FRESHWATER LAKE
AU Size:	34 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Longham Reservoir (MA92030) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Lowe Pond (MA92034)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	36 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Fanwort*)	--	Unchanged
5	5	Mercury in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fanwort*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
Mercury in Fish Tissue	Atmospheric Deposition (Y)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary

The Fish Consumption Use for Lowe Pond (MA92034) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Lowe Pond in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Lowe Pond (MA92034) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Lowe Pond (MA92034) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Lowe Pond (MA92034) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Lower Four Mile Pond (MA92032)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	18 ACRES
Classification/Qualifier:	B

No usable data were available for Lower Four Mile Pond (MA92032) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4c	4c	(Non-Native Aquatic Plants*)	--	Unchanged

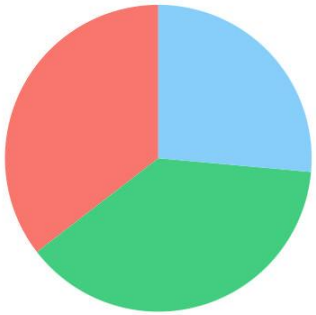
Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Non-Native Aquatic Plants*)	Introduction of Non-native Organisms (Accidental or Intentional) (N)	X	--	--	--	--

Lubbers Brook (MA92-05)

Location:	Headwaters (excluding intermittent portion) Billerica to confluence with Maple Meadow Brook forming headwaters of Ipswich River, Wilmington (through former 2014 segments: Lubber Pond West MA92036 and Lubber Pond East MA92035).
AU Type:	RIVER
AU Size:	5.6 MILES
Classification/Qualifier:	B

Lubbers Brook (MA92-05)

Watershed Area: 5.91 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	5.91	4.58	1.40	1.12
Agriculture	0%	0%	0%	0%
Developed	35.5%	36.6%	19.8%	22.9%
Natural	38.1%	37.6%	36%	36.1%
Wetland	26.4%	25.8%	44.2%	41%
Impervious	18.6%	19.5%	10.5%	12.3%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Dewatering*)	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Dewatering*)	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Dissolved Oxygen	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Escherichia Coli (E. Coli)	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Recommendations

2024/26 Recommendations
2022 IR [AESTHETICS, LOW] Additional monitoring is recommended due to objectionable conditions including Turbidity and dense growth of Aquatic Plants (Macrophytes) observed by MassDEP field staff at Concord Street, Wilmington {W0139} in 2005.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Lubbers Brook (MA92-05) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	YES

2024/26 Use Attainment Summary
There are no data available to assess the status of the Aesthetics Use for Lubbers Brook (MA92-05), so it is Not Assessed. The prior Alerts (for occasional objectionable conditions including Turbidity and dense growth of Aquatic Plants (Macrophytes) observed by MassDEP field staff at Concord Street, Wilmington (W0139) in 2005) are being carried forward.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Lubbers Brook (MA92-05) are available, so the Primary Contact Recreation Use continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward. The prior Alerts for Turbidity and Aquatic Plants (Macrophytes) are being removed and will be maintained under the Aesthetics Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Lubbers Brook (MA92-05) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed. The prior Alerts for Turbidity and Aquatic Plants (Macrophytes) are being removed and will be maintained under the Aesthetics Use. MassDEP staff collected *E. coli* bacteria samples in Lubbers Brook (MA92-05) at W0139 [Concord St, Wilmington] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0139 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 128 CFU/100ml. Historic *E. coli* data from W0139 meet 2024 CALM guidance. Since these data were collected prior to the current IR window (2011-2022) the Secondary Contact Recreation Use cannot be positively assessed using bacteria data.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0139	MassDEP	Water Quality	Lubbers Brook	[Concord Street, Wilmington]	42.558883	-71.146698

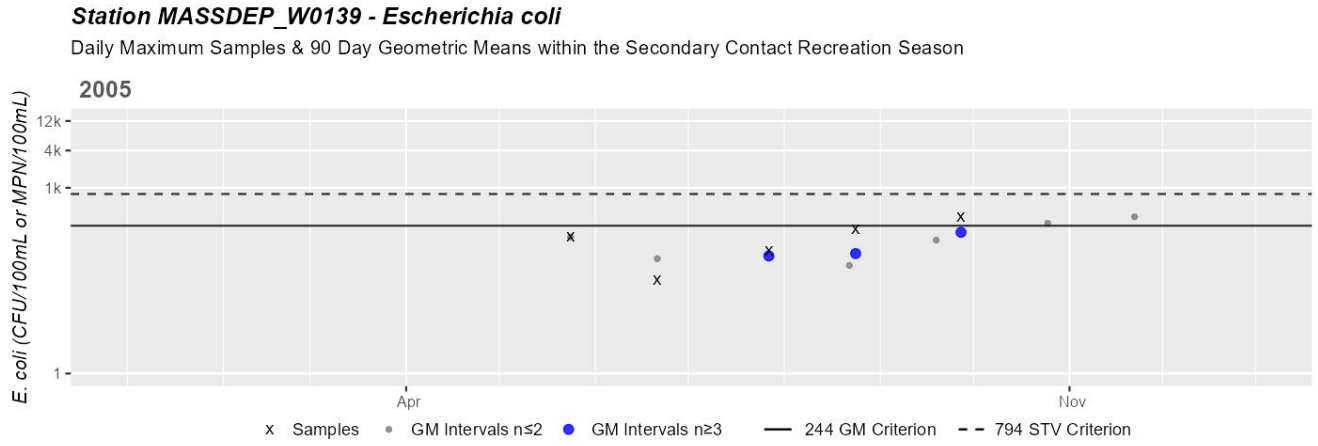
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)

(MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0139	MassDEP	E. coli	05/24/05	09/27/05	5	32	340	128



Variable*	Result
Samples	5
SeasGM	128
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

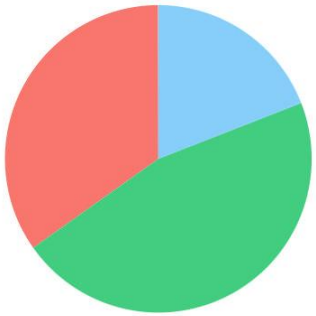
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Maple Meadow Brook (MA92-04)

Location:	Headwaters outlet of Mill Pond, Burlington to confluence with Lubbers Brook forming headwaters of Ipswich River, Wilmington.
AU Type:	RIVER
AU Size:	4.2 MILES
Classification/Qualifier:	B

Maple Meadow Brook (MA92-04)

Watershed Area: 8.54 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	8.54	6.07	2.33	1.60
Agriculture	0%	0%	0.1%	0.1%
Developed	34.8%	32.7%	20.1%	17.1%
Natural	46.1%	42.6%	46%	39.7%
Wetland	19.1%	24.7%	33.9%	43.1%
Impervious	19.2%	18.2%	10.4%	9%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Dewatering*)	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Dewatering*)	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--
Dissolved Oxygen	Baseflow Depletion from Groundwater Withdrawals (N)	X	--	--	--	--

Recommendations

2024/26 Recommendations
2022 IR [AESTHETICS, LOW] Additional monitoring is recommended at {W0143} due to occasional Turbidity, Algae and dense/very dense growth of Aquatic Plants (Macrophytes) observed by MassDEP field staff at Federal Street, Wilmington (W0143) in 2005.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Maple Meadow Brook (MA92-04) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	YES

2024/26 Use Attainment Summary
There are no data available to assess the status of the Aesthetics Use for Maple Meadow Brook (MA92-04), so it is Not Assessed. The prior Alert identified for occasional Turbidity, Algae and dense/very dense growth of Aquatic Plants (Macrophytes) observed by MassDEP field staff at Federal Street, Wilmington (W0143) in 2005 is being carried forward.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Maple Meadow Brook (MA92-04) are available, so the Primary Contact Recreation Use is Not Assessed. The prior Alerts for Turbidity, Algae and dense/very dense growth of Aquatic Plants (Macrophytes) (from Aesthetics Use) are being removed and will be retained under the Aesthetics Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Maple Meadow Brook (MA92-04) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed. The prior Alerts for Turbidity, Algae and dense/very dense growth of Aquatic Plants (Macrophytes) (from Aesthetics Use) are being removed and will be retained under the Aesthetics Use. MassDEP staff collected *E. coli* bacteria samples in Maple Meadow Brook (MA92-04) at W0143 [Federal St, Wilmington] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0143 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 120 CFU/100ml. Historic *E. coli* data from W0143 meet 2024 CALM guidance. Since these data were collected prior to the current IR window (2011-2022) the Secondary Contact Recreation Use cannot be positively assessed using bacteria data.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0143	MassDEP	Water Quality	Maple Meadow Brook	[Federal Street, Wilmington]	42.551911	-71.150066

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)

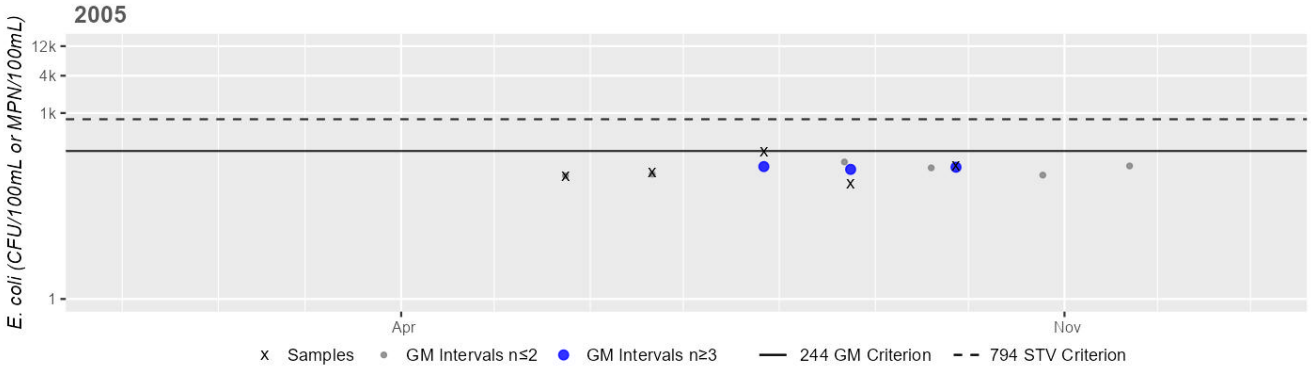
(MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0143	MassDEP	E. coli	05/24/05	09/27/05	5	71	240	120

Station MASSDEP_W0143 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	120
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

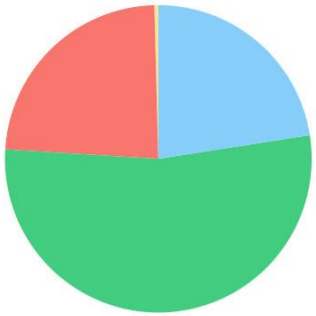
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Martins Brook (MA92-08)

Location:	Outlet of Martins Pond, North Reading to the confluence with the Ipswich River, North Reading.
AU Type:	RIVER
AU Size:	4.6 MILES
Classification/Qualifier:	B

Martins Brook (MA92-08)

Watershed Area: 13.19 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	13.19	9.59	4.14	3.32
Agriculture	0.4%	0%	0.1%	0%
Developed	23.6%	26.7%	16%	17.4%
Natural	53.4%	50.3%	52.4%	50.7%
Wetland	22.5%	23%	31.5%	31.9%
Impervious	12.3%	13.6%	7.8%	8.3%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Fecal Coliform	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Benthic Macroinvertebrates	Streambank Modifications/Destabilization (N)	X	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--
Fecal Coliform	Source Unknown (N)	--	--	--	X	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Escherichia Coli (E. Coli)	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Recommendations

2024/26 Recommendations
2024 IR [*E. COLI,* MEDIUM] Additional sampling is recommended at {IRWA_MB-PS & W0136} to confirm improving conditions in this AU.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Martins Brook (MA92-08) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Martins Brook (MA92-08) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Martins Brook (MA92-08) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward. IRWA staff/volunteers collected *E. coli* bacteria samples in Martins Brook (MA92-08) at IRWA_MB-PS [Park St., N Reading] from Jul-Oct 2022 (n=3). Analysis of the single year limited frequency *E. coli* dataset from IRWA_MB-PS indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 63 CFU/100ml. While *E. coli* data from IRWA_MB-PS meet 2024 CALM guidance, the data was too limited (n=3) to remove the *E. coli* and Fecal Coliform impairments. Additional *E. coli* sampling is being recommended in this AU.

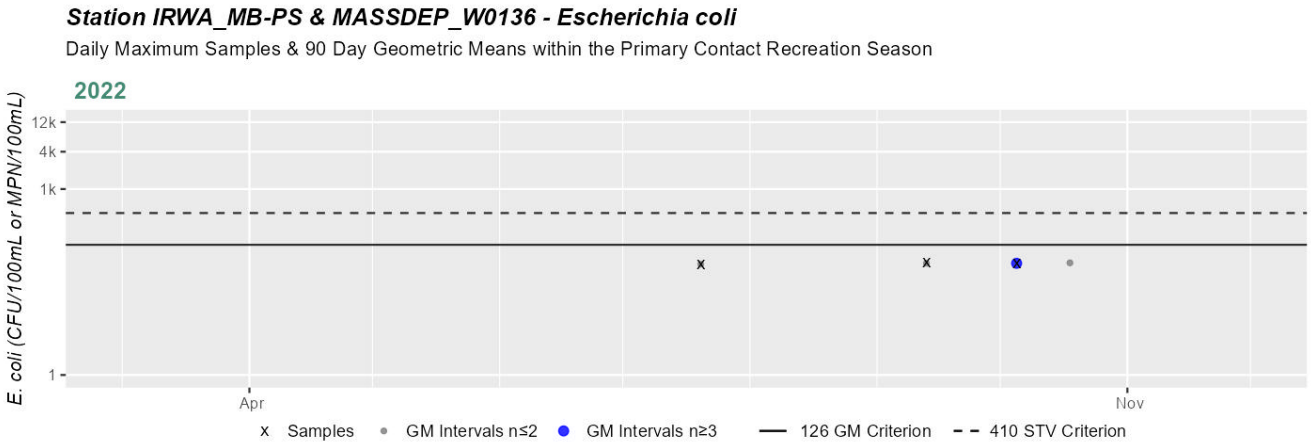
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_MB-PS	Ipswich River Watershed Association	Water Quality	Martins Brook	Park St., North Reading	42.571470	-71.101230

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(IRWA 2022) (MassDEP Undated 2)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_MB-PS	Ipswich River Watershed Association	E. coli	07/20/22	10/05/22	3	61	65	63



Variable*	Result
Samples	3
SeasGM	63
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

*Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Martins Brook (MA92-08) is assessed as Fully Supporting. IRWA and MassDEP staff/volunteers collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in Martins Brook (MA92-08) at IRWA_MB-PS & W0136 [Park St, N Reading & Park St., N Reading] from May-Sep 2005 (historic n=5) and Jul-Oct 2022 (current n=3). Analysis of the single year limited frequency *E. coli* dataset from IRWA_MB-PS & W0136 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 63 CFU/100ml. *E. coli* data from IRWA_MB-PS & W0136 meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
IRWA_MB-PS	Ipswich River Watershed Association	Water Quality	Martins Brook	Park St., North Reading	42.571470	-71.101230
W0136	MassDEP	Water Quality	Martins Brook	[Park Street, North Reading]	42.571589	-71.101256

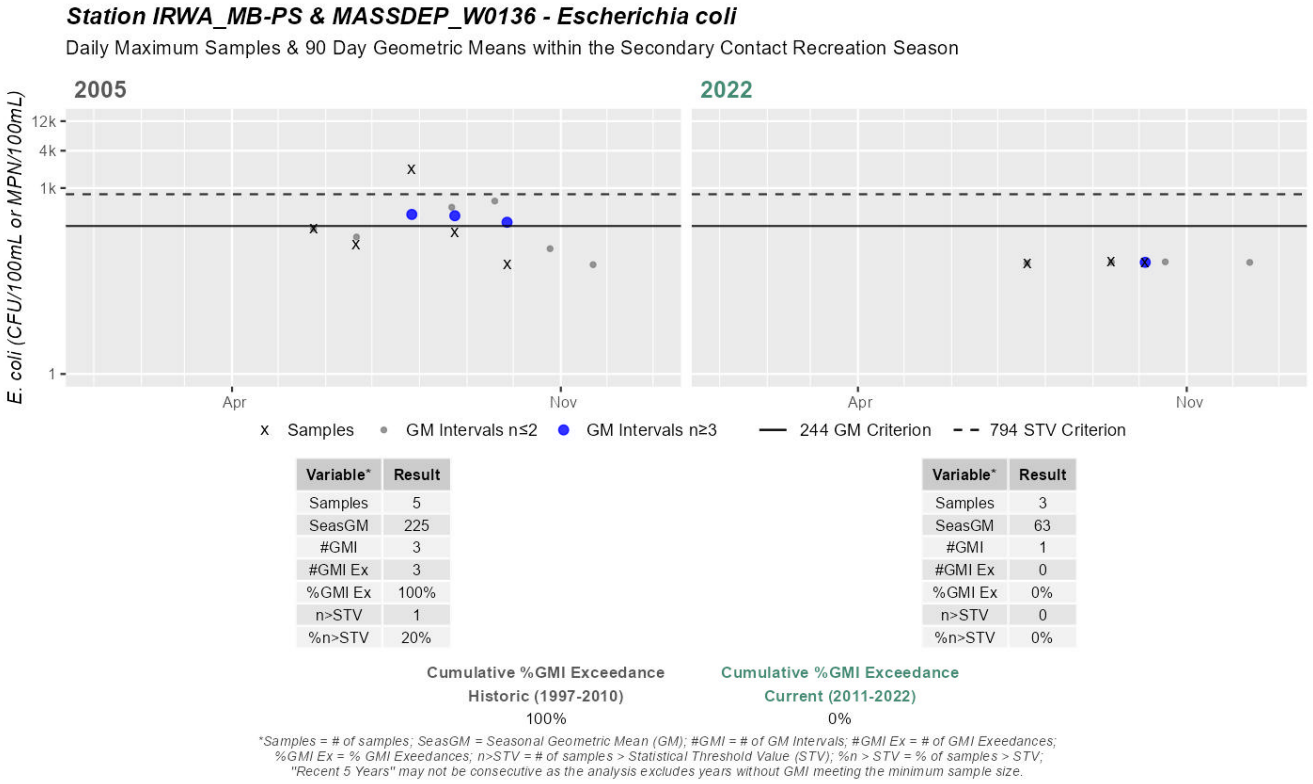
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)

(IRWA 2022) (MassDEP Undated 1) (MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
IRWA_MB-PS	Ipswich River Watershed Association	E. coli	07/20/22	10/05/22	3	61	65	63
W0136	MassDEP	E. coli	05/24/05	09/27/05	5	58	2000	225



Martins Pond (MA92038)

Location:	North Reading.
AU Type:	FRESHWATER LAKE
AU Size:	89 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Fanwort*)	--	Unchanged
5	5	Algae	--	Unchanged
5	5	Harmful Algal Blooms	--	Added
5	5	Mercury in Fish Tissue	33880	Unchanged
5	5	Turbidity	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fanwort*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
Algae	Source Unknown (N)	--	--	X	X	X
Harmful Algal Blooms	Source Unknown (N)	--	--	X	X	X
Mercury in Fish Tissue	Atmospheric Deposition (Y)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--
Turbidity	Source Unknown (N)	--	--	X	X	X

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Martins Pond (MA92038) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Martins Pond in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Martins Pond (MA92038) continues to be assessed as Not Supporting, with the prior Turbidity and Algae impairments being carried forward. A new impairment for Harmful Algal Blooms is being added based on an extended duration C-HAB posting reported to MDPH in 2017. During the period 2015 through 2022, C-HAB postings for Martins Pond were reported to MDPH based on cell count data for 36 days in 2017 and no blooms were reported in other years. Since extended blooms (>20 days in duration) based on cell count data were reported in a recent year, this results in an impairment of the Aesthetics Use.

Algal Bloom Information

Cyanobacteria Harmful Algal Bloom (C-HAB) Summary Statements for 2015-2022 MDPH Data (Bailey, Logan April 26, 2023) (MassDEP Undated 1)

C-HAB Summary Statement
During the period 2015 through 2022, C-HAB postings for Martins Pond (MA92038) were reported to MDPH based on cell count data for 36 days in 2017. No blooms were reported in other years. Since extended blooms (>20 days in duration) based on cell count data were reported in a recent year, the Aesthetics Use and Primary/Secondary Contact Recreational Uses are assessed as Not Supporting.

Cyanobacteria Harmful Algal Bloom (C-HAB) Data (2015-2022) Provided by MDPH (Bailey, Logan April 26, 2023) (MassDEP Undated 1)

[* indicates a C-HAB posting of unknown duration]

DEP Waterbody (DPH Waterbody)	DPH Town	Posting Days 2015	Posting Days 2016	Posting Days 2017	Posting Days 2018	Posting Days 2019	Posting Days 2020	Posting Days 2021	Posting Days 2022
Martins Pond	North Reading			36					

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Martins Pond (MA92038) continues to be assessed as Not Supporting. The prior Algae and Turbidity impairments (from the Aesthetics Use) are being carried forward. The prior Alert for Harmful Algal Blooms is being removed and an impairment is being added due to the occurrence of C-HAB postings extending >20 days in a yr. During the period 2015 through 2022, C-HAB postings for Martins Pond (MA92038) were reported to MDPH based on cell count data for 36 days in 2017. No blooms were reported in other years. Since extended blooms (>20 days in duration) based on cell count data were reported in a recent year, the C-HAB data are indicative of a Harmful Algal Bloom impairment.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Martins Pond (MA92038) continues to be assessed as Not Supporting. The prior Algae and Turbidity impairments (from the Aesthetics Use) are being carried forward. The prior Alert for Harmful Algal Blooms is being removed and an impairment is being added due to the occurrence of C-HAB postings extending >20 days in a yr. During the period 2015 through 2022, C-HAB postings for Martins Pond (MA92038) were reported to MDPH based on cell count data for 36 days in 2017. No blooms were reported in other years. Since extended blooms (>20 days in duration) based on cell count data were reported in a recent year, the C-HAB data are indicative of a Harmful Algal Bloom impairment.

Middleton Pond (MA92039)

Location:	Middleton.
AU Type:	FRESHWATER LAKE
AU Size:	129 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Middleton Pond (MA92039) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Mile Brook (MA92-16)

Location:	Headwaters, east of North Street, Topsfield to confluence with Ipswich River, Topsfield (includes Mile Brook Pond).
AU Type:	RIVER
AU Size:	2.5 MILES
Classification/Qualifier:	B

No usable data were available for Mile Brook (MA92-16) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

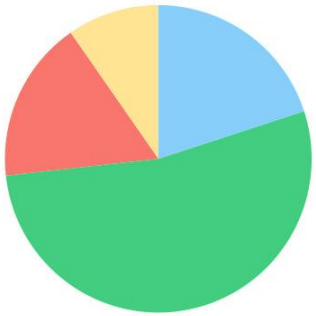
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Miles River (MA92-03)

Location:	Headwaters outlet Longham Reservoir, Beverly to confluence with Ipswich River, Ipswich.
AU Type:	RIVER
AU Size:	8.9 MILES
Classification/Qualifier:	B

Miles River (MA92-03)

Watershed Area: 17.04 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	17.04	6.24	7.07	1.97
Agriculture	9.7%	18%	9.2%	20.6%
Developed	17.1%	11.6%	10.5%	6.9%
Natural	53.3%	44.6%	50.2%	31.1%
Wetland	20%	25.8%	30.1%	41.4%
Impervious	8.1%	5%	4.8%	3.2%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Miles River (MA92-03) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Miles River (MA92-03) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for the Miles River (MA92-03) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary

No bacteria or other indicator data for the Miles River (MA92-03) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed. MassDEP staff collected *E. coli* bacteria samples in the Miles River (MA92-03) at W0121 [driveway of #187 County Rd, (across from intersection with Lakeman Lane), Ipswich] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0121 indicated 33% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 113 CFU/100ml. Historic *E. coli* data from W0121 are inconclusive according to the 2024 CALM to assess the Secondary Contact Recreation Use because this single year, limited frequency dataset included both GMs below the threshold and STV exceedance of the threshold. Since these data were collected prior to the current IR window (2011-2022) the Secondary Contact Recreation Use cannot be positively assessed using bacteria data.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0121	MassDEP	Water Quality	Miles River	[driveway of #187 County Road, (across from intersection with Lakeman Lane), Ipswich]	42.661247	-70.844909

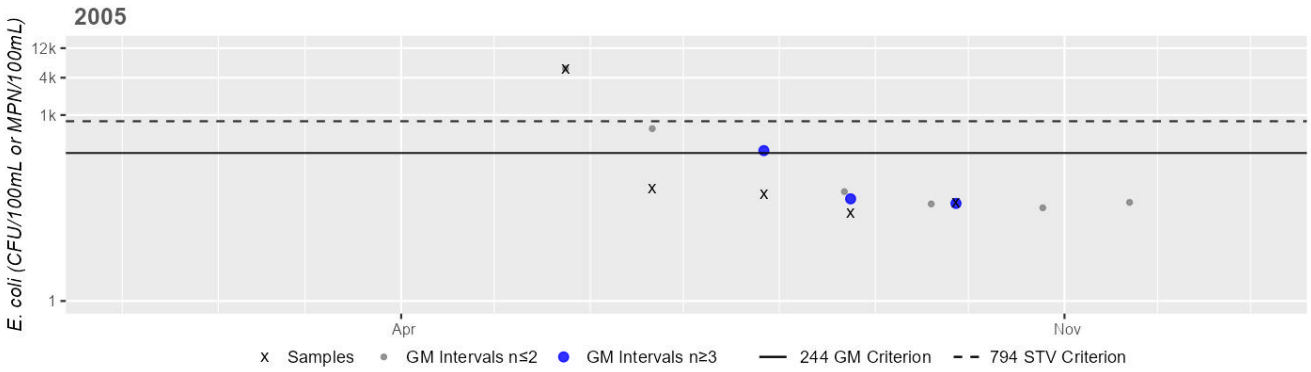
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0121	MassDEP	E. coli	05/24/05	09/27/05	5	26	5600	113

Station MASSDEP_W0121 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	113
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Historic (1997-2010)
33%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Mill Pond (MA92041)

Location:	Burlington.
AU Type:	FRESHWATER LAKE
AU Size:	59 ACRES
Classification/Qualifier:	A: PWS, ORW

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4a	4a	Mercury in Fish Tissue	33880	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Mercury in Fish Tissue	Atmospheric Deposition (Y)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Mill Pond (MA92041) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Mill Pond in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Mill Pond (MA92041) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Mill Pond (MA92041) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Mill Pond (MA92041) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Nichols Brook (MA92-25)

Location:	Headwaters (near Rowley Hill Street and Route 95 and Newburyport Turnpike) in Danvers, to confluence with the Ipswich River, Middleton (Middleton/Boxford town line).
AU Type:	RIVER
AU Size:	2.4 MILES
Classification/Qualifier:	B

No usable data were available for Nichols Brook (MA92-25) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Norris Brook (MA92-11)

Location:	Headwaters outlet of Elginwood Pond, Peabody to confluence with Ipswich River, Danvers (Danvers/Middleton town line).
AU Type:	RIVER
AU Size:	1.5 MILES
Classification/Qualifier:	B

No usable data were available for Norris Brook (MA92-11) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Dissolved Oxygen	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--

Pierces Pond (MA92048)

Location:	Peabody.
AU Type:	FRESHWATER LAKE
AU Size:	3 ACRES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Pierces Pond (MA92048) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Pleasant Pond (MA92049)

Location:	(Idlewood Lake) Wenham/Hamilton.
AU Type:	FRESHWATER LAKE
AU Size:	26 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Mercury in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Mercury in Fish Tissue	Atmospheric Deposition (N)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Pleasant Pond (MA92049) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Pleasant Pond in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Pleasant Pond (MA92049) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Pleasant Pond (MA92049) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Pleasant Pond (MA92049) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Putnamville Reservoir (MA92052)

Location:	Danvers.
AU Type:	FRESHWATER LAKE
AU Size:	283 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Putnamville Reservoir (MA92052) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Salem Pond (MA92057)

Location:	North Andover/Andover.
AU Type:	FRESHWATER LAKE
AU Size:	15 ACRES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Salem Pond (MA92057) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Turbidity	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Turbidity	Source Unknown (N)	--	--	X	X	X

Salem Street Pond (MA92076)

Location:	North Andover.
AU Type:	FRESHWATER LAKE
AU Size:	11 ACRES
Classification/Qualifier:	B

No usable data were available for Salem Street Pond (MA92076) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Silver Lake (MA92059)

Location:	Wilmington.
AU Type:	FRESHWATER LAKE
AU Size:	30 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	DDT in Fish Tissue	--	Unchanged
5	5	Mercury in Fish Tissue	33880	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
DDT in Fish Tissue	Source Unknown (N)	--	X	--	--	--
Mercury in Fish Tissue	Atmospheric Deposition (Y)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary

The Fish Consumption Use for Silver Lake (MA92059) continues to be assessed as Not Supporting and the prior DDT in Fish Tissue and Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Silver Lake in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Silver Lake (MA92059) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Silver Lake (MA92059) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Silver Lake (MA92059) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Spofford Pond (MA92060)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	28 ACRES
Classification/Qualifier:	B

No usable data were available for Spofford Pond (MA92060) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Stearns Pond (MA92061)

Location:	North Andover.
AU Type:	FRESHWATER LAKE
AU Size:	43 ACRES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Stearns Pond (MA92061) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
2	2	None	--	Unchanged

Stevens Pond (MA92062)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	11 ACRES
Classification/Qualifier:	B

No usable data were available for Stevens Pond (MA92062) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4c	4c	(European Water Clover*)	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(European Water Clover*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--

Stiles Pond (MA92063)

Location:	Boxford.
AU Type:	FRESHWATER LAKE
AU Size:	59 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	5	DDT in Fish Tissue	--	Added

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
DDT in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Stiles Pond (MA92063) is assessed as Not Supporting with a new impairment being added for DDT in Fish Tissue. Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in Stiles Pond (MA92063) at station F0448 in 2017 as part of the probabilistic lake surveys (MAP2). MDPH issued a site-specific advisory for DDT in Stiles Pond in their July 2019 Freshwater Fish Consumption Advisory List and retained it in the January 2025 list. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations. No source of DDT has been identified at this time.

Fish Consumption Advisories

Summary of Fish Toxics Sampling and Resulting Fish Consumption Advisories (MA DPH 2025) (MassDEP Undated 6)

Summary Statement
Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in Stiles Pond (MA92063) at station F0448 in 2017 as part of the probabilistic lake surveys (MAP2). Because of elevated DDT measured in fish filets, MDPH issued site-specific fish consumption advisories for Stiles Pond in their July 2019 Freshwater Fish Consumption Advisory List and retained them in the January 2025 list. The site-specific DPH advisories are indicative of a Fish Consumption Use impairment for DDT in Fish Tissue for Stiles Pond (MA92063).

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Stiles Pond (MA92063) is assessed as Fully Supporting. MassDEP staff recorded aesthetics observations as part of the MAP2 lake monitoring project in summer 2017 at two stations in Boxford, for this Stiles Pond AU; at the western edge of pond at Stiles Pond Beach, north of Stiles Pond Road (W2716/MAP2L-169S, n=5) and at the deep hole index site (W2715/MAP2L-169, n=3). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, or littoral zone duckweed recorded in ten shoreline plots (n=1), though field staff noted green water color on one occasion at W2715 and minor trash deposits on two occasions at the shoreline station W2716. During the MAP2 macrophyte mapping survey in Jul 2017 (n=1), less than 25% (4.2%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%. During the period 2015 through 2022, C-HAB postings for Stiles Pond were reported to MDPH based on visual observations for 5 days in 2020 and no blooms were reported in other years. Since no extended blooms (>20 days in duration) based on cell count data were reported in recent years, an impairment decision will not be made at this time based on C-HAB postings.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2715	MassDEP	Water Quality	Stiles Pond	[index site, Boxford]	42.688989	-71.037063
W2716	MassDEP	Water Quality	Stiles Pond	[western edge of pond at Stiles Pond Beach, north of Stiles Pond Road, Boxford]	42.686655	-71.042179

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)

[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2715	2017	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2715 (MAP2L-169) on Stiles Pond (MA92063) during 3 site visits between Jun 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted green water color (n=1). During the MAP2 macrophyte mapping survey (n=1) in Jul 2017, less than 25% (4.2%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%.
W2716	2017	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2716 (MAP2L-169S) on Stiles Pond (MA92063) during 5 site visits between May 2017 and Sep 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted objectionable deposits (n=2). During the MAP2 littoral survey (n=1), duckweed was not noted in any of the 10 shoreline plots.

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 7)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2715	Stiles Pond	2017	Aesthetics Impaired?	No	3	3
W2715	Stiles Pond	2017	Aquatic Plant Density, Overall	None	2	3
W2715	Stiles Pond	2017	Aquatic Plant Density, Overall	NR	1	3
W2715	Stiles Pond	2017	Aquatic Plant Density, Whole Lake	Sparse	1	1
W2715	Stiles Pond	2017	Color	Greenish	1	3
W2715	Stiles Pond	2017	Color	Light Yellow/Tan	2	3
W2715	Stiles Pond	2017	Duckweed Density, Whole Lake	None	1	1
W2715	Stiles Pond	2017	Objectionable Deposits	No	3	3
W2715	Stiles Pond	2017	Odor	None	3	3
W2715	Stiles Pond	2017	Scum	No	3	3
W2715	Stiles Pond	2017	Turbidity	None	2	3
W2715	Stiles Pond	2017	Turbidity	Slightly Turbid	1	3
W2716	Stiles Pond	2017	Aesthetics Impaired?	No	5	5
W2716	Stiles Pond	2017	Color	None	5	5
W2716	Stiles Pond	2017	Objectionable Deposits	No	3	5
W2716	Stiles Pond	2017	Objectionable Deposits	Yes	2	5
W2716	Stiles Pond	2017	Odor	None	5	5
W2716	Stiles Pond	2017	Scum	No	5	5

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2716	Stiles Pond	2017	Turbidity	None	5	5

Algal Bloom Information

Cyanobacteria Harmful Algal Bloom (C-HAB) Summary Statements for 2015-2022 MDPH Data (Bailey, Logan April 26, 2023) (MassDEP Undated 1)

C-HAB Summary Statement
During the period 2015 through 2022, C-HAB postings for Stiles Pond (MA92063) were reported to MDPH based on visual observations for 5 days in 2020. No blooms were reported in other years. Since no extended blooms (>20 days in duration) based on cell count data were reported in recent years, an impairment decision will not be made at this time based on C-HAB postings.

Cyanobacteria Harmful Algal Bloom (C-HAB) Data (2015-2022) Provided by MDPH (Bailey, Logan April 26, 2023) (MassDEP Undated 1)

[* indicates a C-HAB posting of unknown duration]

DEP Waterbody (DPH Waterbody)	DPH Town	Posting Days 2015	Posting Days 2016	Posting Days 2017	Posting Days 2018	Posting Days 2019	Posting Days 2020	Posting Days 2021	Posting Days 2022
Stiles Pond	Boxford						5		

Primary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for Stiles Pond (MA92063) is assessed as Fully Supporting. During the period 2015 through 2022, C-HAB postings for Stiles Pond (MA92063) were reported to MDPH based on visual observations for 5 days in 2020. No blooms were reported in other years. Since no extended blooms (>20 days in duration) based on cell count data were reported in recent years, an impairment decision will not be made at this time based on C-HAB postings. In Stiles Pond (MA92063), MassDEP collected Secchi and cyanobacteria cell count data at W2715 [MAP2L-169, Index-deep hole] (2017) and cyanobacteria cell count and cyanotoxins data at W2716 [MAP2L-169S, Shoreline] (2017). Secchi depth data indicated water clarity meeting the 1.2m (4ft) threshold at W2715 in 2017 (n=3, 3.4-3.6m). The cyanobacteria cell count did not exceed 70,000 cells/ml in any of the water samples in 2017 (n=6). Analysis of microcystins and cylindrospermopsin samples from W2716 in 2017 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L. MassDEP staff collected *E. coli* bacteria samples in Stiles Pond (MA92063) at W2716 [western edge of pond at Stiles Pond Beach, N of Stiles Pond Rd, Boxford] from May-Sep 2017 (n=5). Analysis of the single year limited frequency *E. coli* dataset from W2716 indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 10 CFU/100ml. *E. coli* data from W2716 meet 2024 CALM guidance.

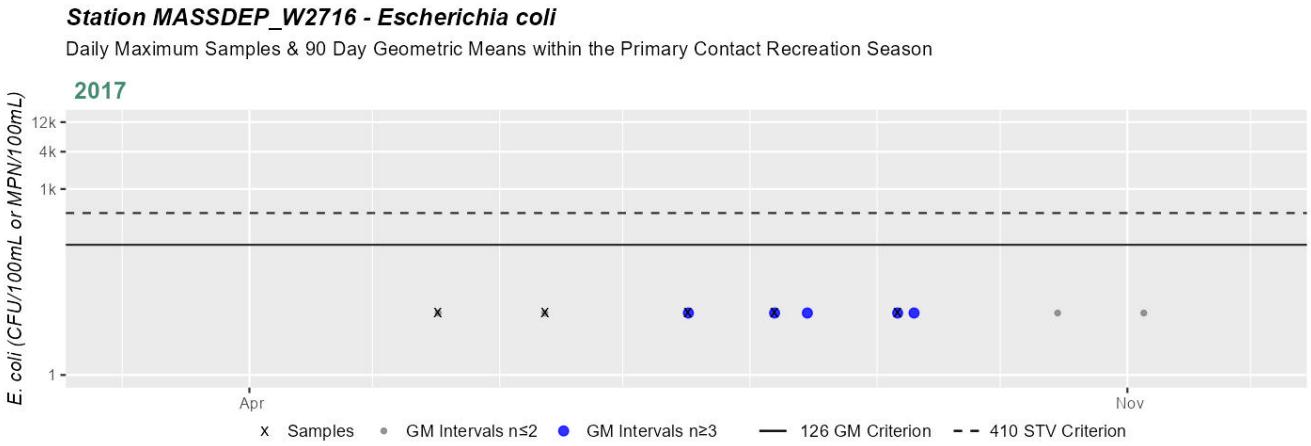
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2715	MassDEP	Water Quality	Stiles Pond	[index site, Boxford]	42.688989	-71.037063
W2716	MassDEP	Water Quality	Stiles Pond	[western edge of pond at Stiles Pond Beach, north of Stiles Pond Road, Boxford]	42.686655	-71.042179

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 4)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2716	MassDEP	E. coli	05/17/17	09/06/17	5	10	10	10



Variable*	Result
Samples	5
SeasGM	10
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Other Indicators

Summary Statement for 2011-2022 Cyanobacteria Cell Count and Cyanotoxin Data, and Secchi Depth Data (MassDEP Undated 7) (MassDEP Undated 4)

Data Year(s)	Summary
2017	In Stiles Pond (MA92063) in 2017, MassDEP collected Secchi and cyanobacteria cell count data at W2715 [MAP2L-169, Index-deep hole], and cyanobacteria cell count and cyanotoxin data at W2716 [MAP2L-169S, Shoreline]. At station W2715 (station depth=8 m) the Secchi depth measurements ranged from 3.4-3.6 m (n=3) indicating water clarity meeting the 1.2 m (4 ft) threshold. The cyanobacteria cell count did not exceed 70,000 cells/mL in any of the water samples (n=6). Analysis of microcystins and cylindrospermopsin samples from the shoreline station W2716 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L.

MassDEP Cyanobacteria Cell Count Data Collected at Lakes and Impoundments (2016-2018) (MassDEP Undated 7) (MassDEP Undated 4)

Station Code	Waterbody	Station Type	Data Year	Sample Count	Count >70,000 cells/mL	Exceedance Date(s)
W2715	Stiles Pond	Index	2017	3	0	NA
W2716	Stiles Pond	Shoreline	2017	3	0	NA

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Stiles Pond (MA92063) is assessed as Fully Supporting. During the period 2015 through 2022, C-HAB postings for Stiles Pond (MA92063) were reported to MDPH based on visual observations for 5 days in 2020. No blooms were reported in other years. Since no extended blooms (>20 days in duration) based on cell count data were reported in recent years, an impairment decision will not be made at this time based on C-HAB postings. In Stiles Pond (MA92063), MassDEP collected cyanobacteria cell count data at W2715 [MAP2L-169, Index-deep hole] (2017) and cyanobacteria cell count and cyanotoxins data at W2716 [MAP2L-169S, Shoreline] (2017). The cyanobacteria cell count did not exceed 70,000 cells/ml in any of the water samples in 2017 (n=6). Analysis of microcystins and cylindrospermopsin samples from W2716 in 2017 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L. MassDEP staff collected *E. coli* bacteria samples in Stiles Pond (MA92063) at W2716 [western edge of pond at Stiles Pond Beach, N of Stiles Pond Rd, Boxford] from May-Sep 2017 (n=5). Analysis of the single year limited frequency *E. coli* dataset from W2716 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 10 CFU/100ml. *E. coli* data from W2716 meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2716	MassDEP	Water Quality	Stiles Pond	[western edge of pond at Stiles Pond Beach, north of Stiles Pond Road, Boxford]	42.686655	-71.042179

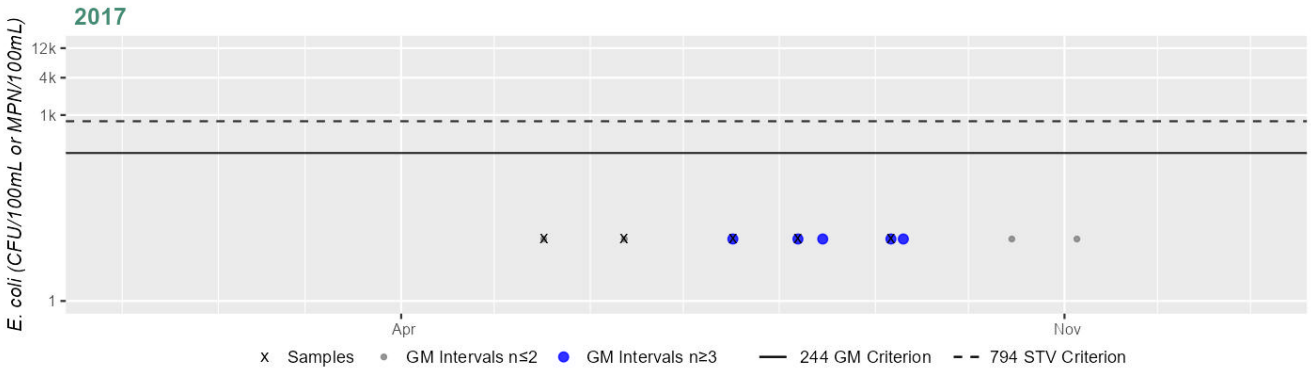
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2716	MassDEP	E. coli	05/17/17	09/06/17	5	10	10	10

Station MASSDEP_W2716 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	10
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Sudden Pond (MA92064)

Location:	North Andover.
AU Type:	FRESHWATER LAKE
AU Size:	5 ACRES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Sudden Pond (MA92064) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Suntaug Lake (MA92065)

Location:	Lynnfield/Peabody.
AU Type:	FRESHWATER LAKE
AU Size:	151 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Suntaug Lake (MA92065) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Swan Pond (MA92066)

Location:	North Reading.
AU Type:	FRESHWATER LAKE
AU Size:	42 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Swan Pond (MA92066) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Towne Pond (MA92068)

Location:	Boxford/North Andover.
AU Type:	FRESHWATER LAKE
AU Size:	23 ACRES
Classification/Qualifier:	B

No usable data were available for Towne Pond (MA92068) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Unnamed Tributary (MA92-09)

Location:	Unnamed tributary to Ipswich River, outlet of Eisenhaures Pond, North Reading to confluence with Ipswich River, North Reading.
AU Type:	RIVER
AU Size:	1.4 MILES
Classification/Qualifier:	B

No usable data were available for Unnamed Tributary (MA92-09) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Fish Bioassessments	--	Unchanged

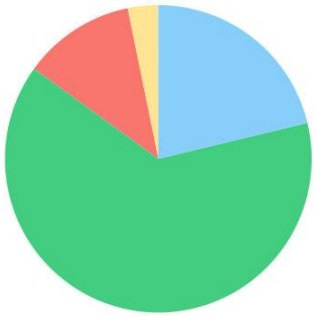
Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Fish Bioassessments	Dam or Impoundment (Y)	X	--	--	--	--

Unnamed Tributary (MA92-12)

Location:	Unnamed tributary to Ipswich River, outlet of Middleton Pond, Middleton to confluence with Ipswich River, Middleton.
AU Type:	RIVER
AU Size:	1.4 MILES
Classification/Qualifier:	B

Unnamed Tributary (MA92-12)

Watershed Area: 3.41 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	3.41	2.59	2.09	1.56
Agriculture	3.2%	4.2%	1.4%	1.9%
Developed	11.8%	13.3%	6.4%	7.1%
Natural	63.7%	63.4%	65.5%	67%
Wetland	21.2%	19.1%	26.7%	24%
Impervious	5.5%	6.2%	3%	3.2%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Flow Regime Modification*)	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Fecal Coliform	R1_MA_2024_04	Changed
5	5	Flocculant Masses	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Flow Regime Modification*)	Dam or Impoundment (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	X	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Flocculant Masses	Source Unknown (N)	--	--	X	X	X

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Escherichia Coli (E. Coli)	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Recommendations

2024/26 Recommendations
2022 IR [AQUATIC PLANTS (MACROPHYTES), LOW] Additional monitoring is recommended at Mt. Vernon Street, Middleton {W0105} due to observations of very dense Aquatic Plants (Macrophytes) in 2005.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Unnamed Tributary (MA92-12) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary
The Aesthetics Use for Unnamed Tributary (MA92-12) continues to be assessed as Not Supporting, with the Flocculant Masses impairment being carried forward. This impairment was based on observations of Flocculant Masses at Mt. Vernon Street, Middleton (W0105) in 2005. The prior Alert identified for very dense Aquatic Plants (Macrophytes) is also being carried forward. No new data are available to evaluate the Aesthetics Use for this Unnamed Tributary AU.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Unnamed Tributary (MA92-12) are available, so the Primary Contact Recreation Use continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward and the prior Flocculant Masses impairment (from the Aesthetics Use) is being carried forward. The prior Aquatic Plants (Macrophytes) Alert (from Aesthetics Use) is being removed and will be retained under the Aesthetics Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Unnamed Tributary (MA92-12) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward based on bacteria data not meeting the threshold at W0105. The prior Flocculant Masses impairment (from the Aesthetics Use) is being carried forward. The prior Aquatic Plants (Macrophytes) Alert (from Aesthetics Use) is being removed and will be retained under the Aesthetics Use. MassDEP staff collected *E. coli* bacteria samples in Unnamed Tributary (MA92-12) at W0105 [unnamed tributary to Ipswich River at Mt. Vernon St, Middleton] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0105 indicated 100% of intervals had GMs >244 CFU/100ml, 3 samples exceeded the 794 CFU/100ml STV, and the overall GM was 542 CFU/100ml. Historic *E. coli* data from W0105 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0105	MassDEP	Water Quality	Unnamed Tributary	[unnamed tributary to Ipswich River at Mt. Vernon Street, Middleton]	42.593094	-71.010921

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)

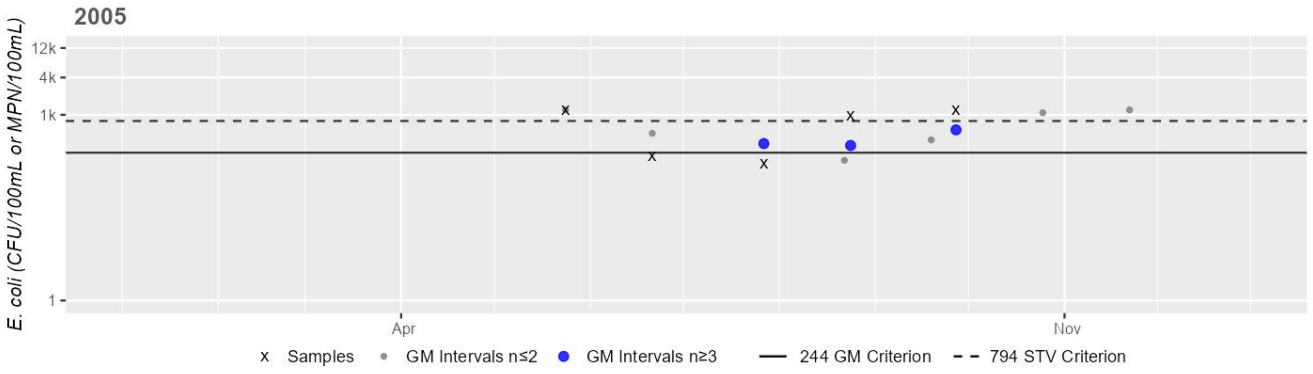
(MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0105	MassDEP	E. coli	05/24/05	09/27/05	5	160	1200	542

Station MASSDEP_W0105 - Escherichia coli

Daily Maximum Samples & 90 Day Geometric Means within the Secondary Contact Recreation Season



Variable*	Result
Samples	5
SeasGM	542
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	3
%n>STV	60%

Cumulative %GMI Exceedance
Historic (1997-2010)
100%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Unnamed Tributary (MA92-23)

Location:	Unnamed tributary to Ipswich River (locally known as Greenwood Creek), headwaters, east of Jeffreys Neck Road/north of Newmarch Street, Ipswich to confluence with estuarine portion of Ipswich River, Ipswich.
AU Type:	ESTUARY
AU Size:	0.03 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	4a	Fecal Coliform	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--

Supporting Information for Removed Impairments

2022 Removed Impairment	Removal Reason	Removal Comment
Fecal Coliform	TMDL approved or established by EPA (4a)	Impairment covered under TMDL: Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies (Report CN 515.1, approved 2/13/2024, ATTAINS Action ID: R1_MA_2024_04)

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Unnamed Tributary (MA92-23) is Not Assessed.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Unnamed Tributary (MA92-23): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0243 sq mi (90%). The approved shellfish growing area represents 0 sq mi (0%). The prohibited shellfish growing area represents 0.0243 sq mi (90%). There is insufficient information available to assess the Shellfish Harvesting Use because the growing areas within this AU are classified as either entirely prohibited or a combination of approved and prohibited. There is insufficient information available to delist the existing Fecal Coliform impairment so the Shellfish Harvesting Use is evaluated as Not Supporting.

Shellfish Growing Area Classifications

MassDFG-Division of Marine Fisheries Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
N5.0	Ipswich River	Conditionally Approved	0.00004	0.2%
N5.5	Greenwoods	Prohibited	0.02426	90.3%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Unnamed Tributary (MA92-23) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

No bacteria data are available to assess the Primary Contact Recreation Use for Unnamed Tributary (MA92-23) so it is assessed as having Insufficient Information. The shellfish growing areas (0.0243 sq mi) in this AU are less than 100% approved (0 sq mi, 0%). The data were too limited to assess Primary Contact Recreation Use of Unnamed Tributary (MA92-23) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Summary
Unnamed Tributary (MA92-23): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0243 sq mi (90%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than "approved", the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2024/26 Use Attainment	**Alert**
Insufficient Information	NO

2024/26 Use Attainment Summary
No bacteria data are available to assess the Secondary Contact Recreation Use for Unnamed Tributary (MA92-23) so it is assessed as having Insufficient Information. The shellfish growing areas (0.0243 sq mi) in this AU are less than 100% approved (0 sq mi, 0%). The data were too limited to assess Secondary Contact Recreation Use of Unnamed Tributary (MA92-23) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 5)

Summary
Unnamed Tributary (MA92-23): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0243 sq mi (90%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than "approved", the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Unnamed Tributary (MA92-26)

Location:	Unnamed intermittent tributary to Martins Brook, from source in wetland west of the Route 93/Route 125 intersection, Wilmington to confluence with Martins Brook, Wilmington.
AU Type:	RIVER
AU Size:	1.3 MILES
Classification/Qualifier:	B

No usable data were available for Unnamed Tributary (MA92-26) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Chloride	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Chloride	Highway/Road/Bridge Runoff (Non-construction Related) (N)	X	--	--	--	--

Wenham Lake (MA92073)

Location:	Beverly/Wenham.
AU Type:	FRESHWATER LAKE
AU Size:	243 ACRES
Classification/Qualifier:	A: PWS, ORW

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	DDT in Fish Tissue	--	Unchanged
5	5	Mercury in Fish Tissue	33880	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
DDT in Fish Tissue	Source Unknown (N)	--	X	--	--	--
Mercury in Fish Tissue	Atmospheric Deposition (Y)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary

The Fish Consumption Use for Wenham Lake (MA92073) continues to be assessed as Not Supporting and the prior DDT in Fish Tissue and Mercury in Fish Tissue impairments are being carried forward. DPH included a site-specific advisory for Wenham Lake in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Wenham Lake (MA92073) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Wenham Lake (MA92073) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

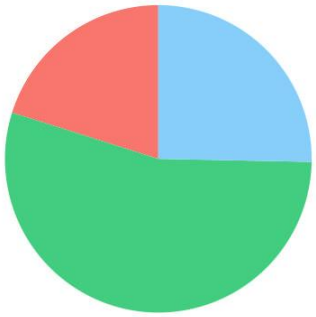
2024/26 Use Attainment Summary
No bacteria or other indicator data for Wenham Lake (MA92073) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Wills Brook (MA92-10)

Location:	Headwaters, north of Lowell Street (excluding intermittent portion), Lynnfield to confluence with Ipswich River, Lynnfield (Lynnfield/North Reading townline).
AU Type:	RIVER
AU Size:	1.5 MILES
Classification/Qualifier:	B

Wills Brook (MA92-10)

Watershed Area: 1.71 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.71	1.71	0.32	0.32
Agriculture	0%	0%	0%	0%
Developed	20.1%	20.1%	15.6%	15.6%
Natural	54.5%	54.5%	43.5%	43.5%
Wetland	25.3%	25.3%	40.9%	40.9%
Impervious	7.6%	7.6%	2.3%	2.3%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
2	3	None	--	Unchanged

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	No

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted, so the Fish Consumption Use for Wills Brook (MA92-10) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Wills Brook (MA92-10) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Wills Brook (MA92-10) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Wills Brook (MA92-10) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed. MassDEP staff collected *E. coli* bacteria samples in Wills Brook (MA92-10) at W0135 [near old railroad bed just upstream of confluence with Ipswich River, Lynnfield] from May-Sep 2005 (n=5). Analysis of this historic single year limited frequency *E. coli* dataset from W0135 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 20 CFU/100ml. Historic *E. coli* data from W0135 meet 2024 CALM guidance. Since these data were collected prior to the current IR window (2011-2022) the Secondary Contact Recreation Use cannot be positively assessed using bacteria data.

Monitoring Stations

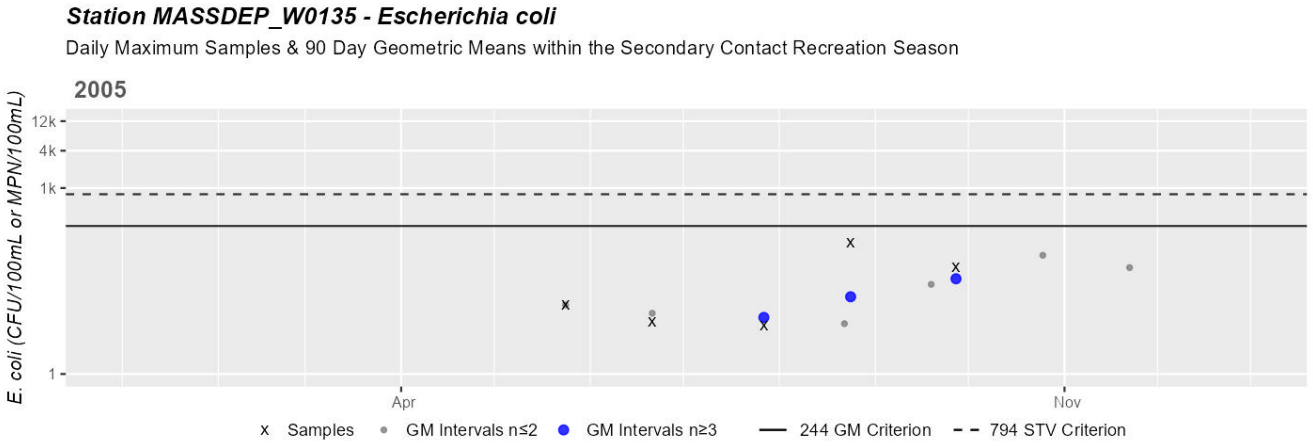
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0135	MassDEP	Water Quality	Wills Brook	[near old railroad bed just upstream of confluence with Ipswich River, Lynnfield]	42.570833	-71.049866

Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)

[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0135	MassDEP	E. coli	05/24/05	09/27/05	5	6	130	20



Variable*	Result
Samples	5
SeasGM	20
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
0%

**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes years without GMI meeting the minimum sample size.*

Winona Pond (MA92077)

Location:	Peabody.
AU Type:	FRESHWATER LAKE
AU Size:	92 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Winona Pond (MA92077) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Data Sources

Bailey, Logan. "DPH 2022 freshwater beach posting data provided to Laurie Kennedy and Dan Davis (MassDEP Watershed Planning Program) via Excel file (FreshwaterBeachPostings_2022) attached to email (RE: DPH Beach Posting information update needed for 2024 IR)." Additional 2020-2022 freshwater/marine beach posting data downloaded from the Mass Environmental Public Health Tracker tool or EPA BEACON tool, respectively, Environmental Toxicology Program, Bureau of Environmental Health, Massachusetts Department of Public Health, Boston, MA, Sept. 10, 2023.

Bailey, Logan. "Email providing Harmful Algal Bloom advisory data (2015-2022) in the attached spreadsheet "CyanoHAB_Advisories.csv"." Email to Dan Davis and Laurie Kennedy (MassDEP Watershed Planning Program) with subject line "RE: DPH Beach Posting information update needed for 2024 IR", Environmental Toxicology Program, Bureau of Environmental Health, Massachusetts Department of Public Health, Boston, MA, April 26, 2023.

Bailey, Logan. "RE: Beaches Bill reporting data." Email to Dan Davis (MassDEP Watershed Planning Program) providing an Excel file (DEP_BeachDataRequest) with 2014-2019 data for marine and DCR freshwater beaches, Environmental Toxicology Program, Bureau of Environmental Health, Massachusetts Department of Public Health, Boston, MA, Feb. 2, 2021.

Google Earth Pro. "Satellite Imagery of selected stream and lake/pond segments." Massachusetts, Undated.

IRWA. "2022 bacteria data submitted to MassDEP WPP portal or downloaded from WQX (last submittal/download 12/23/2022)." Ipswich River Watershed Association, Ipswich, MA, 2022.

MA DPH. "Freshwater Fish Consumption Advisory List." Bureau of Climate and Environmental Health, Massachusetts Department of Public Health. January 2025. https://www.mass.gov/doc/public-health-freshwater-fish-consumption-advisories-2025-0/download (accessed January 2025).

MassDEP. "2015 Scanned Project Files, "Ipswich watershed lake survey data, 1995," D01-20.pdf." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, 1995.

MassDEP. "Open file analysis of external water quality data (potential date range 1997-2022) using 2024 CALM guidance." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 1.

MassDEP. "Open file analysis of external water quality data (potential date range 2011-2022) using 2024 CALM guidance." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 2.

MassDEP. "Open file analysis of MassDEP WPP water quality data collected between 1997 and 2020 using 2024 CALM guidance." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 3.

MassDEP. "Open file analysis of MassDEP WPP water quality data collected between 2011 and 2020 using 2024 CALM guidance." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 4.

MassDEP. "Open file analysis of shellfish growing area classifications using 2024 CALM guidance." Data published June 2024 and available on MassGIS website, Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 5.

MassDEP. "Open files of fish toxicity testing data, metadata, and GIS datalayers in development." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 6.

MassDEP. "Open files of unpublished, validated water quality monitoring data, field sheet data, and GIS datalayers in development." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 7.

MassGIS. "MassGIS Data: Designated Shellfish Growing Areas, Data provided by Massachusetts Department of Fish and Game's Division of Marine Fisheries." Bureau of Geographic Information, Boston, MA. June 2024. https://www.mass.gov/info-details/massgis-data-designated-shellfish-growing-areas (accessed July 2024).