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

Appendix 10
Boston Harbor: Weymouth & Weir 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.

Acknowledgements

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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 [].

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2024/26 Cycle Impairment Changes

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Accord Brook	MA74-16	5	5	Benthic Macroinvertebrates	--	Unchanged
Accord Brook	MA74-16	5	5	Dissolved Oxygen	--	Unchanged
Accord Brook	MA74-16	5	5	Escherichia Coli (E. Coli)	--	Added
Accord Brook	MA74-17	5	5	(Dewatering*)	--	Unchanged
Accord Brook	MA74-17	5	5	Benthic Macroinvertebrates	--	Unchanged
Accord Pond	MA74030	3	3	None	--	Unchanged
Blue Hill River	MA74-25	3	3	None	--	Unchanged
Cochato River	MA74-06	5	5	Chlordane in Fish Tissue	--	Unchanged
Cochato River	MA74-06	5	5	Chlordane in Sediment	--	Unchanged
Cochato River	MA74-06	5	5	Copper	--	Unchanged
Cochato River	MA74-06	5	5	DDT in Fish Tissue	--	Unchanged
Cochato River	MA74-06	5	5	DDT in Sediment	--	Unchanged
Cochato River	MA74-06	5	5	Dissolved Oxygen	--	Unchanged
Cochato River	MA74-06	5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Cochato River	MA74-06	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Cochato River	MA74-06	5	5	Lead	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Cranberry Brook	MA74-22	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Crooked Meadow River	MA74-01	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Eel River	MA74-21	2	2	None	--	Unchanged
Farm River	MA74-27	5	4a	(Fish Passage Barrier*)	--	Unchanged
Farm River	MA74-27	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Farm River	MA74-28	5	4a	(Fish Passage Barrier*)	--	Unchanged
Farm River	MA74-28	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Furnace Brook	MA74-10	5	5	Benthic Macroinvertebrates	--	Unchanged
Furnace Brook	MA74-10	5	5	Dissolved Oxygen	--	Unchanged
Furnace Brook	MA74-10	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Great Pond	MA74012	4c	4c	(Fish Passage Barrier*)	--	Unchanged
Hingham Harbor	MA74-18	5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
Hingham Harbor	MA74-18	5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Hingham Harbor	MA74-18	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Hingham Harbor	MA74-18	5	5	PCBs in Fish Tissue	--	Unchanged
Hoosicwhisick Pond	MA74015	2	5	PFAS in Fish Tissue	--	Added

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Lake Holbrook	MA74013	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Mary Lee Brook	MA74-23	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Mill River	MA74-04	4a	4a	(Fish Passage Barrier*)	--	Unchanged
Mill River	MA74-04	4a	4a	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Mill River	MA74-04	4a	4a	Fecal Coliform	R1_MA_2019_01	Unchanged
Monatiquot River	MA74-32	--	5	(Curly-leaf Pondweed*)	--	Unchanged
Monatiquot River	MA74-32	--	5	(Fish Passage Barrier*)	--	Unchanged
Monatiquot River	MA74-32	--	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
Monatiquot River	MA74-32	--	5	Benthic Macroinvertebrates	--	Unchanged
Monatiquot River	MA74-32	--	5	Dissolved Oxygen	--	Unchanged
Monatiquot River	MA74-32	--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Monatiquot River	MA74-32	--	5	Fecal Coliform	--	Unchanged
Monatiquot River	MA74-33	--	5	(Curly-leaf Pondweed*)	--	Unchanged
Monatiquot River	MA74-33	--	5	(Fish Passage Barrier*)	--	Unchanged
Monatiquot River	MA74-33	--	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
Monatiquot River	MA74-33	--	5	Benthic Macroinvertebrates	--	Unchanged
Monatiquot River	MA74-33	--	5	Dissolved Oxygen	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Monatiquot River	MA74-33	--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Monatiquot River	MA74-33	--	5	Fecal Coliform	--	Unchanged
Old Quincy Reservoir	MA74017	3	3	None	--	Unchanged
Old Swamp River	MA74-03	4a	4a	(Fish Passage Barrier*)	--	Unchanged
Old Swamp River	MA74-03	4a	4a	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Old Swamp River	MA74-03	4a	4a	Fecal Coliform	R1_MA_2019_01	Unchanged
Plymouth River	MA74-20	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Smelt Brook	MA74-24	4c	4c	(Fish Passage Barrier*)	--	Unchanged
Smelt Brook Pond	MA74018	4c	4c	(Fish Passage Barrier*)	--	Unchanged
Sunset Lake	MA74020	4c	4c	(Eurasian Water Milfoil, Myriophyllum Spicatum*)	--	Unchanged
Sylvan Lake	MA74021	5	5	Chlordane in Fish Tissue	--	Unchanged
Sylvan Lake	MA74021	5	5	DDT in Fish Tissue	--	Unchanged
Town Brook	MA74-09	5	5	(Flow Regime Modification*)	--	Unchanged
Town Brook	MA74-09	5	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
Town Brook	MA74-09	5	5	Benthic Macroinvertebrates	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Town Brook	MA74-09	5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Town Brook	MA74-09	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Town River Bay	MA74-15	5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
Town River Bay	MA74-15	5	5	Dissolved Oxygen	--	Unchanged
Town River Bay	MA74-15	5	5	Enterococcus	R1_MA_2019_01	Unchanged
Town River Bay	MA74-15	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Town River Bay	MA74-15	5	5	PCBs in Fish Tissue	--	Unchanged
Trout Brook	MA74-12	3	3	None	--	Unchanged
Unnamed Tributary	MA74-19	5	5	Temperature	--	Unchanged
Unnamed Tributary	MA74-26	3	3	None	--	Unchanged
Unnamed Tributary	MA74-29	--	3	None	--	Unchanged
Weir River	MA74-02	5	5	(Curly-leaf Pondweed*)	--	Unchanged
Weir River	MA74-02	5	5	(Dewatering*)	--	Unchanged
Weir River	MA74-02	5	5	(Fish Passage Barrier*)	--	Unchanged
Weir River	MA74-02	5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Weir River	MA74-02	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Weir River	MA74-02	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Weir River	MA74-02	5	5	Sedimentation/Siltation	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Weir River	MA74-11	5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
Weir River	MA74-11	5	5	Enterococcus	R1_MA_2019_01	Added
Weir River	MA74-11	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Weir River	MA74-11	5	5	PCBs in Fish Tissue	--	Unchanged
Weymouth Back River	MA74-13	5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
Weymouth Back River	MA74-13	5	5	Enterococcus	R1_MA_2019_01	Added
Weymouth Back River	MA74-13	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Weymouth Back River	MA74-13	5	5	PCBs in Fish Tissue	--	Unchanged
Weymouth Back River	MA74-30	--	5	Dissolved Oxygen	--	Unchanged
Weymouth Back River	MA74-30	--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Weymouth Back River	MA74-30	--	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Weymouth Back River	MA74-31	--	5	Dissolved Oxygen	--	Unchanged
Weymouth Back River	MA74-31	--	5	Enterococcus	--	Added

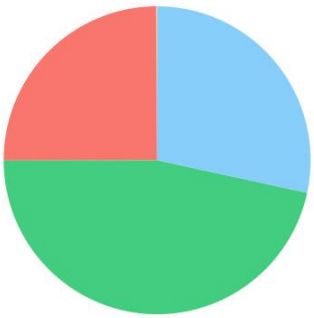
Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Weymouth Back River	MA74-31	--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
Weymouth Back River	MA74-31	--	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Weymouth Fore River	MA74-14	5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
Weymouth Fore River	MA74-14	5	5	Enterococcus	R1_MA_2019_01	Unchanged
Weymouth Fore River	MA74-14	5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
Weymouth Fore River	MA74-14	5	5	PCBs in Fish Tissue	--	Unchanged
Weymouth Great Pond	MA74024	--	3	None	--	Unchanged
Whitmans Pond	MA74025	5	5	(Curly-leaf Pondweed*)	--	Unchanged
Whitmans Pond	MA74025	5	5	(Fanwort*)	--	Unchanged
Whitmans Pond	MA74025	5	5	DDT in Fish Tissue	--	Unchanged
Whitmans Pond	MA74025	5	5	PFAS in Fish Tissue	--	Added

Accord Brook (MA74-16)

Location:	Headwaters, outlet Accord Pond, Hingham to water supply intake (4131000-02S Accord Brook) south of South Pleasant Street, Hingham.
AU Type:	RIVER
AU Size:	3.2 MILES
Classification/Qualifier:	A: PWS, ORW

Accord Brook (MA74-16)

Watershed Area: 3.92 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	3.92	3.88	1.99	1.99
Agriculture	0.1%	0.1%	0.2%	0.2%
Developed	24.9%	24.9%	14.9%	14.9%
Natural	46.6%	46.3%	41%	40.9%
Wetland	28.4%	28.7%	43.9%	44%
Impervious	14%	14%	9.1%	9.1%

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)	--	Added

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	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 Accord Brook (MA74-16) 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 Accord Brook (MA74-16) is Not Assessed.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2403	MassDEP	Water Quality	Accord Brook	[approximately 2250 feet upstream/south from South Pleasant Street, Hingham]	42.199476	-70.862069

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2403	2013	8	Aesthetic observations were made by MassDEP field sampling crews at Station W2403 on Accord Brook (MA74-16) during 8 site visits between May 2013 and Sep 2013. 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 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2403	2013	8	7	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2403	Accord Brook	2013	Aesthetics Impaired?	No	6	8
W2403	Accord Brook	2013	Aesthetics Impaired?	NR	2	8
W2403	Accord Brook	2013	Aquatic Plant Density, Overall	None	7	8
W2403	Accord Brook	2013	Aquatic Plant Density, Overall	Unobservable	1	8
W2403	Accord Brook	2013	Color	Brownish	1	8
W2403	Accord Brook	2013	Color	Light Yellow/Tan	2	8
W2403	Accord Brook	2013	Color	None	2	8
W2403	Accord Brook	2013	Color	Reddish	3	8
W2403	Accord Brook	2013	Objectionable Deposits	No	8	8
W2403	Accord Brook	2013	Odor	None	8	8
W2403	Accord Brook	2013	Periphyton Density, Filamentous	None	7	8
W2403	Accord Brook	2013	Periphyton Density, Filamentous	Unobservable	1	8
W2403	Accord Brook	2013	Periphyton Density, Film	None	7	8
W2403	Accord Brook	2013	Periphyton Density, Film	Unobservable	1	8
W2403	Accord Brook	2013	Scum	No	8	8
W2403	Accord Brook	2013	Turbidity	None	8	8

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Accord Brook (MA74-16) is assessed as Not Supporting. An *Escherichia coli (E. coli)* impairment is being added due to bacteria data not meeting the threshold at W2403. MassDEP staff collected *E. coli* bacteria samples in Accord Brook (MA74-16) at W2403 [~2250 ft upstream/S from S Pleasant St, Hingham] from May-Sep 2013 (n=5). Analysis of the single year limited frequency *E. coli* dataset from W2403 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 324 CFU/100ml. *E. coli* data from W2403 are indicative of an *E. coli* impairment.

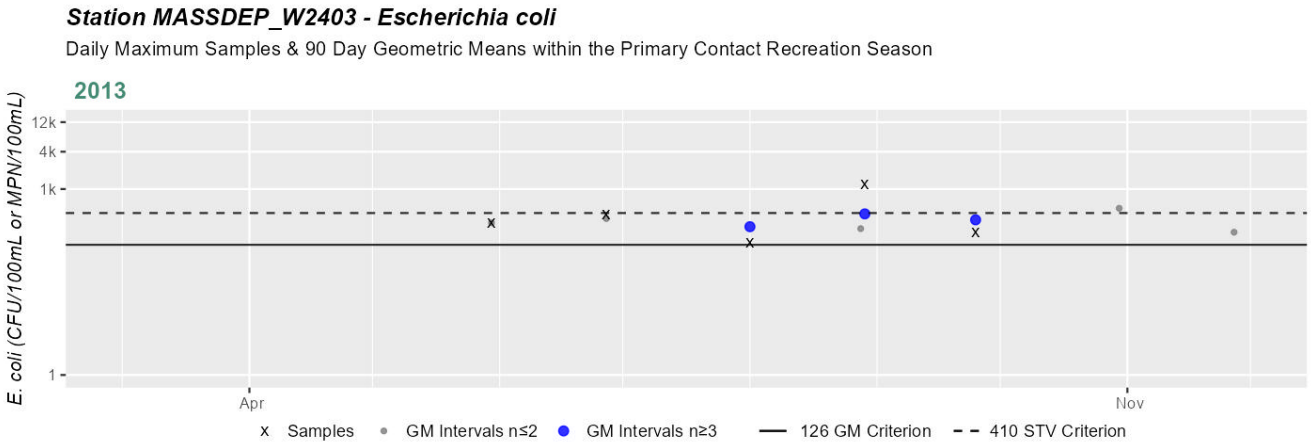
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2403	MassDEP	Water Quality	Accord Brook	[approximately 2250 feet upstream/south from South Pleasant Street, Hingham]	42.199476	-70.862069

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(MassDEP Undated 8) (MassDEP Undated 5)
[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
W2403	MassDEP	E. coli	05/30/13	09/25/13	5	135	1190	324



Variable*	Result
Samples	5
SeasGM	324
#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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Accord Brook (MA74-16) 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 W2403. MassDEP staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in Accord Brook (MA74-16) from 2009-2013 at 2 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2037 [Prospect St, Hingham] from May-Sep 2009 (n=6), W2403 [~2250 ft upstream/S from S Pleasant St, Hingham] from May-Sep 2013 (n=5). Analysis of the single year limited frequency *E. coli* dataset from W2403 indicated 100% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 324 CFU/100ml. *E. coli* data from W2403 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2037	MassDEP	Water Quality	Accord Brook	[Prospect Street, Hingham]	42.191401	-70.865205
W2403	MassDEP	Water Quality	Accord Brook	[approximately 2250 feet upstream/south from South Pleasant Street, Hingham]	42.199476	-70.862069

Bacteria Data

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

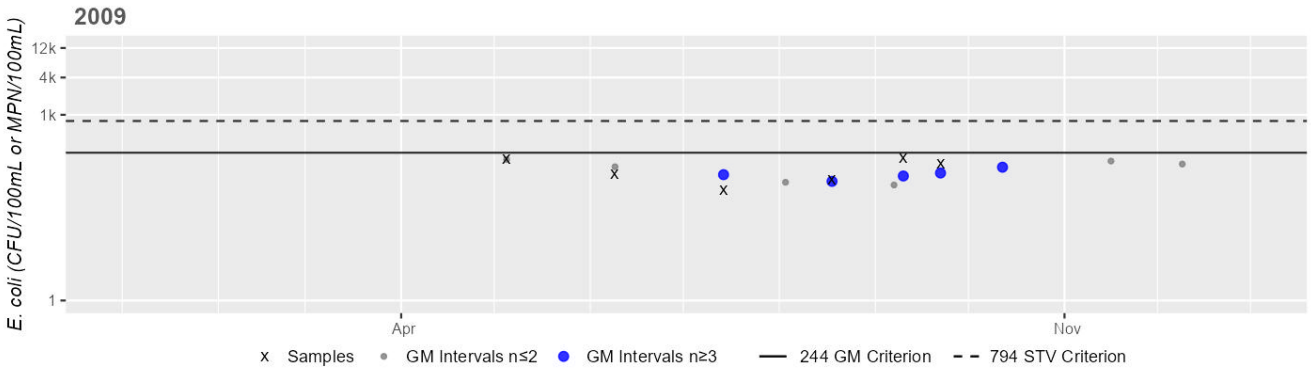
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2037	MassDEP	E. coli	05/05/09	09/22/09	6	60	200	123
W2403	MassDEP	E. coli	05/30/13	09/25/13	5	135	1190	324

Station MASSDEP_W2037 - Escherichia coli

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



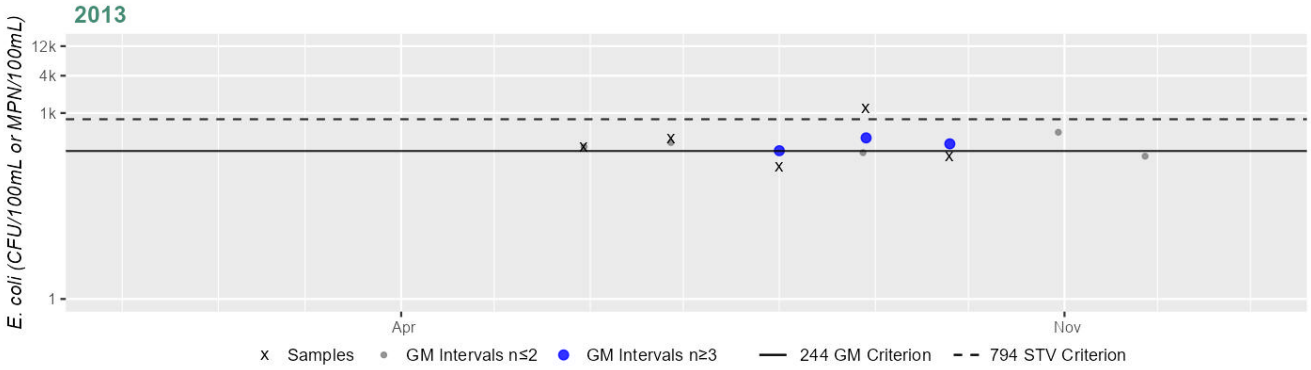
Variable*	Result
Samples	6
SeasGM	123
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2403 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	324
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance

Current (2011-2022)

100%

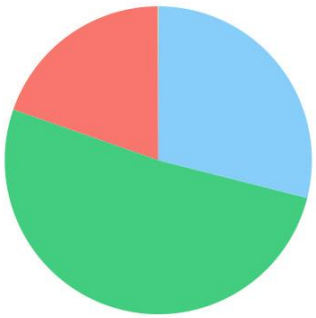
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Accord Brook (MA74-17)

Location:	From water supply intake (4131000-02S Accord Brook) south of South Pleasant Street, Hingham to mouth at inlet Triphammer Pond, Hingham.
AU Type:	RIVER
AU Size:	1.8 MILES
Classification/Qualifier:	B

Accord Brook (MA74-17)

Watershed Area: 5.25 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	5.25	3.71	2.40	1.59
Agriculture	0.1%	0.1%	0.2%	0.2%
Developed	19.6%	13.9%	13.1%	9.5%
Natural	51.4%	52.6%	42.6%	39%
Wetland	28.9%	33.4%	44.1%	51.3%
Impervious	11.2%	6.8%	8.2%	5.1%

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Dewatering*)	Water Diversions (Y)	X	--	--	--	--
Benthic Macroinvertebrates	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 Accord Brook (MA74-17) 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 Accord Brook (MA74-17) 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 Accord Brook (MA74-17) 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 Accord Brook (MA74-17) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Accord Pond (MA74030)

Location:	Hingham/Norwell/Rockland (formerly reported as 2004 segment: Accord Pond MA94002).
AU Type:	FRESHWATER LAKE
AU Size:	103 ACRES
Classification/Qualifier:	A: PWS, ORW (PWS and Tributary to PWS)

No usable data were available for Accord Pond (MA74030) 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

Blue Hill River (MA74-25)

Location:	Headwaters, perennial portion south of Route 93 on the Milton/Randolph border, to mouth at confluence with Farm River at the Randolph/Braintree border (where name changes to Farm River).
AU Type:	RIVER
AU Size:	2.9 MILES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Blue Hill River (MA74-25) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

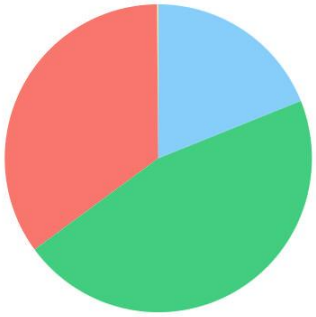
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Cochato River (MA74-06)

Location:	Outlet Lake Holbrook, Holbrook to confluence with Farm River forming headwaters Monatiquot River, Braintree (through former 2010 segment: Ice House Pond MA74028).
AU Type:	RIVER
AU Size:	4.1 MILES
Classification/Qualifier:	B

Cochato River (MA74-06)

Watershed Area: 11.12 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	11.12	6.47	3.18	1.97
Agriculture	0.1%	0.2%	0.1%	0.2%
Developed	35%	36.2%	22.8%	21.8%
Natural	46%	45.4%	42.5%	42.6%
Wetland	18.9%	18.2%	34.5%	35.4%
Impervious	18.8%	19.8%	11.6%	10.3%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Chlordane in Fish Tissue	--	Unchanged
5	5	Chlordane in Sediment	--	Unchanged
5	5	Copper	--	Unchanged
5	5	DDT in Fish Tissue	--	Unchanged
5	5	DDT in Sediment	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	Lead	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Chlordane in Fish Tissue	CERCLA NPL (Superfund) Sites (Y)	--	X	--	--	--
Chlordane in Sediment	CERCLA NPL (Superfund) Sites (Y)	X	--	--	--	--
Copper	Source Unknown (N)	X	--	--	--	--
DDT in Fish Tissue	CERCLA NPL (Superfund) Sites (Y)	--	X	--	--	--
DDT in Sediment	CERCLA NPL (Superfund) Sites (Y)	X	--	--	--	--
Dissolved Oxygen	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--
Fecal Coliform	Source Unknown (N)	--	--	--	X	--
Lead	CERCLA NPL (Superfund) Sites (Y)	X	--	--	--	--
Lead	Source Unknown (N)	X	--	--	--	--

Recommendations

2024/26 Recommendations
2024 IR [TURBIDITY, LOW] Additional monitoring is recommended due to the observation of highly turbid water downstream at weir on the Braintree Municipal Golf Course in 2017 at {W2728}.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Cochato River (MA74-06) continues to be assessed as Not Supporting and the prior DDT in Fish Tissue and Chlordane in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Cochato River (referred to by MDPH as ''Cochato River, Ice Pond and Sylvan Lake'' or ''Ice 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
Fully Supporting	YES

2024/26 Use Attainment Summary
The Aesthetics Use for Cochato River (MA74-06) continues to be assessed as Fully Supporting based on the general lack of objectionable conditions noted by MassDEP staff during the summer of 2017. An Alert is being identified for turbidity due to the observation of highly turbid water downstream at weir on the Braintree Municipal Golf Course in 2017. MassDEP staff recorded a limited number of aesthetics observations at four stations in Weymouth, throughout this Old Swamp River AU, as part of the SERO MST project during the summer of 2017, from upstream to downstream as follows; a quarter of the way down the AU and upstream of the outlet from Sylvan Lake, downstream of road and two stormwater outfalls, Rt. 139 (Union Street), Holbrook (W2051, n=2), just downstream of the outlet from Sylvan Lake at Center Street, Holbrook (W2731, n=2), about halfway down the AU east of Kingcrest Terrace (trail from eastern end of terrace), Randolph (W2729, n=2) and close to the downstream end of the AU, downstream at weir on the Braintree Municipal Golf Course, southeast of Richardi Reservoir, Braintree (W2728, n=2). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at this station, though field staff noted dense aquatic plants on two occasions at W2046.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2051	MassDEP	Water Quality	Cochato River	[downstream of road and two stormwater outfalls, Route 139 (Union Street), Holbrook]	42.155383	-71.026534
W2728	MassDEP	Water Quality	Cochato River	[downstream at weir on the Braintree Municipal Golf Course, southeast of Richardi Reservoir, Braintree]	42.187330	-71.018528
W2729	MassDEP	Water Quality	Cochato River	[east of Kingcrest Terrace (trail from eastern end of terrace), Randolph]	42.163813	-71.025524
W2731	MassDEP	Water Quality	Cochato River	[Center Street, Holbrook]	42.157538	-71.026328

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2051	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2051 on Cochato River (MA74-06) during 2 site visits between Jul 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2728	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2728 on Cochato River (MA74-06) during 2 site visits between Jul 2017 and Aug 2017. There were some objectionable conditions recorded, including high turbidity (n=2). These conditions are indicative of an Alert status. However, aesthetic observations are limited (n<3).
W2729	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2729 on Cochato River (MA74-06) during 2 site visits between Jul 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2731	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2731 on Cochato River (MA74-06) during 2 site visits between Jul 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2051	2017	2	0	0
W2728	2017	2	1	0
W2729	2017	2	2	0
W2731	2017	2	0	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2051	Cochato River	2017	Aquatic Plant Density, Overall	Sparse	1	2
W2051	Cochato River	2017	Aquatic Plant Density, Overall	Unobservable	1	2
W2051	Cochato River	2017	Color	Light Yellow/Tan	2	2
W2051	Cochato River	2017	Odor	None	2	2
W2051	Cochato River	2017	Periphyton Density, Filamentous	Unobservable	2	2
W2051	Cochato River	2017	Periphyton Density, Film	Unobservable	2	2
W2051	Cochato River	2017	Turbidity	Moderately Turbid	2	2
W2728	Cochato River	2017	Aquatic Plant Density, Overall	Moderate	1	2
W2728	Cochato River	2017	Aquatic Plant Density, Overall	Unobservable	1	2
W2728	Cochato River	2017	Color	Brownish	1	2
W2728	Cochato River	2017	Color	Light Yellow/Tan	1	2
W2728	Cochato River	2017	Odor	Musty (Basement)	1	2
W2728	Cochato River	2017	Odor	None	1	2
W2728	Cochato River	2017	Periphyton Density, Filamentous	Sparse	1	2
W2728	Cochato River	2017	Periphyton Density, Filamentous	Unobservable	1	2
W2728	Cochato River	2017	Periphyton Density, Film	Unobservable	2	2
W2728	Cochato River	2017	Turbidity	Highly Turbid	2	2
W2729	Cochato River	2017	Aquatic Plant Density, Overall	Moderate	1	2
W2729	Cochato River	2017	Aquatic Plant Density, Overall	None	1	2
W2729	Cochato River	2017	Color	Light Yellow/Tan	2	2
W2729	Cochato River	2017	Odor	None	2	2
W2729	Cochato River	2017	Periphyton Density, Filamentous	None	2	2
W2729	Cochato River	2017	Periphyton Density, Film	Sparse	2	2
W2729	Cochato River	2017	Turbidity	Moderately Turbid	2	2
W2731	Cochato River	2017	Aquatic Plant Density, Overall	Moderate	1	2
W2731	Cochato River	2017	Aquatic Plant Density, Overall	Unobservable	1	2
W2731	Cochato River	2017	Color	Light Yellow/Tan	2	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2731	Cochato River	2017	Odor	None	2	2
W2731	Cochato River	2017	Periphyton Density, Filamentous	Unobservable	2	2
W2731	Cochato River	2017	Periphyton Density, Film	Unobservable	2	2
W2731	Cochato River	2017	Turbidity	Moderately Turbid	2	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Cochato River (MA74-06) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward. MassDEP staff collected *E. coli* bacteria samples in the Cochato River (MA74-06) from 2017 at 4 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2051 [downstream of Rd and two stormwater outfalls, Rt. 139 (Union St), Holbrook] from Jul-Aug 2017 (n=2), W2731 [Center St, Holbrook] from Jul-Aug 2017 (n=2), W2729 [E of Kingcrest Terrace (trail from eastern end of terrace), Randolph] from Jul-Aug 2017 (n=2), W2728 [downstream at weir on the Braintree Municipal Golf Course, SE of Richardi Reservoir, Braintree] from Jul-Aug 2017 (n=2). *E. coli* data from W2051, W2731, W2729, and W2728 are too limited according to the 2024 CALM to assess the Primary Contact Recreation Use.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2051	MassDEP	Water Quality	Cochato River	[downstream of road and two stormwater outfalls, Route 139 (Union Street), Holbrook]	42.155383	-71.026534
W2728	MassDEP	Water Quality	Cochato River	[downstream at weir on the Braintree Municipal Golf Course, southeast of Richardi Reservoir, Braintree]	42.187330	-71.018528
W2729	MassDEP	Water Quality	Cochato River	[east of Kingcrest Terrace (trail from eastern end of terrace), Randolph]	42.163813	-71.025524
W2731	MassDEP	Water Quality	Cochato River	[Center Street, Holbrook]	42.157538	-71.026328

Bacteria Data

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

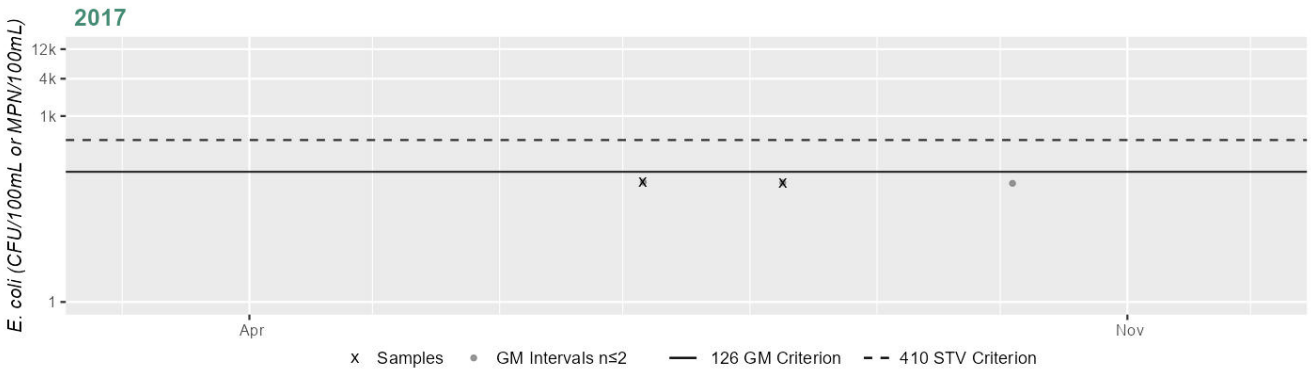
(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2051	MassDEP	E. coli	07/06/17	08/09/17	2	82	86	83
W2728	MassDEP	E. coli	07/06/17	08/09/17	2	40	41	40
W2729	MassDEP	E. coli	07/06/17	08/09/17	2	172	308	230
W2731	MassDEP	E. coli	07/06/17	08/09/17	2	121	142	131

Station MASSDEP_W2051 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	83
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance

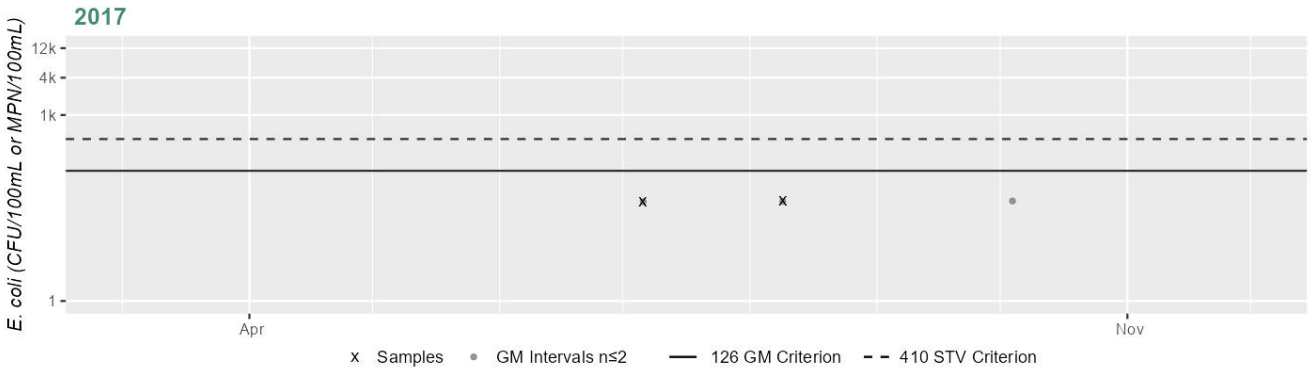
Current (2011-2022)

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_W2728 - Escherichia coli

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



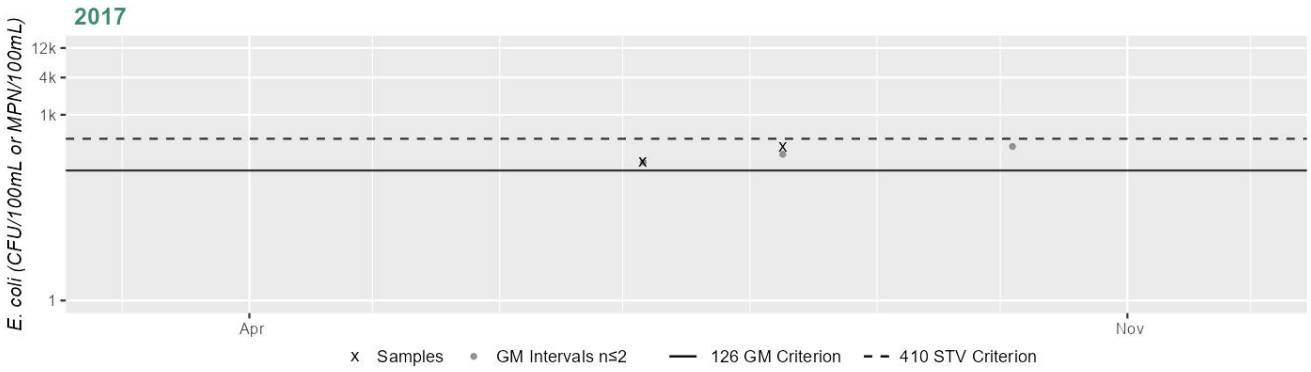
Variable*	Result
Samples	2
SeasGM	40
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2729 - Escherichia coli

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



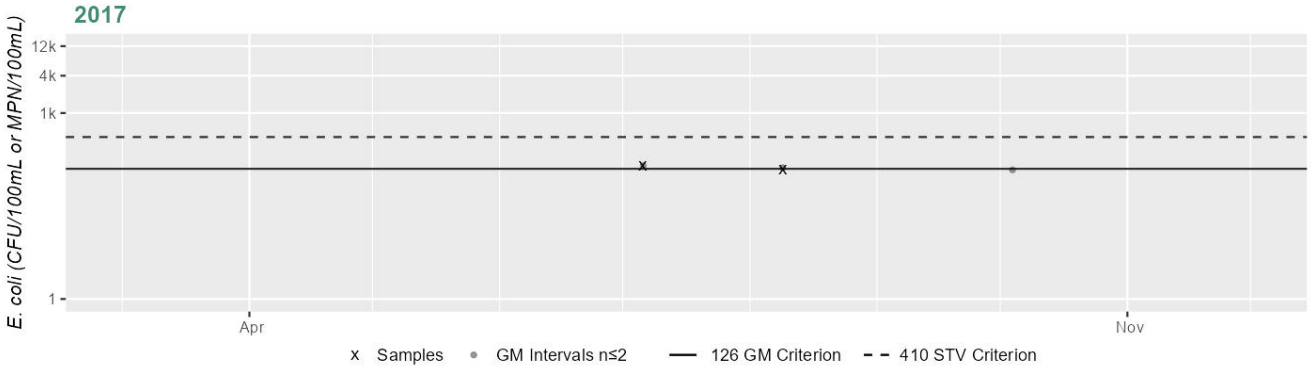
Variable*	Result
Samples	2
SeasGM	230
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2731 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	131
#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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

Too limited bacteria data are available to assess the Secondary Contact Recreation Use for the Cochato River (MA74-06) 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 both the historic (1997-2010) & the current IR window (2011-2022) in the Cochato River (MA74-06) from 2009-2017 at 4 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2051 [downstream of Rd and two stormwater outfalls, Rt. 139 (Union St), Holbrook] from May-Sep 2009 (historic n=6) and Jul-Aug 2017 (current n=2), W2731 [Center St, Holbrook] from Jul-Aug 2017 (n=2), W2729 [E of Kingcrest Terrace (trail from eastern end of terrace), Randolph] from Jul-Aug 2017 (n=2), W2728 [downstream at weir on the Braintree Municipal Golf Course, SE of Richardi Reservoir, Braintree] from Jul-Aug 2017 (n=2). Analysis of this historic single year limited frequency *E. coli* dataset from W2051 indicated 20% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 262 CFU/100ml. *E. coli* data from W2051, W2731, W2729, and W2728 are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use. Historic *E. coli* data from W2051 meet 2024 CALM guidance. While the historic bacteria concentrations meet 2024 CALM guidance, too limited bacteria data from the current IR window (2011-2022) are available to assess the Secondary Contact Recreation Use.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2051	MassDEP	Water Quality	Cochato River	[downstream of road and two stormwater outfalls, Route 139 (Union Street), Holbrook]	42.155383	-71.026534
W2728	MassDEP	Water Quality	Cochato River	[downstream at weir on the Braintree Municipal Golf Course, southeast of Richardi Reservoir, Braintree]	42.187330	-71.018528
W2729	MassDEP	Water Quality	Cochato River	[east of Kingcrest Terrace (trail from eastern end of terrace), Randolph]	42.163813	-71.025524
W2731	MassDEP	Water Quality	Cochato River	[Center Street, Holbrook]	42.157538	-71.026328

Bacteria Data

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

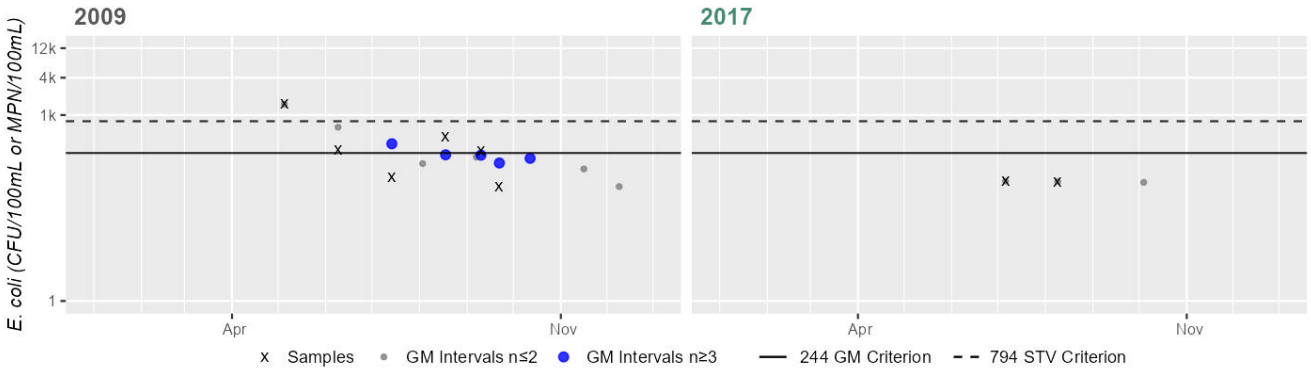
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2051	MassDEP	E. coli	05/05/09	09/22/09	6	70	1500	262
W2051	MassDEP	E. coli	07/06/17	08/09/17	2	82	86	83
W2728	MassDEP	E. coli	07/06/17	08/09/17	2	40	41	40
W2729	MassDEP	E. coli	07/06/17	08/09/17	2	172	308	230
W2731	MassDEP	E. coli	07/06/17	08/09/17	2	121	142	131

Station MASSDEP_W2051 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	262
#GMI	5
#GMI Ex	1
%GMI Ex	20%
n>STV	1
%n>STV	16%

Variable*	Result
Samples	2
SeasGM	83
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

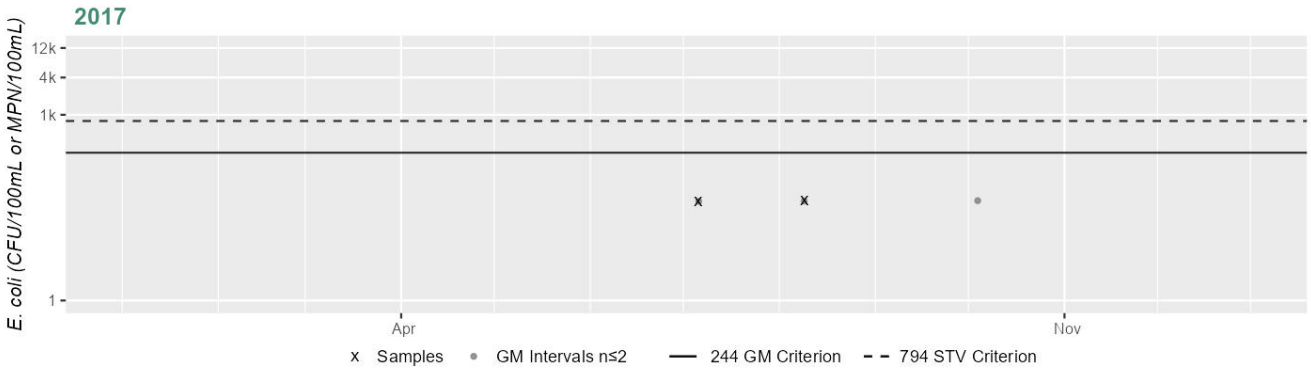
Cumulative %GMI Exceedance Historic (1997-2010)
20%

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_W2728 - Escherichia coli

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



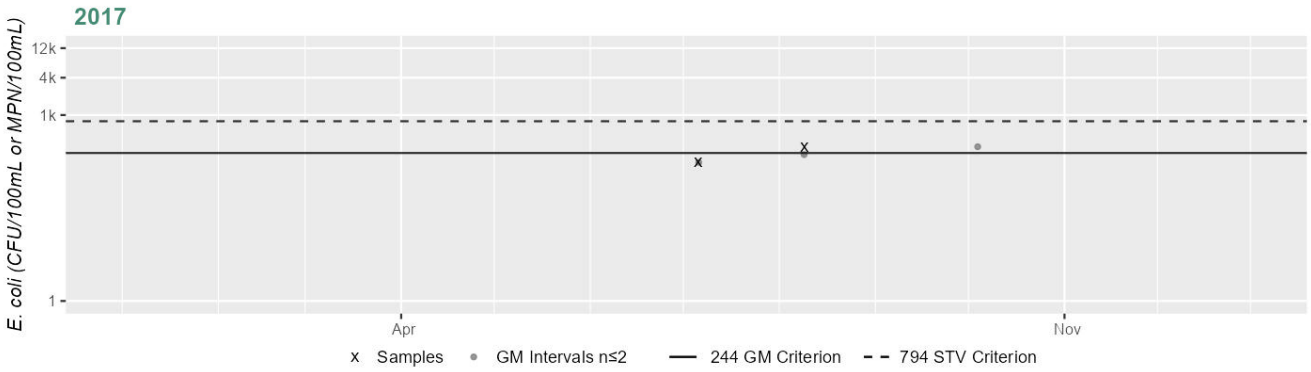
Variable*	Result
Samples	2
SeasGM	40
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2729 - Escherichia coli

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



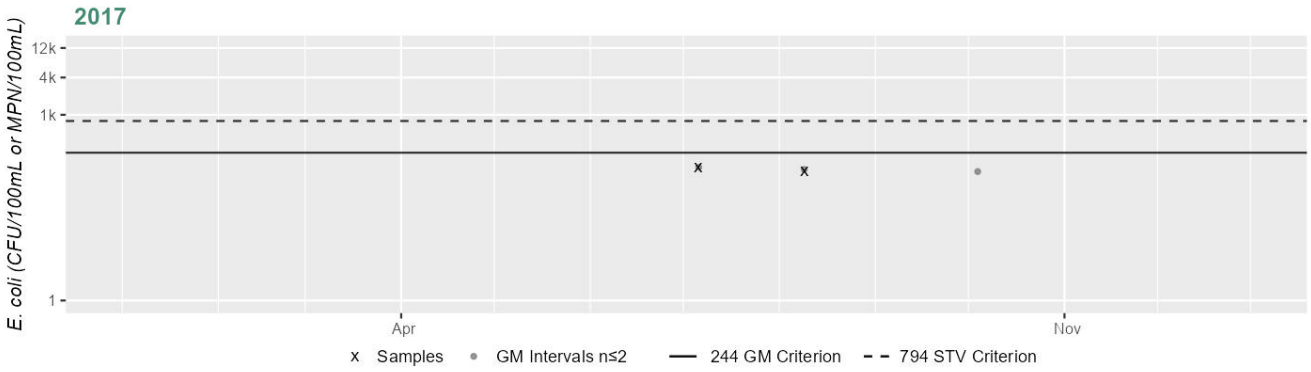
Variable*	Result
Samples	2
SeasGM	230
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2731 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	131
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

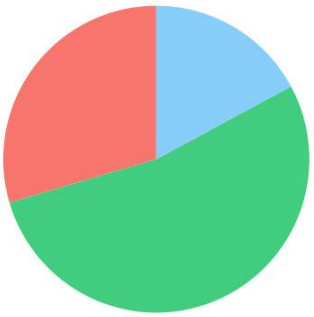
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Cranberry Brook (MA74-22)

Location:	Headwaters, outlet Cranberry Pond, Braintree to mouth at confluence with Cochato River, Braintree (a portion is within the Cranberry Brook Watershed ACEC).
AU Type:	RIVER
AU Size:	1.9 MILES
Classification/Qualifier:	B: ORW

Cranberry Brook (MA74-22)

Watershed Area: 1.83 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.83	1.83	0.34	0.34
Agriculture	0%	0%	0%	0%
Developed	29.6%	29.6%	7.1%	7.1%
Natural	53.3%	53.3%	51.7%	51.7%
Wetland	17.1%	17.1%	41.1%	41.1%
Impervious	17.6%	17.6%	4.7%	4.7%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (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)

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 Cranberry Brook (MA74-22) 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 Cranberry Brook (MA74-22) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Cranberry Brook (MA74-22) 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.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Cranberry Brook (MA74-22) 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 Cranberry Brook (MA74-22) at W2049 [upstream of Rd and two stormwater outfalls, Rt. 37 (Washington St), Braintree] from May-Sep 2009 (n=6). Analysis of this historic single year limited frequency *E. coli* dataset from W2049 indicated 20% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 232 CFU/100ml. Historic *E. coli* data from W2049 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
W2049	MassDEP	Water Quality	Cranberry Brook	[upstream of road and two stormwater outfalls, Route 37 (Washington Street), Braintree]	42.183795	-71.011297

Bacteria Data

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

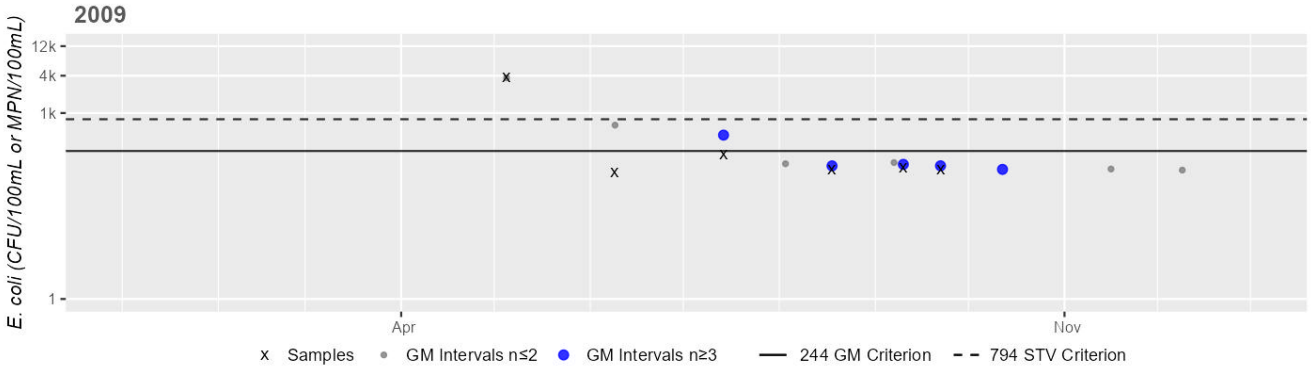
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2049	MassDEP	E. coli	05/05/09	09/22/09	6	110	3700	232

Station MASSDEP_W2049 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	232
#GMI	5
#GMI Ex	1
%GMI Ex	20%
n>STV	1
%n>STV	16%

Cumulative %GMI Exceedance
Historic (1997-2010)
20%

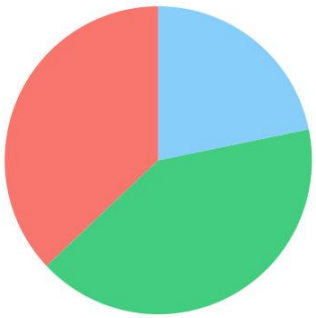
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Crooked Meadow River (MA74-01)

Location:	Headwaters, outlet Cushing Pond, Hingham to confluence with Fulling Mill Brook (forming headwater of Weir River), Hingham.
AU Type:	RIVER
AU Size:	1 MILES
Classification/Qualifier:	B

Crooked Meadow River (MA74-01)

Watershed Area: 4.84 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	4.84	4.25	2.32	2.04
Agriculture	0%	0%	0%	0%
Developed	37%	35.9%	29.4%	28.4%
Natural	41.2%	41%	39.1%	38.9%
Wetland	21.8%	23.1%	31.5%	32.7%
Impervious	16.3%	15%	14%	12.8%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Nutrient/Eutrophication Biological Indicators	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 Crooked Meadow River (MA74-01) 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 Crooked Meadow River (MA74-01) 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 Crooked Meadow River (MA74-01) 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 Crooked Meadow River (MA74-01) 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 Crooked Meadow River (MA74-01) at W2042 [~50 ft upstream of Rt. 228 (Main St), Hingham] from May-Sep 2009 (n=6). Analysis of this historic single year limited frequency *E. coli* dataset from W2042 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 67 CFU/100ml. Historic *E. coli* data from W2042 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
W2042	MassDEP	Water Quality	Crooked Meadow River	[approximately 50 feet upstream of Route 228 (Main Street), Hingham]	42.214831	-70.884861

Bacteria Data

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

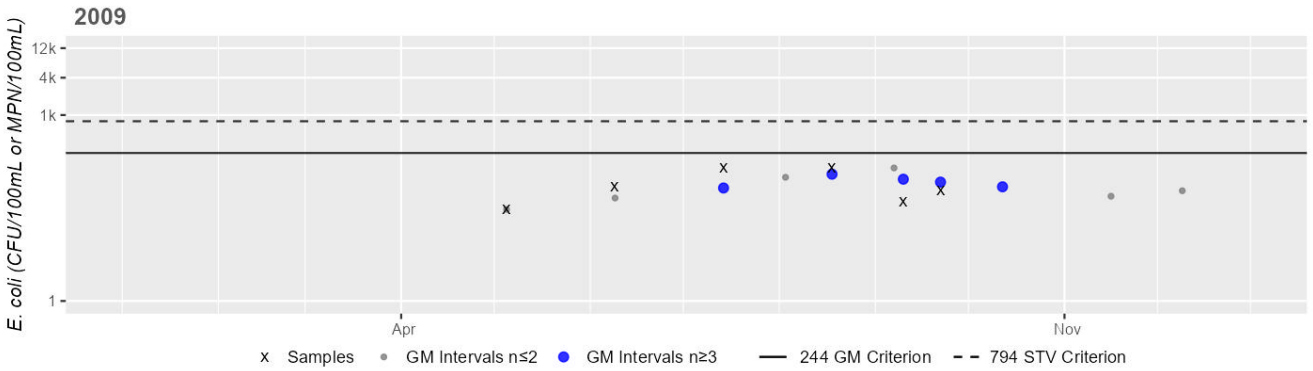
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2042	MassDEP	E. coli	05/05/09	09/22/09	6	30	140	67

Station MASSDEP_W2042 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	67
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

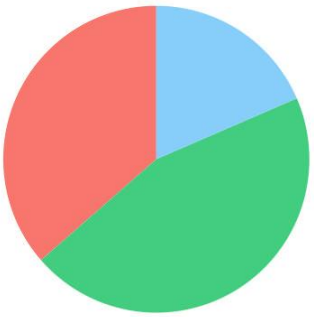
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Eel River (MA74-21)

Location:	Headwaters, east of Route 228, near West Moreland Street, Hingham to mouth at confluence with Plymouth River, Hingham.
AU Type:	RIVER
AU Size:	1.5 MILES
Classification/Qualifier:	B

Eel River (MA74-21)

Watershed Area: 0.79 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	0.79	0.79	0.26	0.26
Agriculture	0%	0%	0%	0%
Developed	36.4%	36.4%	25.7%	25.7%
Natural	45.1%	45.1%	40.6%	40.6%
Wetland	18.5%	18.5%	33.7%	33.7%
Impervious	14.7%	14.7%	13.6%	13.6%

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

Recommendations

2024/26 Recommendations
2024 IR [E. COLI, HIGH] Additional sampling is recommended at {W2040} due to elevated bacteria concentrations in 2/2 samples collected in 2018 (860-980 CFU/100mL).

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 Eel River (MA74-21) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Eel River (MA74-21), so it is assessed as having Insufficient Information. Aesthetic observations were made by MassDEP field sampling crews at the downstream end of the AU at Cushing Street, Hingham (W2039), during the summer of 2018 as part of the SERO MST project (n=2). 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
W2040	MassDEP	Water Quality	Eel River	[Cushing Street, Hingham]	42.202762	-70.897267

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2040	2018	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2040 on Eel River (MA74-21) during 2 site visits in Jul 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2040	2018	2	2	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2040	Eel River	2018	Aquatic Plant Density, Overall	None	2	2
W2040	Eel River	2018	Color	None	2	2
W2040	Eel River	2018	Odor	None	2	2
W2040	Eel River	2018	Periphyton Density, Filamentous	None	2	2
W2040	Eel River	2018	Periphyton Density, Film	None	2	2
W2040	Eel River	2018	Turbidity	Moderately Turbid	1	2
W2040	Eel River	2018	Turbidity	Slightly Turbid	1	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	YES

2024/26 Use Attainment Summary

Too limited bacteria data are available to assess the Primary Contact Recreation Use for the Eel River (MA74-21) and available aesthetics observations for this AU did not result in any impairment, so it is assessed as having Insufficient Information. An Alert is being identified for *Escherichia coli (E. coli)* and additional sampling is recommended for this AU. MassDEP staff collected *E. coli* bacteria samples in the Eel River (MA74-21) at W2040 [Cushing St, Hingham] from Jul 2018 (n=2). The available *E. coli* data at W2040 are too limited to assess according to the 2024 CALM; however, note that samples exceeded the 410 CFU/100ml STV in 2018 (n=2/2). An Alert is being identified for *Escherichia coli* at W2040 due to elevated bacteria concentrations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2040	MassDEP	Water Quality	Eel River	[Cushing Street, Hingham]	42.202762	-70.897267

Bacteria Data

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

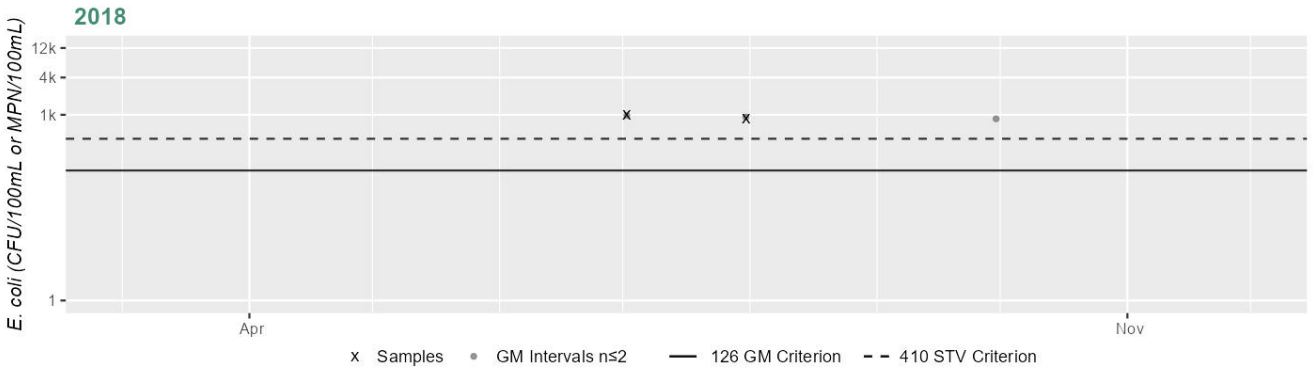
(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2040	MassDEP	E. coli	07/02/18	07/31/18	2	860	980	918

Station MASSDEP_W2040 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	918
#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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	YES

2024/26 Use Attainment Summary

Too limited bacteria data are available to assess the Secondary Contact Recreation Use for the Eel River (MA74-21) and available aesthetics observations for this AU did not result in any impairment, so it is assessed as having Insufficient Information. An Alert is being identified for *Escherichia coli (E. coli)* and additional sampling is recommended for this AU. MassDEP staff collected *E. coli* bacteria samples in the Eel River (MA74-21) at W2040 [Cushing St, Hingham] from Jul 2018 (n=2). The available *E. coli* data at W2040 are too limited to assess according to the 2024 CALM; however, note that samples exceeded the 410 CFU/100ml STV in 2018 (n=2/2). An Alert is being identified for *Escherichia coli* at W2040 due to elevated bacteria concentrations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2040	MassDEP	Water Quality	Eel River	[Cushing Street, Hingham]	42.202762	-70.897267

Bacteria Data

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

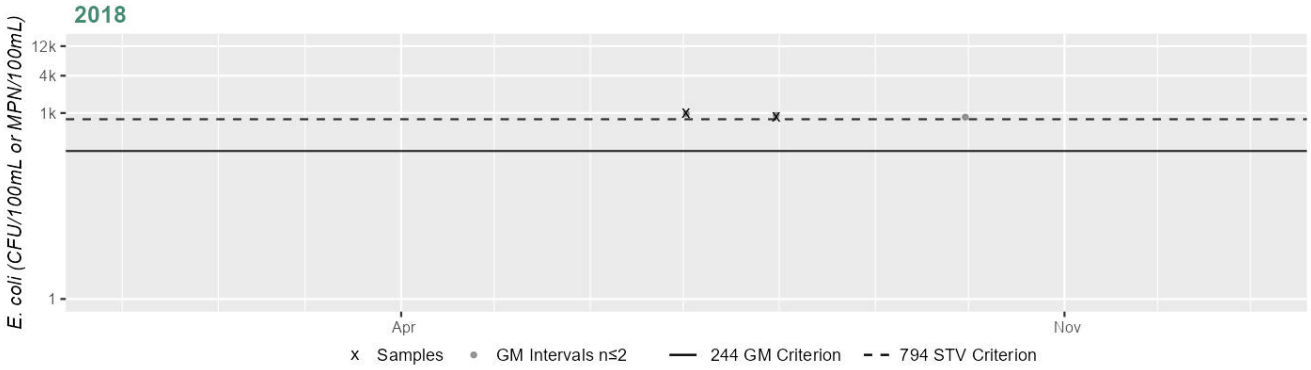
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2040	MassDEP	E. coli	07/02/18	07/31/18	2	860	980	918

Station MASSDEP_W2040 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	918
#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.*

Farm River (MA74-27)

Location:	From Randolph/Braintree border (where name changes from Blue Hill River), to the Braintree Water and Sewer Department public water supply Farm River intake, north of Richardi Reservoir, Braintree (formerly part of 2016 segment: Farm River MA74-07).
AU Type:	RIVER
AU Size:	2.6 MILES
Classification/Qualifier:	A: PWS, ORW

Farm River (MA74-27)

Watershed Area: 12.83 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	12.83	9.28	5.49	3.95
Agriculture	0.6%	0.4%	0.9%	0.6%
Developed	33%	36.6%	23.8%	24.7%
Natural	53.9%	51.5%	52.9%	51.9%
Wetland	12.6%	11.5%	22.5%	22.8%
Impervious	21%	23.4%	15.3%	15.9%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	4a	(Fish Passage Barrier*)	--	Unchanged
5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
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)

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 Farm River (MA74-27) 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 Farm River (MA74-27) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for the Farm River (MA74-27) 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.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for the Farm River (MA74-27) 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 Farm River (MA74-27) at W2053 [~300 ft upstream from Pond St, Braintree] from May-Sep 2009 (n=6). Analysis of this historic single year limited frequency *E. coli* dataset from W2053 indicated 20% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 229 CFU/100ml. Historic *E. coli* data from W2053 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
W2053	MassDEP	Water Quality	Farm River	[approximately 300 feet upstream from Pond Street, Braintree]	42.199185	-71.024048

Bacteria Data

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

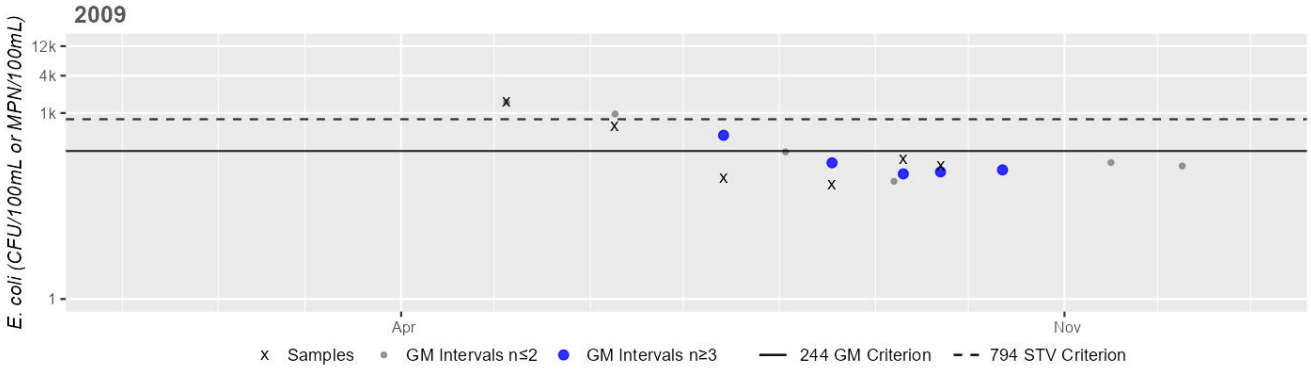
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2053	MassDEP	E. coli	05/05/09	09/22/09	6	70	1500	229

Station MASSDEP_W2053 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	229
#GMI	5
#GMI Ex	1
%GMI Ex	20%
n>STV	1
%n>STV	16%

Cumulative %GMI Exceedance
Historic (1997-2010)
20%

**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.*

Farm River (MA74-28)

Location:	From the Braintree Water and Sewer Department public water supply Farm River intake, north of Richardi Reservoir, Braintree to confluence with Cochato River (forming headwaters of Monatiquot River), Braintree (formerly part of 2016 segment: Farm River MA74-07).
AU Type:	RIVER
AU Size:	0.5 MILES
Classification/Qualifier:	B

Farm River (MA74-28)

Watershed Area: 13.04 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	13.04	8.18	5.58	3.66
Agriculture	0.6%	0.5%	0.9%	0.8%
Developed	33.1%	37%	23.8%	23.4%
Natural	53.6%	50.5%	52.5%	52.6%
Wetland	12.8%	12%	22.8%	23.2%
Impervious	21%	23.3%	15.1%	14.6%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	4a	(Fish Passage Barrier*)	--	Unchanged
5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
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)

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 Farm River (MA74-28) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Farm River (MA74-28), so it is assessed as having Insufficient Information. Aesthetic observations were made by MassDEP field sampling crews towards the downstream end of the AU at the footpath on Braintree Municipal Golf Course, ~300 feet upstream from mouth at confluence with Cochato River (forming headwaters Monatiquot River), Braintree (W2732), during the summer of 2017 as part of the SERO MST project (n=2). 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
W2732	MassDEP	Water Quality	Farm River	[footpath on Braintree Municipal Golf Course, approximately 300 feet upstream from mouth at confluence with Cochato River (forming headwaters Monatiquot River), Braintree]	42.194579	-71.013834

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2732	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2732 on Farm River (MA74-28) during 2 site visits between Jul 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2732	2017	2	1	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2732	Farm River	2017	Aquatic Plant Density, Overall	Moderate	2	2
W2732	Farm River	2017	Color	Light Yellow/Tan	2	2
W2732	Farm River	2017	Odor	None	2	2
W2732	Farm River	2017	Periphyton Density, Filamentous	None	1	2
W2732	Farm River	2017	Periphyton Density, Filamentous	Unobservable	1	2
W2732	Farm River	2017	Periphyton Density, Film	Sparse	1	2
W2732	Farm River	2017	Periphyton Density, Film	Unobservable	1	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2732	Farm River	2017	Turbidity	Moderately Turbid	1	2
W2732	Farm River	2017	Turbidity	Slightly Turbid	1	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Farm River (MA74-28) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward. MassDEP staff collected *E. coli* bacteria samples in the Farm River (MA74-28) at W2732 [footpath on Braintree Municipal Golf Course, ~300 ft upstream from mouth at confluence with Cochato River (forming headwaters Monatiquot River), Braintree] from Jul-Aug 2017 (n=2). *E. coli* data from W2732 are too limited according to the 2024 CALM to assess the Primary Contact Recreation Use.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2732	MassDEP	Water Quality	Farm River	[footpath on Braintree Municipal Golf Course, approximately 300 feet upstream from mouth at confluence with Cochato River (forming headwaters Monatiquot River), Braintree]	42.194579	-71.013834

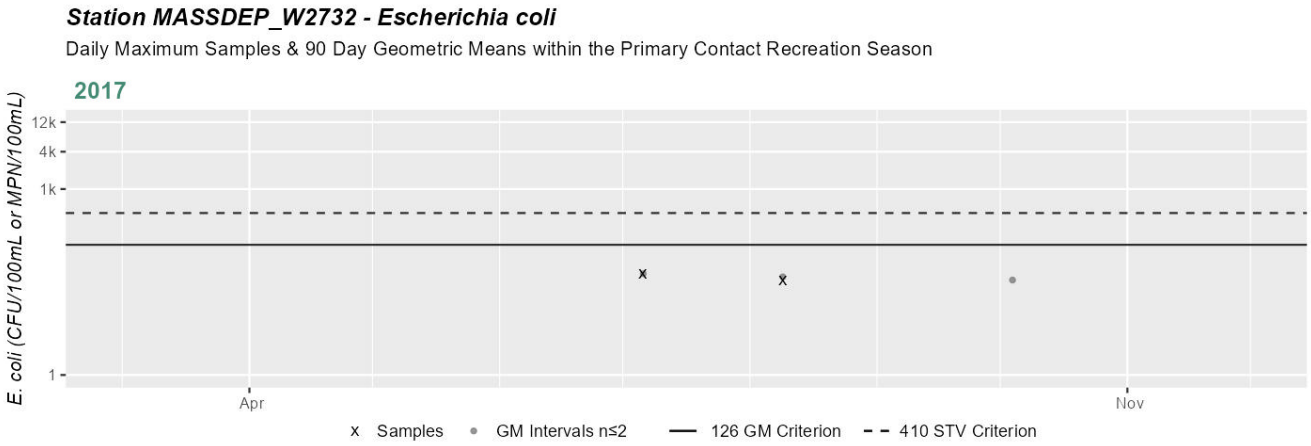
Bacteria Data

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

(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2732	MassDEP	E. coli	07/06/17	08/09/17	2	34	43	38



Variable*	Result
Samples	2
SeasGM	38
#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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Too limited bacteria data are available to assess the Secondary Contact Recreation Use for the Farm River (MA74-28) 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 the Farm River (MA74-28) at W2732 [footpath on Braintree Municipal Golf Course, ~300 ft upstream from mouth at confluence with Cochato River (forming headwaters Monatiquot River), Braintree] from Jul-Aug 2017 (n=2). *E. coli* data from W2732 are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2732	MassDEP	Water Quality	Farm River	[footpath on Braintree Municipal Golf Course, approximately 300 feet upstream from mouth at confluence with Cochato River (forming headwaters Monatiquot River), Braintree]	42.194579	-71.013834

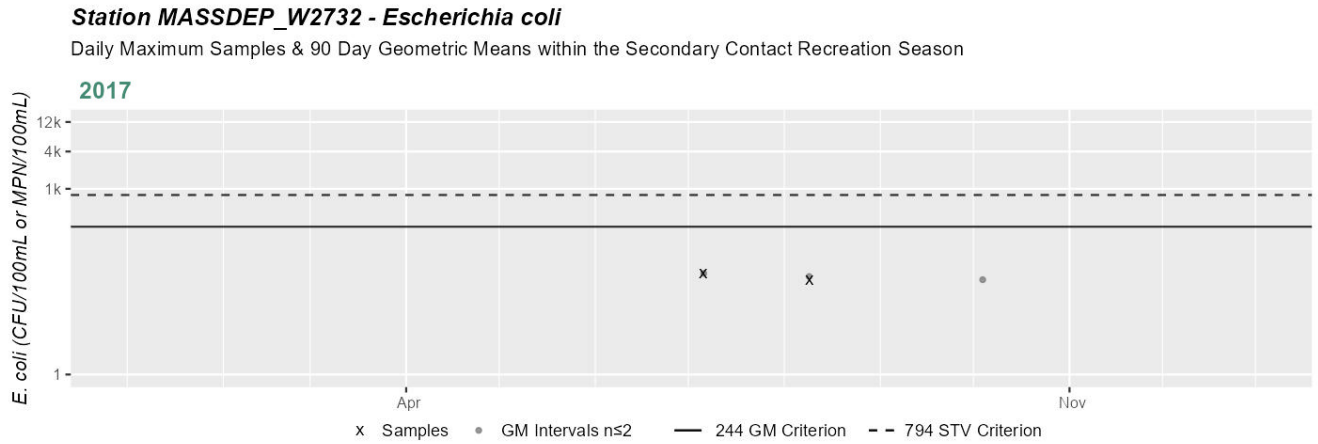
Bacteria Data

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

(MassDEP Undated 8) (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
W2732	MassDEP	E. coli	07/06/17	08/09/17	2	34	43	38



Variable*	Result
Samples	2
SeasGM	38
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

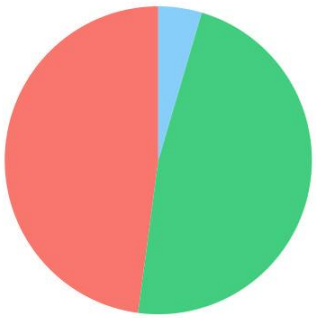
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Furnace Brook (MA74-10)

Location:	From headwaters north of Blue Hills Reservoir, Quincy to confluence with Blacks Creek, Quincy (portions culverted underground).
AU Type:	RIVER
AU Size:	4.2 MILES
Classification/Qualifier:	B

Furnace Brook (MA74-10)

Watershed Area: 3.95 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	3.95	3.95	0.79	0.79
Agriculture	0%	0%	0%	0%
Developed	47.9%	47.9%	34.2%	34.2%
Natural	47.5%	47.5%	55.7%	55.7%
Wetland	4.6%	4.6%	10.1%	10.1%
Impervious	29.1%	29.1%	19.8%	19.8%

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	Impervious Surface/Parking Lot Runoff (Y)	X	--	--	--	--
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Dissolved Oxygen	Unspecified Urban Stormwater (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	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 Furnace Brook (MA74-10) 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 Furnace Brook (MA74-10) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Furnace Brook (MA74-10) 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.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Furnace Brook (MA74-10) 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 W2026. MassDEP staff collected *E. coli* bacteria samples in Furnace Brook (MA74-10) from 2009 at 2 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2026 [Reardon St, Quincy] from May-Sep 2009 (n=6), W2027 [Newport Avenue, Quincy] from May-Sep 2009 (n=6). Analysis of this historic single year limited frequency *E. coli* dataset from W2026 indicated 100% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 250 CFU/100ml. Analysis of this historic single year limited frequency *E. coli* dataset from W2027 indicated 60% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 251 CFU/100ml. While Historic *E. coli* data from W2027 meet 2024 CALM guidance, Historic *E. coli* data from W2026 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2026	MassDEP	Water Quality	Furnace Brook	[Reardon Street, Quincy]	42.247661	-71.028316
W2027	MassDEP	Water Quality	Furnace Brook	[Newport Avenue, Quincy]	42.257109	-71.011008

Bacteria Data

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

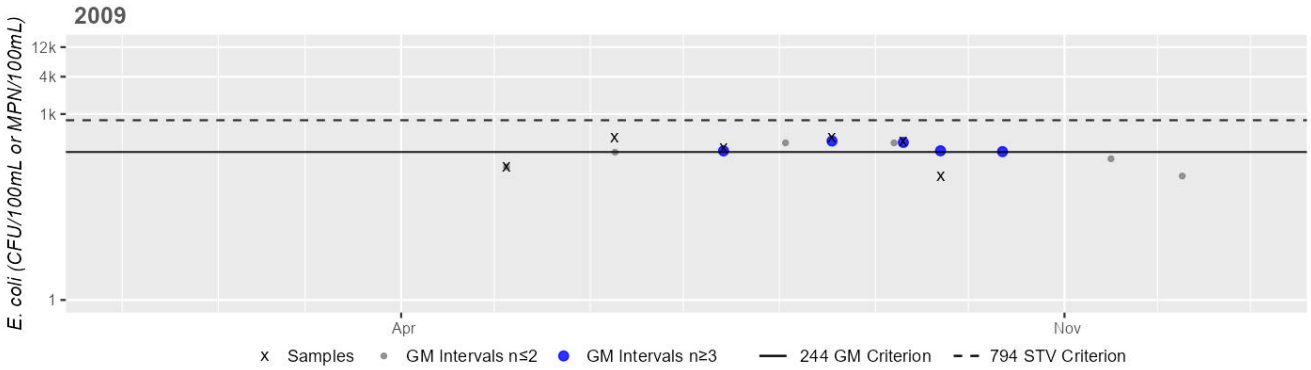
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2026	MassDEP	E. coli	05/05/09	09/22/09	6	100	420	250
W2027	MassDEP	E. coli	05/05/09	09/22/09	6	140	510	251

Station MASSDEP_W2026 - Escherichia coli

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



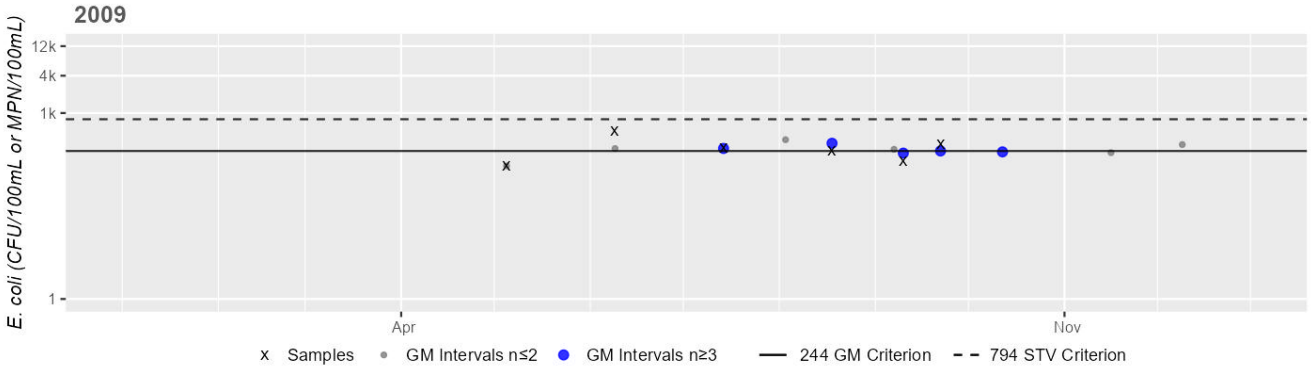
Variable*	Result
Samples	6
SeasGM	250
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	0
%n>STV	0%

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.*

Station MASSDEP_W2027 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	251
#GMI	5
#GMI Ex	3
%GMI Ex	60%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
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.*

Great Pond (MA74012)

Location:	Randolph/Braintree (portion between the Great Pond Upper Reservoir Dam (NATID: MA00823) and outlet at Great Pond Dam (NATID: MA00828), Braintree).
AU Type:	FRESHWATER LAKE
AU Size:	198 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Great Pond (MA74012) 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	(Fish Passage Barrier*)	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
(Fish Passage Barrier*)	Hydrostructure Impacts on Fish Passage (Y)	X	--	--	--	--

Hingham Harbor (MA74-18)

Location:	Hingham Harbor inside a line from Crows Point to Worlds End, Hingham (formerly reported as 2008 segment: Hingham Harbor MA70-08).
AU Type:	ESTUARY
AU Size:	1.12 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	PCBs in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Cause Unknown [Contaminants in Fish and/or Shellfish]	Source Unknown (N)	--	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	--	X	--
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--
PCBs in Fish Tissue	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: Pathogen TMDL for the Boston Harbor, Weymouth-Weir, and Mystic Watersheds (Report CN 157.1, approved 11/21/2018, ATTAINS Action ID: R1_MA_2019_01)

Recommendations

2024/26 Recommendations
2024 IR [ENTEROCOCCUS, MEDIUM] Additional sampling is recommended at {CCSCR_Waltons Cove} due to elevated bacteria concentrations in 2020 (721 CFU/100mL).

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary
The Fish Consumption Use for Hingham Harbor (MA74-18) continues to be assessed as Not Supporting and the prior PCBs in Fish Tissue and Cause Unknown [Contaminants in Fish and/or Shellfish] impairment is being carried forward. DPH included a site-specific advisory for Hingham Harbor (referred to by MDPH as ''Boston Harbor'') in their 2017 Guide to Eating Fish Safely in Massachusetts. The public should refer to the most recent DPH information for the most up to date meal advice for sensitive and general populations.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Hingham Harbor (MA74-18): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 1.1023 sq mi (99%). 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 6)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH7.0	Weir River and Hingham Harbor	Prohibited	0.47831	42.8%
GBH7.10	Hingham Harbor West	Conditionally Restricted	0.34323	30.7%
GBH7.12	Langlee, Ragged, Sarah Islands	Prohibited	0.10526	9.4%
GBH7.8	Hingham Harbor East	Conditionally Restricted	0.14690	13.2%
GBH7.9	Hingham Bathing Beach	Prohibited	0.02858	2.6%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Hingham Harbor (MA74-18) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for Hingham Harbor (MA74-18) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward. Hingham Harbor (MA74-18) has 4 beaches with DPH Beach Closure data: Seal Cove [Beach ID: 2903], Hingham Town Beach [Beach ID: 2902], Martin's Cove [Beach ID: 5507] and Yacht Club [Beach ID: 5222] beaches in Hingham. All beaches were rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (1.1023 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 Hingham Harbor (MA74-18) based on shellfish classification data. CCSCR staff/volunteers collected *Enterococcus* bacteria samples in Hingham Harbor (MA74-18) from 2020 at 4 stations. Samples were collected from the following stations/sample years: CCSCR_Hingham Sailing Club [dockside] from Jun-Aug 2020 (n=7), CCSCR_Hingham Yacht Club [shoreline] from Jun-Sep 2020 (n=14), CCSCR_Optometrists House [Shoreline] from Jun-Sep 2020 (n=14), CCSCR_Waltons Cove [Shoreline] from Jun-Aug 2020 (n=2). Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_Hingham Sailing Club indicated 0% of intervals had GMs >35 CFU/100ml and no samples exceeded the 130 CFU/100ml STV. Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_Hingham Yacht Club indicated 4% of intervals had GMs >35 CFU/100ml and 1 sample exceeded the 130 CFU/100ml STV. Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_Optometrists House indicated 37% of intervals had GMs >35 CFU/100ml and 1 sample exceeded the 130 CFU/100ml STV. The available *Enterococcus* data at CCSCR_Waltons Cove are too limited to assess according to the 2024 CALM. Note that samples exceeded the 130 CFU/100ml STV in 2020 (n=1). *Enterococcus* data from CCSCR_Hingham Sailing Club, CCSCR_Hingham Yacht Club, and CCSCR_Optometrists House meet 2024 CALM guidance. An Alert is being identified for *Enterococcus* at CCSCR_Waltons Cove.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Hingham Sailing Club	Cohasset Center for Student Coastal Research	Water Quality	Hingham	dockside	42.247495	-70.881538
CCSCR_Hingham Yacht Club	Cohasset Center for Student Coastal Research	Water Quality	Hingham	shoreline	42.262472	-70.892845
CCSCR_Optometrists House	Cohasset Center for Student Coastal Research	Water Quality	Hingham	Shoreline	42.251049	-70.891602
CCSCR_Waltons Cove	Cohasset Center for Student Coastal Research	Water Quality	Hingham	Shoreline	42.257337	-70.898211

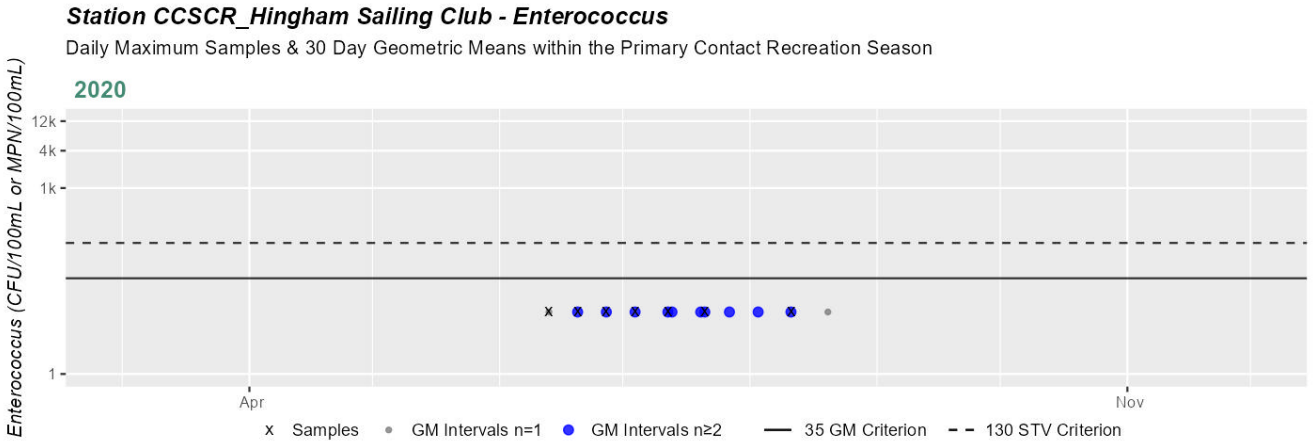
Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (30-day Interval Analysis)

(CCSCR 2020) (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
CCSCR_Hingham Sailing Club	Cohasset Center for Student Coastal Research	Enterococcus	06/12/20	08/10/20	7	10	10	10
CCSCR_Hingham Yacht Club	Cohasset Center for Student Coastal Research	Enterococcus	06/06/20	09/11/20	14	10	171	16
CCSCR_Optometrists House	Cohasset Center for Student Coastal Research	Enterococcus	06/06/20	09/11/20	14	10	3441	28
CCSCR_Waltons Cove	Cohasset Center for Student Coastal Research	Enterococcus	06/06/20	08/15/20	2	31	721	149



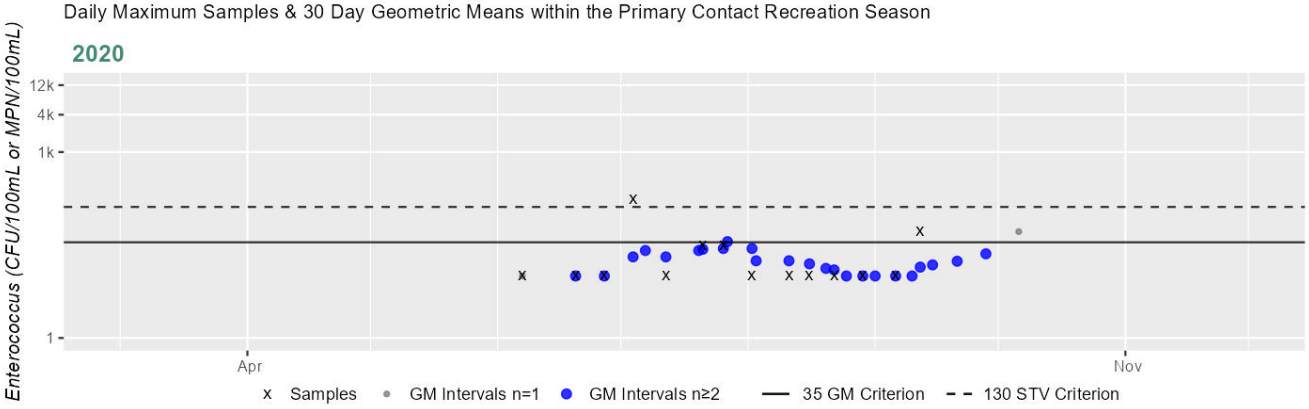
Variable*	Result
Samples	7
SeasGM	10
#GMI	10
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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 CCSCR_Hingham Yacht Club - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



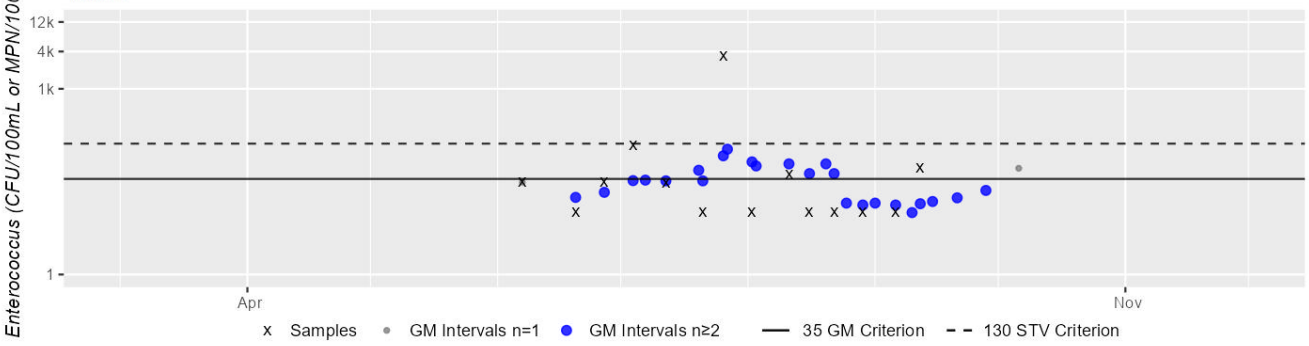
Variable*	Result
Samples	14
SeasGM	16
#GMI	24
#GMI Ex	1
%GMI Ex	4%
n>STV	1
%n>STV	7%

Cumulative %GMI Exceedance
Current (2011-2022)
4%

**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 CCSCR_Optometrists House - Enterococcus

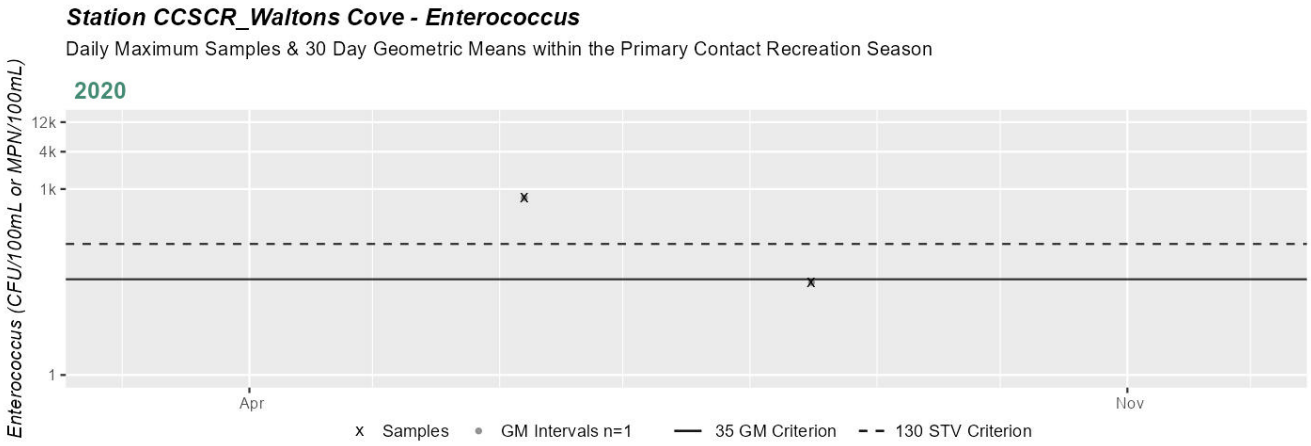
Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	14
SeasGM	28
#GMI	24
#GMI Ex	9
%GMI Ex	37%
n>STV	1
%n>STV	7%

Cumulative %GMI Exceedance
Current (2011-2022)
37%

**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.*



Variable*	Result
Samples	2
SeasGM	149
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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.*

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 3)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
2902	Hingham Town Beach/ Hingham	42.24851, -70.88880	42.24624, -70.88610	0%	1%	0%	1%	0%	0%	0%	0%	2%	0
2903	Seal Cove/ Hingham	42.25257, -70.87590	42.25266, -70.87610	5%	12%	0%	0%	1%	0%	2%	0%	1%	1
5222	Yacht Club/ Hingham	42.26160, -70.89340	42.26230, -70.89300	0%	1%	0%	0%	0%	0%	0%	0%	0%	0
5507	Martin's Cove/ Hingham	42.25466, -70.87610	42.25478, -70.87600	0%	2%	0%	6%	0%	1%	0%	0%	0%	0

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Hingham Harbor (MA74-18): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 1.1023 sq mi (99%). 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	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Hingham Harbor (MA74-18) is assessed as Fully Supporting. Hingham Harbor (MA74-18) has 4 beaches with DPH Beach Closure data: Seal Cove [Beach ID: 2903], Hingham Town Beach [Beach ID: 2902], Martin's Cove [Beach ID: 5507] and Yacht Club [Beach ID: 5222] beaches in Hingham. All beaches were rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (1.1023 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 Hingham Harbor (MA74-18) based on shellfish classification data. CCSCR staff/volunteers collected *Enterococcus* bacteria samples in Hingham Harbor (MA74-18) from 2020 at 4 stations. Samples were collected from the following stations/sample years: CCSCR_Hingham Sailing Club [dockside] from Jun-Aug 2020 (n=7), CCSCR_Hingham Yacht Club [shoreline] from Jun-Sep 2020 (n=14), CCSCR_Optometrists House [Shoreline] from Jun-Sep 2020 (n=14), CCSCR_Waltons Cove [Shoreline] from Jun-Aug 2020 (n=2). Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_Hingham Sailing Club indicated 0% of intervals had GMs >68 CFU/100ml and no samples exceeded the 252 CFU/100ml STV. Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_Hingham Yacht Club indicated 0% of intervals had GMs >68 CFU/100ml and no samples exceeded the 252 CFU/100ml STV. Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_Optometrists House indicated 0% of intervals had GMs >68 CFU/100ml and 1 sample exceeded the 252 CFU/100ml STV. The available *Enterococcus* data at CCSCR_Waltons Cove are too limited to assess according to the 2024 CALM. Note that samples exceeded the 252 CFU/100ml STV in 2020 (n=1). *Enterococcus* data from CCSCR_Hingham Sailing Club, CCSCR_Hingham Yacht Club, and CCSCR_Optometrists House meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Hingham Sailing Club	Cohasset Center for Student Coastal Research	Water Quality	Hingham	dockside	42.247495	-70.881538
CCSCR_Hingham Yacht Club	Cohasset Center for Student Coastal Research	Water Quality	Hingham	shoreline	42.262472	-70.892845
CCSCR_Optometrists House	Cohasset Center for Student Coastal Research	Water Quality	Hingham	Shoreline	42.251049	-70.891602
CCSCR_Waltons Cove	Cohasset Center for Student Coastal Research	Water Quality	Hingham	Shoreline	42.257337	-70.898211

Bacteria Data

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

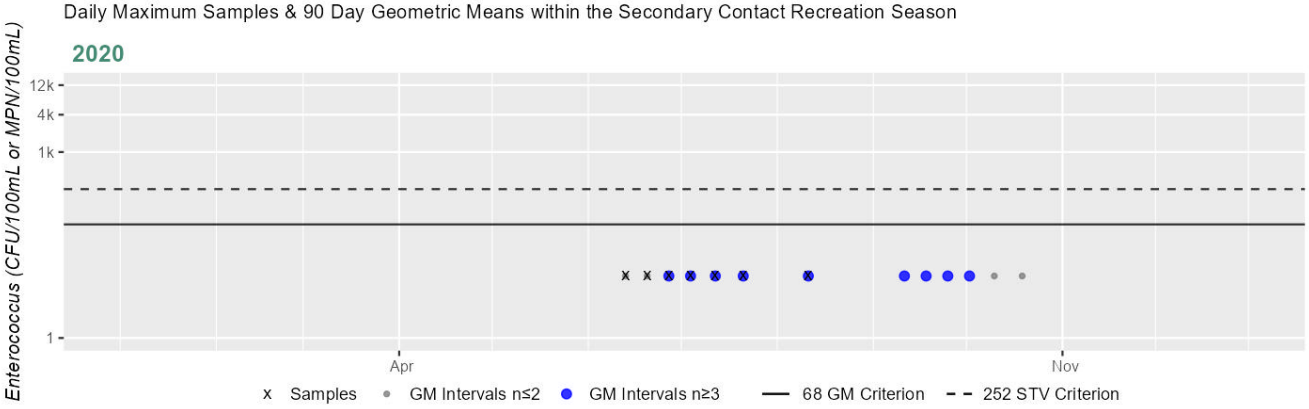
(CCSCR 2020) (MassDEP Undated 2)

[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
CCSCR_Hingham Sailing Club	Cohasset Center for Student Coastal Research	Enterococci	06/12/20	08/10/20	7	10	10	10
CCSCR_Hingham Yacht Club	Cohasset Center for Student Coastal Research	Enterococci	06/06/20	09/11/20	14	10	171	16
CCSCR_Optometrists House	Cohasset Center for Student Coastal Research	Enterococci	06/06/20	09/11/20	14	10	3441	28
CCSCR_Waltons Cove	Cohasset Center for Student Coastal Research	Enterococci	06/06/20	08/15/20	2	31	721	149

Station CCSCR_Hingham Sailing Club - Enterococcus

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



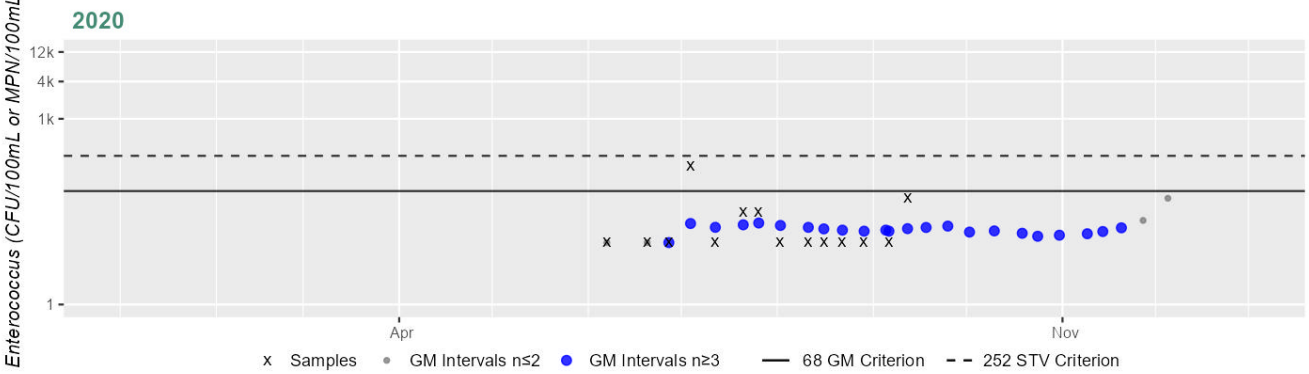
Variable*	Result
Samples	7
SeasGM	10
#GMI	9
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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 CCSCR_Hingham Yacht Club - Enterococcus

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



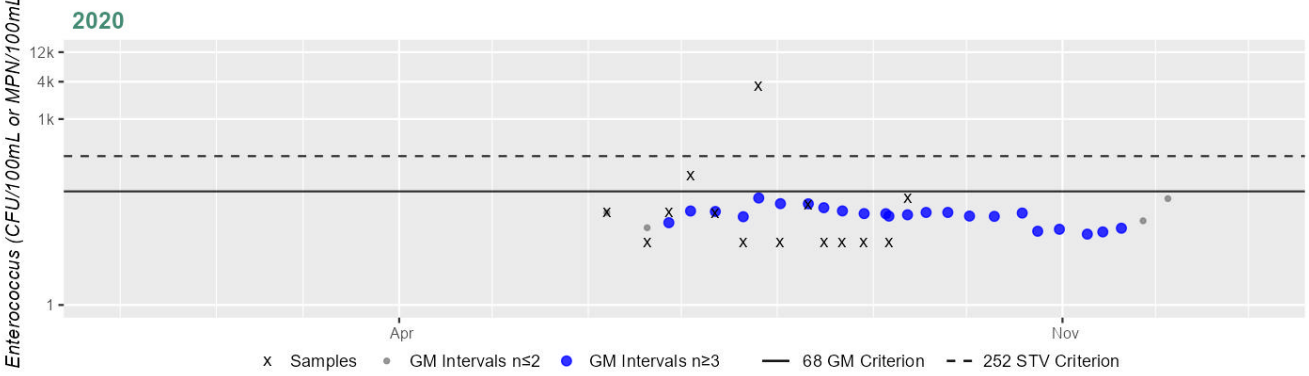
Variable*	Result
Samples	14
SeasGM	16
#GMI	23
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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 CCSCR_Optometrists House - Enterococcus

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



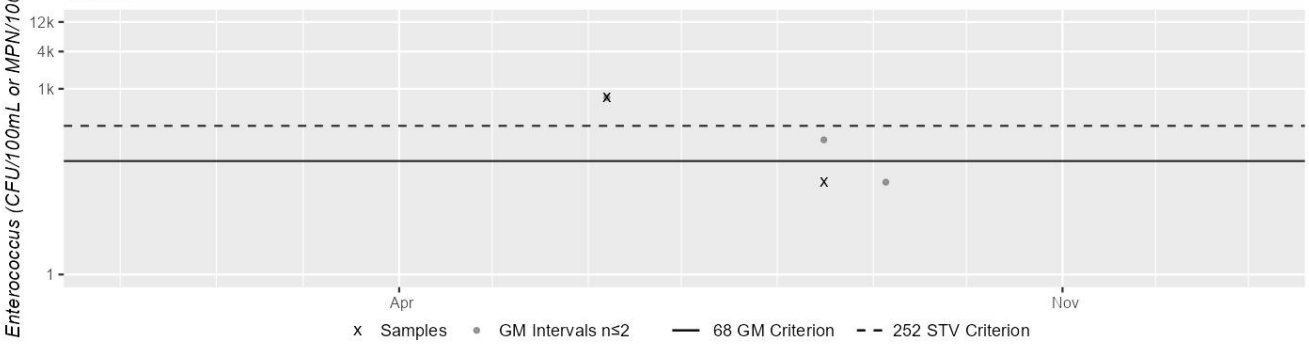
Variable*	Result
Samples	14
SeasGM	28
#GMI	23
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	7%

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 CCSCR_Waltons Cove - Enterococcus

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



Variable*	Result
Samples	2
SeasGM	149
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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 6)

Summary
Hingham Harbor (MA74-18): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 1.1023 sq mi (99%). 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.

Hoosicwhisick Pond (MA74015)

Location:	Milton.
AU Type:	FRESHWATER LAKE
AU Size:	23 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
2	5	PFAS in Fish Tissue	--	Added

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

Recommendations

2024/26 Recommendations
2024 IR [ENTEROCOCCUS, LOW] Additional monitoring is recommended since the beach at Houghton's Pond @ Bathhouse (DCR) was posted for >10% of the swimming season in 2019 (13%).

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	No

2024/26 Use Attainment Summary

The Fish Consumption Use for Hoosicwhisick Pond (MA74015) is assessed as Not Supporting with a new impairment being added for PFAS in Fish Tissue. Fish toxics sampling was conducted at Hoosicwhisick Pond (MA74015) in Milton as part of a June 2022 MDPH study assessing 40 PFAS analytes in fish tissue samples collected from lakes and ponds in state parks. DPH issued a site-specific advisory for PFAS in Hoosicwhisick Pond (referred to by MDPH as ''Houghton's Pond'') in their February 2023 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 PFAS has been identified at this time.

Fish Consumption Advisories

Summary of Fish Toxics Sampling and Resulting Fish Consumption Advisories (MA DPH 2025) (MA DPH 2023b)

Summary Statement
Fish toxics sampling was conducted at Hoosicwhisick Pond (MA74015) in Milton as part of a June 2022 MDPH study assessing 40 PFAS analytes in fish tissue samples collected from lakes and ponds in state parks. Because of elevated PFAS measured in fish filets, MDPH issued site-specific fish consumption advisories for Hoosicwhisick Pond (referred to by MDPH as Houghton's Pond) in their February 2023 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 PFAS in Fish Tissue for Hoosicwhisick Pond (MA74015).

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Hoosicwhisick Pond (MA74015) 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 Hoosicwhisick Pond (MA74015) continues to be assessed as Fully Supporting. Surface water sampling was conducted at Houghton's Pond Beach on Hoosicwhisick Pond (MA74015, called Houghton's Pond by MDPH) in Milton as part of a May 2022 MDPH study assessing 40 PFAS analytes in surface water and fish tissue samples collected from waterbodies in state parks. The average concentrations of the seven analytes with individual toxicity criteria (PFOA, PFOS, PFNA, PFHxS, PFBA, PFBS, HFPO-DA/GenX) were all less than the 90 ng/L (ppt) recreational screening value (maximum average 0.24 ng/L PFOA and PFOS). Hoosicwhisick Pond (MA74015) has a beach with DPH Beach Closure data: Houghton's Pond @ Bathhouse (DCR) [Beach ID: 4732] beach in Milton. The beach was rarely, if at all, posted for swimming from 2018-2022. An Alert for *Enterococcus* is being identified since Houghton's Pond @ Bathhouse (DCR) was posted for >10% of the swimming season in 2019 (13%).

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 3)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
4732	Houghton's Pond @ Bathhouse (DCR)/ Milton	42.20815, -71.09690	42.20734, -71.09350	0%	0%	1%	32%	4%	13%	1%	9%	3%	2

Other Indicators

Summary of MDPH 2021 and 2022 PFAS in Water Column Data

Data Sources: (MA DPH 2023a, MA DPH 2023b)

Surface water sampling was conducted at Houghton's Pond Beach on Hoosicwhisick Pond (MA74015, called Houghton's Pond by MDPH) in Milton as part of a May 2022 MDPH study assessing 40 PFAS analytes in surface water and fish tissue samples collected from waterbodies in state parks. The average concentrations of the seven analytes with individual toxicity criteria (PFOA, PFOS, PFNA, PFHxS, PFBA, PFBS, HFPO-DA/GenX) were all less than the 90 ng/L (ppt) recreational screening value (maximum average 0.24 ng/L PFOA and PFOS).

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for Hoosicwhisick Pond (MA74015) continues to be assessed as Fully Supporting. Hoosicwhisick Pond (MA74015) has a beach with DPH Beach Closure data: Houghton's Pond @ Bathhouse (DCR) [Beach ID: 4732] beach in Milton. The beach was rarely, if at all, posted for swimming from 2018-2022.

Lake Holbrook (MA74013)

Location:	Holbrook.
AU Type:	FRESHWATER LAKE
AU Size:	31 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Nutrient/Eutrophication Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	X	X	X
Nutrient/Eutrophication Biological Indicators	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Source Unknown (N)	--	--	X	X	X

Recommendations

2024/26 Recommendations
2024 IR [HARMFUL ALGAL BLOOMS, MEDIUM] Follow-up monitoring should be conducted in Lake Holbrook (MA74013) 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.

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 Lake Holbrook (MA74013) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary
The Aesthetics Use for Lake Holbrook (MA74013) continues to be assessed as Not Supporting with the prior Nutrient/Eutrophication Biological Indicators impairment being carried forward. An Alert is being identified for Harmful Algal Blooms in this waterbody since C-HAB postings (blooms of >15 days in duration) were reported to MDPH for 2019 and 2022. During the period 2015 through 2022, C-HAB postings for Lake Holbrook were reported to MDPH based on visual observations for 28 days in 2019 and 53 days in 2022 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. However, an Alert is being identified for Harmful Algal Blooms and a recommendation for follow-up sampling will be made.

Algal Bloom Information

Cyanobacteria Harmful Algal Bloom (C-HAB) Summary Statements for 2015-2022 MDPH Data (Bailey, Logan April 26, 2023) (MassDEP Undated 2)

C-HAB Summary Statement
During the period 2015 through 2022, C-HAB postings for Lake Holbrook (MA74013) were reported to MDPH based on visual observations for 28 days in 2019 and 53 days in 2022. 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. However, an Alert is being identified for C-HABs in this waterbody and a recommendation for follow-up sampling will be made.

Cyanobacteria Harmful Algal Bloom (C-HAB) Data (2015-2022) Provided by MDPH (Bailey, Logan April 26, 2023) (MassDEP Undated 2)

[* 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
Lake Holbrook	Holbrook					28			53

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Lake Holbrook (MA74013) continues to be assessed as Not Supporting. The prior Nutrient/Eutrophication Biological Indicators impairment (from the Aesthetics Use) is being carried forward. An Alert is being identified for Harmful Algal Bloom and additional sampling is recommended for this AU. During the period 2015 through 2022, C-HAB postings for Lake Holbrook (MA74013) were reported to MDPH based on visual observations for 28 days in 2019 and 53 days in 2022. 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. However, a Harmful Algal Bloom Alert is being identified for this waterbody and a recommendation for follow-up sampling will be made.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	YES

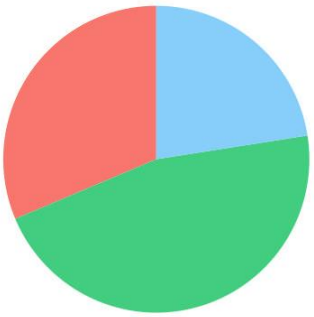
2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for Lake Holbrook (MA74013) continues to be assessed as Not Supporting. The prior Nutrient/Eutrophication Biological Indicators impairment (from the Aesthetics Use) is being carried forward. An Alert is being identified for Harmful Algal Bloom and additional sampling is recommended for this AU. During the period 2015 through 2022, C-HAB postings for Lake Holbrook (MA74013) were reported to MDPH based on visual observations for 28 days in 2019 and 53 days in 2022. 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. However, a Harmful Algal Bloom Alert is being identified for this waterbody and a recommendation for follow-up sampling will be made.

Mary Lee Brook (MA74-23)

Location:	Headwaters, north of West High Street, Avon to mouth at confluence with Cochato River, Randolph.
AU Type:	RIVER
AU Size:	2.7 MILES
Classification/Qualifier:	B

Mary Lee Brook (MA74-23)

Watershed Area: 1.40 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.40	1.40	0.54	0.54
Agriculture	0%	0%	0%	0%
Developed	31.4%	31.4%	29.8%	29.8%
Natural	46.1%	46.1%	44%	44%
Wetland	22.5%	22.5%	26.2%	26.2%
Impervious	17.5%	17.5%	15.6%	15.6%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	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 Mary Lee Brook (MA74-23) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Mary Lee Brook (MA74-23), so it is assessed as having Insufficient Information. Aesthetic observations were made by MassDEP field sampling crews towards the downstream end of the AU at Mill Street, Randolph (W2730), during the summer of 2017 as part of the SERO MST project (n=2). 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
W2730	MassDEP	Water Quality	Mary Lee Brook	[Mill Street, Randolph]	42.160987	-71.028873

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2730	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2730 on Mary Lee Brook (MA74-23) during 2 site visits between Jul 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2730	2017	2	2	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2730	Mary Lee Brook	2017	Aquatic Plant Density, Overall	None	2	2
W2730	Mary Lee Brook	2017	Color	Light Yellow/Tan	2	2
W2730	Mary Lee Brook	2017	Odor	None	2	2
W2730	Mary Lee Brook	2017	Periphyton Density, Filamentous	None	2	2
W2730	Mary Lee Brook	2017	Periphyton Density, Film	None	2	2
W2730	Mary Lee Brook	2017	Turbidity	Moderately Turbid	2	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for Mary Lee Brook (MA74-23) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward. MassDEP staff collected *E. coli* bacteria samples in Mary Lee Brook (MA74-23) at W2730 [Mill St, Randolph] from Jul-Aug 2017 (n=2). The available *E. coli* data at W2730 are too limited to assess according to the 2024 CALM. Note that one sample exceeded the 410 CFU/100ml STV in 2017.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2730	MassDEP	Water Quality	Mary Lee Brook	[Mill Street, Randolph]	42.160987	-71.028873

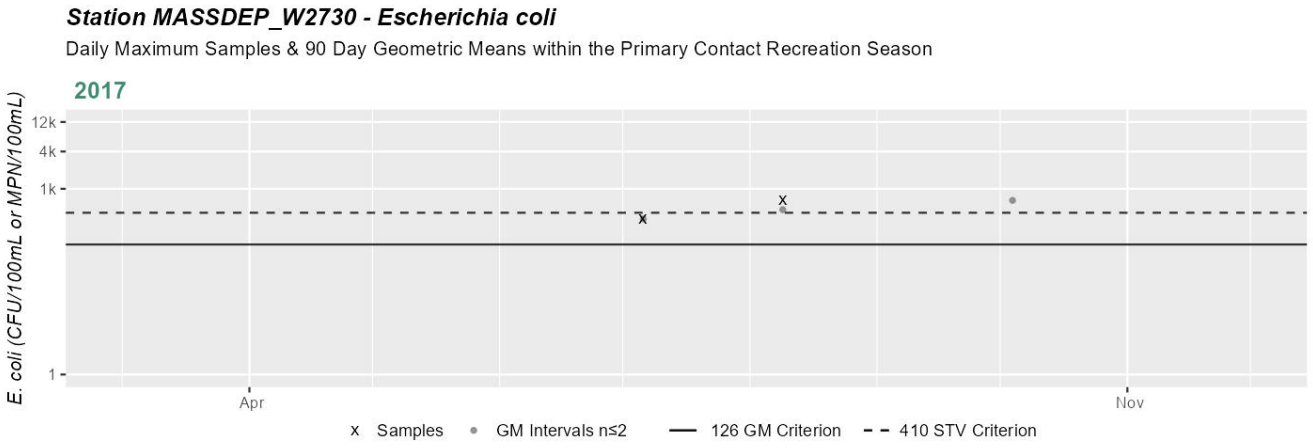
Bacteria Data

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

(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2730	MassDEP	E. coli	07/06/17	08/09/17	2	326	649	459



Variable*	Result
Samples	2
SeasGM	459
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for Mary Lee Brook (MA74-23) 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 W2050. MassDEP staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in Mary Lee Brook (MA74-23) from 2009-2017 at 2 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2050 [footbridge crossing of the western end of Joyce Circle, Randolph] from May-Sep 2009 (n=6), W2730 [Mill St, Randolph] from Jul-Aug 2017 (n=2). Analysis of this historic single year limited frequency *E. coli* dataset from W2050 indicated 100% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 443 CFU/100ml. *E. coli* data from W2730 are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use. Historic *E. coli* data from W2050 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2050	MassDEP	Water Quality	Mary Lee Brook	[footbridge crossing of the western end of Joyce Circle, Randolph]	42.151283	-71.040455
W2730	MassDEP	Water Quality	Mary Lee Brook	[Mill Street, Randolph]	42.160987	-71.028873

Bacteria Data

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

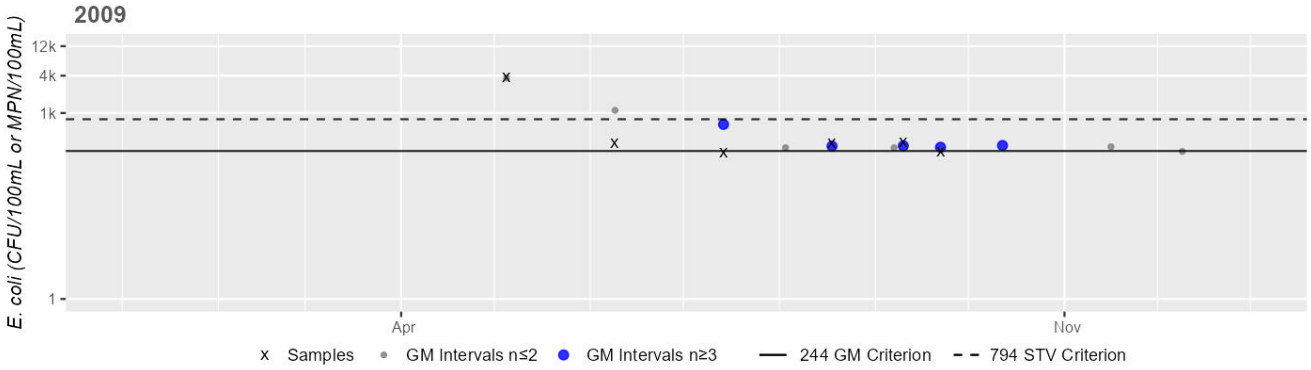
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2050	MassDEP	E. coli	05/05/09	09/22/09	6	230	3700	443
W2730	MassDEP	E. coli	07/06/17	08/09/17	2	326	649	459

Station MASSDEP_W2050 - Escherichia coli

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



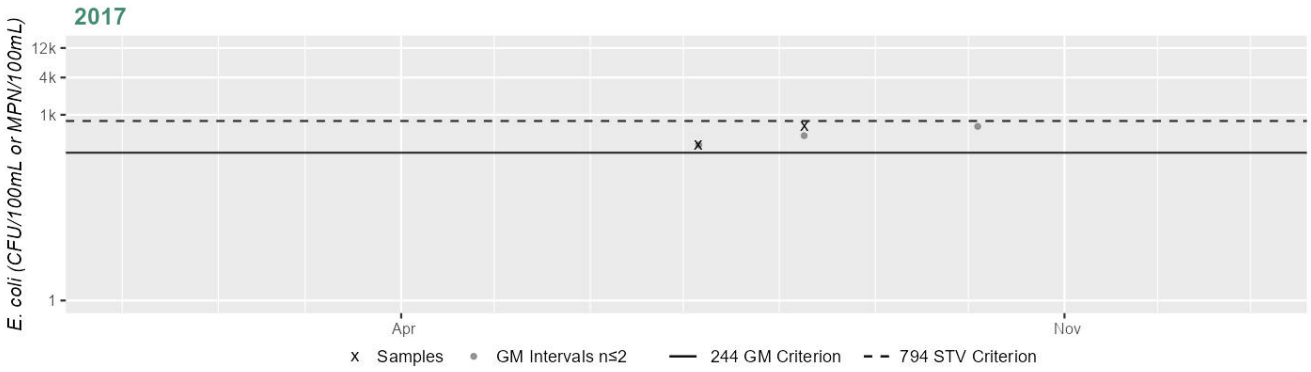
Variable*	Result
Samples	6
SeasGM	443
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	1
%n>STV	16%

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.*

Station MASSDEP_W2730 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	459
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

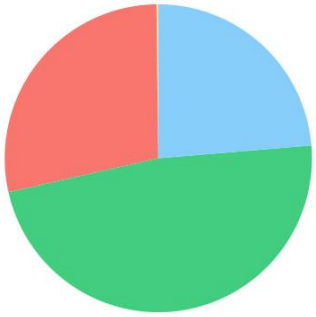
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Mill River (MA74-04)

Location:	Headwaters, west of Route 18 and south of Randolph Street, Weymouth to mouth at inlet Whitmans Pond, Weymouth (portions culverted underground).
AU Type:	RIVER
AU Size:	3.4 MILES
Classification/Qualifier:	A: PWS, ORW (Tributary)

Mill River (MA74-04)

Watershed Area: 6.35 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	6.35	3.84	3.37	1.76
Agriculture	0.2%	0.3%	0%	0%
Developed	28.4%	39%	16.3%	26%
Natural	47.8%	41.2%	51.5%	42.8%
Wetland	23.7%	19.4%	32.2%	31.2%
Impervious	17.6%	25.3%	9.7%	16.1%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4a	4a	(Fish Passage Barrier*)	--	Unchanged
4a	4a	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
4a	4a	Fecal Coliform	R1_MA_2019_01	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	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 Mill River (MA74-04) 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 Mill River (MA74-04) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for the Mill River (MA74-04) 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.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreation Use for the Mill River (MA74-04) 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 W2048 and W2047. MassDEP staff collected *E. coli* bacteria samples in the Mill River (MA74-04) from 2009 at 2 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2048 [W St, Weymouth] from May-Sep 2009 (n=6), W2047 [Front St (upstream of the outfall downstream of the bridge), Weymouth] from May-Sep 2009 (n=6). Analysis of this historic single year limited frequency *E. coli* dataset from W2048 indicated 100% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 481 CFU/100ml. Analysis of this historic single year limited frequency *E. coli* dataset from W2047 indicated 100% of intervals had GMs >244 CFU/100ml, 3 samples exceeded the 794 CFU/100ml STV, and the overall GM was 548 CFU/100ml. Historic *E. coli* data from W2048 and W2047 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2047	MassDEP	Water Quality	Mill River	[Front Street (upstream of the outfall downstream of the bridge), Weymouth]	42.193245	-70.959316
W2048	MassDEP	Water Quality	Mill River	[West Street, Weymouth]	42.187904	-70.962267

Bacteria Data

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

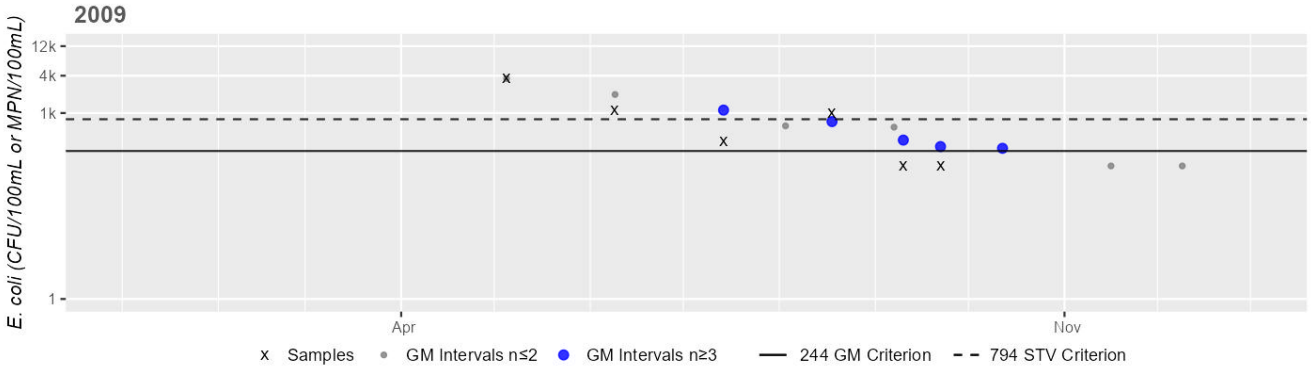
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2047	MassDEP	E. coli	05/05/09	09/22/09	6	140	3600	548
W2048	MassDEP	E. coli	05/05/09	09/22/09	6	190	2000	481

Station MASSDEP_W2047 - Escherichia coli

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



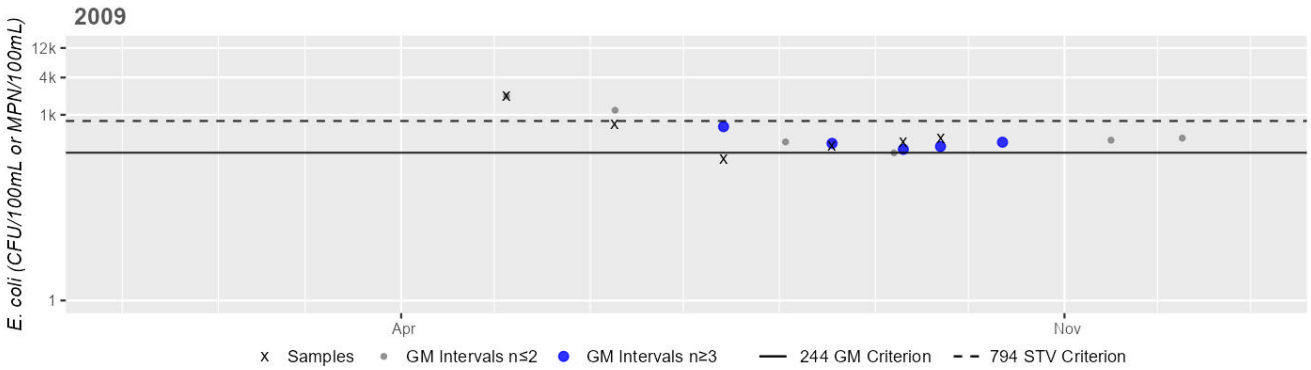
Variable*	Result
Samples	6
SeasGM	548
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	3
%n>STV	50%

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.*

Station MASSDEP_W2048 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	481
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	1
%n>STV	16%

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.*

Monatiquot River (MA74-32)

Location:	Headwaters at confluence Cochato and Farm rivers, Braintree to salt water portion southwest of the Adams and Commercial streets intersection, Braintree (formerly a portion of 2022 segment: Monatiquot River MA74-08).
AU Type:	RIVER
AU Size:	3.7 MILES
Classification/Qualifier:	B

Monatiquot River (MA74-32)

Watershed Area: 28.01 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	28.01	6.78	9.53	2.14
Agriculture	0.3%	0%	0.6%	0%
Developed	36.8%	47%	24.9%	31.7%
Natural	47.5%	36.4%	47.7%	37.5%
Wetland	15.4%	16.6%	26.8%	30.7%
Impervious	21.8%	29%	14.7%	18.8%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
--	5	(Curly-leaf Pondweed*)	--	Unchanged
--	5	(Fish Passage Barrier*)	--	Unchanged
--	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
--	5	Benthic Macroinvertebrates	--	Unchanged
--	5	Dissolved Oxygen	--	Unchanged
--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
--	5	Fecal Coliform	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Curly-leaf Pondweed*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
(Fish Passage Barrier*)	Hydrostructure Impacts on Fish Passage (Y)	X	--	--	--	--
(Physical Substrate Habitat Alterations*)	Channelization (Y)	X	--	--	--	--
(Physical Substrate Habitat Alterations*)	Source Unknown (N)	X	--	--	--	--
Benthic Macroinvertebrates	Channelization (Y)	X	--	--	--	--
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Unspecified Urban Stormwater (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	--
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--
Fecal Coliform	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 Monatiquot River (MA74-32) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Monatiquot River (MA74-32), so it is assessed as having Insufficient Information. Of note, this AU previously constituted the upper section of the former 2022 segment "Monatiquot River MA74-08". MassDEP staff recorded aesthetics observations as part of the SERO-BST project in summer 2017 at the upstream end of the AU, at the northern most footpath on the Braintree Municipal Golf Course, west of Jefferson Street, Braintree (W2733, n=2). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at any time.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2733	MassDEP	Water Quality	Monatiquot River	[northern most footpath on the Braintree Municipal Golf Course, west of Jefferson Street, Braintree]	42.198723	-71.010776

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2733	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2733 on Monatiquot River (MA74-32) during 2 site visits between Jul 2017 and Aug 2017. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2733	2017	2	1	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2733	Monatiquot River	2017	Aquatic Plant Density, Overall	Moderate	2	2
W2733	Monatiquot River	2017	Color	Light Yellow/Tan	2	2
W2733	Monatiquot River	2017	Odor	None	2	2
W2733	Monatiquot River	2017	Periphyton Density, Filamentous	None	1	2
W2733	Monatiquot River	2017	Periphyton Density, Filamentous	Unobservable	1	2
W2733	Monatiquot River	2017	Periphyton Density, Film	Sparse	1	2
W2733	Monatiquot River	2017	Periphyton Density, Film	Unobservable	1	2
W2733	Monatiquot River	2017	Turbidity	Moderately Turbid	1	2
W2733	Monatiquot River	2017	Turbidity	Slightly Turbid	1	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Monatiquot River (MA74-32) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward from the former 2022 Monatiquot AU MA74-08. MassDEP staff collected *E. coli* bacteria samples in the Monatiquot River (MA74-32) at W2733 [northern most footpath on the Braintree Municipal Golf Course, W of Jefferson St, Braintree] from Jul-Aug 2017 (n=2). *E. coli* data from W2733 are too limited according to the 2024 CALM to assess the Primary Contact Recreation Use.

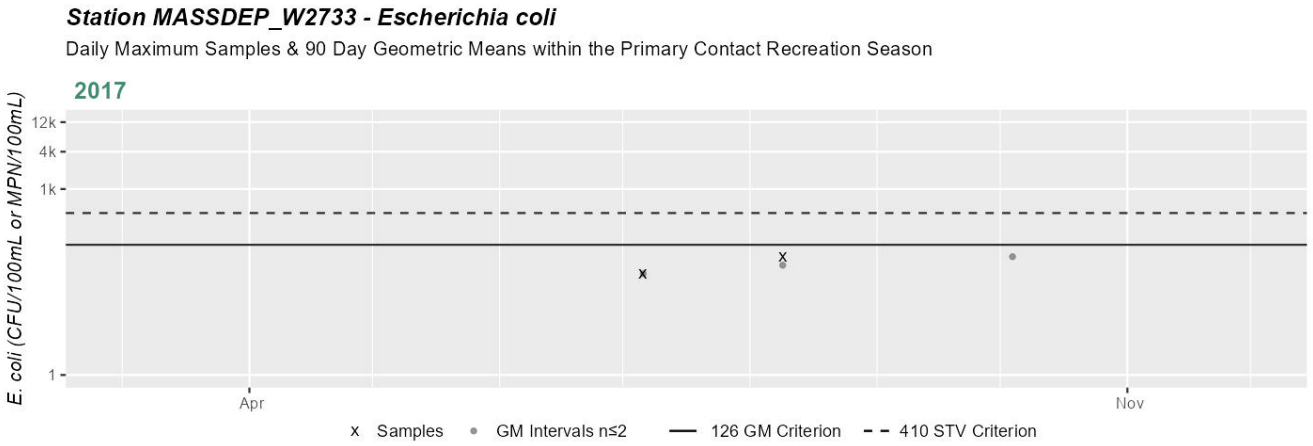
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2733	MassDEP	Water Quality	Monatiquot River	[northern most footpath on the Braintree Municipal Golf Course, west of Jefferson Street, Braintree]	42.198723	-71.010776

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(MassDEP Undated 8) (MassDEP Undated 5)
[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
W2733	MassDEP	E. coli	07/06/17	08/09/17	2	43	81	59



Variable*	Result
Samples	2
SeasGM	59
#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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

Too limited bacteria data are available to assess the Secondary Contact Recreation Use for the Monatiquot River (MA74-32) 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 both the historic (1997-2010) & the current IR window (2011-2022) in the Monatiquot River (MA74-32) from 2009-2017 at 2 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2733 [northern most footpath on the Braintree Municipal Golf Course, W of Jefferson St, Braintree] from Jul-Aug 2017 (n=2), W2031 [River St, Braintree] from May-Sep 2009 (n=6). The available *E. coli* data at W2733 are too limited to assess according to the 2024 CALM. Analysis of this historic single year limited frequency *E. coli* dataset from W2031 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 153 CFU/100ml. Historic *E. coli* data from W2031 meet 2024 CALM guidance. While the historic bacteria concentrations meet 2024 CALM guidance, too limited bacteria data from the current IR window (2011-2022) are available to assess the Secondary Contact Recreation Use.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2031	MassDEP	Water Quality	Monatiquot River	[River Street, Braintree]	42.220054	-70.999170
W2733	MassDEP	Water Quality	Monatiquot River	[northern most footpath on the Braintree Municipal Golf Course, west of Jefferson Street, Braintree]	42.198723	-71.010776

Bacteria Data

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

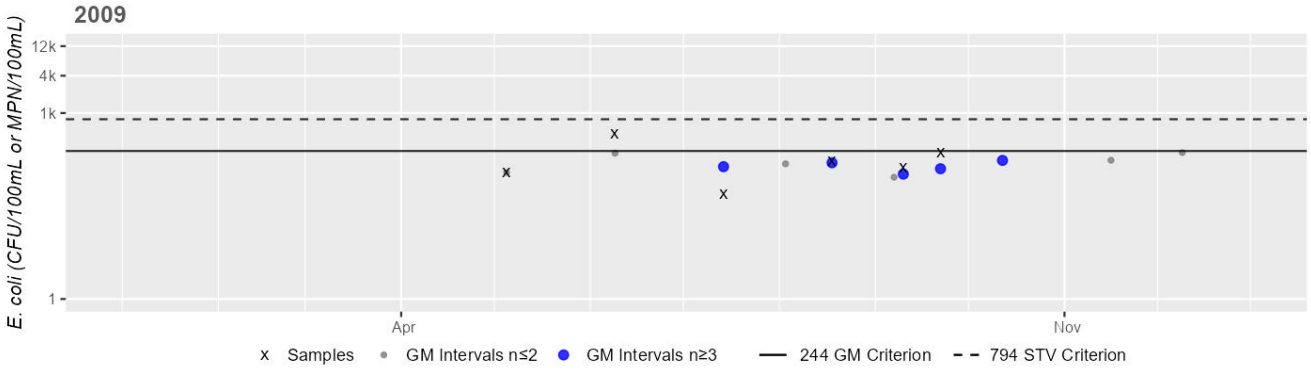
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2031	MassDEP	E. coli	05/05/09	09/22/09	6	50	460	153
W2733	MassDEP	E. coli	07/06/17	08/09/17	2	43	81	59

Station MASSDEP_W2031 - Escherichia coli

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



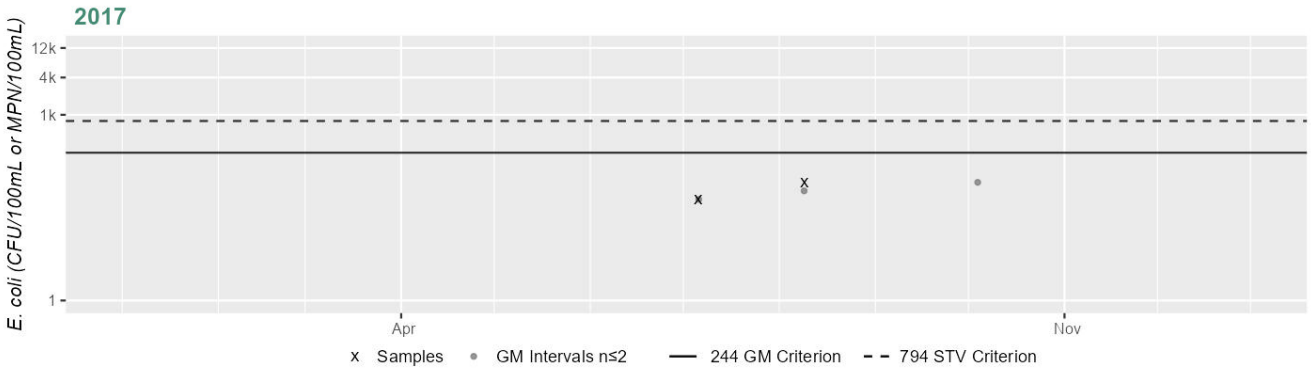
Variable*	Result
Samples	6
SeasGM	153
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2733 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	59
#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.*

Monatiquot River (MA74-33)

Location:	From saltwater portion southwest of the Adams and Commercial streets intersection, Braintree to mouth at confluence with Smelt Brook forming headwaters Weymouth Fore River, Braintree (formerly a portion of 2022 segments: Monatiquot River MA74-08 and Weymouth Fore River MA74-14).
AU Type:	ESTUARY
AU Size:	0.02 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
--	5	(Curly-leaf Pondweed*)	--	Unchanged
--	5	(Fish Passage Barrier*)	--	Unchanged
--	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
--	5	Benthic Macroinvertebrates	--	Unchanged
--	5	Dissolved Oxygen	--	Unchanged
--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
--	5	Fecal Coliform	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
(Curly-leaf Pondweed*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--	--
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
(Fish Passage Barrier*)	Hydrostructure Impacts on Fish Passage (Y)	X	--	--	--	--	--
(Physical Substrate Habitat Alterations*)	Channelization (Y)	X	--	--	--	--	--
(Physical Substrate Habitat Alterations*)	Source Unknown (N)	X	--	--	--	--	--
Benthic Macroinvertebrates	Channelization (Y)	X	--	--	--	--	--
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--	--
Dissolved Oxygen	Unspecified Urban Stormwater (Y)	X	--	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	--	X	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	--	X	--
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	--	X	--
Fecal Coliform	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 Monatiquot River (MA74-33) is Not Assessed.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary
Monatiquot River (MA74-33): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0089 sq mi (56%). The approved shellfish growing area represents 0 sq mi (0%). The prohibited shellfish growing area represents 0.0089 sq mi (56%). 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.

Shellfish Growing Area Classifications

MassDFG-Division of Marine Fisheries Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH9.0	Weymouth Fore River	Prohibited	0.00885	56.3%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Monatiquot River (MA74-33) is Not Assessed. Of note, this AU previously constituted the lower section of the former 2022 segment "Monatiquot River MA74-08".

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for the Monatiquot River (MA74-33) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward from the former 2022 Monatiquot AU MA74-08. The shellfish growing areas (0.0089 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 Monatiquot River (MA74-33) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Monatiquot River (MA74-33): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0089 sq mi (56%). 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 the Monatiquot River (MA74-33) so it is assessed as having Insufficient Information. The shellfish growing areas (0.0089 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 Monatiquot River (MA74-33) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Monatiquot River (MA74-33): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0089 sq mi (56%). 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.

Old Quincy Reservoir (MA74017)

Location:	Braintree.
AU Type:	FRESHWATER LAKE
AU Size:	27 ACRES
Classification/Qualifier:	B

No usable data were available for Old Quincy Reservoir (MA74017) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

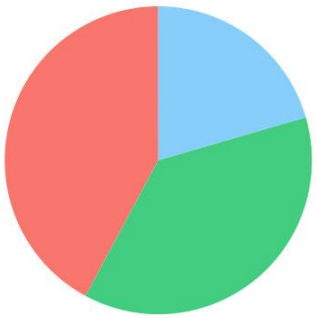
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Old Swamp River (MA74-03)

Location:	Headwaters just west of Pleasant Street and north of Liberty Street, Rockland to inlet Whitmans Pond, Weymouth.
AU Type:	RIVER
AU Size:	4.6 MILES
Classification/Qualifier:	A: PWS, ORW (Tributary)

Old Swamp River (MA74-03)

Watershed Area: 4.81 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	4.81	4.34	1.89	1.68
Agriculture	0%	0%	0%	0%
Developed	42.1%	42.3%	29.7%	29%
Natural	37.4%	37%	33.2%	33.4%
Wetland	20.5%	20.7%	37.1%	37.6%
Impervious	23.2%	23.6%	16.2%	16.2%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4a	4a	(Fish Passage Barrier*)	--	Unchanged
4a	4a	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
4a	4a	Fecal Coliform	R1_MA_2019_01	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	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 Old Swamp River (MA74-03) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Old Swamp River (MA74-03) is assessed as Fully Supporting based on the general lack of objectionable conditions noted by MassDEP staff during the summer of 2018. MassDEP staff recorded aesthetics observations at three stations in Weymouth, in the downstream half of this Old Swamp River AU, as part of the SERO MST project during the summer of 2018, from upstream to downstream as follows; halfway down the AU at Ralph Talbot Street (W2044, n=3), a little further downstream at Elm Street (W2045, n=3) and at the downstream end of the AU at Libbey Industrial Parkway (W2046, n=3). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at this station, though field staff noted dense aquatic plants on two occasions at W2046.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2044	MassDEP	Water Quality	Old Swamp River	[Ralph Talbot Street, Weymouth]	42.178086	-70.934623
W2045	MassDEP	Water Quality	Old Swamp River	[Elm Street, Weymouth]	42.182612	-70.935396
W2046	MassDEP	Water Quality	Old Swamp River	[Libbey Industrial Parkway, Weymouth]	42.192587	-70.943293

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2044	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2044 on Old Swamp River (MA74-03) during 3 site visits between Jun 2018 and Sep 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2045	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2045 on Old Swamp River (MA74-03) during 3 site visits between Jun 2018 and Sep 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2046	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2046 on Old Swamp River (MA74-03) during 3 site visits between Jun 2018 and Sep 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted dense/very dense aquatic plants (n=2).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2044	2018	3	3	0
W2045	2018	3	3	0
W2046	2018	3	2	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2044	Old Swamp River	2018	Aquatic Plant Density, Overall	None	1	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2044	Old Swamp River	2018	Aquatic Plant Density, Overall	Sparse	2	3
W2044	Old Swamp River	2018	Color	Light Yellow/Tan	1	3
W2044	Old Swamp River	2018	Color	None	2	3
W2044	Old Swamp River	2018	Odor	None	3	3
W2044	Old Swamp River	2018	Periphyton Density, Filamentous	None	3	3
W2044	Old Swamp River	2018	Periphyton Density, Film	Moderate	1	3
W2044	Old Swamp River	2018	Periphyton Density, Film	Sparse	2	3
W2044	Old Swamp River	2018	Turbidity	None	1	3
W2044	Old Swamp River	2018	Turbidity	Slightly Turbid	2	3
W2045	Old Swamp River	2018	Aquatic Plant Density, Overall	Moderate	1	3
W2045	Old Swamp River	2018	Aquatic Plant Density, Overall	None	1	3
W2045	Old Swamp River	2018	Aquatic Plant Density, Overall	Sparse	1	3
W2045	Old Swamp River	2018	Color	None	3	3
W2045	Old Swamp River	2018	Odor	None	3	3
W2045	Old Swamp River	2018	Periphyton Density, Filamentous	None	3	3
W2045	Old Swamp River	2018	Periphyton Density, Film	None	1	3
W2045	Old Swamp River	2018	Periphyton Density, Film	Sparse	2	3
W2045	Old Swamp River	2018	Turbidity	None	1	3
W2045	Old Swamp River	2018	Turbidity	Slightly Turbid	2	3
W2046	Old Swamp River	2018	Aquatic Plant Density, Overall	Dense	2	3
W2046	Old Swamp River	2018	Aquatic Plant Density, Overall	Moderate	1	3
W2046	Old Swamp River	2018	Color	Light Yellow/Tan	1	3
W2046	Old Swamp River	2018	Color	None	2	3
W2046	Old Swamp River	2018	Odor	None	3	3
W2046	Old Swamp River	2018	Periphyton Density, Filamentous	None	2	3
W2046	Old Swamp River	2018	Periphyton Density, Filamentous	Unobservable	1	3
W2046	Old Swamp River	2018	Periphyton Density, Film	Sparse	2	3
W2046	Old Swamp River	2018	Periphyton Density, Film	Unobservable	1	3
W2046	Old Swamp River	2018	Turbidity	Slightly Turbid	3	3

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreation Use for the Old Swamp River (MA74-03) 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 W2044, W2045, and W2046. The prior Fecal Coliform impairment is being carried forward. MassDEP staff collected *E. coli* bacteria samples in the Old Swamp River (MA74-03) from 2018 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2044 [Ralph Talbot St, Weymouth] from Jun-Sep 2018 (n=3), W2045 [Elm St, Weymouth] from Jun-Sep 2018 (n=3), W2046 [Libbey Industrial Parkway, Weymouth] from Jun-Sep 2018 (n=3). Analysis of the single year limited frequency *E. coli* dataset from W2044 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 408 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2045 indicated 100% of intervals had GMs >126 CFU/100ml, 3 samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 526 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2046 indicated 100% of intervals had GMs >126 CFU/100ml, 2 samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 260 CFU/100ml. *E. coli* data from W2044, W2045, and W2046 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2044	MassDEP	Water Quality	Old Swamp River	[Ralph Talbot Street, Weymouth]	42.178086	-70.934623
W2045	MassDEP	Water Quality	Old Swamp River	[Elm Street, Weymouth]	42.182612	-70.935396
W2046	MassDEP	Water Quality	Old Swamp River	[Libbey Industrial Parkway, Weymouth]	42.192587	-70.943293

Bacteria Data

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

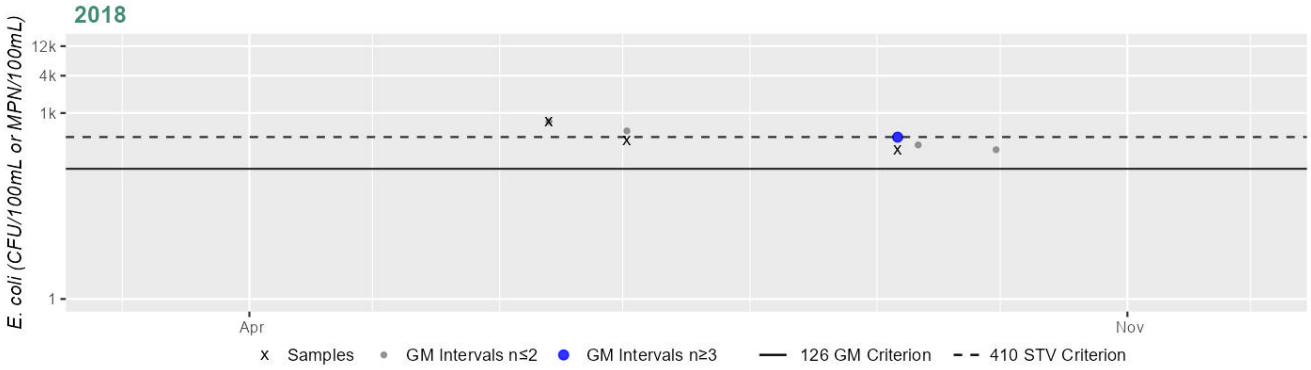
(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2044	MassDEP	E. coli	06/13/18	09/06/18	3	256	727	408
W2045	MassDEP	E. coli	06/13/18	09/06/18	3	461	687	526
W2046	MassDEP	E. coli	06/13/18	09/06/18	3	66	649	260

Station MASSDEP_W2044 - Escherichia coli

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



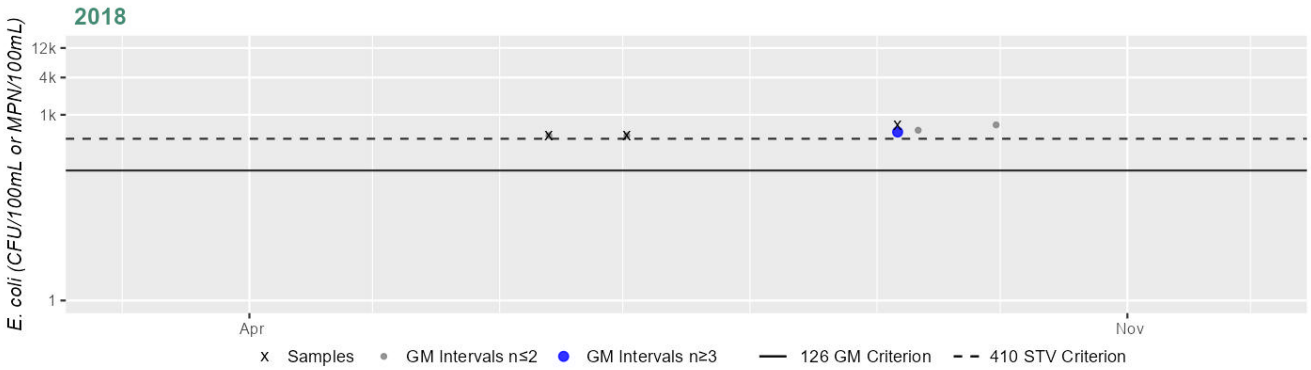
Variable*	Result
Samples	3
SeasGM	408
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

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.*

Station MASSDEP_W2045 - Escherichia coli

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



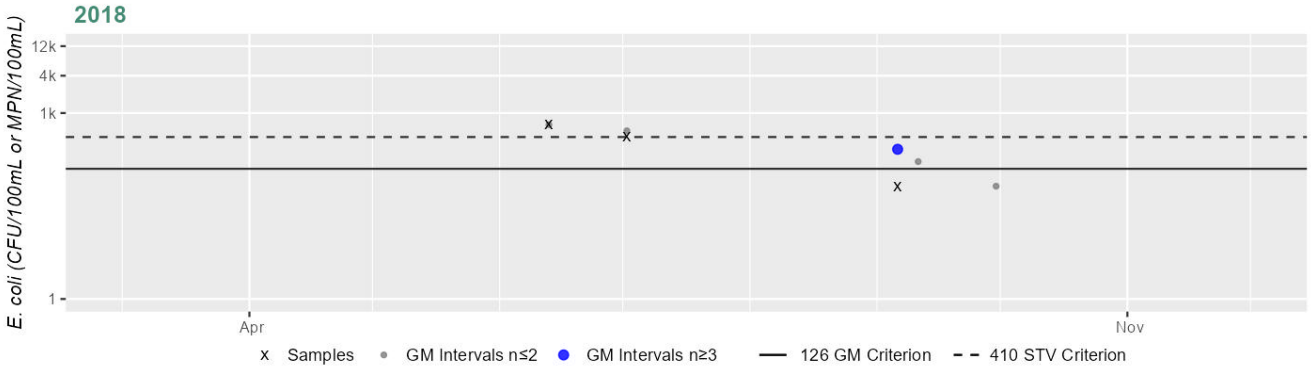
Variable*	Result
Samples	3
SeasGM	526
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	3
%n>STV	100%

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.*

Station MASSDEP_W2046 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	260
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	2
%n>STV	66%

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 the Old Swamp River (MA74-03) 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 W2044, W2045, and W2046. MassDEP and USGS staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Old Swamp River (MA74-03) from 1999-2018 at 5 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2043 [Sharp St, Hingham] from May-Sep 2009 (n=6), W2044 [Ralph Talbot St, Weymouth] from May-Sep 2009 (historic n=6) and Jun-Sep 2018 (current n=3), W2045 [Elm St, Weymouth] from May-Sep 2009 (historic n=6) and Jun-Sep 2018 (current n=3), USGS-01105600 [Old Swamp River Near S Weymouth, Ma] from 1999-2000 (n=4-5/yr), W2046 [Libbey Industrial Parkway, Weymouth] from May-Sep 2009 (historic n=6) and Jun-Sep 2018 (current n=3). Analysis of the single year limited frequency *E. coli* dataset from W2044 indicated 100% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 408 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2045 indicated 100% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 526 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2046 indicated 100% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 260 CFU/100ml. *E. coli* data from W2044, W2045, and W2046 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2043	MassDEP	Water Quality	Old Swamp River	[Sharp Street, Hingham]	42.162857	-70.922491
W2044	MassDEP	Water Quality	Old Swamp River	[Ralph Talbot Street, Weymouth]	42.178086	-70.934623
W2045	MassDEP	Water Quality	Old Swamp River	[Elm Street, Weymouth]	42.182612	-70.935396
W2046	MassDEP	Water Quality	Old Swamp River	[Libbey Industrial Parkway, Weymouth]	42.192587	-70.943293
USGS-01105600	USGS Massachusetts Water Science Center	Water Quality	Old Swamp River	Old Swamp River Near South Weymouth, MA	42.190378	-70.944768

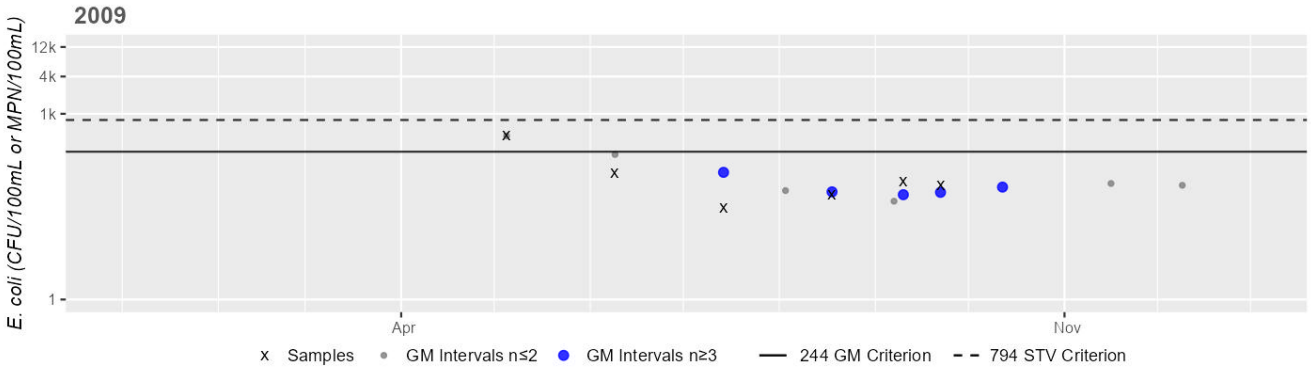
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 8) (MassDEP Undated 4) (USGS 2024) (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
W2043	MassDEP	E. coli	05/05/09	09/22/09	6	30	440	86
W2044	MassDEP	E. coli	05/05/09	09/22/09	6	180	1500	390
W2044	MassDEP	E. coli	06/13/18	09/06/18	3	256	727	408
W2045	MassDEP	E. coli	05/05/09	09/22/09	6	160	1200	339
W2045	MassDEP	E. coli	06/13/18	09/06/18	3	461	687	526
W2046	MassDEP	E. coli	05/05/09	09/22/09	6	110	1000	232
W2046	MassDEP	E. coli	06/13/18	09/06/18	3	66	649	260
USGS-01105600	USGS Massachusetts Water Science Center	E. coli	05/20/99	12/15/99	5	15	2200	144
USGS-01105600	USGS Massachusetts Water Science Center	E. coli	01/12/00	06/20/00	4	33	500	111

Station MASSDEP_W2043 - Escherichia coli

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



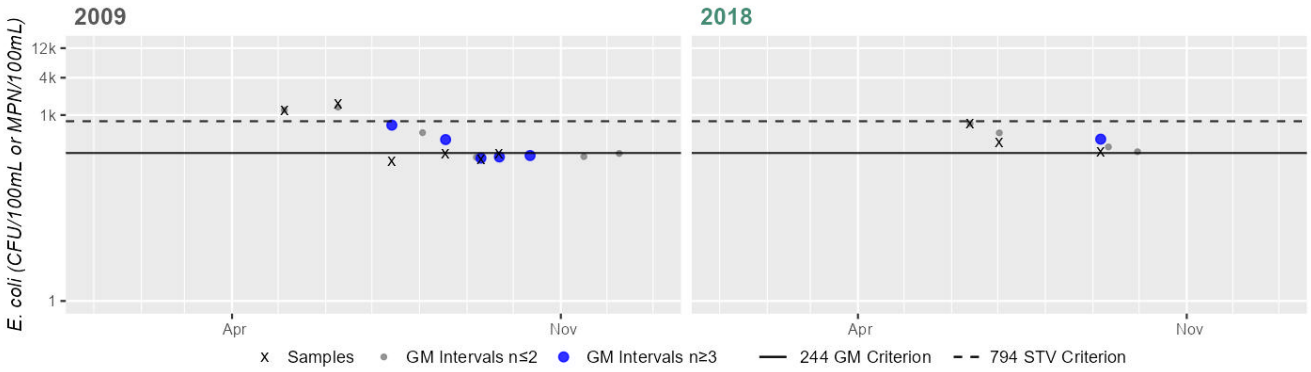
Variable*	Result
Samples	6
SeasGM	86
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2044 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	390
#GMI	5
#GMI Ex	2
%GMI Ex	40%
n>STV	2
%n>STV	33%

Variable*	Result
Samples	3
SeasGM	408
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

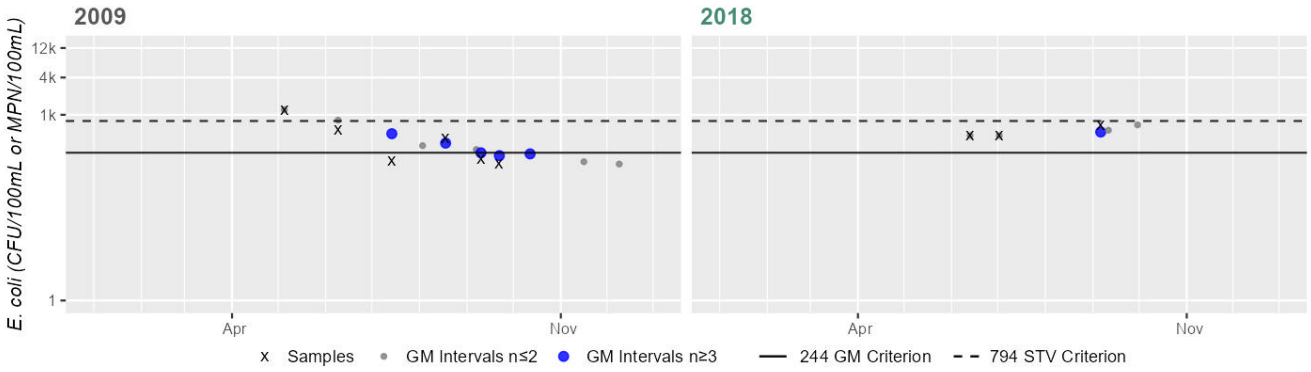
Cumulative %GMI Exceedance Historic (1997-2010)
40%

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.*

Station MASSDEP_W2045 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	339
#GMI	5
#GMI Ex	2
%GMI Ex	40%
n>STV	1
%n>STV	16%

Variable*	Result
Samples	3
SeasGM	526
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

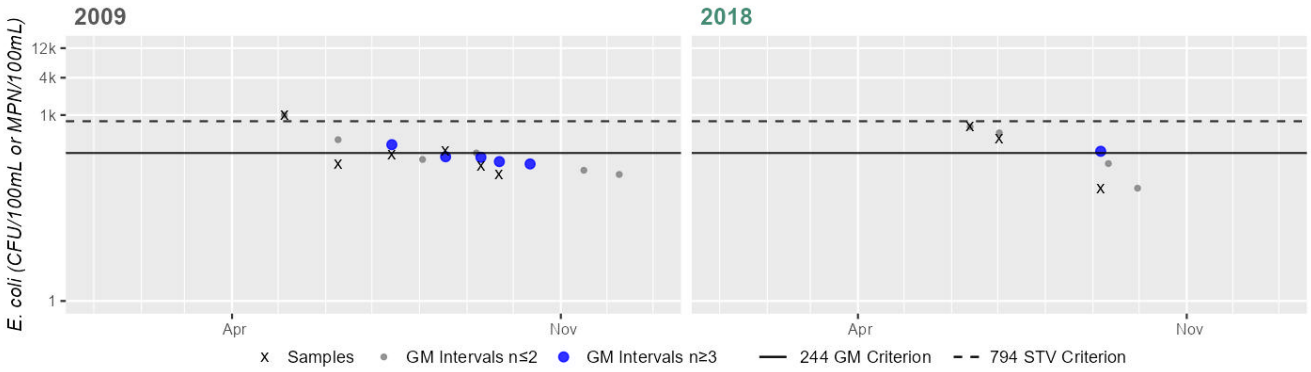
Cumulative %GMI Exceedance Historic (1997-2010)
40%

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.*

Station MASSDEP_W2046 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	232
#GMI	5
#GMI Ex	1
%GMI Ex	20%
n>STV	1
%n>STV	16%

Variable*	Result
Samples	3
SeasGM	260
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

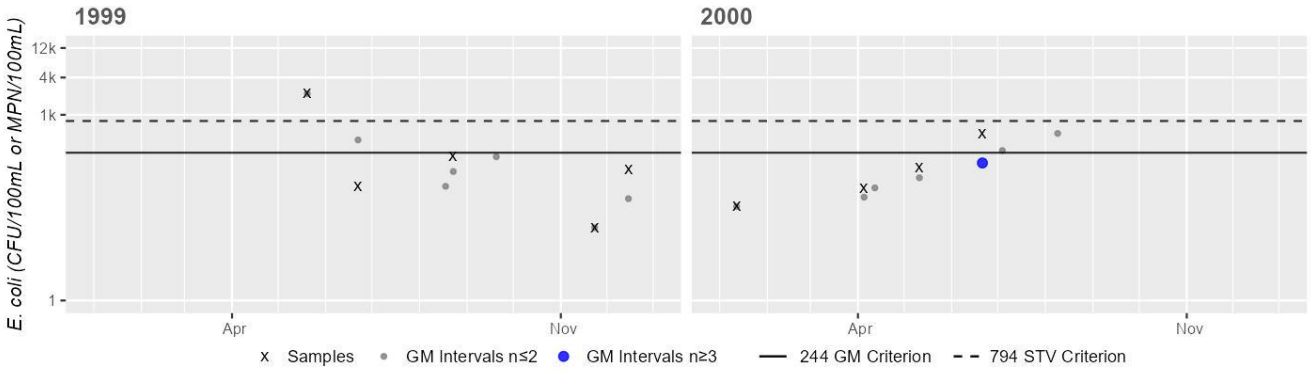
Cumulative %GMI Exceedance Historic (1997-2010)
20%

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.*

Station USGS-01105600 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	144
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	4
SeasGM	111
#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.*

Plymouth River (MA74-20)

Location:	Headwaters, perennial portion (including channelized, culverted section) north of Route 3 (Pilgrim Highway), Weymouth to the mouth at inlet of Cushing Pond, Hingham (entire river not depicted on Weymouth USGS quad).
AU Type:	RIVER
AU Size:	3.6 MILES
Classification/Qualifier:	B

Plymouth River (MA74-20)

Watershed Area: 4.14 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	4.14	4.14	1.96	1.96
Agriculture	0%	0%	0%	0%
Developed	39.2%	39.2%	31.9%	31.9%
Natural	39.9%	39.9%	37.8%	37.8%
Wetland	20.9%	20.9%	30.3%	30.3%
Impervious	16.8%	16.8%	15.1%	15.1%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	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 Plymouth River (MA74-20) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Plymouth River (MA74-20) continues to be assessed as Fully Supporting based on the general lack of objectionable conditions noted by MassDEP staff during the summer of 2018. MassDEP staff recorded aesthetics observations at three stations throughout this Plymouth River AU, as part of the SERO MST project during the summer of 2018, from upstream to downstream as follows; a third of the way down the AU at Colonels Drive, Weymouth (W2919, n=3), about halfway down the AU at Olde Quarry Way/Black Rock Drive, Hingham (W2918, n=3), and close to the downstream end of the AU at Ward Street, Hingham (W2039, n=3). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at this station, though field staff noted dense moderate turbidity on three occasions at both W2918 and W2039.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2039	MassDEP	Water Quality	Plymouth River	[Ward Street, Hingham]	42.202984	-70.901459
W2918	MassDEP	Water Quality	Plymouth River	[Olde Quarry Way/Black Rock Drive, Hingham]	42.194400	-70.908945
W2919	MassDEP	Water Quality	Plymouth River	[Colonels Drive, Weymouth]	42.199437	-70.920849

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2039	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2039 on Plymouth River (MA74-20) during 3 site visits between Jun 2018 and Jul 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted moderate turbidity (n=3).
W2918	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2918 on Plymouth River (MA74-20) during 3 site visits between Jun 2018 and Jul 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted moderate turbidity (n=3).
W2919	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2919 on Plymouth River (MA74-20) during 3 site visits between Jun 2018 and Jul 2018. 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 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2039	2018	3	0	0
W2918	2018	3	0	0
W2919	2018	3	3	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2039	Plymouth River	2018	Aquatic Plant Density, Overall	Sparse	2	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2039	Plymouth River	2018	Aquatic Plant Density, Overall	Unobservable	1	3
W2039	Plymouth River	2018	Color	None	3	3
W2039	Plymouth River	2018	Odor	None	3	3
W2039	Plymouth River	2018	Periphyton Density, Filamentous	Unobservable	3	3
W2039	Plymouth River	2018	Periphyton Density, Film	Unobservable	3	3
W2039	Plymouth River	2018	Turbidity	Moderately Turbid	3	3
W2918	Plymouth River	2018	Aquatic Plant Density, Overall	None	3	3
W2918	Plymouth River	2018	Color	None	3	3
W2918	Plymouth River	2018	Odor	None	3	3
W2918	Plymouth River	2018	Periphyton Density, Filamentous	Unobservable	3	3
W2918	Plymouth River	2018	Periphyton Density, Film	Unobservable	3	3
W2918	Plymouth River	2018	Turbidity	Moderately Turbid	3	3
W2919	Plymouth River	2018	Aquatic Plant Density, Overall	None	3	3
W2919	Plymouth River	2018	Color	None	3	3
W2919	Plymouth River	2018	Odor	None	3	3
W2919	Plymouth River	2018	Periphyton Density, Filamentous	None	3	3
W2919	Plymouth River	2018	Periphyton Density, Film	Sparse	3	3
W2919	Plymouth River	2018	Turbidity	Slightly Turbid	3	3

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Plymouth River (MA74-20) 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 W2919, W2918, and W2039. MassDEP staff collected *E. coli* bacteria samples in the Plymouth River (MA74-20) from 2018 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2919 [Colonels Drive, Weymouth] from Jun-Jul 2018 (n=3), W2918 [Olde Quarry Way/Black Rock Drive, Hingham] from Jun-Jul 2018 (n=3), W2039 [Ward St, Hingham] from Jun-Jul 2018 (n=3). Analysis of the single year limited frequency *E. coli* dataset from W2919 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 219 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2918 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 428 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2039 indicated 100% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 218 CFU/100ml. *E. coli* data from W2919, W2918, and W2039 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2039	MassDEP	Water Quality	Plymouth River	[Ward Street, Hingham]	42.202984	-70.901459
W2918	MassDEP	Water Quality	Plymouth River	[Olde Quarry Way/Black Rock Drive, Hingham]	42.194400	-70.908945
W2919	MassDEP	Water Quality	Plymouth River	[Colonels Drive, Weymouth]	42.199437	-70.920849

Bacteria Data

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

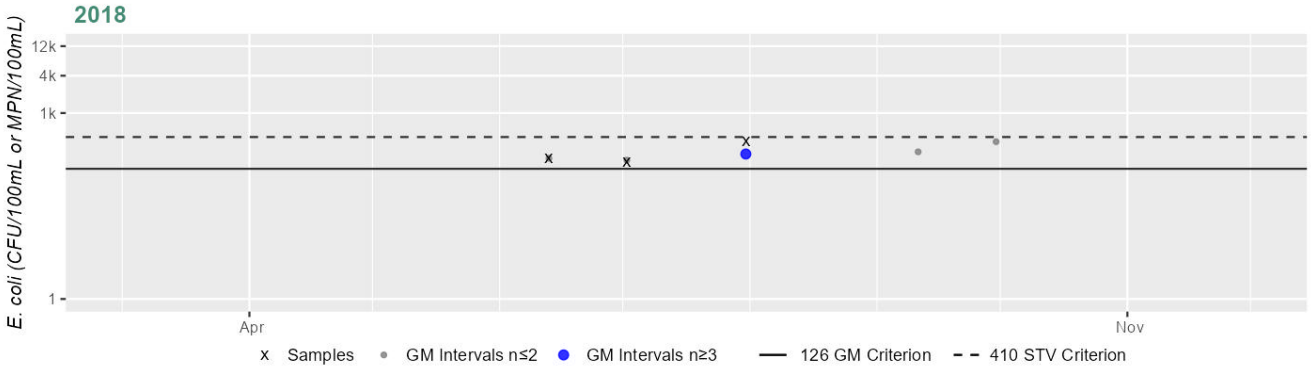
(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2039	MassDEP	E. coli	06/13/18	07/31/18	3	162	345	218
W2918	MassDEP	E. coli	06/13/18	07/31/18	3	261	980	428
W2919	MassDEP	E. coli	06/13/18	07/31/18	3	133	461	219

Station MASSDEP_W2039 - Escherichia coli

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



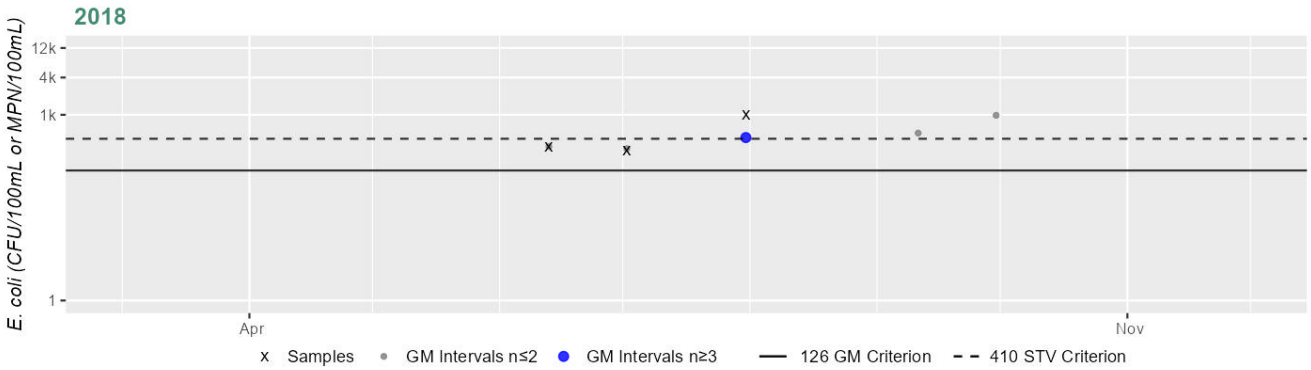
Variable*	Result
Samples	3
SeasGM	218
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

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.*

Station MASSDEP_W2918 - Escherichia coli

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



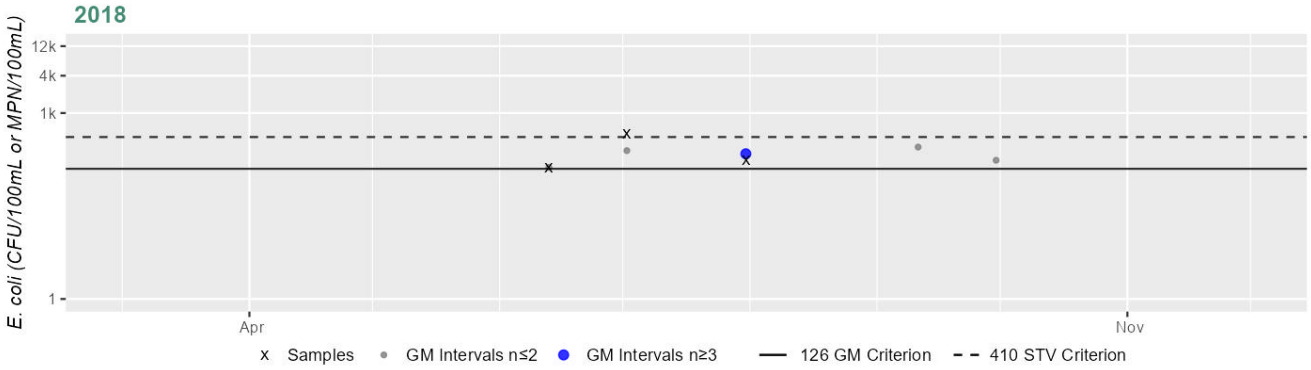
Variable*	Result
Samples	3
SeasGM	428
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

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.*

Station MASSDEP_W2919 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	219
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

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 the Plymouth River (MA74-20) 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 W2918. MassDEP staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Plymouth River (MA74-20) from 2009-2018 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2919 [Colonels Drive, Weymouth] from Jun-Jul 2018 (n=3), W2918 [Olde Quarry Way/Black Rock Drive, Hingham] from Jun-Jul 2018 (n=3), W2039 [Ward St, Hingham] from May-Sep 2009 (historic n=6) and Jun-Jul 2018 (current n=3). Analysis of the single year limited frequency *E. coli* dataset from W2919 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 219 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2918 indicated 100% of intervals had GMs >244 CFU/100ml, 1 sample exceeded the 794 CFU/100ml STV, and the overall GM was 428 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2039 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 218 CFU/100ml. While *E. coli* data from W2919 and W2039 meet 2024 CALM guidance*, E. coli* data from W2918 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2039	MassDEP	Water Quality	Plymouth River	[Ward Street, Hingham]	42.202984	-70.901459
W2918	MassDEP	Water Quality	Plymouth River	[Olde Quarry Way/Black Rock Drive, Hingham]	42.194400	-70.908945
W2919	MassDEP	Water Quality	Plymouth River	[Colonels Drive, Weymouth]	42.199437	-70.920849

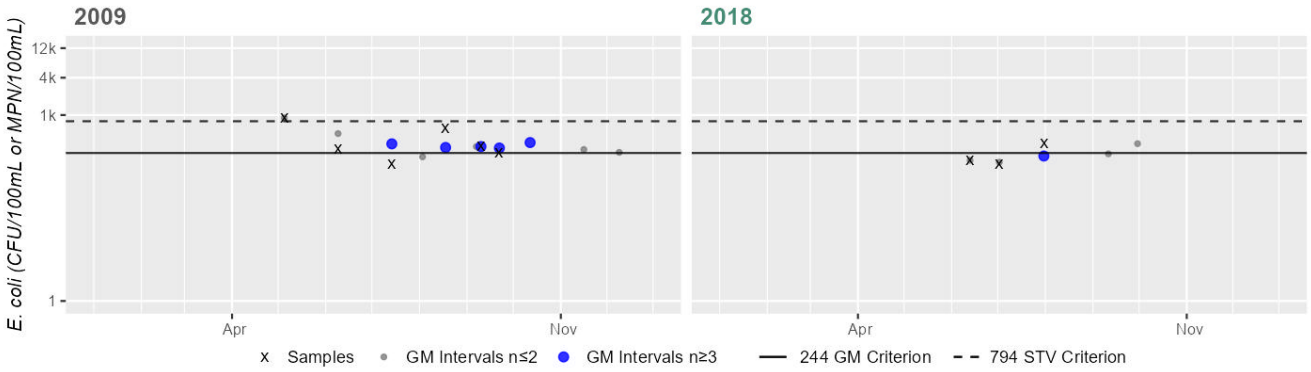
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 8) (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
W2039	MassDEP	E. coli	05/05/09	09/22/09	6	160	900	351
W2039	MassDEP	E. coli	06/13/18	07/31/18	3	162	345	218
W2918	MassDEP	E. coli	06/13/18	07/31/18	3	261	980	428
W2919	MassDEP	E. coli	06/13/18	07/31/18	3	133	461	219

Station MASSDEP_W2039 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	351
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	1
%n>STV	16%

Variable*	Result
Samples	3
SeasGM	218
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

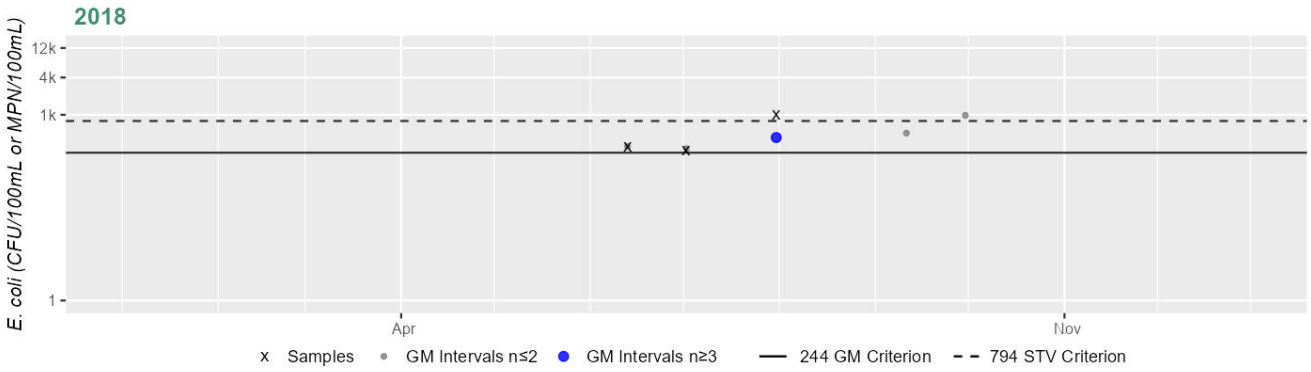
Cumulative %GMI Exceedance
Historic (1997-2010)
100%

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.*

Station MASSDEP_W2918 - Escherichia coli

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



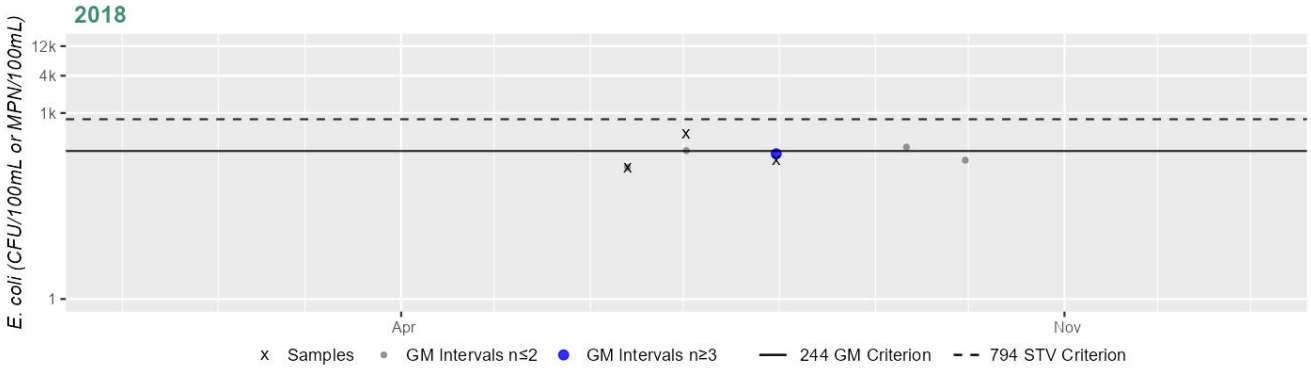
Variable*	Result
Samples	3
SeasGM	428
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

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.*

Station MASSDEP_W2919 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	219
#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.*

Smelt Brook (MA74-24)

Location:	Headwaters outlet Smelt Brook Pond, Braintree to estuarine portion approximately 650 feet upstream of mouth at confluence with Weymouth Fore River, Braintree/Weymouth (portions culverted).
AU Type:	RIVER
AU Size:	1.1 MILES
Classification/Qualifier:	B

No usable data were available for Smelt Brook (MA74-24) 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
4c	4c	(Fish Passage Barrier*)	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fish Passage Barrier*)	Hydrostructure Impacts on Fish Passage (Y)	X	--	--	--	--

Smelt Brook Pond (MA74018)

Location:	Braintree (locally 'Pond Meadow' pond).
AU Type:	FRESHWATER LAKE
AU Size:	23 ACRES
Classification/Qualifier:	B

No usable data were available for Smelt Brook Pond (MA74018) 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	(Fish Passage Barrier*)	--	Unchanged

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

Sunset Lake (MA74020)

Location:	Braintree.
AU Type:	FRESHWATER LAKE
AU Size:	58 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4c	4c	(Eurasian Water Milfoil, Myriophyllum Spicatum*)	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Eurasian Water Milfoil, Myriophyllum Spicatum*)	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 Sunset Lake (MA74020) 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.

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 Sunset Lake (MA74020) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	YES

2024/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Sunset Lake (MA74020), so it is assessed as having Insufficient Information. However, an Alert is being identified for Harmful Algal Blooms in this waterbody since C-HAB postings (blooms of >15 days in duration) were reported to MDPH for 2021. During the period 2015 through 2022, C-HAB postings for Sunset Lake were reported to MDPH based on visual observations for 22 days in 2021. 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. However, an Alert is being identified for Harmful Algal Blooms and a recommendation for follow-up sampling will be made.

Algal Bloom Information

Cyanobacteria Harmful Algal Bloom (C-HAB) Summary Statements for 2015-2022 MDPH Data (Bailey, Logan April 26, 2023) (MassDEP Undated 2)

C-HAB Summary Statement
During the period 2015 through 2022, C-HAB postings for Sunset Lake (MA74020) were reported to MDPH based on visual observations for 22 days in 2021. 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. However, an Alert is being identified for C-HABs in this waterbody and a recommendation for follow-up sampling will be made.

Cyanobacteria Harmful Algal Bloom (C-HAB) Data (2015-2022) Provided by MDPH (Bailey, Logan April 26, 2023) (MassDEP Undated 2)

[* 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
Sunset Lake	Braintree							22	

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	YES

2024/26 Use Attainment Summary
No bacteria data are available to assess the Primary Contact Recreation Use for Sunset Lake (MA74020) and available other indicators for this AU did not result in any impairment, so it is assessed as having Insufficient Information. An Alert is being identified for Harmful Algal Bloom and additional sampling is recommended for this AU. During the period 2015 through 2022, C-HAB postings for Sunset Lake (MA74020) were reported to MDPH based on visual observations for 22 days in 2021. 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. However, a Harmful Algal Bloom Alert is being identified for this waterbody and a recommendation for follow-up sampling will be made.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	YES

2024/26 Use Attainment Summary
No bacteria data are available to assess the Secondary Contact Recreation Use for Sunset Lake (MA74020) and available other indicators for this AU did not result in any impairment, so it is assessed as having Insufficient Information. An Alert is being identified for Harmful Algal Bloom and additional sampling is recommended for this AU. During the period 2015 through 2022, C-HAB postings for Sunset Lake (MA74020) were reported to MDPH based on visual observations for 22 days in 2021. 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. However, a Harmful Algal Bloom Alert is being identified for this waterbody and a recommendation for follow-up sampling will be made.

Sylvan Lake (MA74021)

Location:	Holbrook.
AU Type:	FRESHWATER LAKE
AU Size:	6 ACRES
Classification/Qualifier:	B

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Chlordane in Fish Tissue	CERCLA NPL (Superfund) Sites (Y)	--	X	--	--	--
DDT in Fish Tissue	CERCLA NPL (Superfund) Sites (Y)	--	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 Sylvan Lake (MA74021) continues to be assessed as Not Supporting and the prior Chlordane in Fish Tissue and DDT in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Sylvan Lake (referred to by MDPH as ''Cochato River, Ice Pond and Sylvan Lake'' or ''Sylvan 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 Sylvan Lake (MA74021) 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 Sylvan Lake (MA74021) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

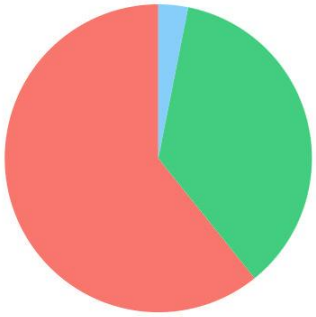
2024/26 Use Attainment Summary
No bacteria or other indicator data for Sylvan Lake (MA74021) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Town Brook (MA74-09)

Location:	Headwaters, outlet Old Quincy Reservoir, Braintree to confluence with Town River Bay north of Route 3A, Quincy (SARIS note: includes "The Canal"/Town River 7442075) (portions culverted underground).
AU Type:	RIVER
AU Size:	3.5 MILES
Classification/Qualifier:	B

Town Brook (MA74-09)

Watershed Area: 4.44 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	4.44	3.89	0.90	0.82
Agriculture	0%	0%	0%	0%
Developed	60.8%	64.8%	54.6%	58.4%
Natural	36.1%	32.4%	37%	33.7%
Wetland	3.1%	2.8%	8.3%	7.9%
Impervious	45.4%	48.3%	41.6%	45%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Flow Regime Modification*)	--	Unchanged
5	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Flow Regime Modification*)	Channelization (Y)	X	--	--	--	--
(Flow Regime Modification*)	Habitat Modification - other than Hydromodification (Y)	X	--	--	--	--
(Flow Regime Modification*)	Impacts from Hydrostructure Flow Regulation/Modification (N)	X	--	--	--	--
(Physical Substrate Habitat Alterations*)	Channelization (Y)	X	--	--	--	--
(Physical Substrate Habitat Alterations*)	Habitat Modification - other than Hydromodification (Y)	X	--	--	--	--
(Physical Substrate Habitat Alterations*)	Impacts from Hydrostructure Flow Regulation/Modification (N)	X	--	--	--	--
Benthic Macroinvertebrates	Channelization (Y)	X	--	--	--	--
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	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 Town Brook (MA74-09) 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 Town Brook (MA74-09) is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Town Brook (MA74-09) 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.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for Town Brook (MA74-09) 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 W2029, USGS-01105585, and W2028. The prior Fecal Coliform impairment is being carried forward. MassDEP and USGS staff collected *E. coli* bacteria samples in Town Brook (MA74-09) from 1999-2009 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2029 [Miller Stile Rd, Quincy] from May-Sep 2009 (n=6), USGS-01105585 [Town Brook At Quincy, Ma] from 1999-2000 (n=4-5/yr), W2028 [Elm St, Quicy] from May-Sep 2009 (n=6). Analysis of this historic single year limited frequency *E. coli* dataset from W2029 indicated 100% of intervals had GMs >244 CFU/100ml, 2 samples exceeded the 794 CFU/100ml STV, and the overall GM was 728 CFU/100ml. Analysis of this historic multi-year limited frequency *E. coli* dataset from USGS-01105585 indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >244 CFU/100ml (1999 and 2000, 100 & 100%), 2 yrs had ≥2 samples exceed the 794 CFU/100ml STV (1999 and 2000, n=3 & 2), and cumulatively across years 100% of intervals had GMs >244 CFU/100ml. Analysis of this historic single year limited frequency *E. coli* dataset from W2028 indicated 100% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 437 CFU/100ml. Historic *E. coli* data from W2029, USGS-01105585, and W2028 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2028	MassDEP	Water Quality	Town Brook	[Elm Street, Quicy]	42.251667	-70.997156
W2029	MassDEP	Water Quality	Town Brook	[Miller Stile Road, Quincy]	42.247611	-70.997725
USGS-01105585	USGS Massachusetts Water Science Center	Water Quality	Town Brook	Town Brook At Quincy, MA	42.247877	-70.997270

Bacteria Data

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

(MassDEP Undated 8) (MassDEP Undated 4) (USGS 2024) (MassDEP Undated 2)

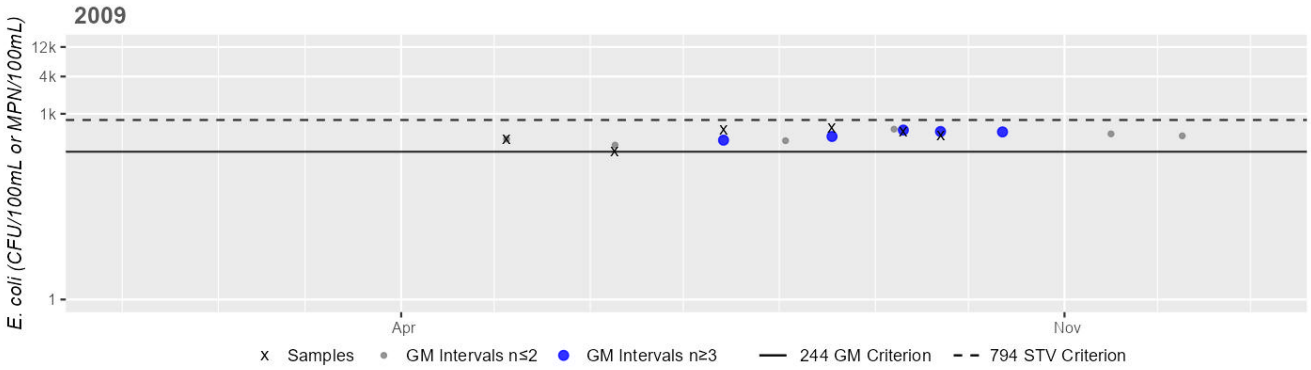
[Result units are CFU/100mL or MPN/100mL]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2028	MassDEP	E. coli	05/05/09	09/22/09	6	250	590	437
W2029	MassDEP	E. coli	05/05/09	09/22/09	6	330	2200	728
USGS-01105585	USGS Massachusetts Water Science Center	E. coli	06/17/99	12/15/99	5	200	2400	961

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
USGS-01105585	USGS Massachusetts Water Science Center	E. coli	04/05/00	06/19/00	4	430	29000	2357

Station MASSDEP_W2028 - Escherichia coli

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



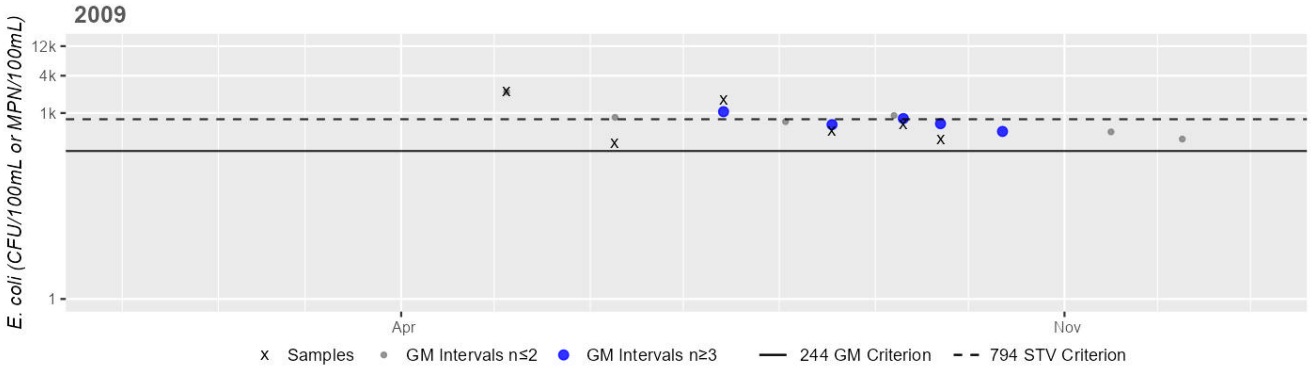
Variable*	Result
Samples	6
SeasGM	437
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	0
%n>STV	0%

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.*

Station MASSDEP_W2029 - Escherichia coli

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



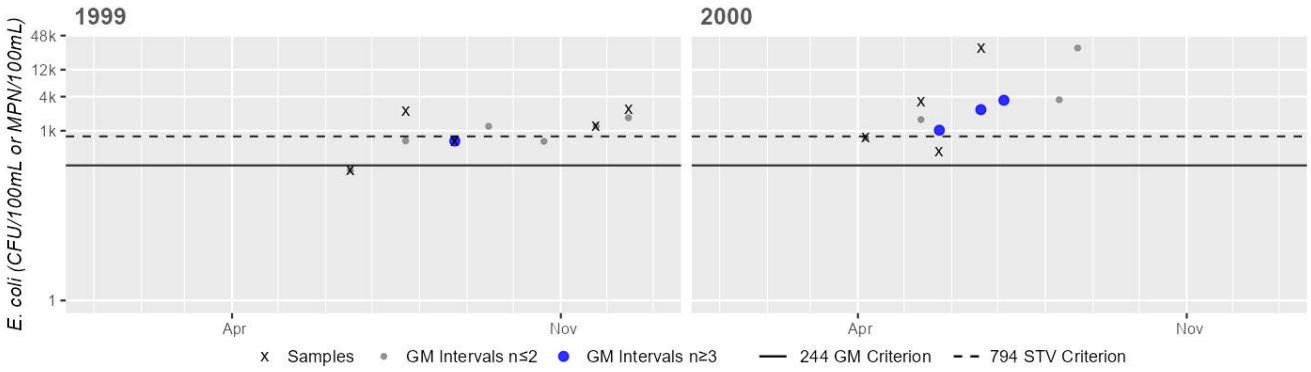
Variable*	Result
Samples	6
SeasGM	728
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	2
%n>STV	33%

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.*

Station USGS-01105585 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	961
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	3
%n>STV	60%

Variable*	Result
Samples	4
SeasGM	2357
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	2
%n>STV	50%

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.*

Town River Bay (MA74-15)

Location:	From the headwaters at the Route 3A bridge, Quincy to the mouth at Weymouth Fore River between Shipyard and Germantown Points, Quincy.
AU Type:	ESTUARY
AU Size:	0.46 SQUARE MILES
Classification/Qualifier:	SB: SFR

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Enterococcus	R1_MA_2019_01	Unchanged
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	PCBs in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Cause Unknown [Contaminants in Fish and/or Shellfish]	Source Unknown (N)	--	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--	--
Enterococcus	Source Unknown (N)	--	--	--	--	X	--
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	X	--	--	--
PCBs 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 Town River Bay (MA74-15) continues to be assessed as Not Supporting and the prior PCBs in Fish Tissue and Cause Unknown [Contaminants in Fish and/or Shellfish] impairment is being carried forward. DPH included a site-specific advisory for Town River Bay (referred to by MDPH as ''Boston Harbor'') in their 2017 Guide to Eating Fish Safely in Massachusetts. The public should refer to the most recent DPH information for the most up to date meal advice for sensitive and general populations.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Town River Bay (MA74-15): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.4392 sq mi (95%). The sum of the approved, conditionally approved, and restricted shellfish growing areas represents 0 sq mi (0%). The conditionally restricted shellfish growing area represents 0.107 sq mi (23%). The Shellfish Harvesting Use is assessed as Not Supporting because the growing areas (normalized to the AU area) are < 100% approved, conditionally approved, and/or restricted. 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 6)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH9.0	Weymouth Fore River	Prohibited	0.33222	71.9%
GBH9.4	Town River Bay	Conditionally Restricted	0.10699	23.2%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Town River Bay (MA74-15) 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 the Town River Bay (MA74-15) continues to be assessed as Not Supporting. The prior *Enterococcus* impairment is being carried forward based on DPH Beach Closures data not meeting the threshold at Broady (Baker) [Beach ID: 3100]. Town River Bay (MA74-15) has 4 beaches with DPH Beach Closure data: Broady (Baker) [Beach ID: 3100], Delano Ave. [Beach ID: 5422], Mound [Beach ID: 3094] and Avalon [Beach ID: 3088] beaches in Quincy. Beaches were posted for >10% of the swimming season at Broady (Baker) in 2018 (16%), 2019 (21%), 2021 (21%), and 2022 (15%) indicating an *Enterococcus* impairment. The shellfish growing areas (0.4392 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 Town River Bay (MA74-15) based on shellfish classification data.

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 3)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
3088	Avalon/ Quincy	42.24838, -70.97400	42.24771, -70.97170	4%	0%	0%	0%	0%	0%	6%	0%	0%	0
3094	Mound/ Quincy	42.25328, -70.97720	42.25140, -70.97640	0%	0%	0%	0%	21%	0%	0%	0%	0%	1
3100	Broady (Baker)/ Quincy	42.25728, -70.97200	42.25704, -70.97160	4%	10%	1%	1%	16%	21%	7%	21%	15%	4
5422	Delano Ave./ Quincy	42.25857, -70.97940	42.25856, -70.97950	10%	1%	0%	4%	0%	15%	0%	7%	0%	1

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Town River Bay (MA74-15): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.4392 sq mi (95%). 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 the Town River Bay (MA74-15) so it is assessed as having Insufficient Information. Town River Bay (MA74-15) has 4 beaches with DPH Beach Closure data: Broady (Baker) [Beach ID: 3100], Delano Ave. [Beach ID: 5422], Mound [Beach ID: 3094] and Avalon [Beach ID: 3088] beaches in Quincy. 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: Broady (Baker) in 2018, 2019, 2021, and 2022. The shellfish growing areas (0.4392 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 Town River Bay (MA74-15) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Town River Bay (MA74-15): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.4392 sq mi (95%). 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.

Trout Brook (MA74-12)

Location:	Headwaters southwest of South Street, Holbrook to inlet Lake Holbrook, Holbrook.
AU Type:	RIVER
AU Size:	1.2 MILES
Classification/Qualifier:	B

No usable data were available for Trout Brook (MA74-12) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

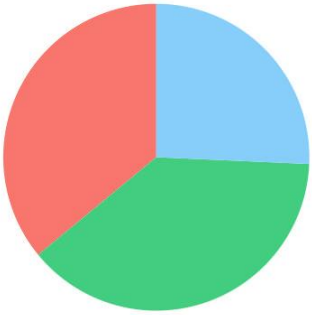
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Unnamed Tributary (MA74-19)

Location:	Unnamed Tributary to Plymouth River, headwaters, west of Route 53 (Whiting Street), Hingham to mouth at confluence with Plymouth River, Hingham.
AU Type:	RIVER
AU Size:	1.1 MILES
Classification/Qualifier:	B

Unnamed Tributary (MA74-19)

Watershed Area: 0.62 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	0.62	0.62	0.36	0.36
Agriculture	0%	0%	0%	0%
Developed	36%	36%	27.7%	27.7%
Natural	38.3%	38.3%	36.8%	36.8%
Wetland	25.7%	25.7%	35.5%	35.5%
Impervious	17.1%	17.1%	12.5%	12.5%

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Temperature	Baseflow Depletion from Groundwater Withdrawals (Y)	X	--	--	--	--
Temperature	Impervious Surface/Parking Lot Runoff (Y)	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 Unnamed Tributary (MA74-19) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for this Unnamed Tributary to Plymouth River (MA74-19) is assessed as Fully Supporting based on the general lack of objectionable conditions observed by MassDEP staff during summer 2018. Aesthetic observations were made by MassDEP field sampling crews approximately halfway down the AU at the most northerly Cushing Street crossing, Hingham (W2038), during the summer of 2018 as part of the SERO MST project (n=3). 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
W2038	MassDEP	Water Quality	Unnamed Tributary	[unnamed tributary to the Plymouth River at the most northerly Cushing Street crossing, Hingham]	42.187871	-70.901033

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2038	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2038 on Unnamed Tributary (MA74-19) during 3 site visits between Jun 2018 and Jul 2018. 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 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2038	2018	3	3	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2038	Unnamed Tributary	2018	Aquatic Plant Density, Overall	None	3	3
W2038	Unnamed Tributary	2018	Color	None	3	3
W2038	Unnamed Tributary	2018	Odor	None	3	3
W2038	Unnamed Tributary	2018	Periphyton Density, Filamentous	None	3	3
W2038	Unnamed Tributary	2018	Periphyton Density, Film	None	3	3
W2038	Unnamed Tributary	2018	Turbidity	Slightly Turbid	3	3

Primary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for Unnamed Tributary (MA74-19) is assessed as Fully Supporting. MassDEP staff collected *E. coli* bacteria samples in Unnamed Tributary (MA74-19) at W2038 [unnamed tributary to the Plymouth River at the most northerly Cushing St crossing, Hingham] from Jun-Jul 2018 (n=3). Analysis of the single year limited frequency *E. coli* dataset from W2038 indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 117 CFU/100ml. *E. coli* data from W2038 meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2038	MassDEP	Water Quality	Unnamed Tributary	[unnamed tributary to the Plymouth River at the most northerly Cushing Street crossing, Hingham]	42.187871	-70.901033

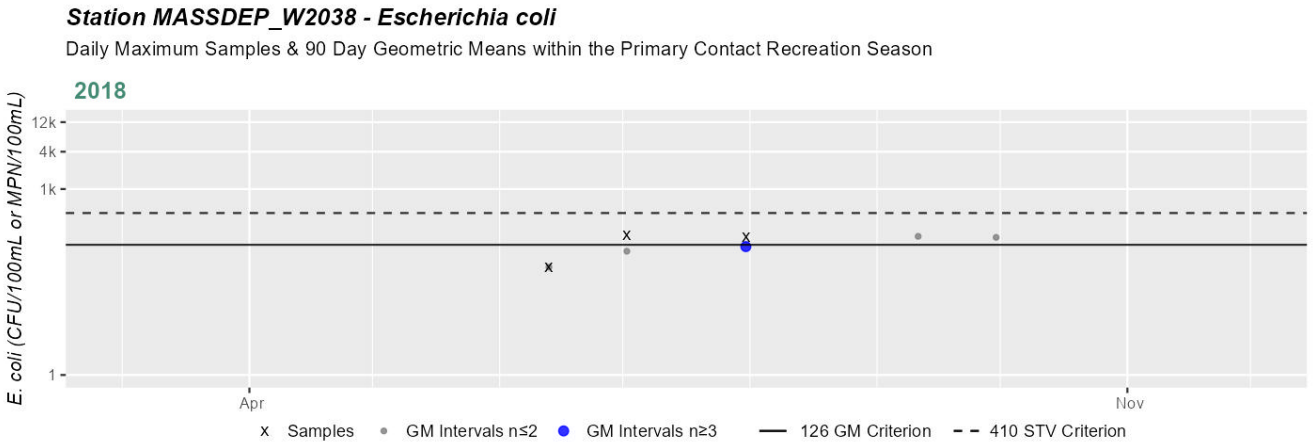
Bacteria Data

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

(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2038	MassDEP	E. coli	06/13/18	07/31/18	3	55	179	117



Variable*	Result
Samples	3
SeasGM	117
#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 Unnamed Tributary (MA74-19) is assessed as Fully Supporting. MassDEP staff collected *E. coli* bacteria samples in Unnamed Tributary (MA74-19) at W2038 [unnamed tributary to the Plymouth River at the most northerly Cushing St crossing, Hingham] from Jun-Jul 2018 (n=3). Analysis of the single year limited frequency *E. coli* dataset from W2038 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 117 CFU/100ml. *E. coli* data from W2038 meet 2024 CALM guidance.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2038	MassDEP	Water Quality	Unnamed Tributary	[unnamed tributary to the Plymouth River at the most northerly Cushing Street crossing, Hingham]	42.187871	-70.901033

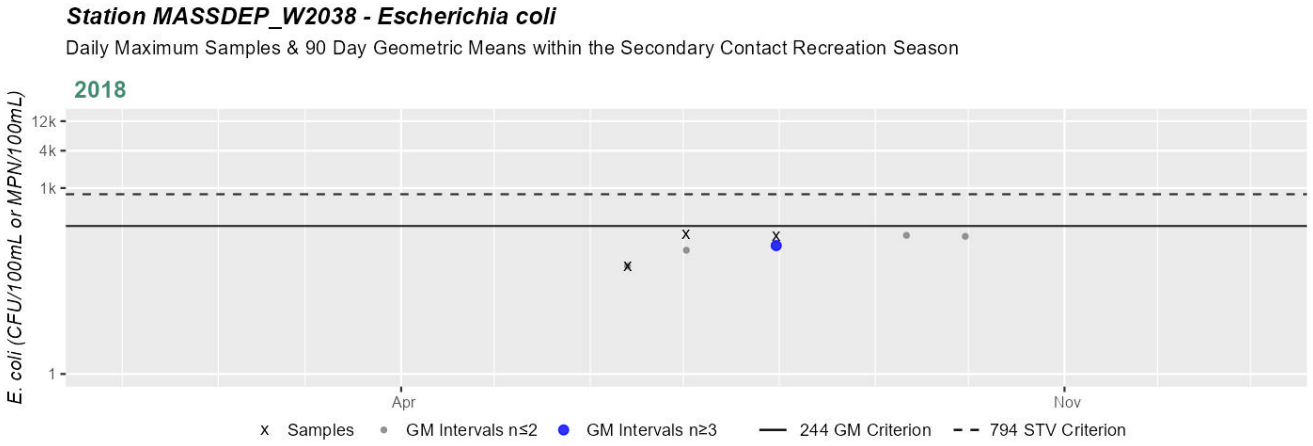
Bacteria Data

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

(MassDEP Undated 8) (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
W2038	MassDEP	E. coli	06/13/18	07/31/18	3	55	179	117



Variable*	Result
Samples	3
SeasGM	117
#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.*

Unnamed Tributary (MA74-26)

Location:	Unnamed tributary to Monatiquot River, headwaters outlet Sunset Lake, Braintree to mouth at confluence with Monatiquot River, south of Pond Street, Braintree.
AU Type:	RIVER
AU Size:	0.4 MILES
Classification/Qualifier:	B

No usable data were available for Unnamed Tributary (MA74-26) 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
3	3	None	--	Unchanged

Unnamed Tributary (MA74-29)

Location:	Unnamed tributary to Mill River, headwaters outlet Weymouth Great Pond at Weymouth Great Pond Dam (NATID#: MA00777), Weymouth to mouth at confluence with Mill River, Weymouth.
AU Type:	RIVER
AU Size:	0.5 MILES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Unnamed Tributary (MA74-29) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

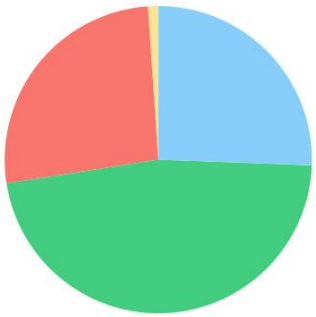
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
--	3	None	--	Unchanged

Weir River (MA74-02)

Location:	Headwaters at confluence of Crooked Meadow River and Fulling Mill Brook, Hingham to Foundry Pond outlet, Hingham (through former 2008 segment: Foundry Pond MA74011) (a portion is within the Weir River ACEC).
AU Type:	RIVER
AU Size:	2.7 MILES
Classification/Qualifier:	B: ORW

Weir River (MA74-02)

Watershed Area: 15.05 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	15.05	6.21	6.37	2.02
Agriculture	1.1%	2.6%	0.8%	2.4%
Developed	26.4%	19.9%	20%	15.4%
Natural	46.9%	49.8%	41.5%	42.4%
Wetland	25.6%	27.7%	37.6%	39.7%
Impervious	12.9%	9.8%	10.2%	7.3%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Curly-leaf Pondweed*)	--	Unchanged
5	5	(Dewatering*)	--	Unchanged
5	5	(Fish Passage Barrier*)	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
5	5	Sedimentation/Siltation	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Curly-leaf Pondweed*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
(Dewatering*)	Baseflow Depletion from Groundwater Withdrawals (Y)	X	--	--	--	--
(Fish Passage Barrier*)	Dam or Impoundment (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	X	--
Nutrient/Eutrophication Biological Indicators	Source Unknown (N)	--	--	X	X	X
Sedimentation/Siltation	Source Unknown (N)	X	--	--	--	--

Recommendations

2024/26 Recommendations
2024 IR [MACROPHYTES, LOW] Additional aesthetics monitoring is recommended for the Foundry Pond area of the Weir River AU i.e. downstream of the railroad line, and at {W2034} to confirm whether excessive growth of Aquatic Plants remains a problem 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 Weir River (MA74-02) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary
The Aesthetics Use for Weir River (MA74-02) continues to be assessed as Not Supporting with the prior Nutrient/Eutrophication Biological Indicators impairment (associated with Foundry Pond) being carried forward. An Alert is being identified for Aquatic Plants (Macrophytes) due to numerous observations of dense and very dense Aquatic Plants at Leavitt Street in 2014. MassDEP staff recorded aesthetics observations at five stations in Hingham on this Weir River AU, during the summer of 2013 as part of the MAP2 wadeable streams monitoring project and 2014 as part of the SERO MST project. These stations are described from upstream to downstream as follows: at the upstream end of the AU at Free Street (W2500, n=3), a little further downstream at Union Street (W2499, n=3), about halfway down the AU at Leavitt Street (W2034, n=3), then about three-quarters of the way down ~110 feet upstream/south of Rt.228 (East Street) (W2395, n=8) and at Rt. 228 (East Street) (W2033, n=3). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded by field sampling crews at any of the stations, though field staff noted dense and very dense Aquatic Plants on three occasions at W2034 and grey water color on one occasion at W2395. While there were no observations of objectionable conditions in the Weir River in 2013 and 2014, none of these observations were made in the “Foundry Pond area” (located at the downstream end of this Weir River AU) where historically (in 1992) very dense growths of Aquatic Macrophytes were noted to cover the entire pond, ultimately in 2012 resulting in the impairment of Nutrient/Eutrophication Biological Indicators. Additional aesthetics monitoring is recommended for the Foundry Pond area of the Weir River AU i.e. downstream of the railroad line, to confirm whether excessive growth of Aquatic Plants remains a problem in this AU.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2033	MassDEP	Water Quality	Weir River	[Route 228 (East Street), Hingham]	42.242575	-70.859055
W2034	MassDEP	Water Quality	Weir River	[Leavitt Street, Hingham]	42.234586	-70.872251
W2395	MassDEP	Water Quality	Weir River	[approximately 110 feet upstream/south of Route 228 (East Street), Hingham]	42.242234	-70.859106
W2499	MassDEP	Water Quality	Weir River	[Union Street, Hingham]	42.222651	-70.873848
W2500	MassDEP	Water Quality	Weir River	[Free Street, Hingham]	42.217434	-70.876568

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2033	2014	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2033 on Weir River (MA74-02) during 3 site visits between Jun 2014 and Sep 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2034	2014	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2034 on Weir River (MA74-02) during 3 site visits between Jun 2014 and Sep 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted dense/very dense aquatic plants (n=3).
W2395	2013	8	Aesthetic observations were made by MassDEP field sampling crews at Station W2395 on Weir River (MA74-02) during 8 site visits between May 2013 and Sep 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted grey water color (n=1).
W2499	2014	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2499 on Weir River (MA74-02) during 3 site visits between Jun 2014 and Sep 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2500	2014	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2500 on Weir River (MA74-02) during 3 site visits between Jun 2014 and Sep 2014. 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 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2033	2014	3	3	0
W2034	2014	3	3	0
W2395	2013	8	6	0
W2499	2014	3	3	0
W2500	2014	3	3	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2033	Weir River	2014	Aquatic Plant Density, Overall	None	2	3
W2033	Weir River	2014	Aquatic Plant Density, Overall	Sparse	1	3
W2033	Weir River	2014	Color	Light Yellow/Tan	1	3
W2033	Weir River	2014	Color	None	2	3
W2033	Weir River	2014	Odor	None	3	3
W2033	Weir River	2014	Periphyton Density, Filamentous	None	3	3
W2033	Weir River	2014	Periphyton Density, Film	Moderate	1	3
W2033	Weir River	2014	Periphyton Density, Film	None	1	3
W2033	Weir River	2014	Periphyton Density, Film	Sparse	1	3
W2033	Weir River	2014	Turbidity	Moderately Turbid	1	3
W2033	Weir River	2014	Turbidity	Slightly Turbid	2	3
W2034	Weir River	2014	Aquatic Plant Density, Overall	Dense	2	3
W2034	Weir River	2014	Aquatic Plant Density, Overall	Very Dense	1	3
W2034	Weir River	2014	Color	None	3	3
W2034	Weir River	2014	Odor	Musty (Basement)	1	3
W2034	Weir River	2014	Odor	None	2	3
W2034	Weir River	2014	Periphyton Density, Filamentous	None	1	3
W2034	Weir River	2014	Periphyton Density, Filamentous	Sparse	2	3
W2034	Weir River	2014	Periphyton Density, Film	Sparse	3	3
W2034	Weir River	2014	Turbidity	Slightly Turbid	3	3
W2395	Weir River	2013	Aesthetics Impaired?	No	6	8
W2395	Weir River	2013	Aesthetics Impaired?	NR	2	8
W2395	Weir River	2013	Aquatic Plant Density, Overall	None	1	8
W2395	Weir River	2013	Aquatic Plant Density, Overall	Sparse	4	8
W2395	Weir River	2013	Aquatic Plant Density, Overall	Unobservable	3	8
W2395	Weir River	2013	Color	Greyish	1	8
W2395	Weir River	2013	Color	Light Yellow/Tan	5	8
W2395	Weir River	2013	Color	None	2	8
W2395	Weir River	2013	Objectionable Deposits	No	8	8
W2395	Weir River	2013	Odor	None	8	8

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2395	Weir River	2013	Periphyton Density, Filamentous	None	6	8
W2395	Weir River	2013	Periphyton Density, Filamentous	Unobservable	2	8
W2395	Weir River	2013	Periphyton Density, Film	None	6	8
W2395	Weir River	2013	Periphyton Density, Film	Unobservable	2	8
W2395	Weir River	2013	Scum	No	6	8
W2395	Weir River	2013	Scum	Yes	2	8
W2395	Weir River	2013	Turbidity	None	7	8
W2395	Weir River	2013	Turbidity	Slightly Turbid	1	8
W2499	Weir River	2014	Aquatic Plant Density, Overall	None	3	3
W2499	Weir River	2014	Color	None	3	3
W2499	Weir River	2014	Odor	None	3	3
W2499	Weir River	2014	Periphyton Density, Filamentous	None	3	3
W2499	Weir River	2014	Periphyton Density, Film	Sparse	3	3
W2499	Weir River	2014	Turbidity	Slightly Turbid	3	3
W2500	Weir River	2014	Aquatic Plant Density, Overall	None	1	3
W2500	Weir River	2014	Aquatic Plant Density, Overall	Sparse	2	3
W2500	Weir River	2014	Color	None	3	3
W2500	Weir River	2014	Odor	None	3	3
W2500	Weir River	2014	Periphyton Density, Filamentous	None	3	3
W2500	Weir River	2014	Periphyton Density, Film	Moderate	2	3
W2500	Weir River	2014	Periphyton Density, Film	Sparse	1	3
W2500	Weir River	2014	Turbidity	Slightly Turbid	3	3

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Weir River (MA74-02) 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 W2500, W2499, W2034, and W2395. The prior Fecal Coliform impairment is being carried forward and the prior Nutrient/Eutrophication Biological Indicators impairment (from the Aesthetics Use) is being carried forward. MassDEP staff collected *E. coli* bacteria samples in the Weir River (MA74-02) from 2013-2014 at 5 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2500 [Free St, Hingham] from Jun-Sep 2014 (n=3), W2499 [Union St, Hingham] from Jun-Sep 2014 (n=3), W2034 [Leavitt St, Hingham] from Jun-Sep 2014 (n=3), W2395 [~110 ft upstream/S of Rt. 228 (E St), Hingham] from May-Sep 2013 (n=5), W2033 [Rt. 228 (E St), Hingham] from Jun-Sep 2014 (n=3). Analysis of the single year limited frequency *E. coli* dataset from W2500 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 157 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2499 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 267 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2034 indicated 100% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 179 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2395 indicated 100% of intervals had GMs >126 CFU/100ml, 1 sample exceeded the 410 CFU/100ml STV, and the seasonal GM was 214 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2033 indicated 0% of intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV, and the seasonal GM was 117 CFU/100ml. While *E. coli* data from W2033 meet 2024 CALM guidance, *E. coli* data from W2500, W2499, W2034, and W2395 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2033	MassDEP	Water Quality	Weir River	[Route 228 (East Street), Hingham]	42.242575	-70.859055
W2034	MassDEP	Water Quality	Weir River	[Leavitt Street, Hingham]	42.234586	-70.872251
W2395	MassDEP	Water Quality	Weir River	[approximately 110 feet upstream/south of Route 228 (East Street), Hingham]	42.242234	-70.859106
W2499	MassDEP	Water Quality	Weir River	[Union Street, Hingham]	42.222651	-70.873848
W2500	MassDEP	Water Quality	Weir River	[Free Street, Hingham]	42.217434	-70.876568

Bacteria Data

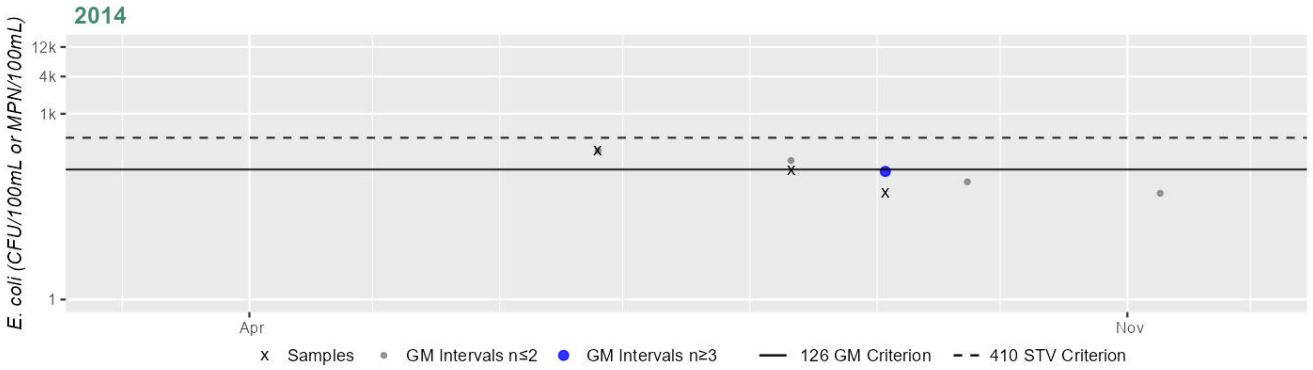
Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2033	MassDEP	E. coli	06/25/14	09/03/14	3	52	253	117
W2034	MassDEP	E. coli	06/25/14	09/03/14	3	144	210	179
W2395	MassDEP	E. coli	05/30/13	09/25/13	5	85	590	214
W2499	MassDEP	E. coli	06/25/14	09/03/14	3	152	411	267
W2500	MassDEP	E. coli	06/25/14	09/03/14	3	86	411	157

Station MASSDEP_W2033 - Escherichia coli

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



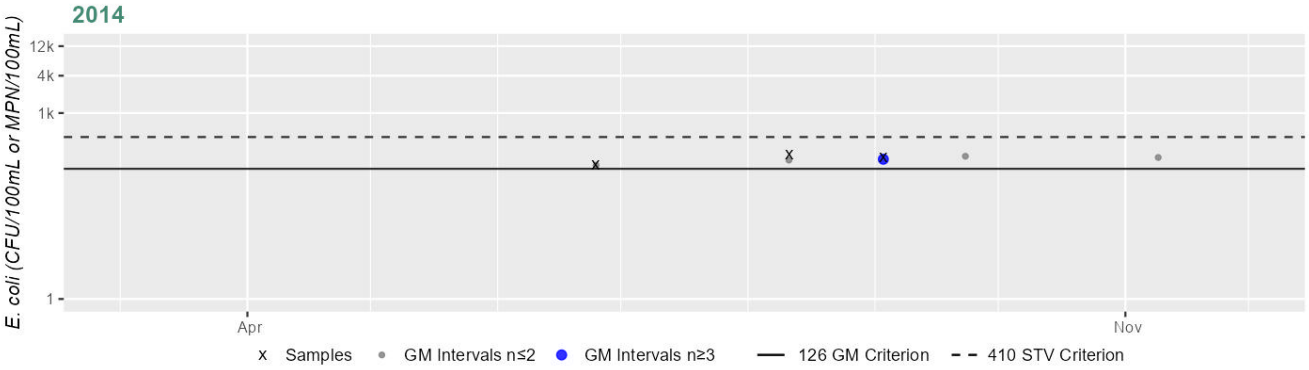
Variable*	Result
Samples	3
SeasGM	117
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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.*

Station MASSDEP_W2034 - Escherichia coli

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



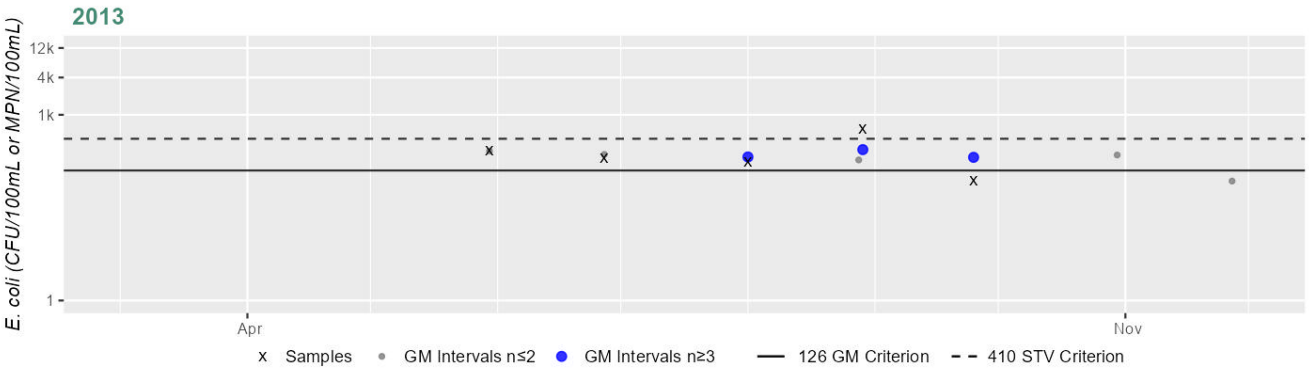
Variable*	Result
Samples	3
SeasGM	179
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

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.*

Station MASSDEP_W2395 - Escherichia coli

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



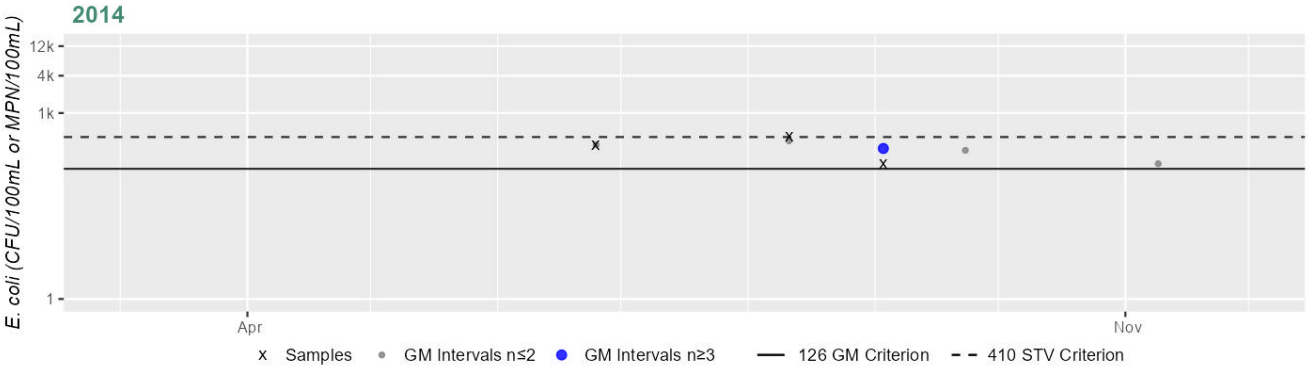
Variable*	Result
Samples	5
SeasGM	214
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	20%

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.*

Station MASSDEP_W2499 - Escherichia coli

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



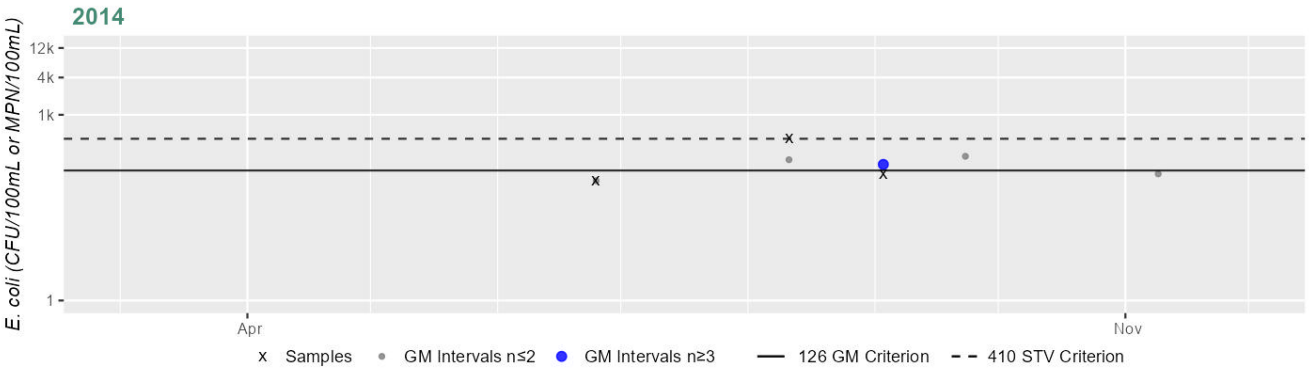
Variable*	Result
Samples	3
SeasGM	267
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

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.*

Station MASSDEP_W2500 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	157
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

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 the Weir River (MA74-02) continues to be assessed as Not Supporting. The prior Nutrient/Eutrophication Biological Indicators impairment (from the Aesthetics Use) is being carried forward. An *Escherichia coli (E. coli)* impairment is being added based on a re-evaluation of bacteria data not meeting the threshold at W2499. MassDEP and USGS staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Weir River (MA74-02) from 1999-2014 at 6 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2500 [Free St, Hingham] from Jun-Sep 2014 (n=3), W2499 [Union St, Hingham] from Jun-Sep 2014 (n=3), W2034 [Leavitt St, Hingham] from May-Sep 2009 (historic n=6) and Jun-Sep 2014 (current n=3), W2395 [~110 ft upstream/S of Rt. 228 (E St), Hingham] from May-Sep 2013 (n=5), W2033 [Rt. 228 (E St), Hingham] from May-Sep 2009 (historic n=6) and Jun-Sep 2014 (current n=3), USGS-01105642 [Weir River At Rt3a Bridge Near Hingham, Ma] from 1999-2000 (n=4-6/yr). Analysis of the single year limited frequency *E. coli* dataset from W2500 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 157 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2499 indicated 100% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 267 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2034 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 179 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2395 indicated 33% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 214 CFU/100ml. Analysis of the single year limited frequency *E. coli* dataset from W2033 indicated 0% of intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV, and the overall GM was 117 CFU/100ml. While *E. coli* data from W2500, W2034, W2395, and W2033 meet 2024 CALM guidance, *E. coli* data from W2499 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2033	MassDEP	Water Quality	Weir River	[Route 228 (East Street), Hingham]	42.242575	-70.859055
W2034	MassDEP	Water Quality	Weir River	[Leavitt Street, Hingham]	42.234586	-70.872251
W2395	MassDEP	Water Quality	Weir River	[approximately 110 feet upstream/south of Route 228 (East Street), Hingham]	42.242234	-70.859106
W2499	MassDEP	Water Quality	Weir River	[Union Street, Hingham]	42.222651	-70.873848

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2500	MassDEP	Water Quality	Weir River	[Free Street, Hingham]	42.217434	-70.876568
USGS-01105642	USGS Massachusetts Water Science Center	Water Quality	Weir River	Weir River At Rt3A Bridge Near Hingham, MA	42.243434	-70.859489

Bacteria Data

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

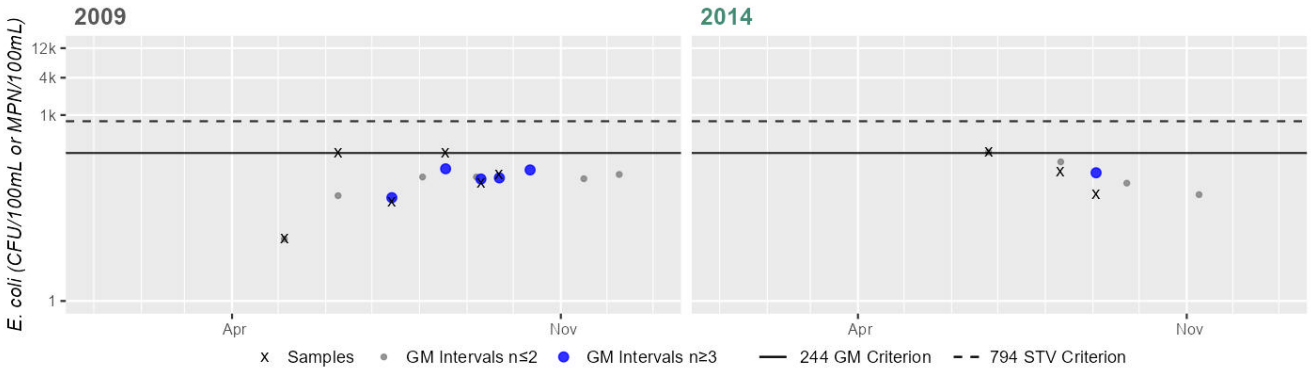
(MassDEP Undated 8) (MassDEP Undated 4) (USGS 2024) (MassDEP Undated 2)

[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
W2033	MassDEP	E. coli	05/05/09	09/22/09	6	10	250	77
W2033	MassDEP	E. coli	06/25/14	09/03/14	3	52	253	117
W2034	MassDEP	E. coli	05/05/09	09/22/09	6	70	470	135
W2034	MassDEP	E. coli	06/25/14	09/03/14	3	144	210	179
W2395	MassDEP	E. coli	05/30/13	09/25/13	5	85	590	214
W2499	MassDEP	E. coli	06/25/14	09/03/14	3	152	411	267
W2500	MassDEP	E. coli	06/25/14	09/03/14	3	86	411	157
USGS-01105642	USGS Massachusetts Water Science Center	E. coli	06/02/99	12/14/99	6	17	410	139
USGS-01105642	USGS Massachusetts Water Science Center	E. coli	01/12/00	06/20/00	4	36	240	71

Station MASSDEP_W2033 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	77
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	3
SeasGM	117
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

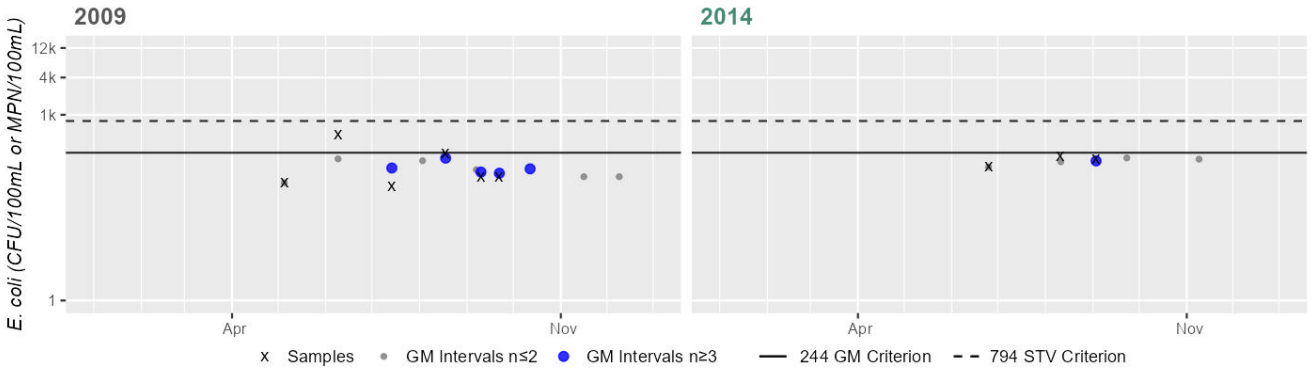
Cumulative %GMI Exceedance Historic (1997-2010)
0%

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 MASSDEP_W2034 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	135
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	3
SeasGM	179
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

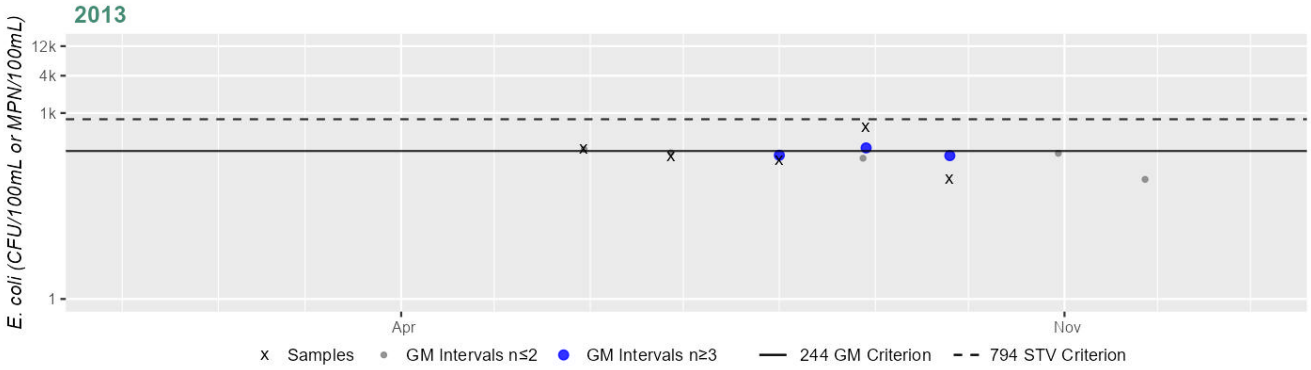
Cumulative %GMI Exceedance Historic (1997-2010)
0%

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 MASSDEP_W2395 - Escherichia coli

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



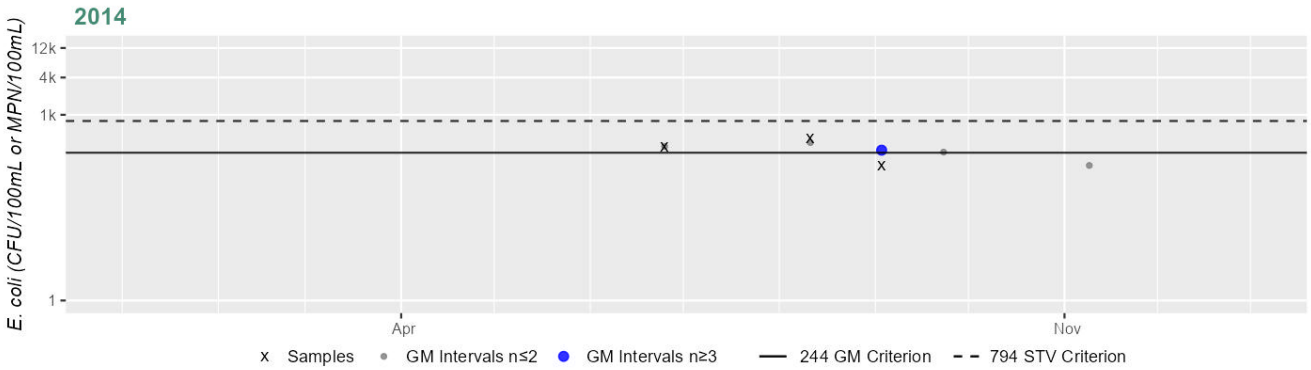
Variable*	Result
Samples	5
SeasGM	214
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
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_W2499 - Escherichia coli

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



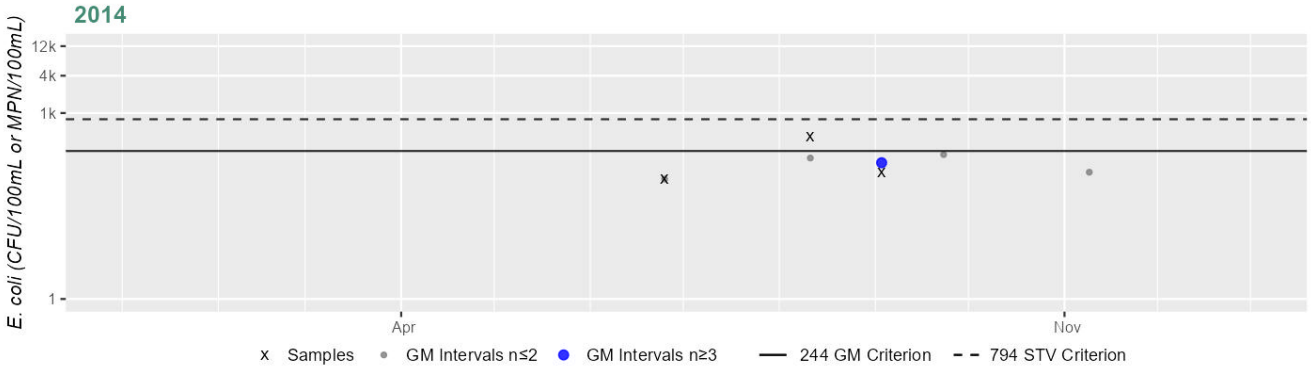
Variable*	Result
Samples	3
SeasGM	267
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

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.*

Station MASSDEP_W2500 - Escherichia coli

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



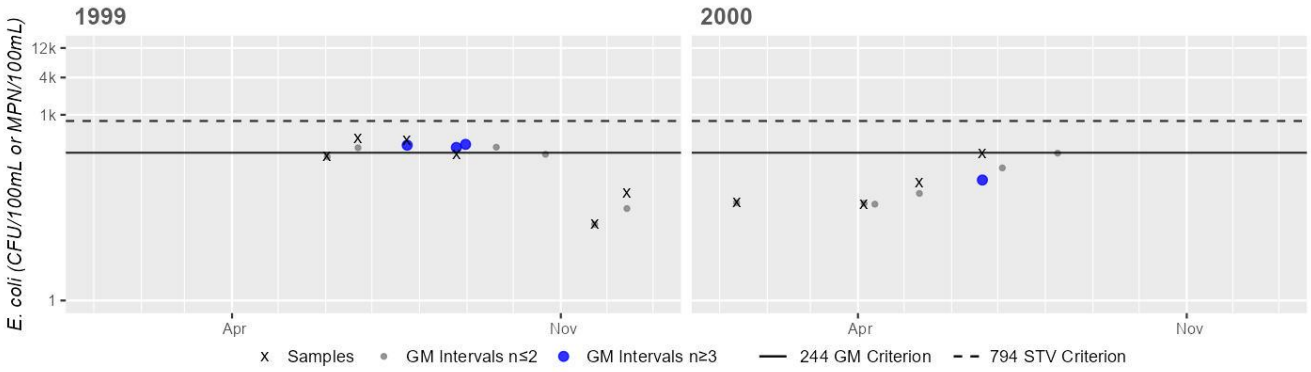
Variable*	Result
Samples	3
SeasGM	157
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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.*

Station USGS-01105642 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	139
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	4
SeasGM	71
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
75%

**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.*

Weir River (MA74-11)

Location:	From Foundry Pond outlet, Hingham to mouth at Worlds End, Hingham and Nantasket Road near Beech Avenue, Hull (including unnamed tributary from outlet Straits Pond, Hingham/Hull) (a portion is within the Weir River ACEC).
AU Type:	ESTUARY
AU Size:	0.83 SQUARE MILES
Classification/Qualifier:	SA: ORW, SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
5	5	Enterococcus	R1_MA_2019_01	Added
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	PCBs in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Cause Unknown [Contaminants in Fish and/or Shellfish]	Source Unknown (N)	--	X	--	--	--	--
Enterococcus	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	--	X	X
Enterococcus	Source Unknown (N)	--	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--
PCBs 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 Weir River (MA74-11) continues to be assessed as Not Supporting and the prior Cause Unknown [Contaminants in Fish and/or Shellfish] and PCBs in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Weir River (referred to by MDPH as ''Boston Harbor'') in their 2017 Guide to Eating Fish Safely in Massachusetts. The public should refer to the most recent DPH information for the most up to date meal advice for sensitive and general populations.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Weir River (MA74-11): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.8005 sq mi (96%). 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 6)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH7.0	Weir River and Hingham Harbor	Prohibited	0.28253	33.9%
GBH7.1	Clam Alley	Prohibited	0.12786	15.4%
GBH7.2	Eaton's "A" Flat	Conditionally Restricted	0.04619	5.5%
GBH7.3	Jakes	Conditionally Restricted	0.10254	12.3%
GBH7.4	Upper Weir River	Conditionally Restricted	0.09385	11.3%
GBH7.6	Lower Weir River	Prohibited	0.00723	0.9%
GBH7.7	Worlds End	Conditionally Restricted	0.13849	16.6%
GBH7.8	Hingham Harbor East	Conditionally Restricted	0.00182	0.2%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Weir River (MA74-11) 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 the Weir River (MA74-11) is assessed as Not Supporting. An *Enterococcus* impairment is being added due to bacteria data not meeting the threshold at CCSCR_Estuary Center and CCSCR_Rockland. Weir River (MA74-11) has a beach with DPH Beach Closure data: Edgewater [Beach ID: 5227] beach in Hull. The beach was rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (0.8005 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 Weir River (MA74-11) based on shellfish classification data. CCSCR staff/volunteers collected *Enterococcus* bacteria samples in the Weir River (MA74-11) from 2019-2020 at 4 stations. Samples were collected from the following stations/sample years: CCSCR_Estuary Center [shoreline] from 2019-2020 (n=8-13/yr), CCSCR_Rockland [Shoreline] from 2019-2020 (n=9-13/yr), CCSCR_Truro [Shoreline] from 2019-2020 (n=8-13/yr), CCSCR_West Corner [shoreline] from 2019-2020 (n=8-13/yr). Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Estuary Center indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >35 CFU/100ml (2019 and 2020, 38 & 39%), 0 yrs had ≥2 samples exceed the 130 CFU/100ml STV, and cumulatively across years 38% of intervals had GMs >35 CFU/100ml. Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Rockland indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >35 CFU/100ml (2019 and 2020, 93 & 100%), 2 yrs had ≥2 samples exceed the 130 CFU/100ml STV (2019 and 2020, n=4 & 5), and cumulatively across years 97% of intervals had GMs >35 CFU/100ml. Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Truro indicated 1 out of 2 sufficient data yrs had intervals where >20% of the GMs were >35 CFU/100ml (2019, 69%), 0 yrs had ≥2 samples exceed the 130 CFU/100ml STV, and cumulatively across years 25% of intervals had GMs >35 CFU/100ml. Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_West Corner indicated 1 out of 2 sufficient data yrs had intervals where >20% of the GMs were >35 CFU/100ml (2019, 46%), 1 yr had ≥2 samples exceed the 130 CFU/100ml STV (2019, n=2), and cumulatively across years 16% of intervals had GMs >35 CFU/100ml. While *Enterococcus* data from CCSCR_Truro and CCSCR_West Corner meet 2024 CALM guidance, *Enterococcus* data from CCSCR_Estuary Center and CCSCR_Rockland are indicative of an *Enterococcus* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Estuary Center	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	shoreline	42.259936	-70.860922
CCSCR_Rockland	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	Shoreline	42.251821	-70.860691
CCSCR_Truro	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	Shoreline	42.263156	-70.867427

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_West Corner	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	shoreline	42.260214	-70.845559

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (30-day Interval Analysis)

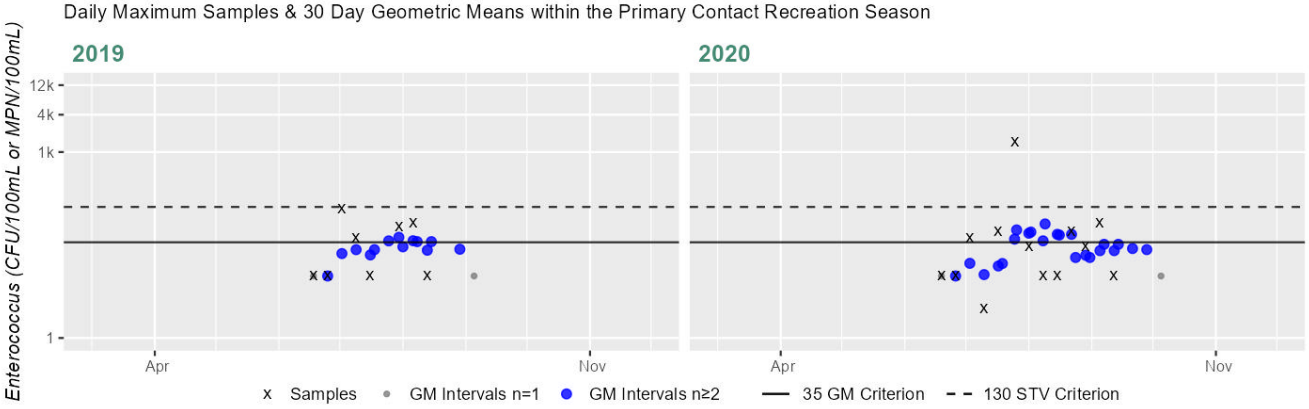
(CCSCR 2020) (MassDEP Undated 3)

[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
CCSCR_Estuary Center	Cohasset Center for Student Coastal Research	Enterococcus	06/18/19	08/13/19	8	10	122	26
CCSCR_Estuary Center	Cohasset Center for Student Coastal Research	Enterococcus	06/18/20	09/11/20	13	3	1467	26
CCSCR_Rockland	Cohasset Center for Student Coastal Research	Enterococcus	06/18/19	08/13/19	9	20	15531	153
CCSCR_Rockland	Cohasset Center for Student Coastal Research	Enterococcus	06/18/20	09/11/20	13	31	1223	127
CCSCR_Truro	Cohasset Center for Student Coastal Research	Enterococcus	06/18/19	08/13/19	8	10	109	35
CCSCR_Truro	Cohasset Center for Student Coastal Research	Enterococcus	06/18/20	09/11/20	13	1	231	14
CCSCR_West Corner	Cohasset Center for Student Coastal Research	Enterococcus	06/18/19	08/13/19	8	10	450	32
CCSCR_West Corner	Cohasset Center for Student Coastal Research	Enterococcus	06/18/20	09/11/20	13	10	75	17

Station CCSCR_Estuary Center - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	8
SeasGM	26
#GMI	13
#GMI Ex	5
%GMI Ex	38%
n>STV	0
%n>STV	0%

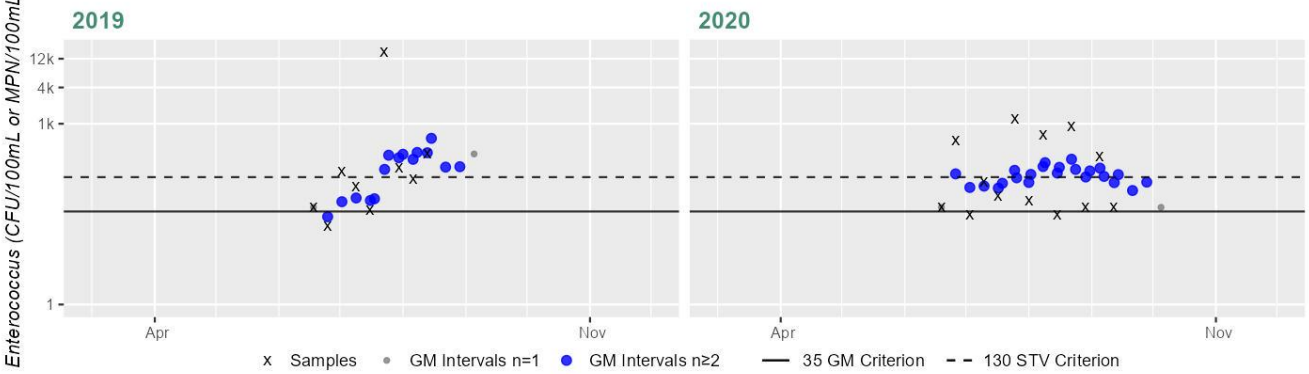
Variable*	Result
Samples	13
SeasGM	26
#GMI	23
#GMI Ex	9
%GMI Ex	39%
n>STV	1
%n>STV	7%

Cumulative %GMI Exceedance
Current (2011-2022)
38%

**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 CCSCR_Rockland - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	9
SeasGM	153
#GMI	15
#GMI Ex	14
%GMI Ex	93%
n>STV	4
%n>STV	44%

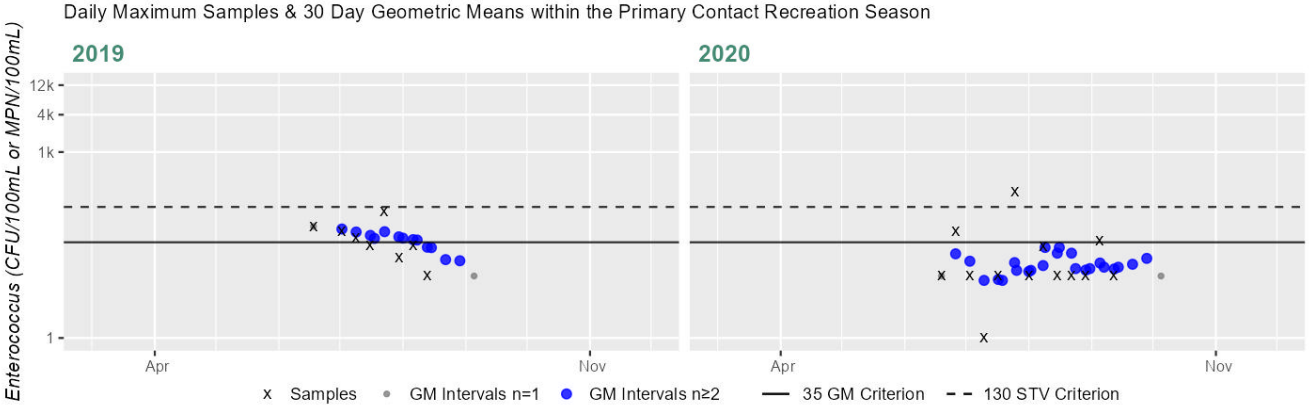
Variable*	Result
Samples	13
SeasGM	127
#GMI	23
#GMI Ex	23
%GMI Ex	100%
n>STV	5
%n>STV	38%

Cumulative %GMI Exceedance
Current (2011-2022)
97%

**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 CCSCR_Truro - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	8
SeasGM	35
#GMI	13
#GMI Ex	9
%GMI Ex	69%
n>STV	0
%n>STV	0%

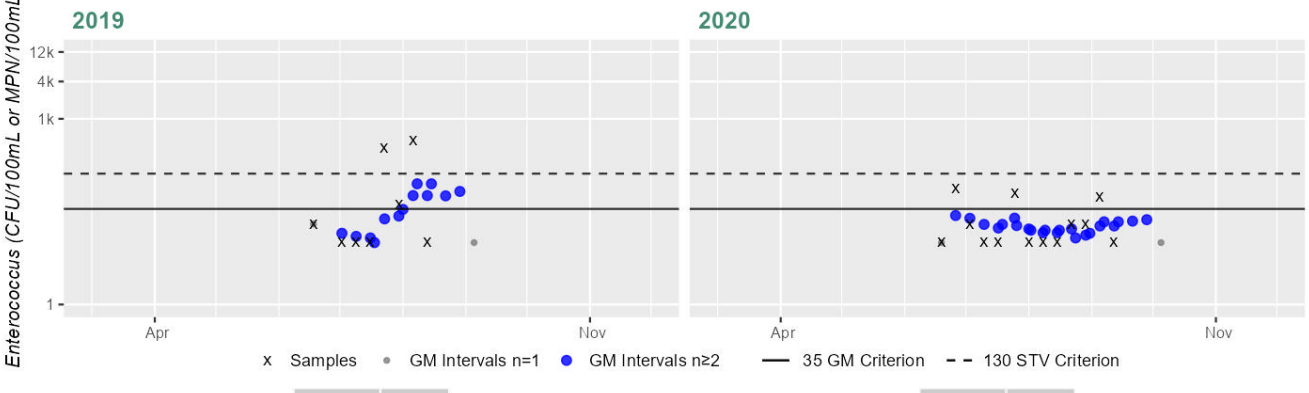
Variable*	Result
Samples	13
SeasGM	14
#GMI	23
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	7%

Cumulative %GMI Exceedance
Current (2011-2022)
25%

**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 CCSCR_West Corner - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	8
SeasGM	32
#GMI	13
#GMI Ex	6
%GMI Ex	46%
n>STV	2
%n>STV	25%

Variable*	Result
Samples	13
SeasGM	17
#GMI	23
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
16%

**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 3)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
5227	Edgewater/ Hull	42.27615, -70.87190	42.27573, -70.87370	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 6)

Summary
Weir River (MA74-11): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.8005 sq mi (96%). 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
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for the Weir River (MA74-11) is assessed as Not Supporting. An *Enterococcus* impairment is being added based on a re-evaluation of bacteria data not meeting the threshold at CCSCR_Rockland. Weir River (MA74-11) has a beach with DPH Beach Closure data: Edgewater [Beach ID: 5227] beach in Hull. The beach was rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (0.8005 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 Weir River (MA74-11) based on shellfish classification data. CCSCR staff/volunteers collected *Enterococcus* bacteria samples in the Weir River (MA74-11) from 2019-2020 at 4 stations. Samples were collected from the following stations/sample years: CCSCR_Estuary Center [shoreline] from 2019-2020 (n=8-13/yr), CCSCR_Rockland [Shoreline] from 2019-2020 (n=9-13/yr), CCSCR_Truro [Shoreline] from 2019-2020 (n=8-13/yr), CCSCR_West Corner [shoreline] from 2019-2020 (n=8-13/yr). Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Rockland indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >68 CFU/100ml (2019 and 2020, 76 & 100%), 2 yrs had ≥2 samples exceed the 252 CFU/100ml STV (2019 and 2020, n=2 & 5), and cumulatively across years 91% of intervals had GMs >68 CFU/100ml. Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Estuary Center indicated 0 out of 2 sufficient data yrs had intervals where >20% of the GMs were >68 CFU/100ml, 0 yrs had ≥2 samples exceed the 252 CFU/100ml STV, and cumulatively across years 0% of intervals had GMs >68 CFU/100ml. Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Truro indicated 0 out of 2 sufficient data yrs had intervals where >20% of the GMs were >68 CFU/100ml, 0 yrs had ≥2 samples exceed the 252 CFU/100ml STV, and cumulatively across years 0% of intervals had GMs >68 CFU/100ml. Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_West Corner indicated 0 out of 2 sufficient data yrs had intervals where >20% of the GMs were >68 CFU/100ml, 1 yr had ≥2 samples exceed the 252 CFU/100ml STV (2019, n=2), and cumulatively across years 3% of intervals had GMs >68 CFU/100ml. While *Enterococcus* data from CCSCR_Estuary Center, CCSCR_Truro, and CCSCR_West Corner meet 2024 CALM guidance*, Enterococcus* data from CCSCR_Rockland are indicative of an *Enterococcus* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Estuary Center	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	shoreline	42.259936	-70.860922
CCSCR_Rockland	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	Shoreline	42.251821	-70.860691

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Truro	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	Shoreline	42.263156	-70.867427
CCSCR_West Corner	Cohasset Center for Student Coastal Research	Water Quality	Weir River; Weir River/Hull	shoreline	42.260214	-70.845559

Bacteria Data

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

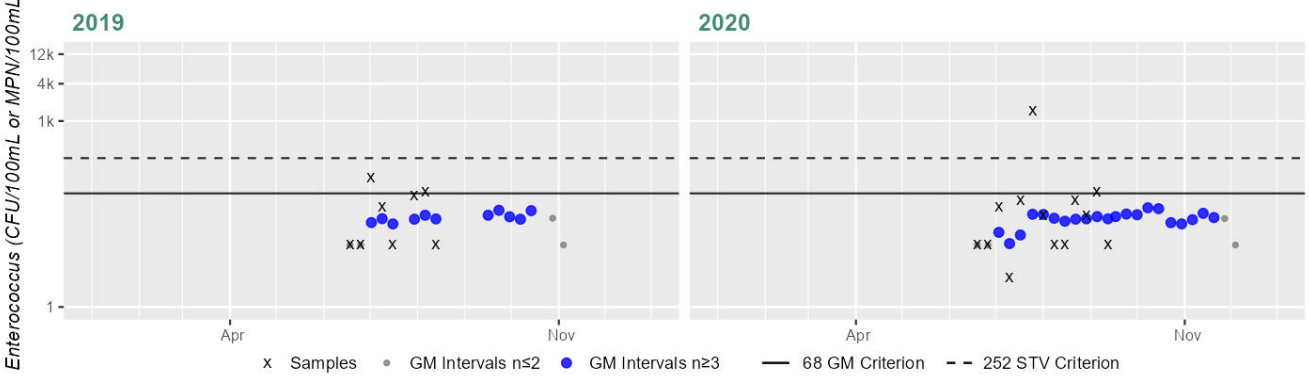
(CCSCR 2020) (MassDEP Undated 2)

[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
CCSCR_Estuary Center	Cohasset Center for Student Coastal Research	Enterococci	06/18/19	08/13/19	8	10	122	26
CCSCR_Estuary Center	Cohasset Center for Student Coastal Research	Enterococci	06/18/20	09/11/20	13	3	1467	26
CCSCR_Rockland	Cohasset Center for Student Coastal Research	Enterococci	06/18/19	08/13/19	9	20	15531	153
CCSCR_Rockland	Cohasset Center for Student Coastal Research	Enterococci	06/18/20	09/11/20	13	31	1223	127
CCSCR_Truro	Cohasset Center for Student Coastal Research	Enterococci	06/18/19	08/13/19	8	10	109	35
CCSCR_Truro	Cohasset Center for Student Coastal Research	Enterococci	06/18/20	09/11/20	13	1	231	14
CCSCR_West Corner	Cohasset Center for Student Coastal Research	Enterococci	06/18/19	08/13/19	8	10	450	32
CCSCR_West Corner	Cohasset Center for Student Coastal Research	Enterococci	06/18/20	09/11/20	13	10	75	17

Station CCSCR_Estuary Center - Enterococcus

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



Variable*	Result
Samples	8
SeasGM	26
#GMI	11
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

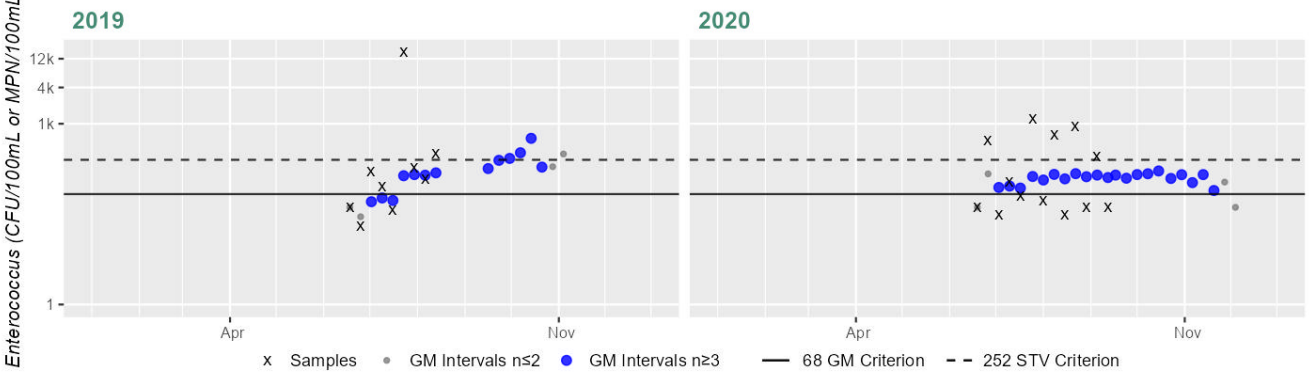
Variable*	Result
Samples	13
SeasGM	26
#GMI	21
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	7%

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 CCSCR_Rockland - Enterococcus

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



Variable*	Result
Samples	9
SeasGM	153
#GMI	13
#GMI Ex	10
%GMI Ex	76%
n>STV	2
%n>STV	22%

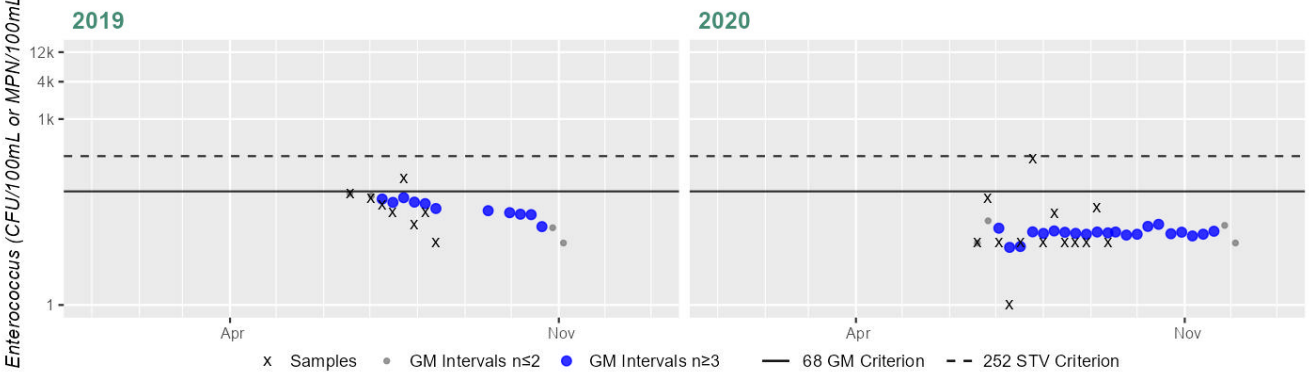
Variable*	Result
Samples	13
SeasGM	127
#GMI	21
#GMI Ex	21
%GMI Ex	100%
n>STV	5
%n>STV	38%

Cumulative %GMI Exceedance
Current (2011-2022)
91%

**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 CCSCR_Truro - Enterococcus

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



Variable*	Result
Samples	8
SeasGM	35
#GMI	11
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

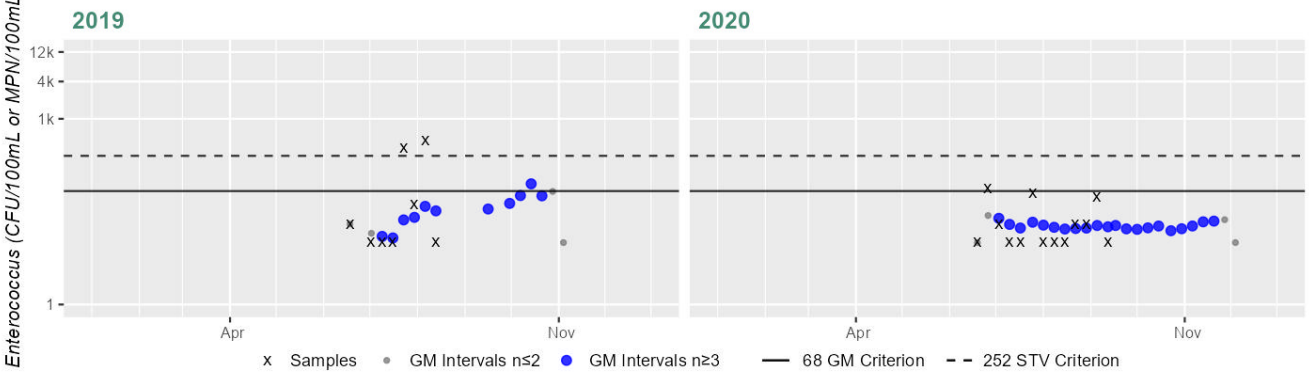
Variable*	Result
Samples	13
SeasGM	14
#GMI	21
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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 CCSCR_West Corner - Enterococcus

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



Variable*	Result
Samples	8
SeasGM	32
#GMI	11
#GMI Ex	1
%GMI Ex	9%
n>STV	2
%n>STV	25%

Variable*	Result
Samples	13
SeasGM	17
#GMI	21
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
3%

**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 6)

Summary
Weir River (MA74-11): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.8005 sq mi (96%). 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.

Weymouth Back River (MA74-13)

Location:	From Old Bay Colony Railroad tracks, Weymouth to mouth between Lower Neck, Weymouth (to the west) and Wompatuck Road, Hingham (a portion is within the Weymouth Back River ACEC).
AU Type:	ESTUARY
AU Size:	0.85 SQUARE MILES
Classification/Qualifier:	SA: ORW, SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
5	5	Enterococcus	R1_MA_2019_01	Added
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	PCBs in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Cause Unknown [Contaminants in Fish and/or Shellfish]	Source Unknown (N)	--	X	--	--	--	--
Enterococcus	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	--	X	X
Enterococcus	Source Unknown (N)	--	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--
PCBs 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 Weymouth Back River (MA74-13) continues to be assessed as Not Supporting and the prior PCBs in Fish Tissue and Cause Unknown [Contaminants in Fish and/or Shellfish] impairment is being carried forward. DPH included a site-specific advisory for Weymouth Back River (referred to by MDPH as ''Boston Harbor'') in their 2017 Guide to Eating Fish Safely in Massachusetts. The public should refer to the most recent DPH information for the most up to date meal advice for sensitive and general populations.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Weymouth Back River (MA74-13): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.821 sq mi (96%). 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 6)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH8.0	Weymouth Back River	Prohibited	0.36714	43.1%
GBH8.1	Stodder's Neck and Hewitts Cove	Conditionally Restricted	0.05706	6.7%
GBH8.2	Weymouth Back River in Hingham	Conditionally Restricted	0.09772	11.5%
GBH8.3	Weymouth Back River/South of Whale Island	Prohibited	0.10785	12.7%
GBH8.4	Weymouth Back River in Weymouth	Conditionally Restricted	0.07213	8.5%
GBH8.5	Eastern Shore Of Eastern Neck in Weymouth	Conditionally Restricted	0.11907	14.0%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Weymouth Back River (MA74-13) 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 the Weymouth Back River (MA74-13) is assessed as Not Supporting. An *Enterococcus* impairment is being added due to bacteria data not meeting the threshold at CCSCR_Puritan Road. Weymouth Back River (MA74-13) has a beach with DPH Beach Closure data: Wompatuck [Beach ID: 2909] beach in Hingham. The beach was rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (0.8209 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 Weymouth Back River (MA74-13) based on shellfish classification data. CCSCR staff/volunteers collected *Enterococcus* bacteria samples in the Weymouth Back River (MA74-13) from 2019-2020 at 4 stations. Samples were collected from the following stations/sample years: CCSCR_Puritan Road [roadside Tributary] from 2019-2020 (n=6-9/yr), CCSCR_South Shore Yacht Club [Marina] from Jun-Aug 2020 (n=8), CCSCR_Tern Harbor [Marina] from Jul 2019 (n=3), CCSCR_Webb Park [Shoreline, State park] from Jul 2019 (n=3). Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Puritan Road indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >35 CFU/100ml (2019 and 2020, 100 & 100%), 2 yrs had ≥2 samples exceed the 130 CFU/100ml STV (2019 and 2020, n=2 & 7), and cumulatively across years 100% of intervals had GMs >35 CFU/100ml. Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_South Shore Yacht Club indicated 30% of intervals had GMs >35 CFU/100ml and no samples exceeded the 130 CFU/100ml STV. Analysis of the single year limited frequency *Enterococcus* dataset from CCSCR_Tern Harbor indicated 0% of intervals had GMs >35 CFU/100ml, no samples exceeded the 130 CFU/100ml STV, and the seasonal GM was 10 CFU/100ml. Analysis of the single year limited frequency *Enterococcus* dataset from CCSCR_Webb Park indicated 0% of intervals had GMs >35 CFU/100ml, no samples exceeded the 130 CFU/100ml STV, and the seasonal GM was 14 CFU/100ml. While *Enterococcus* data from CCSCR_South Shore Yacht Club, CCSCR_Tern Harbor, and CCSCR_Webb Park meet 2024 CALM guidance, *Enterococcus* data from CCSCR_Puritan Road are indicative of an *Enterococcus* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Puritan Road	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Backriver; Weymouth Back River	Roadside Tributary	42.229828	-70.927318
CCSCR_South Shore Yacht Club	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Back River	Marina	42.247897	-70.931773
CCSCR_Tern Harbor	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Backriver	Marina	42.253957	-70.926343
CCSCR_Webb Park	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Backriver	Shoreline, State park	42.258603	-70.921577

Bacteria Data

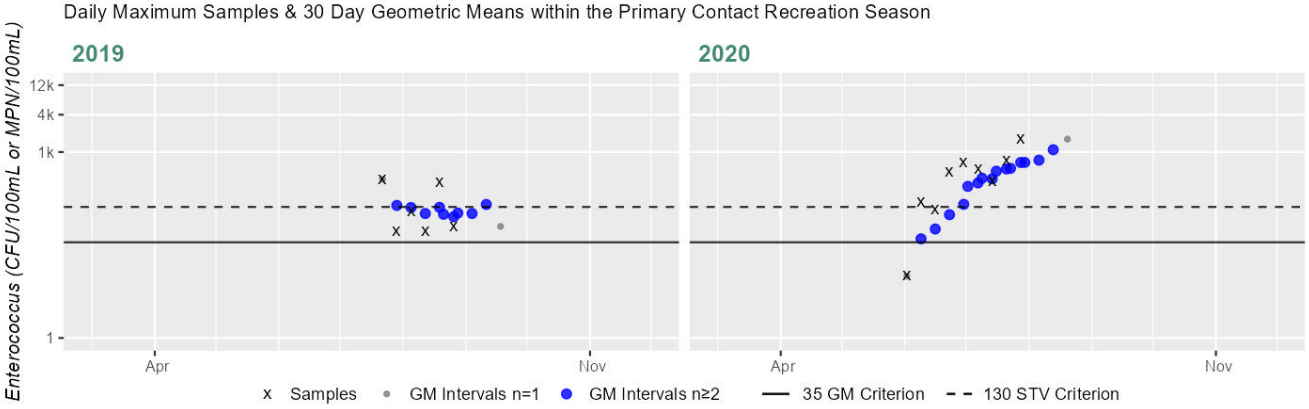
Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (30-day Interval Analysis) (CCSCR 2020) (MassDEP Undated 3)

[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
CCSCR_Puritan Road	Cohasset Center for Student Coastal Research	Enterococcus	07/22/19	08/26/19	6	52	364	113
CCSCR_Puritan Road	Cohasset Center for Student Coastal Research	Enterococcus	06/01/20	07/27/20	9	10	1616	286
CCSCR_South Shore Yacht Club	Cohasset Center for Student Coastal Research	Enterococcus	06/15/20	08/10/20	8	10	121	23
CCSCR_Tern Harbor	Cohasset Center for Student Coastal Research	Enterococcus	07/01/19	07/15/19	3	10	10	10
CCSCR_Webb Park	Cohasset Center for Student Coastal Research	Enterococcus	07/01/19	07/15/19	3	10	30	14

Station CCSCR_Puritan Road - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	6
SeasGM	113
#GMI	9
#GMI Ex	9
%GMI Ex	100%
n>STV	2
%n>STV	33%

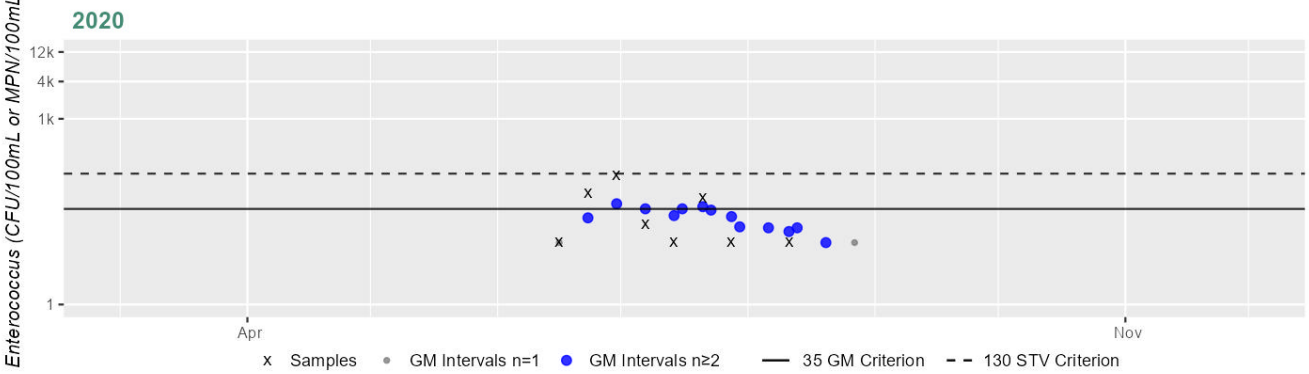
Variable*	Result
Samples	9
SeasGM	286
#GMI	15
#GMI Ex	15
%GMI Ex	100%
n>STV	7
%n>STV	77%

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.*

Station CCSCR_South Shore Yacht Club - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



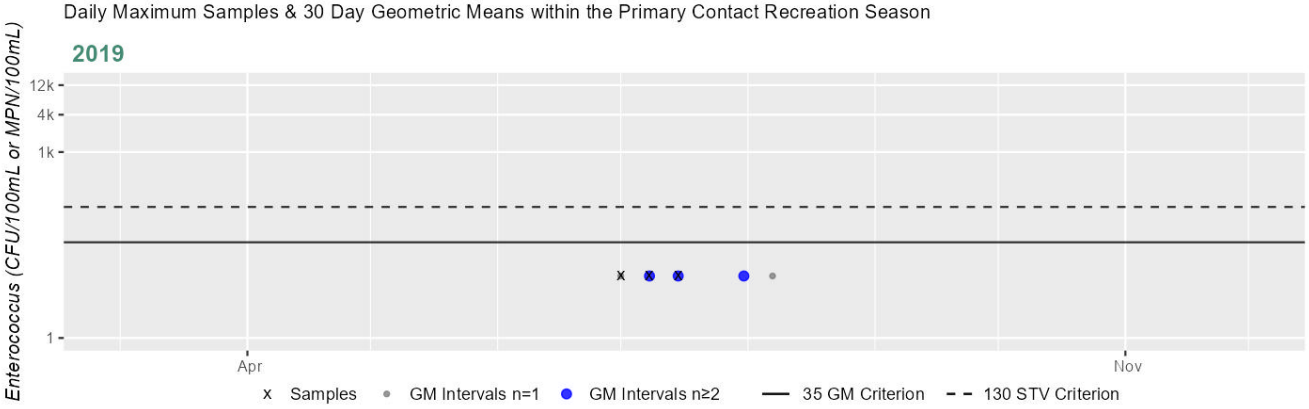
Variable*	Result
Samples	8
SeasGM	23
#GMI	13
#GMI Ex	4
%GMI Ex	30%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
30%

**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 CCSCR_Tern Harbor - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



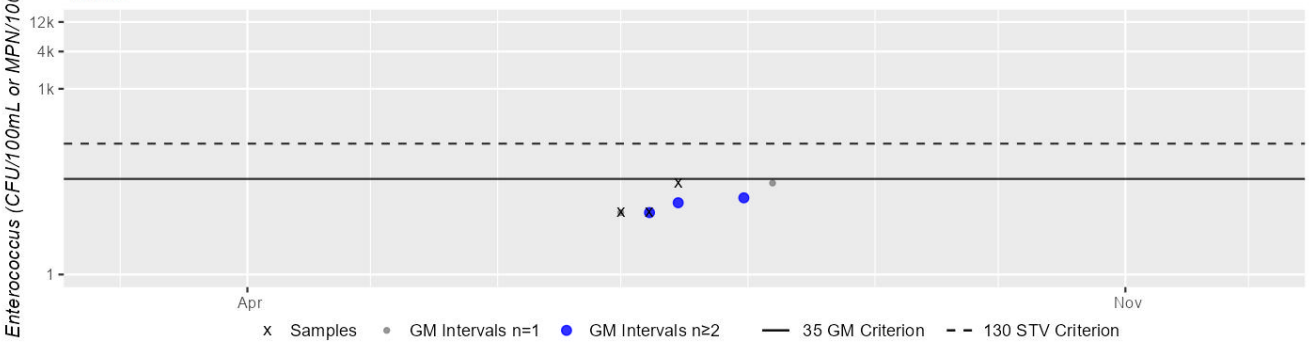
Variable*	Result
Samples	3
SeasGM	10
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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 CCSCR_Webb Park - Enterococcus

Daily Maximum Samples & 30 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	3
SeasGM	14
#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.*

Summary Statement for 2011-2019 MassDEP Bacteria Source Tracking (BST) Data (MassDEP Undated 1)

Summary
BST work began on a small unnamed tributary to the Weymouth Back River AU (MA74-13) in 2010, upon request from the City of Weymouth. The tributary originates from a culvert at the end of Emmerson St adjacent to a pump station. Human marker analysis in 2010 indicated “weak” evidence of human sources at the downstream end of the trib. Additional BST work was in 2011-2013, with dry weather *E.coli* concentrations ranging 148 - 908MPN. In 2012- additional human marker analysis was run on samples again collected at the downstream end of the tributary and again results indicated “weak” evidence of human sources, which is considered defintive evidence by WES Lab. The City of Weymouth (Water Sewer Dept & Board of Health assisted with investigations; a correctable human source was never found though it should be noted that the pump station was ruled out as a source.

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 3)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
2909	Wompatuck/ Hingham	42.25947, -70.91420	42.25892, -70.91460	0%	1%	0%	0%	1%	0%	0%	0%	0%	0

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Weymouth Back River (MA74-13): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.821 sq mi (96%). 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
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for the Weymouth Back River (MA74-13) is assessed as Not Supporting. An *Enterococcus* impairment is being added based on a re-evaluation of bacteria data not meeting the threshold at CCSCR_Puritan Road. Weymouth Back River (MA74-13) has a beach with DPH Beach Closure data: Wompatuck [Beach ID: 2909] beach in Hingham. The beach was rarely, if at all, posted for swimming from 2018-2022. The shellfish growing areas (0.8209 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 Weymouth Back River (MA74-13) based on shellfish classification data. CCSCR staff/volunteers collected *Enterococcus* bacteria samples in the Weymouth Back River (MA74-13) from 2019-2020 at 4 stations. Samples were collected from the following stations/sample years: CCSCR_Puritan Road [roadside Tributary] from 2019-2020 (n=6-9/yr), CCSCR_South Shore Yacht Club [Marina] from Jun-Aug 2020 (n=8), CCSCR_Tern Harbor [Marina] from Jul 2019 (n=3), CCSCR_Webb Park [Shoreline, State park] from Jul 2019 (n=3). Analysis of the multi-year moderate frequency *Enterococcus* dataset from CCSCR_Puritan Road indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >68 CFU/100ml (2019 and 2020, 100 & 92%), 2 yrs had ≥2 samples exceed the 252 CFU/100ml STV (2019 and 2020, n=2 & 6), and cumulatively across years 95% of intervals had GMs >68 CFU/100ml. Analysis of the single year moderate frequency *Enterococcus* dataset from CCSCR_South Shore Yacht Club indicated 0% of intervals had GMs >68 CFU/100ml and no samples exceeded the 252 CFU/100ml STV. Analysis of the single year limited frequency *Enterococcus* dataset from CCSCR_Tern Harbor indicated 0% of intervals had GMs >68 CFU/100ml, no samples exceeded the 252 CFU/100ml STV, and the overall GM was 10 CFU/100ml. Analysis of the single year limited frequency *Enterococcus* dataset from CCSCR_Webb Park indicated 0% of intervals had GMs >68 CFU/100ml, no samples exceeded the 252 CFU/100ml STV, and the overall GM was 14 CFU/100ml. While *Enterococcus* data from CCSCR_South Shore Yacht Club, CCSCR_Tern Harbor, and CCSCR_Webb Park meet 2024 CALM guidance, *Enterococcus* data from CCSCR_Puritan Road are indicative of an *Enterococcus* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Puritan Road	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Backriver; Weymouth Back River	Roadside Tributary	42.229828	-70.927318
CCSCR_South Shore Yacht Club	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Back River	Marina	42.247897	-70.931773

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Tern Harbor	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Backriver	Marina	42.253957	-70.926343
CCSCR_Webb Park	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Backriver	Shoreline, State park	42.258603	-70.921577

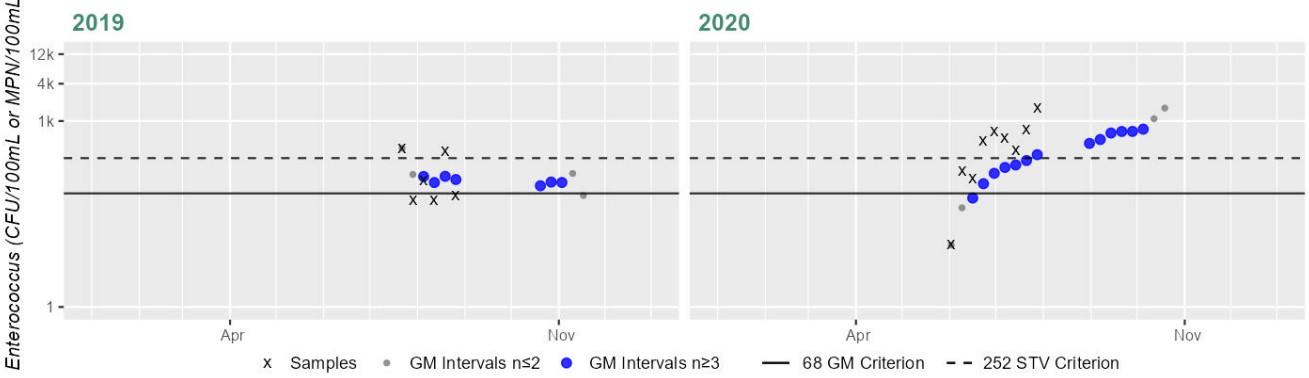
Bacteria Data

Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(CCSCR 2020) (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
CCSCR_Puritan Road	Cohasset Center for Student Coastal Research	Enterococci	07/22/19	08/26/19	6	52	364	113
CCSCR_Puritan Road	Cohasset Center for Student Coastal Research	Enterococci	06/01/20	07/27/20	9	10	1616	286
CCSCR_South Shore Yacht Club	Cohasset Center for Student Coastal Research	Enterococci	06/15/20	08/10/20	8	10	121	23
CCSCR_Tern Harbor	Cohasset Center for Student Coastal Research	Enterococci	07/01/19	07/15/19	3	10	10	10
CCSCR_Webb Park	Cohasset Center for Student Coastal Research	Enterococci	07/01/19	07/15/19	3	10	30	14

Station CCSCR_Puritan Road - Enterococcus

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



Variable*	Result
Samples	6
SeasGM	113
#GMI	7
#GMI Ex	7
%GMI Ex	100%
n>STV	2
%n>STV	33%

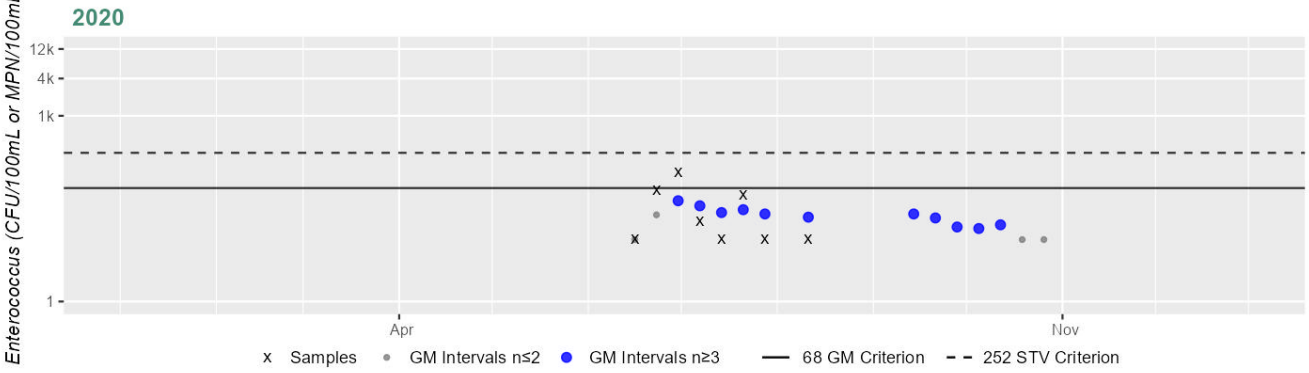
Variable*	Result
Samples	9
SeasGM	286
#GMI	13
#GMI Ex	12
%GMI Ex	92%
n>STV	6
%n>STV	66%

Cumulative %GMI Exceedance
Current (2011-2022)
95%

**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 CCSCR_South Shore Yacht Club - Enterococcus

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



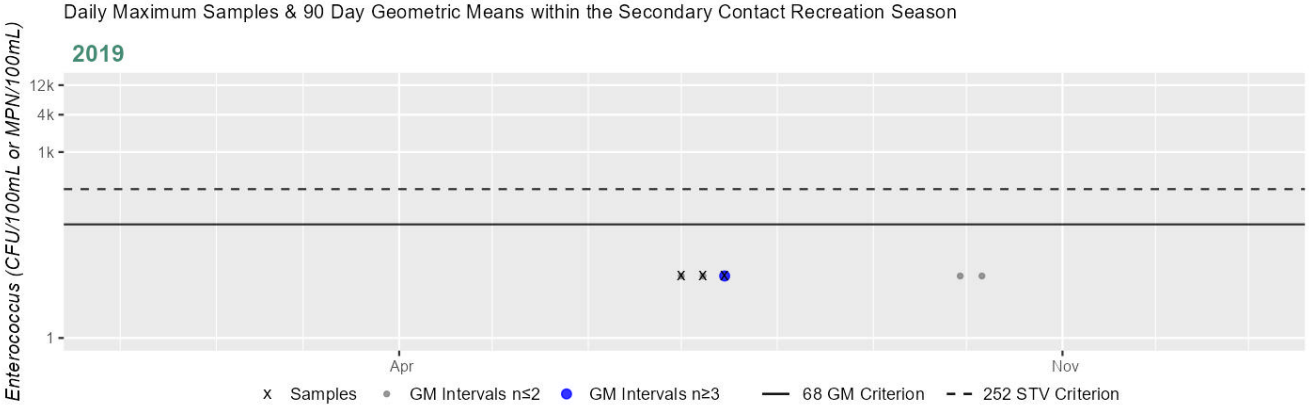
Variable*	Result
Samples	8
SeasGM	23
#GMI	11
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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 CCSCR_Tern Harbor - Enterococcus

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



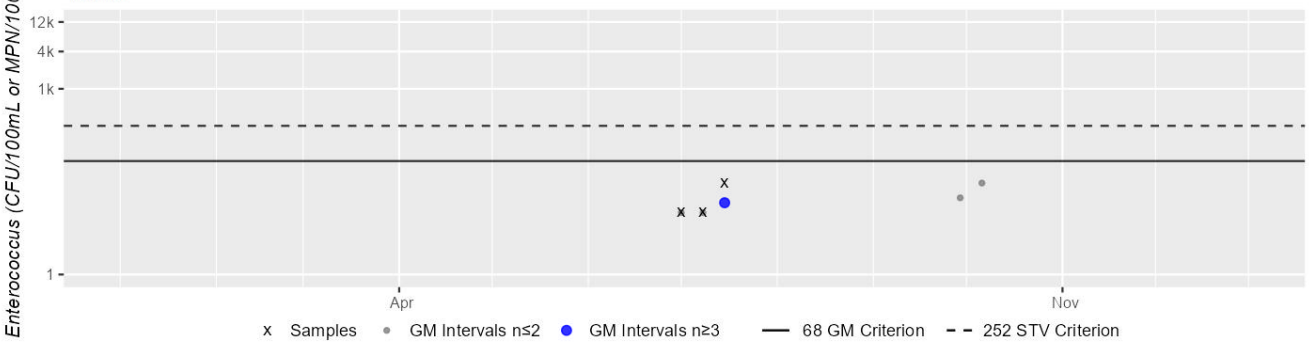
Variable*	Result
Samples	3
SeasGM	10
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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.*

Station CCSCR_Webb Park - Enterococcus

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



Variable*	Result
Samples	3
SeasGM	14
#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.*

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

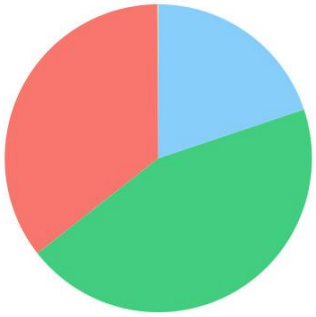
Summary
Weymouth Back River (MA74-13): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.821 sq mi (96%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Weymouth Back River (MA74-30)

Location:	Headwaters, outlet Elias Pond, Weymouth to the base of the fish ladder north of Commercial Street, Weymouth (formerly part of 2022 segment: Weymouth Back River MA74-05).
AU Type:	RIVER
AU Size:	0.4 MILES
Classification/Qualifier:	B

Weymouth Back River (MA74-30)

Watershed Area: 13.18 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	13.18	5.93	6.35	2.99
Agriculture	0.1%	0%	0%	0%
Developed	35.5%	44.5%	23.4%	33.4%
Natural	44.6%	41.7%	47.3%	44.1%
Wetland	19.9%	13.8%	29.3%	22.6%
Impervious	21.3%	29.1%	14.1%	21.9%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
--	5	Dissolved Oxygen	--	Unchanged
--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
--	5	Fecal Coliform	R1_MA_2019_01	Unchanged

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	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 recently, so the Fish Consumption Use for Weymouth Back River (MA74-30) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

Too limited data are available to assess the Aesthetics Use for Weymouth Back River (MA74-30), so it is assessed as having Insufficient Information. Of note, this AU previously constituted the upper section of the former 2022 segment "Weymouth Back River MA74-05". MassDEP staff recorded aesthetics observations as part of the SERO-BST project in summer 2016 at three stations in Weymouth, throughout this Weymouth Back River AU; halfway down the AU at confluence with unnamed tributary (outlet Whitmans Pond), west of Water Street, locally "Elias Brook" (W2661, n=2); close to the downstream end of the AU, in fishway, ~90 feet downstream of unnamed road connecting Commercial and Water Streets, locally "Herring Run Brook" (W2660, n=2) and at the downstream end of the AU, downstream at Commercial Street, locally "Herring Run Brook" (W2665, n=1). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at any station, though field staff noted very dense aquatic plants on two occasions at W2660.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2660	MassDEP	Water Quality	Weymouth Back River	[in fishway, approximately 90 feet downstream of unnamed road connecting Commercial and Water streets, Weymouth (locally "Herring Run Brook")]	42.215104	-70.923602
W2661	MassDEP	Water Quality	Weymouth Back River	[at confluence with unnamed tributary (outlet Whitmans Pond), west of Water Street, Weymouth (locally "Elias Brook")]	42.212765	-70.924543
W2665	MassDEP	Water Quality	Weymouth Back River	[downstream at Commercial Street, Weymouth (locally "Herring Run Brook")]	42.215632	-70.922603

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2660	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2660 on Weymouth Back River (MA74-30) during 2 site visits in Jul 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted dense/very dense aquatic plants (n=2). However, aesthetic observations are limited (n<3).
W2661	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2661 on Weymouth Back River (MA74-30) during 2 site visits in Jul 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2665	2016	1	Aesthetic observations were made by MassDEP field sampling crews at Station W2665 on Weymouth Back River (MA74-30) during 1 site visit on Jul 28, 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2660	2016	2	1	0
W2661	2016	2	2	0
W2665	2016	1	1	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2660	Weymouth Back River	2016	Aquatic Plant Density, Overall	Very Dense	2	2
W2660	Weymouth Back River	2016	Color	None	2	2
W2660	Weymouth Back River	2016	Odor	None	2	2
W2660	Weymouth Back River	2016	Periphyton Density, Filamentous	None	1	2
W2660	Weymouth Back River	2016	Periphyton Density, Filamentous	Unobservable	1	2
W2660	Weymouth Back River	2016	Periphyton Density, Film	Sparse	1	2
W2660	Weymouth Back River	2016	Periphyton Density, Film	Unobservable	1	2
W2660	Weymouth Back River	2016	Turbidity	Slightly Turbid	2	2
W2661	Weymouth Back River	2016	Aquatic Plant Density, Overall	None	2	2
W2661	Weymouth Back River	2016	Color	None	2	2
W2661	Weymouth Back River	2016	Odor	None	2	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2661	Weymouth Back River	2016	Periphyton Density, Filamentous	None	2	2
W2661	Weymouth Back River	2016	Periphyton Density, Film	None	2	2
W2661	Weymouth Back River	2016	Turbidity	Slightly Turbid	2	2
W2665	Weymouth Back River	2016	Aquatic Plant Density, Overall	None	1	1
W2665	Weymouth Back River	2016	Color	None	1	1
W2665	Weymouth Back River	2016	Odor	None	1	1
W2665	Weymouth Back River	2016	Periphyton Density, Filamentous	None	1	1
W2665	Weymouth Back River	2016	Periphyton Density, Film	Sparse	1	1
W2665	Weymouth Back River	2016	Turbidity	Slightly Turbid	1	1

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Weymouth Back River (MA74-30) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward from the former 2022 Weymouth Back River AU MA74-05. MassDEP staff collected *E. coli* bacteria samples in the Weymouth Back River (MA74-30) from 2016 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2661 [at confluence with unnamed tributary (outlet Whitmans Pond), W of Water St, Weymouth (locally "Elias Brook")] from Jul 2016 (n=2), W2660 [in fishway, ~90 ft downstream of unnamed Rd connecting Commercial and Water Sts, Weymouth (locally "Herring Run Brook")] from Jul 2016 (n=2), W2665 [downstream at Commercial St, Weymouth (locally "Herring Run Brook")] from Jul 2016 (n=1). *E. coli* data from W2661, W2660, and W2665 are too limited according to the 2024 CALM to assess the Primary Contact Recreation Use. Note that samples exceeded the 410 CFU/100ml STV at W2660 in 2016 (n=1) and in W2665 in 2016 (n=1).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2660	MassDEP	Water Quality	Weymouth Back River	[in fishway, approximately 90 feet downstream of unnamed road connecting Commercial and Water streets, Weymouth (locally "Herring Run Brook")]	42.215104	-70.923602
W2661	MassDEP	Water Quality	Weymouth Back River	[at confluence with unnamed tributary (outlet Whitmans Pond), west of Water Street, Weymouth (locally "Elias Brook")]	42.212765	-70.924543
W2665	MassDEP	Water Quality	Weymouth Back River	[downstream at Commercial Street, Weymouth (locally "Herring Run Brook")]	42.215632	-70.922603

Bacteria Data

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

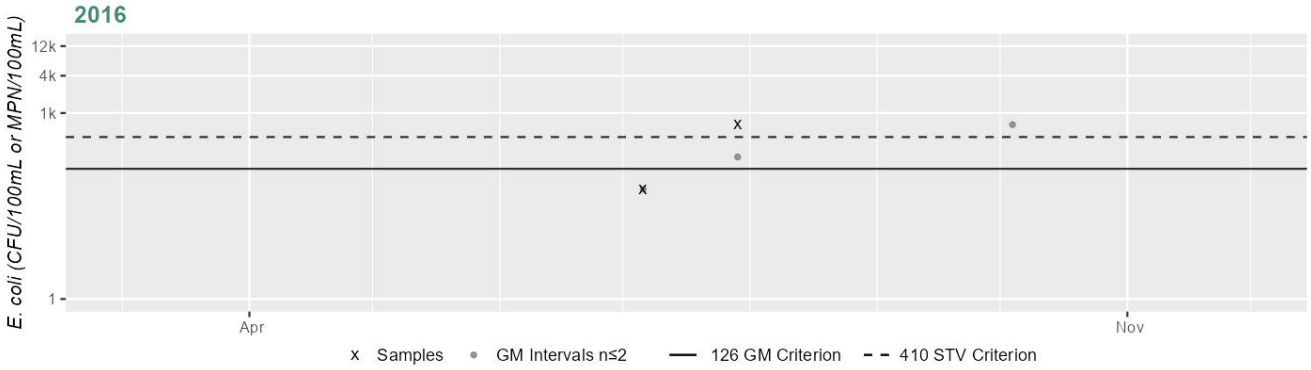
(MassDEP Undated 8) (MassDEP Undated 5)

[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
W2660	MassDEP	E. coli	07/05/16	07/28/16	2	59	649	195
W2661	MassDEP	E. coli	07/05/16	07/28/16	2	73	225	128
W2665	MassDEP	E. coli	07/28/16	07/28/16	1	1120	1120	1119

Station MASSDEP_W2660 - Escherichia coli

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



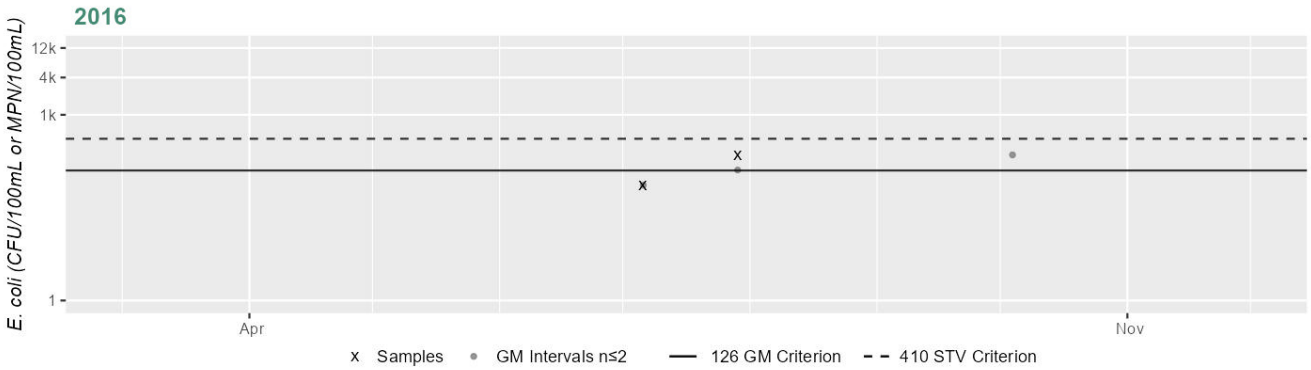
Variable*	Result
Samples	2
SeasGM	195
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W2661 - Escherichia coli

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



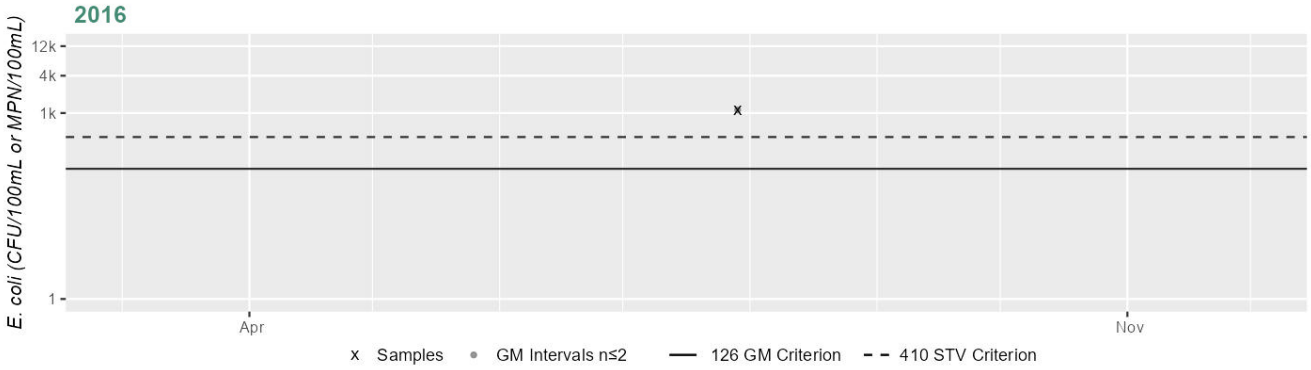
Variable*	Result
Samples	2
SeasGM	128
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2665 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	1120
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for the Weymouth Back River (MA74-30) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* impairment is being carried forward from the former 2022 Weymouth Back River AU MA74-05 based on historic bacteria data not meeting the threshold at USGS-01105612. The prior Fecal Coliform impairment is also being carried forward from MA74-05. MassDEP and USGS staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Weymouth Back River (MA74-30) from 1999-2016 at 4 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2661 [at confluence with unnamed tributary (outlet Whitmans Pond), W of Water St, Weymouth (locally "Elias Brook")] from Jul 2016 (n=2), W2660 [in fishway, ~90 ft downstream of unnamed Rd connecting Commercial and Water Sts, Weymouth (locally "Herring Run Brook")] from Jul 2016 (n=2), USGS-01105612 [Weymouth Back River At E Weymouth, Ma] from 1999-2000 (n=4-6/yr), W2665 [downstream at Commercial St, Weymouth (locally "Herring Run Brook")] from Jul 2016 (n=1). Analysis of this historic multi-year limited frequency *E. coli* dataset from USGS-01105612 indicated 2 out of 2 sufficient data yrs had intervals where >20% of the GMs were >244 CFU/100ml (1999 and 2000, 100 & 100%), 2 yrs had ≥2 samples exceed the 794 CFU/100ml STV (1999 and 2000, n=4 & 3), and cumulatively across years 100% of intervals had GMs >244 CFU/100ml. *E. coli* data from W2661, W2660, and W2665 are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use. Note that samples exceeded the 794 CFU/100ml STV in 2016 at W2665 (n=1). Historic *E. coli* data from USGS-01105612 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2660	MassDEP	Water Quality	Weymouth Back River	[in fishway, approximately 90 feet downstream of unnamed road connecting Commercial and Water streets, Weymouth (locally "Herring Run Brook")]	42.215104	-70.923602
W2661	MassDEP	Water Quality	Weymouth Back River	[at confluence with unnamed tributary (outlet Whitmans Pond), west of Water Street, Weymouth (locally "Elias Brook")]	42.212765	-70.924543
W2665	MassDEP	Water Quality	Weymouth Back River	[downstream at Commercial Street, Weymouth (locally "Herring Run Brook")]	42.215632	-70.922603
USGS-01105612	USGS Massachusetts Water Science Center	Water Quality	Weymouth Back River	Weymouth Back River At East Weymouth, MA	42.215656	-70.923101

Bacteria Data

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

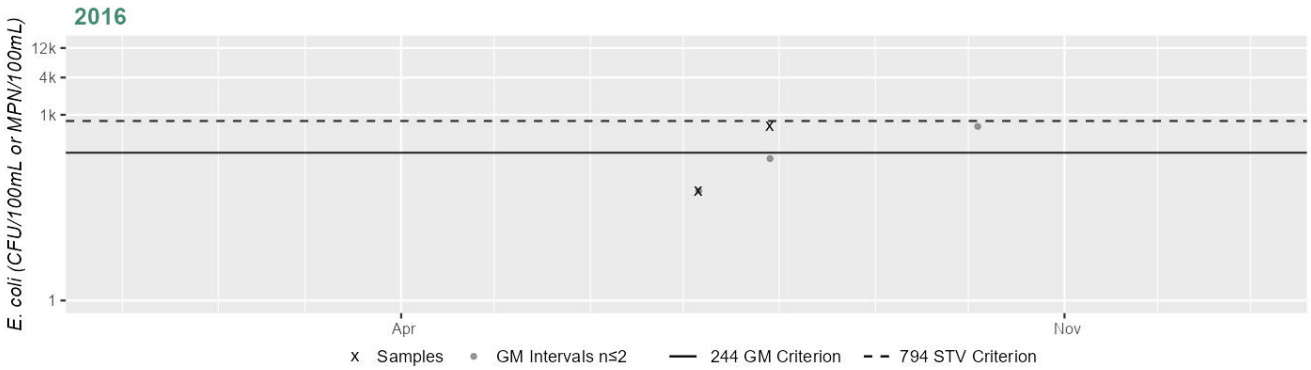
(MassDEP Undated 8) (MassDEP Undated 4) (USGS 2024) (MassDEP Undated 2)

[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
W2660	MassDEP	E. coli	07/05/16	07/28/16	2	59	649	195
W2661	MassDEP	E. coli	07/05/16	07/28/16	2	73	225	128
W2665	MassDEP	E. coli	07/28/16	07/28/16	1	1120	1120	1119
USGS-01105612	USGS Massachusetts Water Science Center	E. coli	05/21/99	12/16/99	6	70	21000	1495
USGS-01105612	USGS Massachusetts Water Science Center	E. coli	04/06/00	06/20/00	4	88	4300	741

Station MASSDEP_W2660 - Escherichia coli

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



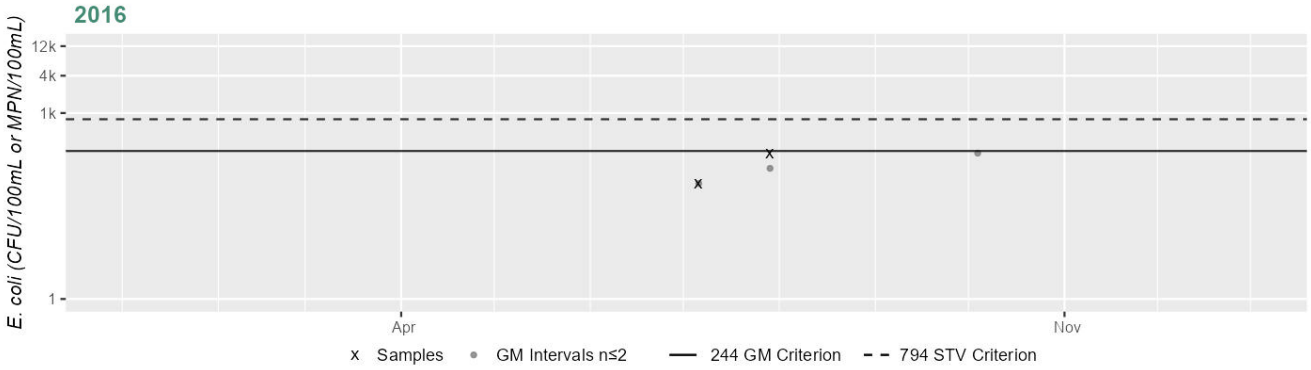
Variable*	Result
Samples	2
SeasGM	195
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2661 - Escherichia coli

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



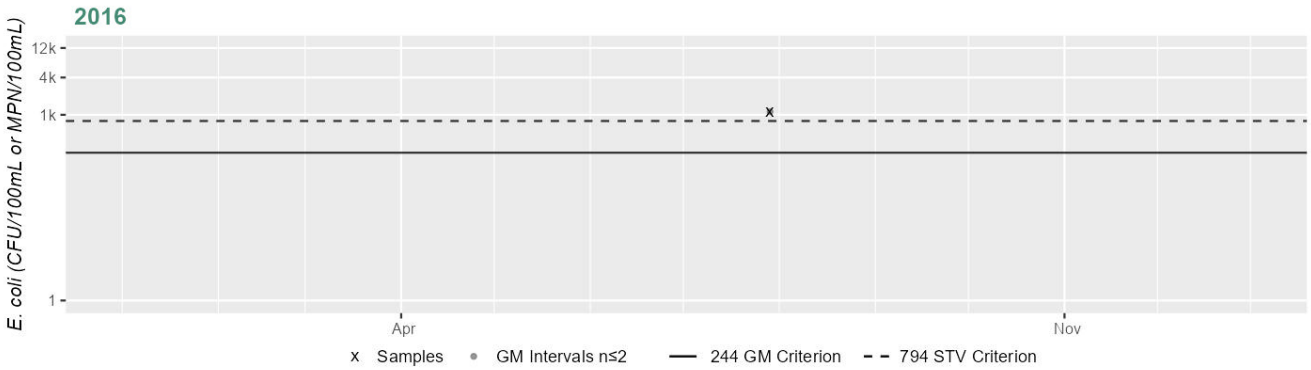
Variable*	Result
Samples	2
SeasGM	128
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2665 - Escherichia coli

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



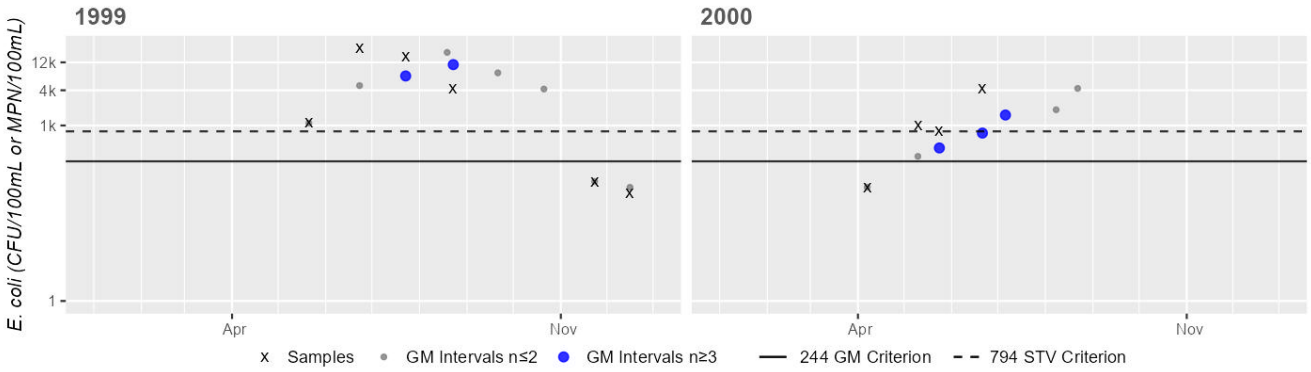
Variable*	Result
Samples	1
SeasGM	1120
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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.*

Station USGS-01105612 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	1495
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	4
%n>STV	66%

Variable*	Result
Samples	4
SeasGM	741
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	3
%n>STV	75%

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

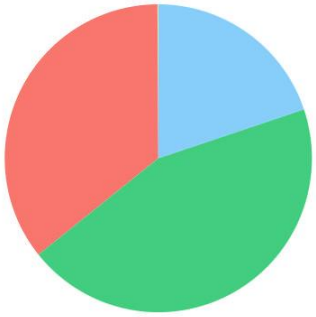
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Weymouth Back River (MA74-31)

Location:	From the base of the fish ladder north of Commercial Street, Weymouth to the Old Bay Colony Railroad tracks, Weymouth (formerly part of 2022 segment: Weymouth Back River MA74-05).
AU Type:	RIVER
AU Size:	0.3 MILES
Classification/Qualifier:	B: ORW, WWF

Weymouth Back River (MA74-31)

Watershed Area: 13.72 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	13.72	5.65	6.45	2.73
Agriculture	0.1%	0%	0%	0%
Developed	35.7%	44.4%	23.6%	34.4%
Natural	44.4%	43%	47.1%	46.7%
Wetland	19.9%	12.6%	29.2%	18.9%
Impervious	21.3%	28.3%	14.2%	22.3%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
--	5	Dissolved Oxygen	--	Unchanged
--	5	Enterococcus	--	Added
--	5	Escherichia Coli (E. Coli)	R1_MA_2019_01	Unchanged
--	5	Fecal Coliform	R1_MA_2019_01	Unchanged

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Enterococcus	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--
Enterococcus	Source Unknown (N)	--	--	--	X	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	--	X
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	--	X
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	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 Weymouth Back River (MA74-31) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

Too limited data are available to assess the Aesthetics Use for Weymouth Back River (MA74-31), so it is assessed as having Insufficient Information. Of note, this AU previously constituted the lower section of the former 2022 segment "Weymouth Back River MA74-05". MassDEP staff recorded aesthetics observations as part of the SERO-BST project in summer 2016 at two stations throughout this Weymouth Back River AU (locally known as "Herring Run Brook"); at the upstream end of the AU, at the pedestrian bridge ~150 feet downstream of Commercial Street, Weymouth (W2664, n=1) and close to the downstream end of the AU ~1150 feet downstream of Commercial Street, Weymouth (W2663, n=2). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded at any time.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2663	MassDEP	Water Quality	Weymouth Back River	[approximately 1150 feet downstream of Commercial Street, Weymouth (locally "Herring Run Brook")]	42.218431	-70.922995
W2664	MassDEP	Water Quality	Weymouth Back River	[pedestrian bridge approximately 150 feet downstream of Commercial Street, Weymouth (locally "Herring Run Brook")]	42.215899	-70.922543

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 5)

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

Station Code	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2663	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2663 on Weymouth Back River (MA74-31) during 2 site visits in Jul 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2664	2016	1	Aesthetic observations were made by MassDEP field sampling crews at Station W2664 on Weymouth Back River (MA74-31) during 1 site visit on Jul 28, 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Observations of Filamentous/Film Algae at MassDEP Stations (2011-2020) (MassDEP Undated 8) (MassDEP Undated 5)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2663	2016	2	2	0
W2664	2016	1	1	0

MassDEP Aesthetics Observations (2011-2020) (MassDEP Undated 8)

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2663	Weymouth Back River	2016	Aquatic Plant Density, Overall	None	2	2
W2663	Weymouth Back River	2016	Color	None	2	2
W2663	Weymouth Back River	2016	Odor	None	2	2
W2663	Weymouth Back River	2016	Periphyton Density, Filamentous	None	2	2
W2663	Weymouth Back River	2016	Periphyton Density, Film	Sparse	2	2
W2663	Weymouth Back River	2016	Turbidity	Slightly Turbid	2	2
W2664	Weymouth Back River	2016	Aquatic Plant Density, Overall	None	1	1
W2664	Weymouth Back River	2016	Color	None	1	1
W2664	Weymouth Back River	2016	Odor	None	1	1
W2664	Weymouth Back River	2016	Periphyton Density, Filamentous	None	1	1
W2664	Weymouth Back River	2016	Periphyton Density, Film	Sparse	1	1
W2664	Weymouth Back River	2016	Turbidity	Slightly Turbid	1	1

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreation Use for the Weymouth Back River (MA74-31) continues to be assessed as Not Supporting. The prior *Escherichia coli (E. coli)* and Fecal Coliform impairments are being carried forward from the former 2022 Weymouth Back River AU MA74-05. CCSCR and MassDEP staff/volunteers collected *E. coli* (EC) and *Enterococcus* (Ent) bacteria samples in the Weymouth Back River (MA74-31) from 2016-2020 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2664 [pedestrian bridge ~150 ft downstream of Commercial St, Weymouth (locally "Herring Run Brook")] from 2016 (EC n=1), W2663 [~1150 ft downstream of Commercial St, Weymouth (locally "Herring Run Brook")] from 2016 (EC n=2), CCSCR_Commercial Street [Roadside tributary] from 2020 (Ent n=1). *E. coli* data from W2664 and W2663 and *Enterococcus* data from CCSCR_Commercial Street are too limited according to the 2024 CALM to assess the Primary Contact Recreation Use. Note there were STV exceedances at W2664 (n=1, *E. coli*) in 2016, W2663 (n=1, *E. coli*) in 2016, and CCSCR_Commercial Street (n=1, *Enterococcus*) in 2020.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
CCSCR_Commercial Street	Cohasset Center for Student Coastal Research	Water Quality	Weymouth Back River	roadside tributary	42.218435	-70.922998
W2663	MassDEP	Water Quality	Weymouth Back River	[approximately 1150 feet downstream of Commercial Street, Weymouth (locally "Herring Run Brook")]	42.218431	-70.922995
W2664	MassDEP	Water Quality	Weymouth Back River	[pedestrian bridge approximately 150 feet downstream of Commercial Street, Weymouth (locally "Herring Run Brook")]	42.215899	-70.922543

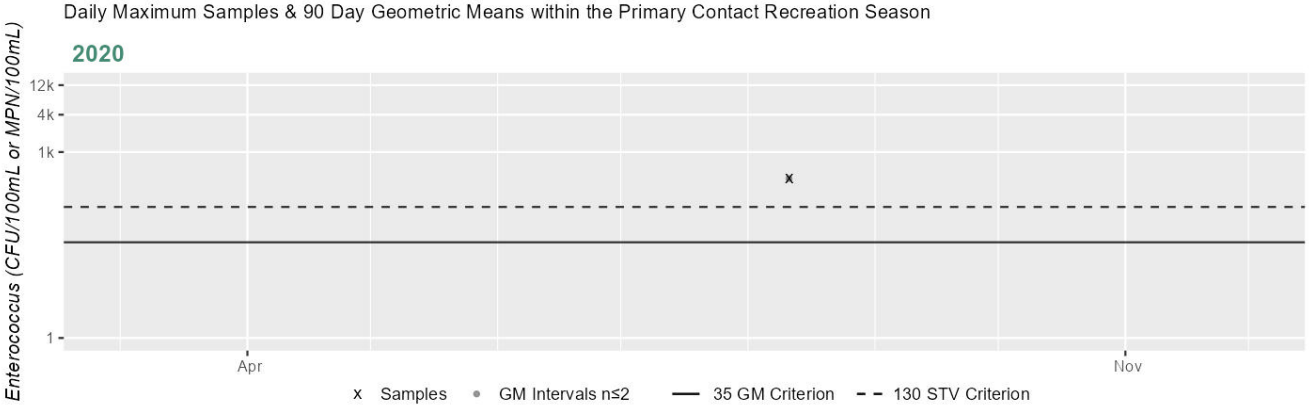
Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis)
(CCSCR 2020) (MassDEP Undated 3) (MassDEP Undated 8) (MassDEP Undated 5)
[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
CCSCR_Commercial Street	Cohasset Center for Student Coastal Research	Enterococci	08/10/20	08/10/20	1	373	373	373
W2663	MassDEP	E. coli	07/05/16	07/28/16	2	399	1440	757
W2664	MassDEP	E. coli	07/28/16	07/28/16	1	1500	1500	1500

Station CCSCR_Commercial Street - Enterococcus

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



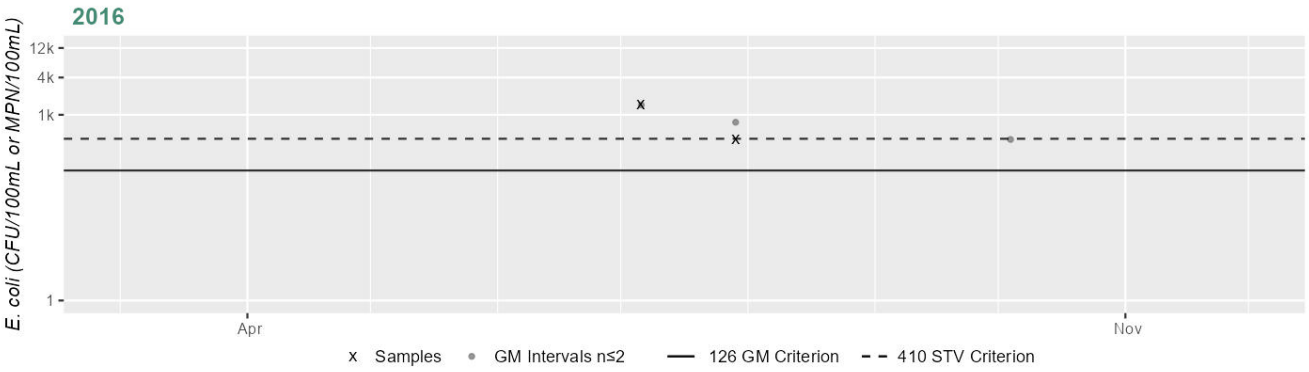
Variable*	Result
Samples	1
SeasGM	373
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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.*

Station MASSDEP_W2663 - Escherichia coli

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



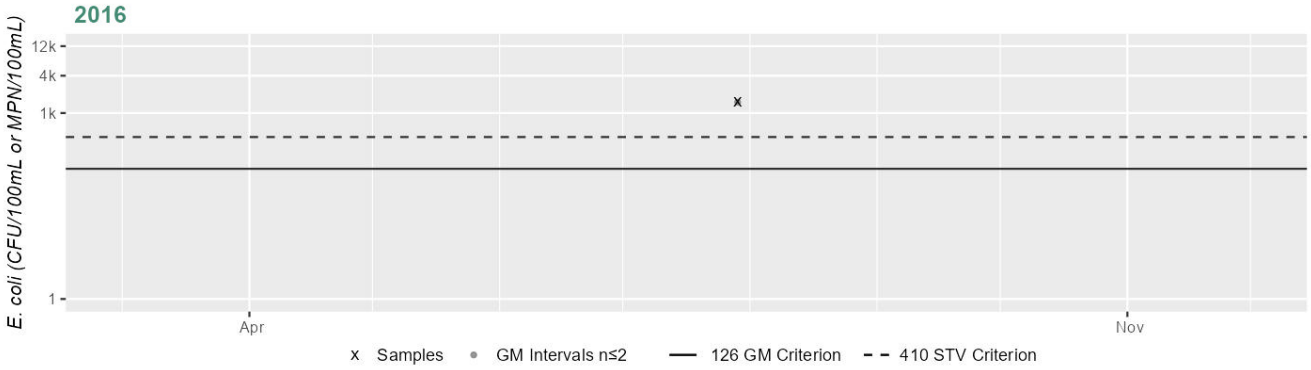
Variable*	Result
Samples	2
SeasGM	757
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W2664 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	1500
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%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.*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreation Use for the Weymouth Back River (MA74-31) continues to be assessed as Not Supporting. The prior *Escherichia Coli (E. Coli)* impairment is being carried forward from the former 2022 Weymouth Back River AU MA74-05 based on bacteria data not meeting the threshold at W2032. The prior Fecal Coliform impairment is also being carried forward from MA74-05. MassDEP staff collected *E. coli* bacteria samples in both the historic (1997-2010) & the current IR window (2011-2022) in the Weymouth Back River (MA74-31) from 2009-2016 at 3 stations. Samples were collected from the following stations/sample years from upstream to downstream: W2664 [pedestrian bridge ~150 ft downstream of Commercial St, Weymouth (locally "Herring Run Brook")] from Jul 2016 (n=1), W2032 [~560 ft downstream of Commercial St, Weymouth] from May-Sep 2009 (n=6), W2663 [~1150 ft downstream of Commercial St, Weymouth (locally "Herring Run Brook")] from Jul 2016 (n=2). Analysis of this historic single year limited frequency *E. coli* dataset from W2032 indicated 100% of intervals had GMs >244 CFU/100ml, 4 samples exceeded the 794 CFU/100ml STV, and the overall GM was 1142 CFU/100ml. *E. coli* data from W2664 and W2663 are too limited according to the 2024 CALM to assess the Secondary Contact Recreation Use. Note there were STV exceedances at W2664 (n=1) and W2663 (n=1) in 2016. Historic *E. coli* data from W2032 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2032	MassDEP	Water Quality	Weymouth Back River	[approximately 560 feet downstream of Commercial Street, Weymouth]	42.216870	-70.922436
W2663	MassDEP	Water Quality	Weymouth Back River	[approximately 1150 feet downstream of Commercial Street, Weymouth (locally "Herring Run Brook")]	42.218431	-70.922995
W2664	MassDEP	Water Quality	Weymouth Back River	[pedestrian bridge approximately 150 feet downstream of Commercial Street, Weymouth (locally "Herring Run Brook")]	42.215899	-70.922543

Bacteria Data

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

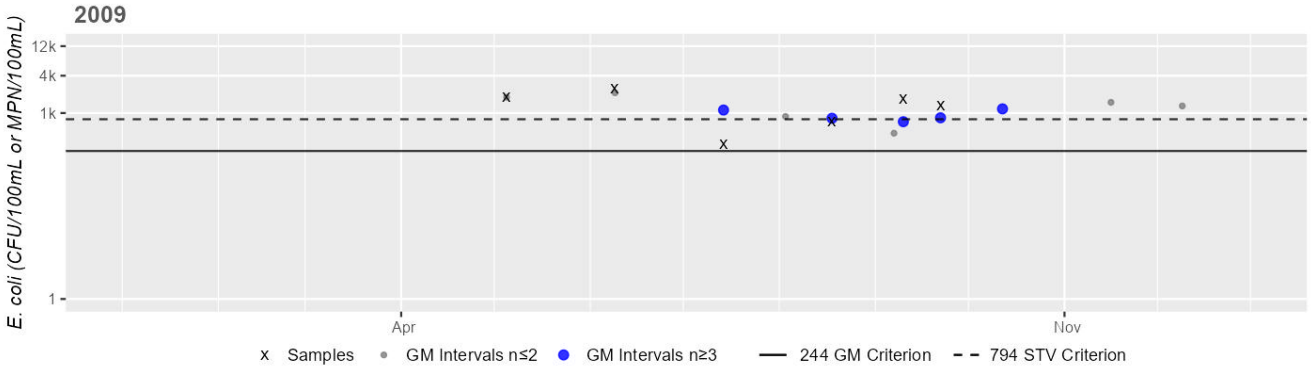
(MassDEP Undated 8) (MassDEP Undated 4)

[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
W2032	MassDEP	E. coli	05/05/09	09/22/09	6	310	2500	1142
W2663	MassDEP	E. coli	07/05/16	07/28/16	2	399	1440	757
W2664	MassDEP	E. coli	07/28/16	07/28/16	1	1500	1500	1500

Station MASSDEP_W2032 - Escherichia coli

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



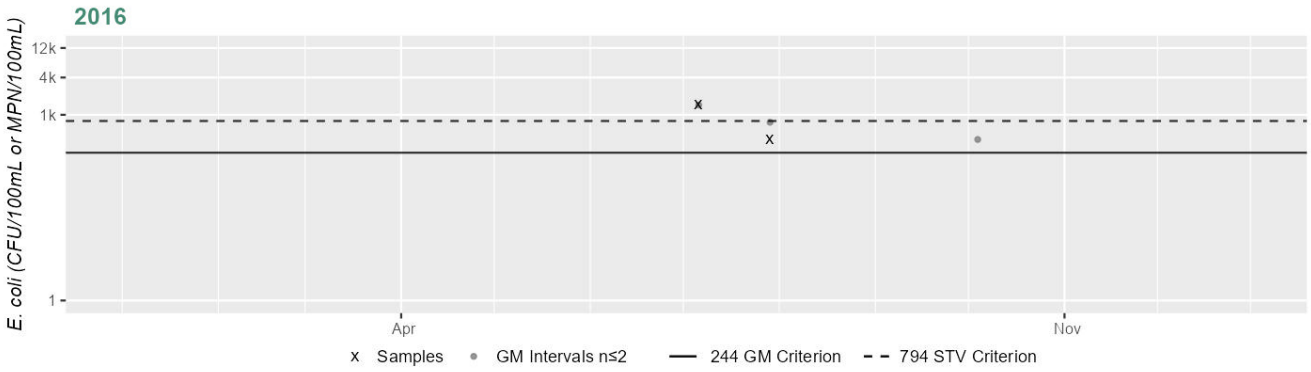
Variable*	Result
Samples	6
SeasGM	1142
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	4
%n>STV	66%

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.*

Station MASSDEP_W2663 - Escherichia coli

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



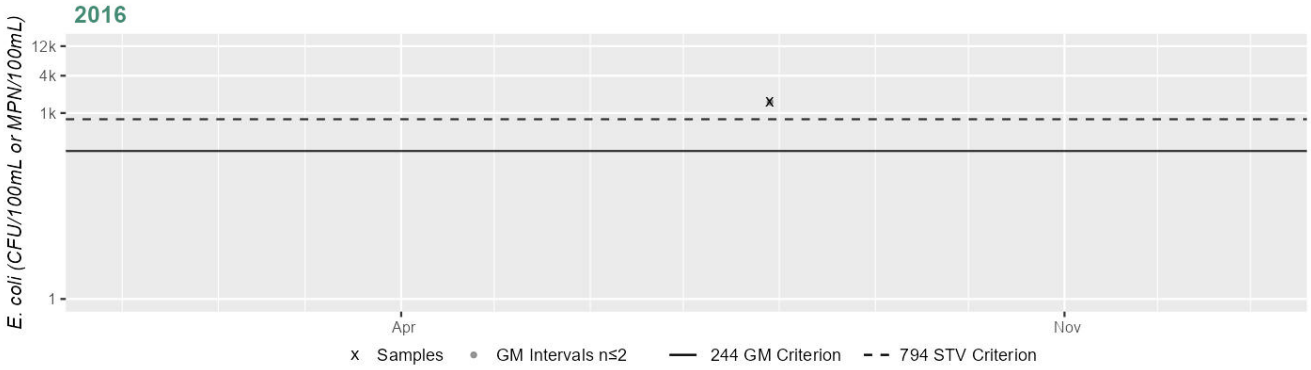
Variable*	Result
Samples	2
SeasGM	757
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W2664 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	1500
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%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.*

Weymouth Fore River (MA74-14)

Location:	Headwaters at confluence of Monatiquot River and Smelt Brook, Braintree to mouth (eastern point at Lower Neck, Weymouth and western point at Wall Street on Houghs Neck, Quincy).
AU Type:	ESTUARY
AU Size:	2.28 SQUARE MILES
Classification/Qualifier:	SB: SFR

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Cause Unknown [Contaminants in Fish and/or Shellfish]	--	Unchanged
5	5	Enterococcus	R1_MA_2019_01	Unchanged
5	5	Fecal Coliform	R1_MA_2019_01	Unchanged
5	5	PCBs in Fish Tissue	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Cause Unknown [Contaminants in Fish and/or Shellfish]	Source Unknown (N)	--	X	--	--	--	--
Enterococcus	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	--	X	--
Enterococcus	Source Unknown (N)	--	--	--	--	X	--
Fecal Coliform	Source Unknown (N)	--	--	X	--	--	--
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	X	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
PCBs 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 Weymouth Fore River (MA74-14) continues to be assessed as Not Supporting and the prior PCBs in Fish Tissue and Cause Unknown [Contaminants in Fish and/or Shellfish] impairment is being carried forward. DPH included a site-specific advisory for Weymouth Fore River (referred to by MDPH as ''Boston Harbor'') in their 2017 Guide to Eating Fish Safely in Massachusetts. The public should refer to the most recent DPH information for the most up to date meal advice for sensitive and general populations.

Shellfish Harvesting

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Weymouth Fore River (MA74-14): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 2.2312 sq mi (98%). The sum of the approved, conditionally approved, and restricted shellfish growing areas represents 0 sq mi (0%). The conditionally restricted shellfish growing area represents 0.5026 sq mi (22%). The Shellfish Harvesting Use is assessed as Not Supporting because the growing areas (normalized to the AU area) are < 100% approved, conditionally approved, and/or restricted. 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 6)

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH9.0	Weymouth Fore River	Prohibited	1.56785	68.7%

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
GBH9.1	Wessaguesset Beach	Conditionally Restricted	0.12094	5.3%
GBH9.2	King's Cove	Conditionally Restricted	0.03940	1.7%
GBH9.3	Upper Weymouth Fore River	Prohibited	0.16076	7.0%
GBH9.5	Gull Point	Conditionally Restricted	0.15495	6.8%
GBH9.7	Rock Island Cove - North	Conditionally Restricted	0.10891	4.8%
GBH9.8	Raccoon Island	Conditionally Restricted	0.07842	3.4%

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Weymouth Fore River (MA74-14) 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 the Weymouth Fore River (MA74-14) continues to be assessed as Not Supporting. The prior *Enterococcus* impairment is being carried forward based on DPH Beach Closures data not meeting the threshold at Smith Beach [Beach ID: 2666]. Weymouth Fore River (MA74-14) has 6 beaches with DPH Beach Closure data: Smith Beach [Beach ID: 2666] beach in Braintree, Edgewater [Beach ID: 3091], Rhoda [Beach ID: 3098] and Germantown Firestation [Beach ID: 3096] beaches in Quincy and George E. Lane [Beach ID: 3214] and Wessagusett (Old Wessagussett) [Beach ID: 3215] beaches in Weymouth. Beaches were posted for >10% of the swimming season at Smith Beach in 2019 (29%), 2020 (25%), 2021 (56%), and 2022 (13%) indicating an *Enterococcus* impairment. The shellfish growing areas (2.2312 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 Weymouth Fore River (MA74-14) based on shellfish classification data.

Beach Postings

MDPH Beach Posting Data Summary (% Bathing Season Posted 2014-2022) (Bailey, Logan Feb. 2, 2021) (Bailey Sept. 10, 2023) (MassDEP Undated 3)

Beach ID	Beach Name/ Town	Left Border (Lat., Long.)	Right Border (Lat., Long.)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
2666	Smith Beach/ Braintree	42.23027, -70.96220	42.22876, -70.96210	7%	11%	0%	1%	0%	29%	25%	56%	13%	5
3091	Edgewater/ Quincy	42.26909, -70.95040	42.26119, -70.95090	0%	0%	0%	6%	6%	0%	0%	0%	0%	0
3096	Germantown Firestation/ Quincy	42.25134, -70.96010	42.25422, -70.95780	0%	10%	0%	0%	0%	4%	0%	1%	0%	0
3098	Rhoda/ Quincy	42.26095, -70.96170	42.26119, -70.96150	4%	1%	0%	0%	6%	1%	0%	13%	0%	1
3214	George E. Lane/ Weymouth	42.25243, -70.94250	42.25385, -70.93740	0%	0%	0%	0%	0%	0%	0%	0%	0%	0
3215	Wessagusett (Old Wessagussett)/ Weymouth	42.25020, -70.94700	42.25148, -70.94450	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 6)

Summary
Weymouth Fore River (MA74-14): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 2.2312 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
Insufficient Information	NO

2024/26 Use Attainment Summary

No bacteria data are available to assess the Secondary Contact Recreation Use for the Weymouth Fore River (MA74-14) so it is assessed as having Insufficient Information. Weymouth Fore River (MA74-14) has 6 beaches with DPH Beach Closure data: Smith Beach [Beach ID: 2666] beach in Braintree, Edgewater [Beach ID: 3091], Rhoda [Beach ID: 3098] and Germantown Firestation [Beach ID: 3096] beaches in Quincy and George E. Lane [Beach ID: 3214] and Wessagusett (Old Wessagussett) [Beach ID: 3215] beaches in Weymouth. 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: Smith Beach in 2019, 2020, 2021, and 2022. The shellfish growing areas (2.2312 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 Weymouth Fore River (MA74-14) based on shellfish classification data.

Shellfish Growing Area Classifications

Summary Statement for MassDFG Shellfish Growing Area Classification Data (MassGIS 2024) (MassDEP Undated 6)

Summary
Weymouth Fore River (MA74-14): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 2.2312 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.

Weymouth Great Pond (MA74024)

Location:	Weymouth.
AU Type:	FRESHWATER LAKE
AU Size:	330 ACRES
Classification/Qualifier:	A: PWS, ORW (PWS and Tributary to PWS)

No usable data were available for Weymouth Great Pond (MA74024) 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	None	--	Unchanged

Whitmans Pond (MA74025)

Location:	Weymouth.
AU Type:	FRESHWATER LAKE
AU Size:	176 ACRES
Classification/Qualifier:	A: PWS, ORW

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Curly-leaf Pondweed*)	--	Unchanged
5	5	(Fanwort*)	--	Unchanged
5	5	DDT in Fish Tissue	--	Unchanged
5	5	PFAS in Fish Tissue	--	Added

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Curly-leaf Pondweed*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
(Fanwort*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
DDT in Fish Tissue	Source Unknown (N)	--	X	--	--	--
PFAS 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 Whitmans Pond (MA74025) continues to be assessed as Not Supporting. The prior DDT in Fish Tissue impairment is being carried forward and a new impairment is being added for PFAS in Fish Tissue. Fish toxics sampling was conducted in Whitmans Pond (MA74025) at station F0400 (PFAS Study ID 52) on 11/17/2022 as part of a MassDEP-funded project evaluating 40 PFAS analytes in selected fresh waters. MDPH issued a site-specific advisory for PFAS in Whitmans Pond in their May 2024 Freshwater Fish Consumption Advisory List and retained both this advisory as well as the existing DDT advisory 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 PFAS has been identified at this time.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
F0400	MassDEP	Fish Toxics	Whitmans Pond	[Weymouth (impounded by Whitmans Pond Dam, NAT ID: MA00775)]	42.206713	-70.935523

Fish Tissue Data

Summary of Fish Tissue Data and Resulting Fish Consumption Advisories (MA DPH 2025) (MassDEP 2023) (MassDEP Undated 7)

Summary
Fish toxics sampling was conducted in Whitmans Pond (MA74025) at station F0400 (PFAS Study ID 52) on 11/17/2022 as part of a MassDEP-funded project evaluating 40 PFAS analytes in selected fresh waters. Because of elevated PFAS measured in fish filets, MDPH issued site-specific fish consumption advisories for Whitmans Pond in their May 2024 Freshwater Fish Consumption Advisory List and retained them in the January 2025 list. Additionally, MDPH retained the existing site-specific fish consumption advisories for DDT associated with Whitmans Pond in their January 2025 Freshwater Fish Consumption Advisory List. The site-specific DPH advisories are indicative of Fish Consumption Use impairments for PFAS in Fish Tissue and DDT in Fish Tissue for Whitmans Pond (MA74025).

MassDEP 2022 PFAS in Fish Tissue Data for Massachusetts Surface Waters (MassDEP 2023) (MassDEP Undated 7) (MA DPH 2023c)

[ng/g = ppb. All PFBA, PFBS, and HFPO-DA (Genx) concentrations <MDL. ND indicates that the PFAS analyte was not detected in any of the composite samples (i.e., it was <MDL). Means weighted by the number of fish in the contributing composites were calculated for any PFAS analyte – waterbody – species combination where an analyte was detected in at least one sample; if a sample did not have the analyte detected, the concentration for that sample was set to ½*MDL for the purposes of calculating a mean. Data are highlighted red per the fish consumption advisory thresholds summarized in Table 4.2 of MDPH's 2023 Technical Support Document for the evaluation of PFAS in recreational waterbodies.]

[Species List: B = bluegill, P = pumpkinseed, YP = yellow perch]

Station Code	PFAS Study ID	Sample Date	Species	Mean PFHxS ng/g	Mean PFNA ng/g	Mean PFOA ng/g	Mean PFOS ng/g	Analytes with ≥ 1 Sample Qualified
F0400	52	11/17/2022	B	ND	0.19	ND	27.00	PFNA
F0400	52	11/17/2022	P	ND	0.14	ND	15.00	PFNA
F0400	52	11/17/2022	YP	0.09	0.13	ND	20.50	PFHxS & PFNA

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Whitmans Pond (MA74025) 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 Whitmans Pond (MA74025) so it is assessed as having Insufficient Information. Surface water sampling was conducted in Whitman's Pond (MA74025) at station W3317 (PFAS Study ID 52) on 11/17/2022 as part of a 2022 MassDEP funded project with ERG evaluating 40 PFAS analytes in selected fresh waters. The concentrations of the seven analytes with individual toxicity criteria (PFOA, PFOS, PFNA, PFHxS, PFBA, PFBS, HFPO-DA/GenX) were all less than the 90 ng/L (ppt) recreational screening value.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W3317	MassDEP	Water Quality	Whitmans Pond	[the default location representing co-located water/fish PFAS sampling, Weymouth]	42.206713	-70.935523

Other Indicators

Summary Statement(s) for MassDEP 2022 PFAS in Water Column Data (MassDEP 2023) (MassDEP Undated 5)

Summary
Surface water sampling was conducted in Whitman's Pond (MA74025) at station W3317 (PFAS Study ID 52) on 11/17/2022 as part of a 2022 MassDEP funded project with ERG evaluating 40 PFAS analytes in selected fresh waters. The concentrations of the seven analytes with individual toxicity criteria (PFOA, PFOS, PFNA, PFHxS, PFBA, PFBS, HFPO-DA/GenX) were all less than the 90 ng/L (ppt) recreational screening value.

MassDEP 2022 PFAS in Water Column Data for Massachusetts Surface Waters (MassDEP 2023) (MassDEP Undated 5)

[HFPO-DA is also known as GenX; the ∑PFAS6 equals the sum of PFOA, PFOS, PFNA, PFHxS, PFDA, PFHpA (not all shown individually here); * indicates the ∑PFAS6 concentration was qualified since data for one or more individual PFAS6 analytes were qualified; b = blank contamination qualifier, d = qualifier indicating precision of field duplicates did not meet project data quality objectives; j = 'estimated' value qualifier; ## = censored data.]

Station Code	PFAS Study ID	Sample Date	PFOA ng/L	PFOS ng/L	PFNA ng/L	PFHxS ng/L	PFBA ng/L	PFBS ng/L	HFPO-DA ng/L	∑PFAS6 ng/L
W3317	52	11/17/2022	8.3	8.6	1.2j	5.7	5j	5.2	<2	28.1*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No bacteria or other indicator data for Whitmans Pond (MA74025) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

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.

CCSCR. "2019-2020 bacteria data submitted to MassDEP WPP portal over multiple dates (last submittal 11/15/2020)." Cohasset Center for Student Coastal Research, Cohasset, MA, 2020.

MA DPH. "2022 Emerging Contaminant Surveillance: Results of PFAS in Surface Water and Fish." Environmental Toxicology Program, Bureau of Environmental Health, Massachusetts Department of Public Health, 2023a.

—. "Emerging Contaminants in Surface Water and Fish: Results from Statewide Monitoring." Environmental Toxicology Program, Massachusetts Department of Public Health. December 26, 2023b. https://www.mass.gov/doc/2022-summary-of-sampling-data-for-dcr-waterbodies-0/download (accessed March 2024).

—. "Evaluation of PFAS in Recreational Waterbodies in Massachusetts, Technical Support Document." Environmental Toxicology Program, Bureau of Environmental Health, Massachusetts Department of Public Health. March 2023c. https://www.mass.gov/doc/technical-basis-for-issuing-fish-advisories-0/download (accessed 2024).

—. "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. "Open file analysis of 2011-2019 bacteria source tracking data collected by MassDEP Southeast Regional Office staff." Southeast Regional Office, Massachusetts Department of Environmental Protection, Lakeville, MA, Undated 1.

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 2.

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 3.

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 4.

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 5.

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 6.

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 7.

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 8.

—. "PFAS Concentrations in Surface Water and Fish Tissue at Selected Rivers and Lakes in Massachusetts." Watershed Planning Program, Division of Watershed Management, Bureau of Water Resources, Massachusetts Department of Environmental Protection. Worcester, MA. In cooperation with Eastern Research Group, Inc. December 2023. https://www.mass.gov/doc/massdep-final-report-on-pfas-concentrations-in-surface-

water-and-fish-tissue-at-selected-rivers-and-lakes-in-massachusetts/download (accessed January 2024).

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).

USGS. "USGS 2011-2022 bacteria data downloaded from WQX 10/21/2024." United States Geological Survey, 2024.