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

Appendix 37
Ten Mile River Basin
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
Bungay River	MA52-06	5	5	Benthic Macroinvertebrates	--	Unchanged
Bungay River	MA52-06	5	5	Dissolved Oxygen	--	Unchanged
Cargill Pond	MA52004	5	5	Turbidity	--	Unchanged
Central Pond	MA52006	5	5	(Aquatic Plants (Macrophytes)*)	--	Unchanged
Central Pond	MA52006	5	5	Algae	--	Unchanged
Central Pond	MA52006	5	5	Dissolved Oxygen	--	Unchanged
Central Pond	MA52006	5	5	Dissolved Oxygen Supersaturation	--	Unchanged
Central Pond	MA52006	5	5	Harmful Algal Blooms	--	Unchanged
Central Pond	MA52006	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Central Pond	MA52006	5	5	Organic Enrichment (Sewage) Biological Indicators	--	Unchanged
Central Pond	MA52006	5	5	Phosphorus, Total	--	Unchanged
Coles Brook	MA52-11	5	5	(Dewatering*)	--	Unchanged
Coles Brook	MA52-11	5	5	Dissolved Oxygen	--	Unchanged
Coles Brook	MA52-11	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Falls Pond, North Basin	MA52013	5	5	Algae	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Falls Pond, North Basin	MA52013	5	5	Dissolved Oxygen	--	Unchanged
Falls Pond, North Basin	MA52013	5	5	Mercury in Fish Tissue	--	Unchanged
Falls Pond, North Basin	MA52013	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Falls Pond, North Basin	MA52013	5	5	PFAS in Fish Tissue	--	Added
Falls Pond, North Basin	MA52013	5	5	Phosphorus, Total	--	Unchanged
Falls Pond, South Basin	MA52014	4c	5	(Non-Native Aquatic Plants*)	--	Unchanged
Falls Pond, South Basin	MA52014	4c	5	Mercury in Fish Tissue	--	Added
Falls Pond, South Basin	MA52014	4c	5	PFAS in Fish Tissue	--	Added
Fourmile Brook	MA52-10	5	5	Sedimentation/Siltation	--	Unchanged
Greenwood Lake	MA52017	3	3	None	--	Unchanged
Hoppin Hill Reservoir	MA52021	3	3	None	--	Unchanged
James V. Turner Reservoir	MA52022	5	5	(Aquatic Plants (Macrophytes)*)	--	Unchanged
James V. Turner Reservoir	MA52022	5	5	Algae	--	Unchanged
James V. Turner Reservoir	MA52022	5	5	Dissolved Oxygen Supersaturation	--	Unchanged
James V. Turner Reservoir	MA52022	5	5	Harmful Algal Blooms	--	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
James V. Turner Reservoir	MA52022	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
James V. Turner Reservoir	MA52022	5	5	Organic Enrichment (Sewage) Biological Indicators	--	Unchanged
James V. Turner Reservoir	MA52022	5	5	Phosphorus, Total	--	Unchanged
Lake Como	MA52010	5	5	(Aquatic Plants (Macrophytes)*)	--	Added
Lake Como	MA52010	5	5	(Fanwort*)	--	Unchanged
Lake Como	MA52010	5	5	Algae	--	Unchanged
Lake Como	MA52010	5	5	Turbidity	--	Unchanged
Manchester Pond Reservoir	MA52026	3	3	None	--	Unchanged
Orrs Pond	MA52029	4c	4c	(Eurasian Water Milfoil, Myriophyllum Spicatum*)	--	Unchanged
Plain Street Pond	MA52032	5	5	(Fanwort*)	--	Unchanged
Plain Street Pond	MA52032	5	5	Algae	--	Unchanged
Scotts Brook	MA52-09	5	4a	(Dewatering*)	--	Unchanged
Scotts Brook	MA52-09	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Sevenmile River	MA52-07	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Sevenmile River	MA52-08	5	5	Benthic Macroinvertebrates	--	Unchanged
Sevenmile River	MA52-08	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Sevenmile River	MA52-08	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Speedway Brook	MA52-05	5	5	(Alteration in Stream-side or Littoral Vegetative Covers*)	--	Unchanged
Speedway Brook	MA52-05	5	5	(Habitat Assessment*)	--	Unchanged
Speedway Brook	MA52-05	5	5	Benthic Macroinvertebrates	--	Unchanged
Speedway Brook	MA52-05	5	5	Dissolved Oxygen	--	Unchanged
Speedway Brook	MA52-05	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Speedway Brook	MA52-05	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Speedway Brook	MA52-05	5	5	Metals	--	Unchanged
Speedway Brook	MA52-05	5	5	Sedimentation/Siltation	--	Unchanged
Ten Mile River	MA52-01	5	5	Metals	--	Unchanged
Ten Mile River	MA52-02	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Ten Mile River	MA52-02	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Ten Mile River	MA52-02	5	5	Metals	--	Unchanged
Ten Mile River	MA52-03	5	5	(Aquatic Plants (Macrophytes)*)	--	Unchanged
Ten Mile River	MA52-03	5	5	(Water Chestnut*)	--	Unchanged
Ten Mile River	MA52-03	5	5	Algae	--	Unchanged
Ten Mile River	MA52-03	5	5	Benthic Macroinvertebrates	--	Unchanged
Ten Mile River	MA52-03	5	5	Chlordane in Fish Tissue	--	Unchanged
Ten Mile River	MA52-03	5	5	Dissolved Oxygen	--	Unchanged

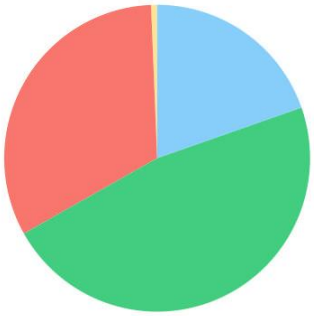
Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Ten Mile River	MA52-03	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Ten Mile River	MA52-03	5	5	Fecal Coliform	R1_MA_2024_04	Changed
Ten Mile River	MA52-03	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Ten Mile River	MA52-03	5	5	Organic Enrichment (Sewage) Biological Indicators	--	Unchanged
Ten Mile River	MA52-03	5	5	Phosphorus, Total	--	Unchanged
Ten Mile River	MA52-03	5	5	Unspecified Metals in Sediment	--	Unchanged
Whiting Pond	MA52042	4a	4a	Mercury in Fish Tissue	33880	Unchanged

Bungay River (MA52-06)

Location:	Headwaters, outlet Greenwood Lake, North Attleborough to mouth at inlet of Mechanics Pond (a Ten Mile River impoundment), Attleboro.
AU Type:	RIVER
AU Size:	5.1 MILES
Classification/Qualifier:	B: WWF

Bungay River (MA52-06)

Watershed Area: 7.47 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	7.47	4.96	2.45	1.64
Agriculture	0.6%	1%	0.5%	0.8%
Developed	32.5%	33.3%	23.4%	23.9%
Natural	47.2%	40.9%	44.5%	36%
Wetland	19.6%	24.9%	31.6%	39.4%
Impervious	17.2%	18.3%	11.6%	12.3%

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

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

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
Fish toxics sampling has not been conducted recently, so the Fish Consumption Use for Bungay River (MA52-06) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for the Bungay River (MA52-06) is assessed as Fully Supporting. MassDEP staff recorded aesthetics observations at two stations along the Bungay River in the summers of 2011 and 2013 as follows: North Main Street (Rt. 152), Attleboro (W2294; 2011 & 2013 n=2/yr) and at outlet of impoundment locally known as Blackinton Pond just downstream of North Main Street (Rt. 152), Attleboro (W0901; 2011 & 2013 n=2/yr). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during the surveys at both stations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0901	MassDEP	Water Quality	Bungay River	[at outlet of impoundment locally known as Blackinton Pond approximately 400 feet downstream of North Main Street, (Route 152), Attleboro]	41.950024	-71.291335
W2294	MassDEP	Water Quality	Bungay River	[North Main Street (Route 152), Attleboro]	41.950000	-71.290060

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)
[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W0901	Bungay River	2011	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0901 on Bungay River (MA52-06) during 2 site visits between Jun 2011 and Jul 2011. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W0901	Bungay River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0901 on Bungay River (MA52-06) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2294	Bungay River	2011	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2294 on Bungay River (MA52-06) during 2 site visits between Jun 2011 and Jul 2011. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted high turbidity (n=1). However, aesthetic observations are limited (n<3).
W2294	Bungay River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2294 on Bungay River (MA52-06) during 2 site visits between Jun 2013 and Aug 2013. 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 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W0901	2011	2	2	0
W0901	2013	2	2	0
W2294	2011	2	2	0
W2294	2013	2	1	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0901	Bungay River	2011	Color	None	2	2
W0901	Bungay River	2011	Odor	None	2	2
W0901	Bungay River	2011	Turbidity	Slightly Turbid	1	2
W0901	Bungay River	2011	Turbidity	Moderately Turbid	1	2
W0901	Bungay River	2013	Color	None	1	2
W0901	Bungay River	2013	Color	Brownish	1	2
W0901	Bungay River	2013	Odor	None	1	2
W0901	Bungay River	2013	Odor	Musty (Basement)	1	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0901	Bungay River	2013	Turbidity	Moderately Turbid	2	2
W0901	Bungay River	2011	Aquatic Plant Density, Overall	Sparse	2	2
W0901	Bungay River	2013	Aquatic Plant Density, Overall	None	1	2
W0901	Bungay River	2013	Aquatic Plant Density, Overall	Sparse	1	2
W0901	Bungay River	2011	Periphyton Density, Filamentous	None	1	2
W0901	Bungay River	2011	Periphyton Density, Filamentous	Sparse	1	2
W0901	Bungay River	2011	Periphyton Density, Film	Sparse	1	2
W0901	Bungay River	2011	Periphyton Density, Film	Moderate	1	2
W0901	Bungay River	2013	Periphyton Density, Filamentous	None	2	2
W0901	Bungay River	2013	Periphyton Density, Film	Sparse	1	2
W0901	Bungay River	2013	Periphyton Density, Film	Moderate	1	2
W2294	Bungay River	2011	Color	None	2	2
W2294	Bungay River	2011	Odor	None	2	2
W2294	Bungay River	2011	Turbidity	Moderately Turbid	1	2
W2294	Bungay River	2011	Turbidity	Highly Turbid	1	2
W2294	Bungay River	2013	Color	None	1	2
W2294	Bungay River	2013	Color	Brownish	1	2
W2294	Bungay River	2013	Odor	None	2	2
W2294	Bungay River	2013	Turbidity	Moderately Turbid	2	2
W2294	Bungay River	2011	Aquatic Plant Density, Overall	None	2	2
W2294	Bungay River	2013	Aquatic Plant Density, Overall	Unobservable	1	2
W2294	Bungay River	2013	Aquatic Plant Density, Overall	None	1	2
W2294	Bungay River	2011	Periphyton Density, Filamentous	None	2	2
W2294	Bungay River	2011	Periphyton Density, Film	Unobservable	1	2
W2294	Bungay River	2011	Periphyton Density, Film	Sparse	1	2
W2294	Bungay River	2013	Periphyton Density, Filamentous	Unobservable	1	2
W2294	Bungay River	2013	Periphyton Density, Filamentous	None	1	2
W2294	Bungay River	2013	Periphyton Density, Film	Unobservable	1	2
W2294	Bungay River	2013	Periphyton Density, Film	Sparse	1	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

Too limited bacteria data are available to assess the Primary Contact Recreational Use and available aesthetics observations did not result in any impairments for Bungay River (MA52-06), so it is assessed as having Insufficient Information.
Surface water sampling was conducted in Bungay River ~775 feet north/upstream of Holden Street, Attleboro (W3306; PFAS Study ID 41) on 09/15/2022 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.
A little further downstream *E. coli* bacteria samples were collected by MassDEP staff at the following sampling stations as part the MassDEP Bacteria Source Tracking (BST) project: North Main Street, Attleboro (Rt.152) (W2294; 2011 & 2013 n=2/yr) and at the outlet of the impoundment locally known as Blackinton Pond, just downstream of North Main Street (Rt. 152) (W0901: 2011 & 2013 n=2/yr). Overall, the BST project found that *E. coli* concentrations ranged from 63 to 554MPN but found no correctable source of bacteria and concluded that Blackinton Pond is not a significant source of bacteria to the Bungay River. There were never more than two samples within a 90-day GM interval, therefore these data are too limited to assess the Primary Contact Recreational Use for Bungay River according to the 2024 CALM.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0901	MassDEP	Water Quality	Bungay River	[at outlet of impoundment locally known as Blackinton Pond approximately 400 feet downstream of North Main Street, (Route 152), Attleboro]	41.950024	-71.291335
W2294	MassDEP	Water Quality	Bungay River	[North Main Street (Route 152), Attleboro]	41.950000	-71.290060
W3306	MassDEP	Water Quality	Bungay River	[the default location representing co-located water/fish PFAS sampling, approximately 775 feet north/upstream of Holden Street, Attleboro]	41.955210	-71.278600

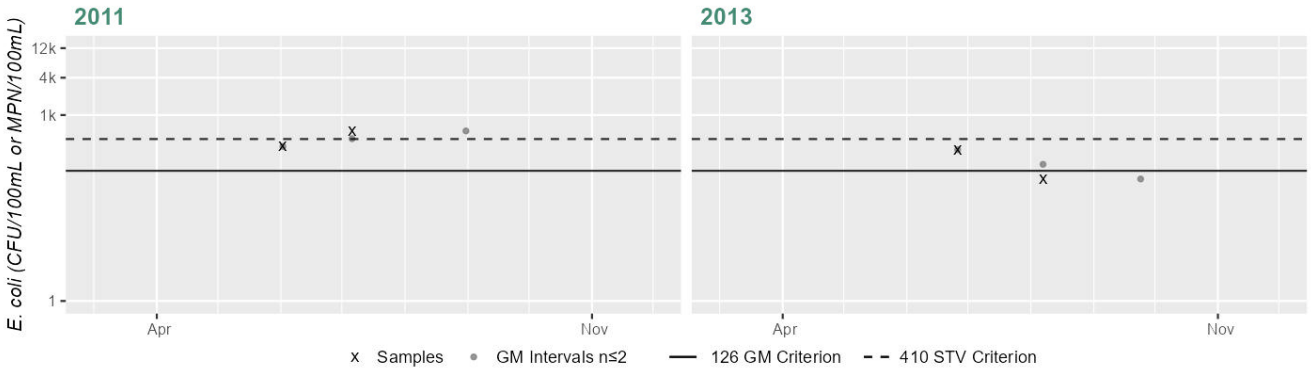
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0901	MassDEP	E. coli	06/02/11	07/06/11	2	311	554	415
W0901	MassDEP	E. coli	06/26/13	08/07/13	2	93	276	160
W2294	MassDEP	E. coli	06/02/11	07/06/11	2	185	185	184
W2294	MassDEP	E. coli	06/26/13	08/07/13	2	63	387	156

Station MASSDEP_W0901 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	415
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

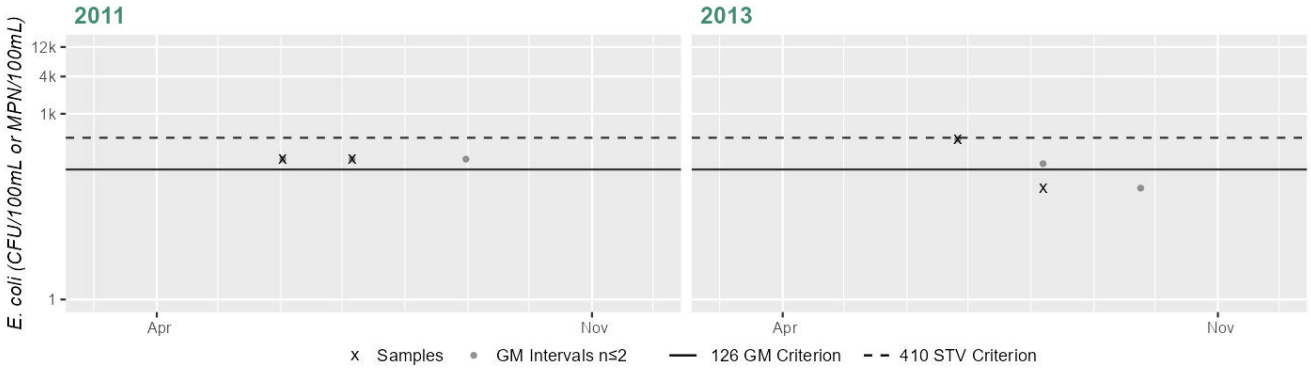
Variable*	Result
Samples	2
SeasGM	160
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2294 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	185
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	156
#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.*

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

Summary
BST work was conducted between 2011 and 2013 along the Bungay River AU (MA52-06) at two sites bracketing the locally named "Blackington Pond", which is located upstream of Main Street, Attleboro. E.coli concentrations ranged from 63 to 565MPN. No correctable source was ever found and it was concluded that the pond itself is not a significant source of bacteria to the Bungay River.

Other Indicators

Summary Statement(s) for MassDEP 2022 PFAS in Water Column Data (MassDEP 2023) (MassDEP Undated 4)

Summary
Surface water sampling was conducted in Bungay River (MA52-06) at station W3306 (PFAS Study ID 41) on 09/15/2022 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 4)

[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
W3306	41	09/15/2022	11	19d	2.1	6.1	7j	4.1	<2	42.8*

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 Recreational Use and available aesthetics observations did not result in any impairments for the Bungay River (MA52-06), so it is assessed as having Insufficient Information. *E. coli* bacteria samples were collected by MassDEP staff between April and July at the following sampling stations, data years: ~100 feet downstream/south of Wet Street (Bungay Road), two feet above fish hatchery outfall, North Attleborough (W0178, 1997 n=2); Holden Street, Attleboro (W0179, 1997 n=2 & 2007 n=5); North Main Street (Route 152), Attleboro (W2294, 2011 & 2013 n=2/yr) and at the outlet of the impoundment locally known as Blackinton Pond ~400 feet downstream of North Main Street (W0901, 2002 n=5; 2007 n=5; 2011 n=2 & 2013 n=2). While data from station's W0179 in 2007 and W0901 in 2002/2007 (cumulative analysis) are indicative of relatively good conditions, too limited bacteria data from the current IR window (2011-2022) are available to assess the Secondary Contact Recreational Use for the Bungay River.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0178	MassDEP	Water Quality	Bungay River	[approximately 100 feet downstream/south of West Street (Bungay Road), North Attleborough. Two feet above fish hatchery outfall.]	41.990924	-71.282839
W0179	MassDEP	Water Quality	Bungay River	[Holden Street, Attleboro]	41.953604	-71.280052
W0901	MassDEP	Water Quality	Bungay River	[at outlet of impoundment locally known as Blackinton Pond approximately 400 feet downstream of North Main Street, (Route 152), Attleboro]	41.950024	-71.291335
W2294	MassDEP	Water Quality	Bungay River	[North Main Street (Route 152), Attleboro]	41.950000	-71.290060

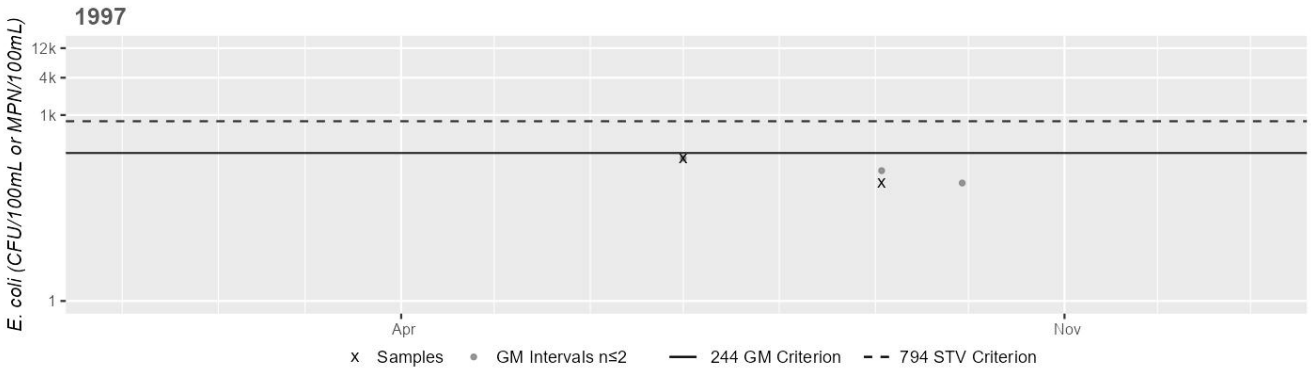
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0178	MassDEP	E. coli	07/01/97	09/03/97	2	80	200	126
W0179	MassDEP	E. coli	07/01/97	09/03/97	2	40	40	40
W0179	MassDEP	E. coli	04/18/07	09/04/07	5	24	930	78
W0901	MassDEP	E. coli	05/15/02	10/01/02	5	280	4200	665
W0901	MassDEP	E. coli	04/18/07	09/04/07	5	14	720	103
W0901	MassDEP	E. coli	06/02/11	07/06/11	2	311	554	415
W0901	MassDEP	E. coli	06/26/13	08/07/13	2	93	276	160
W2294	MassDEP	E. coli	06/02/11	07/06/11	2	185	185	184
W2294	MassDEP	E. coli	06/26/13	08/07/13	2	63	387	156

Station MASSDEP_W0178 - Escherichia coli

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



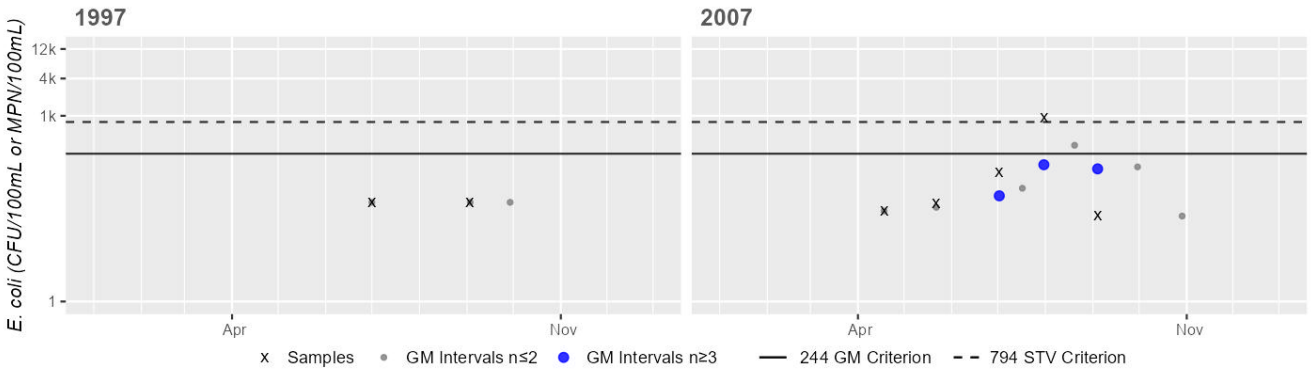
Variable*	Result
Samples	2
SeasGM	126
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W0179 - 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%

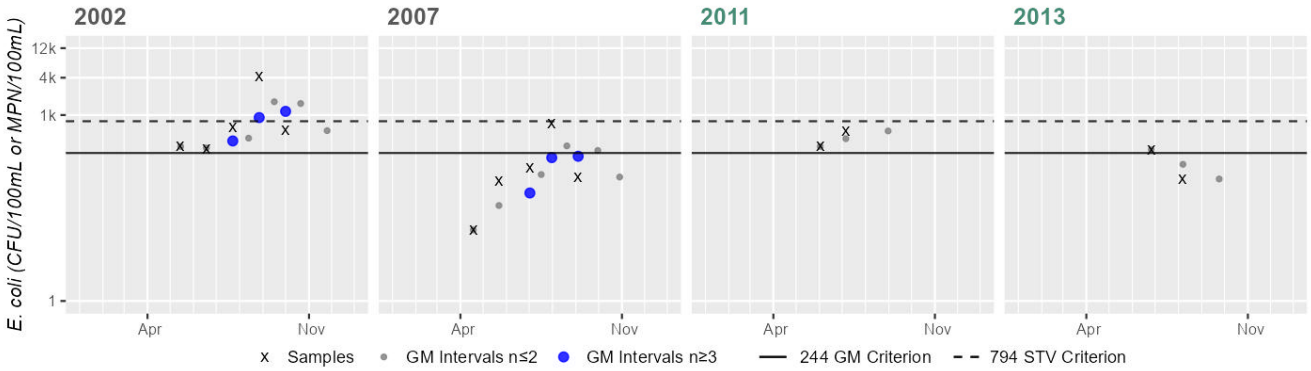
Variable*	Result
Samples	5
SeasGM	78
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

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_W0901 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	665
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	5
SeasGM	103
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	415
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	160
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

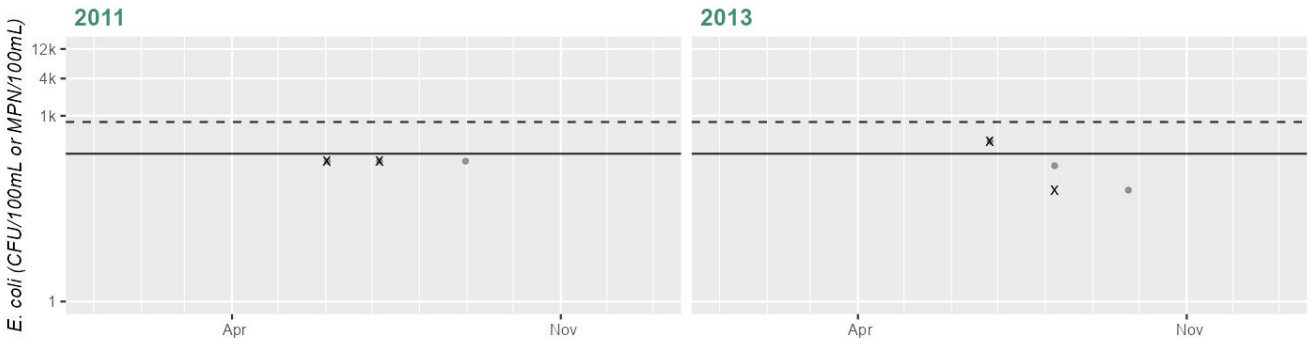
Cumulative %GMI Exceedance
Historic (1997-2010)
50%

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_W2294 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	185
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	156
#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.*

Cargill Pond (MA52004)

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

No usable data were available for Cargill Pond (MA52004) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

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

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

Central Pond (MA52006)

Location:	Seekonk,MA/Pawtucket,RI/Providence,RI (size indicates portion in Massachusetts).
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	(Aquatic Plants (Macrophytes)*)	--	Unchanged
5	5	Algae	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Dissolved Oxygen Supersaturation	--	Unchanged
5	5	Harmful Algal Blooms	--	Unchanged
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
5	5	Organic Enrichment (Sewage) Biological Indicators	--	Unchanged
5	5	Phosphorus, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Aquatic Plants (Macrophytes)*)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
(Aquatic Plants (Macrophytes)*)	Municipal (Urbanized High Density Area) (N)	X	--	X	X	X
(Aquatic Plants (Macrophytes)*)	Municipal Point Source Discharges (Y)	X	--	X	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Algae	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
Algae	Municipal (Urbanized High Density Area) (N)	X	--	X	X	X
Algae	Municipal Point Source Discharges (Y)	X	--	X	X	X
Dissolved Oxygen	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Dissolved Oxygen	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--
Dissolved Oxygen	Municipal Point Source Discharges (Y)	X	--	--	--	--
Dissolved Oxygen Supersaturation	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Dissolved Oxygen Supersaturation	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--
Dissolved Oxygen Supersaturation	Municipal Point Source Discharges (Y)	X	--	--	--	--
Harmful Algal Blooms	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	X	X	X
Harmful Algal Blooms	Municipal (Urbanized High Density Area) (N)	--	--	X	X	X
Harmful Algal Blooms	Municipal Point Source Discharges (Y)	--	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Municipal (Urbanized High Density Area) (N)	X	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Municipal Point Source Discharges (Y)	X	--	X	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Organic Enrichment (Sewage) Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Organic Enrichment (Sewage) Biological Indicators	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--
Organic Enrichment (Sewage) Biological Indicators	Municipal Point Source Discharges (Y)	X	--	--	--	--
Phosphorus, Total	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Phosphorus, Total	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--
Phosphorus, Total	Municipal Point Source Discharges (Y)	X	--	--	--	--

Recommendations

2024/26 Recommendations
2024/2026 IR [Harmful Algal Blooms, Medium Priority] Follow-up monitoring should be conducted in Central Pond (MA52006) to determine if Harmful Algal Blooms continue to impair the Aesthetic use. Monitoring should include observational data and collection of cyanobacteria cell count data, as well as continued reporting of algal blooms to MDPH. This recommendation also applies to the Recreation uses.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary

No fish toxics sampling has been conducted in Central Pond (MA52006), so the Fish Consumption Use is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Central Pond (MA52006) will continue to be assessed as Not Supporting with the impairment for Harmful Algal Blooms being carried forward, since a C-HAB posting was reported to MDPH in 2018. The prior Algae, Nutrient/Eutrophication Biological Indicators and Aquatic Plants (Macrophytes) impairments are also being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Aesthetics Use but will continue to be maintained under the Aquatic Life Use. During the period 2015 through 2022, C-HAB postings for Central Pond were reported to MDPH based on visual observations for 155 days in 2018, and no blooms were reported in other years. Since blooms were reported in a recent year this is reflective of the existing Harmful Algal Blooms impairment for Central Pond. Considering the existing Harmful Algal Blooms impairment was based on visual observations, a recommendation is being made to confirm the impairment with cyanobacteria cell count data.

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 Central Pond (MA52006) were reported to MDPH based on visual observations for 155 days in 2018. No blooms were reported in other years. Since blooms were reported in a recent year, a prior Harmful Algal Bloom impairment is being carried forward and the Aesthetics Use and Primary/Secondary Contact Recreational Uses continue to be assessed as Not Supporting. Since the existing Harmful Algal Blooms impairment was based on visual observations, a recommendation is being made to confirm the impairment with cyanobacteria cell count data.

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

Waterbody	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
Central Pond					155				

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Primary Contact Recreational Use for Central Pond (MA52006) will continue to be assessed as Not Supporting with the impairment for Harmful Algal Blooms being carried forward, since a C-HAB posting was reported to MDPH in 2018. The prior Algae, Nutrient/Eutrophication Biological Indicators and Aquatic Plants (Macrophytes) impairments are also being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Primary Contact Recreational Use but will continue to be maintained under the Aquatic Life Use. During the period 2015 through 2022, C-HAB postings for Central Pond were reported to MDPH based on visual observations for 155 days in 2018, and no blooms were reported in other years. Since blooms were reported in a recent year this is reflective of the existing Harmful Algal Blooms impairment for Central Pond. Considering the existing Harmful Algal Blooms impairment was based on visual observations, a recommendation is being made to confirm the impairment with cyanobacteria cell count data.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

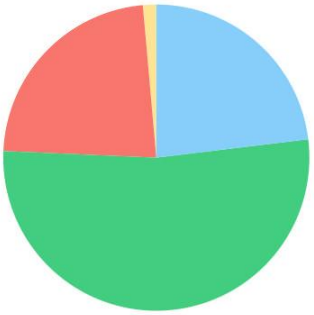
2024/26 Use Attainment Summary
The Secondary Contact Recreational Use for Central Pond (MA52006) will continue to be assessed as Not Supporting with the impairment for Harmful Algal Blooms being carried forward, since a C-HAB posting was reported to MDPH in 2018. The prior Algae, Nutrient/Eutrophication Biological Indicators and Aquatic Plants (Macrophytes) impairments are also being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Primary Contact Recreational Use but will continue to be maintained under the Aquatic Life Use. During the period 2015 through 2022, C-HAB postings for Central Pond were reported to MDPH based on visual observations for 155 days in 2018, and no blooms were reported in other years. Since blooms were reported in a recent year this is reflective of the existing Harmful Algal Blooms impairment for Central Pond. Considering the existing Harmful Algal Blooms impairment was based on visual observations, a recommendation is being made to confirm the impairment with cyanobacteria cell count data.

Coles Brook (MA52-11)

Location:	Headwaters, Grassie Swamp west of Allens Lane, Rehoboth to mouth at inlet Central Pond, Seekonk.
AU Type:	RIVER
AU Size:	4.2 MILES
Classification/Qualifier:	B

Coles Brook (MA52-11)

Watershed Area: 3.27 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	3.27	2.88	0.92	0.90
Agriculture	1.4%	1.1%	2.1%	2.2%
Developed	22.9%	24.2%	19.6%	19.6%
Natural	52.6%	52.2%	47.4%	47.7%
Wetland	23.1%	22.6%	30.8%	30.5%
Impervious	7.1%	7.3%	4.2%	4.2%

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

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
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
No fish toxics sampling has been conducted in Coles Brook (MA52-11), so the Fish Consumption Use is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for Coles Brook (MA52-11), so it is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Since no new data are available, the Primary Contact Recreational Use for Coles Brook (MA52-11) will continue to be assessed as Not Supporting with the prior *Escherichia Coli* (*E. Coli*) impairment 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 Coles Brook (MA52-11) 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 W0184. *E. coli* bacteria data were collected by MassDEP staff at two locations in Coles Brook at the following sampling stations, data years: Tompson Drive/Talbot Way, Seekonk (W1932) in 2007 (n=5) and Rt. 152, Seekonk (W0184) in 1997 (n=2), 2002 (n=3) and 2007 (n=4). Too limited bacteria data are available in 1997 and 2002 to assess the Secondary Contact Recreational Use according to the 2024 CALM. While analysis of the single year, low frequency data collected at W1932 in 2007 was indicative of relatively good conditions, analysis of the single year, low frequency data collected at W0184 in 2007 indicated that bacteria concentrations were above the 2024 CALM thresholds i.e., 50% of the intervals had GMs >244 CFU/100ml, the seasonal GM was 537 CFU/100ml and two samples exceeded the 794 CFU/100ml STV with a maximum *E.coli* concentration of 6,300 CFU/100ml. The *E. coli* concentrations at Rt. 152, Seekonk were above the 2024 CALM thresholds for the single year low frequency dataset in 2007 and no additional data were collected within the current IR window (2011-2022) at this location to confirm or contradict this analysis.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0184	MassDEP	Water Quality	Coles Brook	[Route 152, Seekonk]	41.857733	-71.329455
W1932	MassDEP	Water Quality	Coles Brook	[Tompson Drive/Talbot Way, Seekonk]	41.861926	-71.327981

Bacteria Data

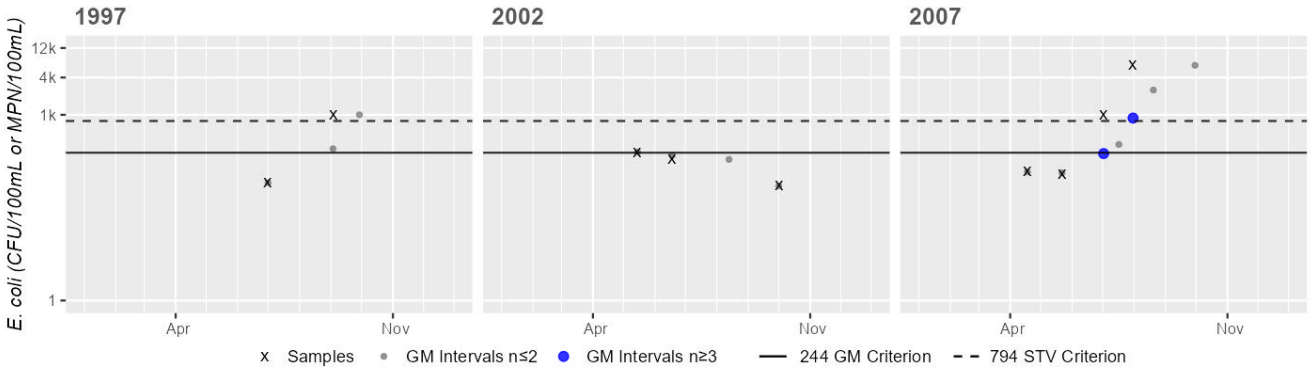
Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0184	MassDEP	E. coli	07/01/97	09/03/97	2	80	1000	282

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0184	MassDEP	E. coli	05/15/02	10/01/02	3	71	250	149
W0184	MassDEP	E. coli	04/18/07	07/31/07	4	110	6300	537
W1932	MassDEP	E. coli	04/18/07	09/04/07	5	67	970	191

Station MASSDEP_W0184 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	282
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

Variable*	Result
Samples	3
SeasGM	149
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

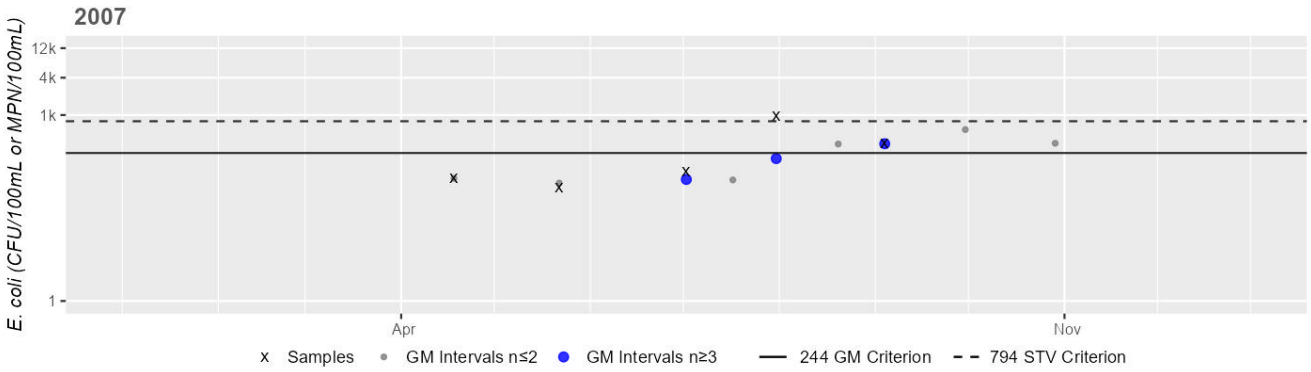
Variable*	Result
Samples	4
SeasGM	537
#GMI	2
#GMI Ex	1
%GMI Ex	50%
n>STV	2
%n>STV	50%

Cumulative %GMI Exceedance
Historic (1997-2010)
50%

**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_W1932 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	191
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	1
%n>STV	20%

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

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

Falls Pond, North Basin (MA52013)

Location:	North Attleborough.
AU Type:	FRESHWATER LAKE
AU Size:	54 ACRES
Classification/Qualifier:	B: WWF

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Algae	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Mercury in Fish Tissue	--	Unchanged
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
5	5	PFAS in Fish Tissue	--	Added
5	5	Phosphorus, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Algae	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Dissolved Oxygen	Internal Nutrient Recycling (N)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Mercury in Fish Tissue	Atmospheric Deposition (N)	--	X	--	--	--
Mercury in Fish Tissue	Source Unknown (N)	--	X	--	--	--
Nutrient/Eutrophication Biological Indicators	Source Unknown (N)	X	--	--	--	--
PFAS in Fish Tissue	Source Unknown (N)	--	X	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Phosphorus, Total	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Phosphorus, Total	Internal Nutrient Recycling (N)	X	--	--	--	--
Phosphorus, Total	Source Unknown (N)	X	--	--	--	--

Recommendations

2024/26 Recommendations
2024/2026 IR [Aquatic Plants, Low Priority] An Aquatic Plant Macrophyte mapping survey is needed for Falls Pond (South Basin) (MA52014), to confirm the presence of variable milfoil (*Myriophyllum heterophyllum*) and confirm the density of plants covering the lake and what percentage of the lake has an aquatic macrophyte biovolume >50%.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Fish Consumption Use for Falls Pond, North Basin (MA52013) continues to be assessed as Not Supporting. The prior Mercury in Fish Tissue impairment is being carried forward and a new impairment is being added for PFAS in Fish Tissue. Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in Falls Pond, North Basin (MA52013) at station F0044 in 2018 as part of the probabilistic lake surveys (MAP2). Additionally, fish toxics sampling was conducted in the adjacent Falls Pond, South Basin AU (MA52014) at station F0217 (PFAS Study ID 11) on 11/09/2022 as part of a MassDEP-funded project evaluating 40 PFAS analytes in selected fresh waters. MA DPH issued a site-specific advisory for PFAS in Falls Pond, North Basin (referred to by MA DPH as ''Falls Pond (All Basins)'') in their May 2024 Freshwater Fish Consumption Advisory List and retained the prior Mercury advisory. 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) (MassDEP 2023) (MassDEP Undated 5)

Summary
Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in Falls Pond, North Basin (MA52013) at station F0044 in 2018 as part of the probabilistic lake surveys (MAP2). MA DPH retained the existing site-specific fish consumption advisories for Mercury associated with Falls Pond, North Basin (referred to by MA DPH as Falls Pond (All Basins)) in their January 2025 Freshwater Fish Consumption Advisory List. Additionally, fish toxics sampling was conducted in Falls Pond, South Basin (MA52014) at station F0217 (PFAS Study ID 11) on 11/09/2022 as part of a MassDEP-funded project evaluating 40 PFAS analytes in selected fresh waters. Because of elevated PFAS measured in fish filets, MA DPH issued site specific fish consumption advisories for Falls Pond, North Basin in their May 2024 Freshwater Fish Consumption Advisory List. The site specific DPH advisories are indicative of a Fish Consumption Use impairment for Mercury in Fish Tissue and PFAS in Fish Tissue for Falls Pond, North Basin (MA52013).

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Falls Pond, North Basin (MA52013) is assessed as Fully Supporting based on the lack of objectionable conditions at either of the stations surveyed by MassDEP staff in 2018. The prior Alert for a phytoplankton bloom observed during an August 2002 survey is being removed, due to the low cyanobacteria cell counts in six samples collected from the AU during the summer of 2018 and the general absence of any MA DPH bloom reports. MassDEP staff surveyed this Falls Pond, North Basin AU in North Attleboro, on the western shoreline at the North Basin Town Beach W2588 (MAP2L-268S) during summer 2015 (n=2) as part of the SERO MST project and in summer 2018 (n=5) as part of the MAP2 lake monitoring project, as well as at the deep hole station W0958 (MAP2L-268) as part of the MAP2 lake monitoring project in 2018 (n=3). There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) noted at W2588 or W0958, and littoral zone duckweed was not recorded during 1 site visit to W2588 in 2018. During the MAP2 macrophyte mapping survey at W0958 in September 2018 (n=1) less than 25% (3.3%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0958	MassDEP	Water Quality	Ten Mile River/Falls Pond	[North Basin, deep hole of a Ten Mile River impoundment, North Attleborough]	41.968898	-71.325111

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2588	MassDEP	Water Quality	Ten Mile River/Falls Pond	[North Basin, from the town beach on Falls Pond (a Ten Mile River impoundment), North Attleboro]	41.968880	-71.326227

Aesthetic Observations

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

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

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W0958	Falls Pond, North Basin	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W0958 (MAP2L-268) on Falls Pond, North Basin (MA52013) during 3 site visits between Jun 2018 and Aug 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. During the MAP2 macrophyte mapping survey (n=1) in Sep 2018, less than 25% (3.3%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%.
W2588	Falls Pond, North Basin	2015	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2588 on Falls Pond, North Basin (MA52013) during 2 site visits in Jul 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2588	Falls Pond, North Basin	2018	5	Aesthetic observations were made by MassDEP field sampling crews at Station W2588 (MAP2L-268S) on Falls Pond, North Basin (MA52013) during 5 site visits between May 2018 and Sep 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. During the MAP2 littoral survey (n=1), duckweed was not noted in any of the 10 shoreline plots.

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

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2588	2015	2	0	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0958	Falls Pond, North Basin	2018	Color	None	2	3
W0958	Falls Pond, North Basin	2018	Color	Light Yellow/Tan	1	3
W0958	Falls Pond, North Basin	2018	Odor	None	3	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0958	Falls Pond, North Basin	2018	Turbidity	None	2	3
W0958	Falls Pond, North Basin	2018	Turbidity	Slightly Turbid	1	3
W0958	Falls Pond, North Basin	2018	Objectionable Deposits	No	3	3
W0958	Falls Pond, North Basin	2018	Scum	No	3	3
W0958	Falls Pond, North Basin	2018	Aquatic Plant Density, Overall	None	3	3
W0958	Falls Pond, North Basin	2018	Aesthetics Impaired?	No	3	3
W2588	Falls Pond, North Basin	2015	Color	Not Recorded	1	2
W2588	Falls Pond, North Basin	2015	Color	None	1	2
W2588	Falls Pond, North Basin	2015	Odor	None	2	2
W2588	Falls Pond, North Basin	2015	Turbidity	Not Recorded	1	2
W2588	Falls Pond, North Basin	2015	Turbidity	Slightly Turbid	1	2
W2588	Falls Pond, North Basin	2018	Color	None	4	5
W2588	Falls Pond, North Basin	2018	Color	Light Yellow/Tan	1	5
W2588	Falls Pond, North Basin	2018	Odor	None	5	5
W2588	Falls Pond, North Basin	2018	Turbidity	None	5	5
W2588	Falls Pond, North Basin	2018	Objectionable Deposits	No	5	5
W2588	Falls Pond, North Basin	2018	Scum	No	5	5
W2588	Falls Pond, North Basin	2015	Aquatic Plant Density, Overall	Not Recorded	2	2
W2588	Falls Pond, North Basin	2015	Periphyton Density, Filamentous	Not Recorded	2	2
W2588	Falls Pond, North Basin	2015	Periphyton Density, Film	Not Recorded	2	2
W2588	Falls Pond, North Basin	2018	Aesthetics Impaired?	No	5	5

Primary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreational Use for Falls Pond North Basin (MA52013) is assessed as Fully Supporting based on the good water quality conditions noted by MassDEP staff at the town beach and deep hole index station. The prior Alert for a phytoplankton bloom observed during an August 2002 survey is being removed, due to the low cyanobacteria cell counts in six samples collected from the AU during the summer of 2018 and the general absence of any bloom reports.

MassDEP field crews conducted *E. coli* bacteria sampling in Falls Pond North Basin at a shoreline station (the Town beach) in North Attleboro (W2588/MAP2L-268S) in 2015 (n=2) and as part of the MAP2 lakes monitoring project in 2018 (n=5). Data was too limited (with no GMs of n≥ 3 samples within 90-day intervals) in 2015 to assess as per the 2024 CALM, so only the analysis for the 2018 data will be discussed here. Analysis of the single year, low frequency data collected during 2018 indicated good conditions as none of the intervals had GMs >126 CFU/100ml, no samples exceeded the 410 CFU/100ml STV and the seasonal GM was 38 CFU/100ml. Also during summer 2018, MassDEP field crews collected Secchi and cyanobacteria cell count data in Falls Pond, North Basin at W0958 [MAP2L-268, Index-deep hole], and cyanobacteria cell count and cyanotoxin data at town beach station, W2588. At station W0958 (station depth=9.3 m) the Secchi depth measurements ranged from 2.1-2.7 m (n=3) indicating water clarity meeting the 1.2 m (4 ft) threshold. The cyanobacteria cell count did not exceed 70,000 cells/ml in any of the water samples (n=6). Analysis of microcystins and cylindrospermopsin samples from W2588 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L.

Surface water sampling was also conducted at town beach station W2588 in 2022 for a PFAS Study (ID 11B). Samples were collected on both 8/29/2022 and 11/09/2022 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 on both dates.

Monitoring Stations

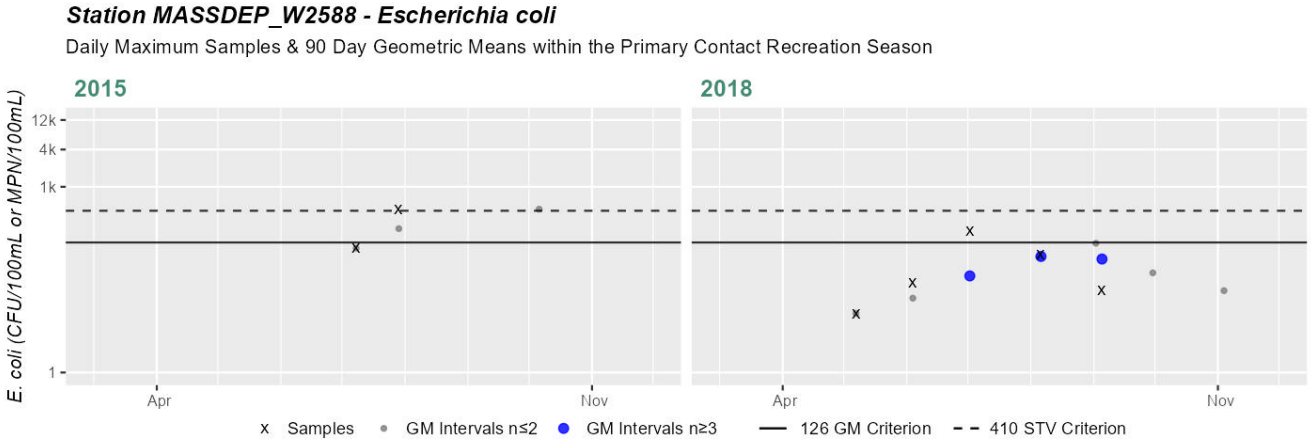
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0958	MassDEP	Water Quality	Ten Mile River/Falls Pond	[North Basin, deep hole of a Ten Mile River impoundment, North Attleborough]	41.968898	-71.325111
W2588	MassDEP	Water Quality	Ten Mile River/Falls Pond	[North Basin, from the town beach on Falls Pond (a Ten Mile River impoundment), North Attleboro]	41.968880	-71.326227

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis) (MassDEP Undated 7) (MassDEP Undated 4)

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2588	MassDEP	E. coli	07/08/15	07/29/15	2	102	435	210
W2588	MassDEP	E. coli	05/07/18	09/05/18	5	9	190	38



Variable*	Result
Samples	2
SeasGM	210
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

Variable*	Result
Samples	5
SeasGM	38
#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 samples were collected at 3 sites along the shore of the Falls Pond AU (MA52013) in 2015, with E.coli concentrations ranging 53 to 770MPN in dry weather conditions. No correctable source was ever found.

Other Indicators

Summary Statement(s) for MassDEP 2022 PFAS in Water Column Data (MassDEP 2023) (MassDEP Undated 4)

Summary
Surface water sampling was conducted in Falls Pond (MA52013) at station W2588 (PFAS Study ID 11B), the town beach on the pond, on 08/29/2022 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.

Summary
Surface water sampling was conducted in Falls Pond (MA52013) at station W2588 (PFAS Study ID 11B), the town beach on the pond, on 11/09/2022 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 4)

[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
W2588	11B	08/29/2022	5.6	8.1	1j	3.7	4.3j	4.4	<2	21.8*
W2588	11B	11/09/2022	6.1	10	0.79j	3.1	3.4j	3.6	<2	23.4*

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

Summary Statement
In Falls Pond, North Basin (MA52013), MassDEP collected Secchi and cyanobacteria cell count data at W0958 [MAP2L-268, Index-deep hole] in 2018, and cyanobacteria cell count and cyanotoxin data at W2588 [MAP2L-268S, Shoreline] in 2018. At station W0958 (station depth=9.3 m) the Secchi depth measurements ranged from 2.1-2.7 m (n=3) indicating water clarity meeting the 1.2 m (4 ft) threshold. The cyanobacteria cell count did not exceed 70,000 cells/mL in any of the water samples in 2018 (n=6). Analysis of microcystins and cylindrospermopsin samples from W2588 (n=6) indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L.

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

Station Code	Waterbody	Station Type	Data Year	Sample Count	Count >70,000 cells/mL	Exceedance Date(s)
W0958	Falls Pond, North Basin	Index	2018	3	0	N/A
W2588	Falls Pond, North Basin	Shoreline	2018	3	0	N/A

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreational Use for Falls Pond North Basin (MA52013) is assessed as Fully Supporting based on the good water quality conditions noted by MassDEP staff at the town beach and deep hole station. The prior Alert for a phytoplankton bloom observed during an August 2002 survey is being removed, due to the low cyanobacteria cell counts in six samples collected from the AU during the summer of 2018 and the general absence of any bloom reports.

MassDEP field crews conducted *E. coli* bacteria sampling in Falls Pond North Basin at a shoreline station (the Town beach) in North Attleboro (W2588/MAP2L-268S) in 2015 (n=2) and as part of the MAP2 lakes monitoring project in 2018 (n=5). Data was too limited (with no GMs of n≥ 3 samples within 90-day intervals) in 2015 to assess as per the 2024 CALM, so only the analysis for the 2018 data will be discussed here. Analysis of the single year, low frequency data collected during 2018 indicated good conditions as none of the intervals had GMs >244 CFU/100ml, no samples exceeded the 794 CFU/100ml STV and the seasonal GM was 38 CFU/100ml. Also during summer 2018, MassDEP field crews collected 3 water samples at the index station W0958 (MAP2L-268) on Falls Pond, as well as 3 samples at shoreline station W2588. Cyanobacteria cell counts did not exceed 70,000 cells/ml in any of the water samples. Analysis of shoreline samples (n=4) for microcystins and cylindrospermopsin indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2588	MassDEP	Water Quality	Ten Mile River/Falls Pond	[North Basin, from the town beach on Falls Pond (a Ten Mile River impoundment), North Attleboro]	41.968880	-71.326227

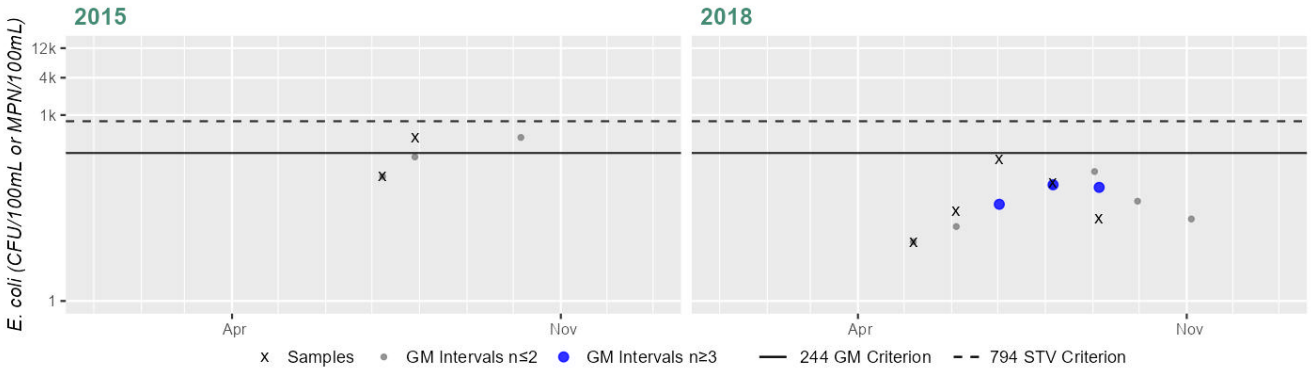
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2588	MassDEP	E. coli	07/08/15	07/29/15	2	102	435	210
W2588	MassDEP	E. coli	05/07/18	09/05/18	5	9	190	38

Station MASSDEP_W2588 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	210
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	38
#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.*

Falls Pond, South Basin (MA52014)

Location:	North Attleborough.
AU Type:	FRESHWATER LAKE
AU Size:	50 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4c	5	(Non-Native Aquatic Plants*)	--	Unchanged
4c	5	Mercury in Fish Tissue	--	Added
4c	5	PFAS in Fish Tissue	--	Added

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

Recommendations

2024/26 Recommendations
2024/2026 IR [Aquatic Plants, Low Priority] An Aquatic Plant Macrophyte mapping survey is needed for Falls Pond (South Basin) (MA52014), to confirm the presence of variable milfoil (*Myriophyllum heterophyllum*) and confirm the density of plants covering the lake and what percentage of the lake has an aquatic macrophyte biovolume >50%.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Fish Consumption Use for Falls Pond, South Basin (MA52014) is assessed as Not Supporting with new impairments being added for Mercury in Fish Tissue and PFAS in Fish Tissue. Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in the adjacent Falls Pond, North Basin (MA52013) at station F0044 in 2018 as part of the probabilistic lake surveys (MAP2). Additionally, fish toxics sampling was conducted in Falls Pond, South Basin (MA52014) at station F0217 (PFAS Study ID 11) on 11/09/2022 as part of a MassDEP-funded project evaluating 40 PFAS analytes in selected fresh waters. Because of elevated Mercury measured in fish filets, MA DPH issued site-specific fish consumption advisories for Falls Pond, North Basin in their July 2019 Freshwater Fish Consumption Advisory List and the advisory was later applied to the South Basin in the May 2024 advisory list (referred to by MA DPH as ''Falls Pond (All Basins)''). Additionally, because of elevated PFAS measured in fish filets, MA DPH issued site specific fish consumption advisories for both basins in their May 2024 Freshwater Fish Consumption Advisory List and retained them as well as the Mercury 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. The likely source of Mercury, although not confirmed, is atmospheric deposition. No source of PFAS has been identified at this time.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
F0217	MassDEP	Fish Toxics	Falls Pond	[(South Basin) North Attleborough]	41.963082	-71.323456

Fish Tissue Data

Summary of Fish Tissue Data and Resulting Fish Consumption Advisories (MA DPH 2025) (MA DPH 2019) (MassDEP 2023) (MassDEP Undated 5)

Summary
Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in the adjacent Falls Pond, North Basin (MA52013) at station F0044 in 2018 as part of the probabilistic lake surveys (MAP2). Additionally, fish toxics sampling was conducted in Falls Pond, South Basin (MA52014) at station F0217 (PFAS Study ID 11) on 11/09/2022 as part of a MassDEP-funded project evaluating 40 PFAS analytes in selected fresh waters. Because of elevated Mercury measured in fish filets, MA DPH issued site specific fish consumption advisories for Falls Pond, North Basin in their July 2019 Freshwater Fish Consumption Advisory List and the advisory was later applied to the South Basin in the May 2024 advisory list (referred to by MA DPH as ''Falls Pond (All Basins)''). Additionally, because of elevated PFAS measured in fish filets, MA DPH issued site specific fish consumption advisories for both basins in their May 2024 Freshwater Fish Consumption Advisory List. Both the Mercury and PFAS advisories were retained in the January 2025 list. The site specific DPH advisories are indicative of Fish Consumption Use impairments for Mercury in Fish Tissue and PFAS in Fish Tissue for Falls Pond, South Basin (MA52014).

MassDEP 2022 PFAS in Fish Tissue Data for Massachusetts Surface Waters (MassDEP 2023) (MassDEP Undated 5) (MA DPH 2023)

[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.]

[Species List: LMB = largemouth bass, 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
F0217	11	11/09/2022	LMB	ND	ND	ND	25.00	
F0217	11	11/09/2022	P	0.06	ND	ND	7.95	PFHxS
F0217	11	11/09/2022	YP	0.12	0.15	ND	19.50	PFHxS & PFNA

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	YES

2024/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for Falls Pond, South Basin (MA52014), so it is Not Assessed. While an Alert was previously identified for the dense coverage of non-native macrophytes (approximately 25% of the pond area) observed by MassDEP staff in 2002 (Mattson 2007), an Alert for Aquatic Plants (Macrophytes) is being added in its place at this time. An impairment for Non-Native Aquatic Plants will continue to be maintained under the Aquatic Life Use.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

2024/26 Use Attainment Summary

Too limited data are available to assess the status of the Primary Contact Recreation Use for Falls Pond, South Basin (MA52014), so it is assessed as having Insufficient Information. The Alert for Non-Native Aquatic Plants is being removed from the recreational uses but continues to be maintained under the Aesthetics Use (in the form of Aquatic Plants (Macrophytes)). An impairment for Non-Native Aquatic Plants will continue to be maintained under the Aquatic Life Use.
Surface water sampling was conducted in Falls Pond, South Basin at station W3271 (PFAS Study ID 11) on 08/29/2022 and 11/09/2022 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 on both dates.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W3271	MassDEP	Water Quality	Falls Pond	[the default location representing co-located water/fish PFAS sampling, (South Basin) North Attleborough]	41.963082	-71.323456

Other Indicators

Summary Statement(s) for MassDEP 2022 PFAS in Water Column Data (MassDEP 2023) (MassDEP Undated 4)

Summary
Surface water sampling was conducted in Falls Pond (MA52014) at station W3271 (PFAS Study ID 11) on 08/29/2022 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.
Surface water sampling was conducted in Falls Pond (MA52014) at station W3271 (PFAS Study ID 11) on 11/09/2022 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 4)

[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
W3271	11	08/29/2022	7	7.7	0.79j	3.7	4.1j	3.7	<2	23.8*
W3271	11	11/09/2022	6.2	9.1	0.74j	3.5	4.1j	3.4	<2	22.3*

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Insufficient Information	NO

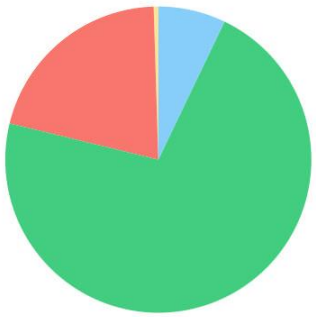
2024/26 Use Attainment Summary
Too limited data are available to assess the status of the Secondary Contact Recreation Use for Falls Pond, South Basin (MA52014), so it is assessed as Insufficient Information. The Alert for Non-Native Aquatic Plants is being removed from the recreational uses but continues to be maintained under the Aesthetics Use (in the form of Aquatic Plants (Macrophytes)). An impairment for Non-Native Aquatic Plants will continue to be maintained under the Aquatic Life Use. Surface water sampling was conducted in Falls Pond, South Basin at station W3271 (PFAS Study ID 11) on 08/29/2022 and 11/09/2022 as part of a 2022 MassDEP funded project with ERG evaluating 40 PFAS analytes in selected fresh waters. The ΣPFAS6 concentrations (the sum of PFDA, PFHpA, PFHxS, PFNA, PFOA, PFOS) were 23.8 ng/L (ppt) and 22.3 ng/L (ppt) for each sample date respectively, which in both cases is less than the recreational screening value of 90 ng/L. The concentrations of the seven analytes with individual toxicity criteria (PFOA, PFOS, PFNA, PFHxS, PFBA, PFBS, HFPO-DA/GenX) were also all less than the 90 ng/L (ppt) recreational screening value in both cases.

Fourmile Brook (MA52-10)

Location:	Headwaters, outlet Manchester Pond Reservoir, Attleboro to inlet Orrs Pond (a Sevenmile River impoundment), Attleboro.
AU Type:	RIVER
AU Size:	1 MILES
Classification/Qualifier:	A: PWS, ORW (Tributary)

Fourmile Brook (MA52-10)

Watershed Area: 1.64 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.64	1.64	1.19	1.19
Agriculture	0.5%	0.5%	0.3%	0.3%
Developed	20.7%	20.7%	17.2%	17.2%
Natural	71.7%	71.7%	73.6%	73.6%
Wetland	7.1%	7.1%	8.9%	8.9%
Impervious	9.4%	9.4%	8.3%	8.3%

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Sedimentation/Siltation	Habitat Modification - other than Hydromodification (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 recently, so the Fish Consumption Use for Fourmile Brook (MA52-10) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for Fourmile Brook (MA52-10), so it is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
There are no data available to assess the Primary Contact Use for Fourmile Brook (MA52-10) so it is Not Assessed.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreational Use for Fourmile Brook (MA52-10) is Not Assessed. *E. coli* bacteria data were collected by MassDEP staff on Fourmile Brook at West Street, Attleboro (W0181) in 1997 (n=2), roughly monthly from May to October 2002 (n=5) and roughly monthly from April to September 2007 (n=5). Analysis of the multi-year, low frequency data collected during 2002 and 2007 indicated good conditions as none of the intervals had GMs >244 CFU/100ml and no samples exceeded the 794 CFU/100ml STV. While the *E. coli* concentrations were below the 2024 CALM impairment thresholds for the multi-year low frequency dataset (incorporating 2002 and 2007), these data were collected prior to the current IR window (2011-2022).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0181	MassDEP	Water Quality	Fourmile Brook	[West Street, Attleboro]	41.936483	-71.324335

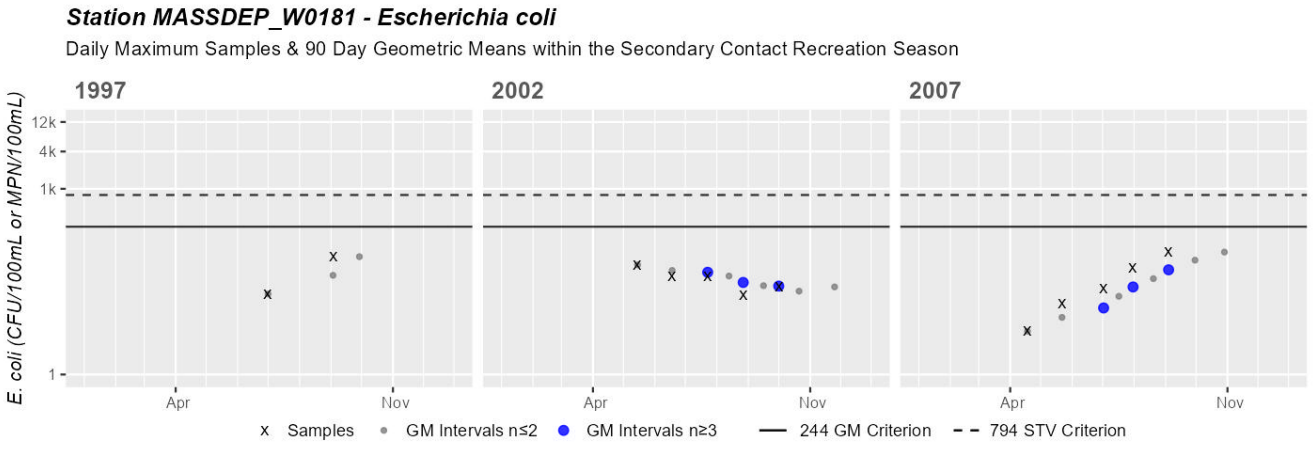
Bacteria Data

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

(MassDEP Undated 7) (MassDEP Undated 3)

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0181	MassDEP	E. coli	07/01/97	09/03/97	2	20	80	39
W0181	MassDEP	E. coli	05/15/02	10/01/02	5	19	59	33
W0181	MassDEP	E. coli	04/18/07	09/04/07	5	5	95	24



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

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

Variable*	Result
Samples	5
SeasGM	24
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

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

Greenwood Lake (MA52017)

Location:	Mansfield/North Attleborough.
AU Type:	FRESHWATER LAKE
AU Size:	96 ACRES
Classification/Qualifier:	B

No usable data were available for Greenwood Lake (MA52017) 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

Hoppin Hill Reservoir (MA52021)

Location:	North Attleborough.
AU Type:	FRESHWATER LAKE
AU Size:	22 ACRES
Classification/Qualifier:	A: PWS, ORW (Tributary)

No usable data were available for Hoppin Hill Reservoir (MA52021) 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

James V. Turner Reservoir (MA52022)

Location:	Seekonk,MA/E. Providence,RI (size indicates portion in Massachusetts).
AU Type:	FRESHWATER LAKE
AU Size:	28 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Aquatic Plants (Macrophytes)*)	--	Unchanged
5	5	Algae	--	Unchanged
5	5	Dissolved Oxygen Supersaturation	--	Unchanged
5	5	Harmful Algal Blooms	--	Unchanged
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
5	5	Organic Enrichment (Sewage) Biological Indicators	--	Unchanged
5	5	Phosphorus, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Aquatic Plants (Macrophytes)*)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
(Aquatic Plants (Macrophytes)*)	Municipal (Urbanized High Density Area) (N)	X	--	X	X	X
(Aquatic Plants (Macrophytes)*)	Municipal Point Source Discharges (Y)	X	--	X	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Algae	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
Algae	Municipal (Urbanized High Density Area) (N)	X	--	X	X	X
Algae	Municipal Point Source Discharges (Y)	X	--	X	X	X
Dissolved Oxygen Supersaturation	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Dissolved Oxygen Supersaturation	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--
Dissolved Oxygen Supersaturation	Municipal Point Source Discharges (Y)	X	--	--	--	--
Harmful Algal Blooms	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	X	X	X
Harmful Algal Blooms	Municipal (Urbanized High Density Area) (N)	--	--	X	X	X
Harmful Algal Blooms	Municipal Point Source Discharges (Y)	--	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Municipal (Urbanized High Density Area) (N)	X	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Municipal Point Source Discharges (Y)	X	--	X	X	X
Organic Enrichment (Sewage) Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Organic Enrichment (Sewage) Biological Indicators	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Organic Enrichment (Sewage) Biological Indicators	Municipal Point Source Discharges (Y)	X	--	--	--	--
Phosphorus, Total	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Phosphorus, Total	Municipal (Urbanized High Density Area) (N)	X	--	--	--	--
Phosphorus, Total	Municipal Point Source Discharges (Y)	X	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
Although fish toxics sampling was done in 1984 in James V. Turner Reservoir, no site-specific fish consumption advisory is in place, therefore the Fish Consumption Use for James V. Turner Reservoir (MA52022) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Aesthetics Use for James V. Turner Reservoir (MA52022) will continue to be assessed as Not Supporting with the Algae, Aquatic Plants (Macrophytes), Harmful Algal Blooms and Nutrient/Eutrophication Biological Indicators impairments being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Aesthetics Use but will continue to be maintained under the Aquatic Life Use.
During the period 2015 through 2022, C-HAB postings for James V. Turner Reservoir were reported to MDPH based on visual observations for 155 days in 2018, and no blooms were reported in other years. Since the bloom was >20 days in duration this reflects the existing impairment for Harmful Algal Blooms in Turner Reservoir. No other more recent data are available.

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 James V. Turner Reservoir (MDPH name Turner Reservoir) (MA52022) were reported to MDPH based on visual observations for 155 days in 2018. No blooms were reported in other years. Since blooms were reported in a recent year, a prior Harmful Algal Bloom impairment is being carried forward and the Aesthetics Use and Primary/Secondary Contact Recreational Uses continue to be assessed as Not Supporting.

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

Waterbody	**Town**	**Bloom Days, 2015**	**Bloom Days, 2016**	**Bloom Days, 2017**	**Bloom Days, 2018**	**Bloom Days, 2019**	**Bloom Days, 2020**	**Bloom Days, 2021**	**Bloom Days, 2022**
Turner Reservoir					155				

Primary Contact Recreation

2024/26 Use Attainment	**Alert**
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreational Use for James V. Turner Reservoir (MA52022) will continue to be assessed as Not Supporting with the Algae, Aquatic Plants (Macrophytes), Harmful Algal Blooms and Nutrient/Eutrophication Biological Indicators impairments being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Primary Contact Recreational Use but will continue to be maintained under the Aquatic Life Use.
During the period 2015 through 2022, C-HAB postings for James V. Turner Reservoir were reported to MDPH based on visual observations for 155 days in 2018, and no blooms were reported in other years. Since the bloom was >20 days in duration this reflects the existing impairment for Harmful Algal Blooms in Turner Reservoir. No other more recent data are available.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreational Use for James V. Turner Reservoir (MA52022) will continue to be assessed as Not Supporting with the Algae, Aquatic Plants (Macrophytes), Harmful Algal Blooms and Nutrient/Eutrophication Biological Indicators impairments being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Secondary Contact Recreational Use but will continue to be maintained under the Aquatic Life Use. During the period 2015 through 2022, C-HAB postings for James V. Turner Reservoir were reported to MDPH based on visual observations for 155 days in 2018, and no blooms were reported in other years. Since the bloom was >20 days in duration this reflects the existing impairment for Harmful Algal Blooms in Turner Reservoir. No other more recent data are available.

Lake Como (MA52010)

Location:	Attleboro.
AU Type:	FRESHWATER LAKE
AU Size:	5 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Aquatic Plants (Macrophytes)*)	--	Added
5	5	(Fanwort*)	--	Unchanged
5	5	Algae	--	Unchanged
5	5	Turbidity	--	Unchanged

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

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
The Fish Consumption Use for Lake Como (MA52010) was Not Assessed because fish toxics sampling was not conducted.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No new data are available to evaluate the Aesthetics Use for Lake Como (MA52010). The Aesthetics Use will continue to be assessed as Not Supporting with the Algae and Turbidity impairments being carried forward. The historic “Fanwort” impairment is being removed and replaced with an Aquatic Plants (Macrophytes) non-pollutant impairment. Since the Fanwort impairment was redundantly duplicated across multiple uses for this waterbody, the Fanwort impairment is being removed from the Aesthetics Use, but will continue to be maintained under the Aquatic Life Use. Since MassDEP staff noted a "very dense cover of vegetation over the entire pond" (including Fanwort) during a July 1997 survey (MassDEP 1997), and Google Earth images (Google Earth Pro Undated) July 2003 through October 2021 show this pond is very filled in (>25% coverage) with submergent and emergent vegetation, an Aquatic Plants (Macrophytes) non-pollutant impairment is being added in the place of the Fanwort impairment at this time. The prior Alert identified for the possible infestation of non-native *Myriophyllum* species (noted during the same July 1997 survey) is also being removed since it was redundantly duplicated across multiple uses, but it will continue to be maintained under the Aquatic Life Use.

Aesthetic Observations

Lake Como (MA52010) Google Earth Imagery: Pond Outline (2001) Followed by Imagery from 2014 and 2021 Showing Dense/Very Dense Vegetation Covering >25% of the Pond’s Surface (Google Earth Pro Undated)


12/2001
Lake Como
Como Dr
May St
King Barber
Image MassGIS, Commonwealth of Massachusetts EOEA
Google Earth


9/2014
Lake Como
Como Dr
May St
King Barber
Google Earth

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No new data are available to evaluate the Primary Contact Recreation Use for Lake Como (MA52010). The Primary Contact Recreation Use will continue to be assessed as Not Supporting with the Algae and Turbidity impairments being carried forward. The historic “Fanwort” impairment is being removed and replaced with an Aquatic Plants (Macrophytes) non-pollutant impairment. Since the Fanwort impairment was redundantly duplicated across multiple uses for this waterbody, the Fanwort impairment is being removed from the Primary Contact Recreation Use, but will continue to be maintained under the Aquatic Life Use. Since MassDEP staff noted a "very dense cover of vegetation over the entire pond" (including Fanwort) during a July 1997 survey (MassDEP 1997), and Google Earth images (Google Earth Pro Undated) July 2003 through October 2021 show this pond is very filled in (>25% coverage) with submergent and emergent vegetation, an Aquatic Plants (Macrophytes) non-pollutant impairment is being added in the place of the Fanwort impairment at this time. The prior Alert identified for the possible infestation of non-native Myriophyllum species (noted during the same July 1997 survey) is also being removed since it was redundantly duplicated across multiple uses, but it will continue to be maintained under the Aquatic Life Use.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
No new data are available to evaluate the Secondary Contact Recreation Use for Lake Como (MA52010). The Secondary Contact Recreation Use will continue to be assessed as Not Supporting with the Algae and Turbidity impairments being carried forward. The historic "Fanwort" impairment is being removed and replaced with an Aquatic Plants (Macrophytes) non-pollutant impairment. Since the Fanwort impairment was redundantly duplicated across multiple uses for this waterbody, the Fanwort impairment is being removed from the Primary Contact Recreation Use, but will continue to be maintained under the Aquatic Life Use. Since MassDEP staff noted a "very dense cover of vegetation over the entire pond" (including Fanwort) during a July 1997 survey (MassDEP 1997), and Google Earth images (Google Earth Pro Undated) July 2003 through October 2021 show this pond is very filled in (>25% coverage) with submergent and emergent vegetation, an Aquatic Plants (Macrophytes) non-pollutant impairment is being added in the place of the Fanwort impairment at this time. The prior Alert identified for the possible infestation of non-native Myriophyllum species (noted during the same July 1997 survey) is also being removed since it was redundantly duplicated across multiple uses, but it will continue to be maintained under the Aquatic Life Use.

Manchester Pond Reservoir (MA52026)

Location:	Attleboro.
AU Type:	FRESHWATER LAKE
AU Size:	238 ACRES
Classification/Qualifier:	A: PWS, ORW (PWS and Tributary to PWS)

No usable data were available for Manchester Pond Reservoir (MA52026) 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

Orrs Pond (MA52029)

Location:	Attleboro.
AU Type:	FRESHWATER LAKE
AU Size:	58 ACRES
Classification/Qualifier:	A: PWS, ORW

No usable data were available for Orrs Pond (MA52029) 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	(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	--	--	--	--

Plain Street Pond (MA52032)

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

No usable data were available for Plain Street Pond (MA52032) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Fanwort*)	--	Unchanged
5	5	Algae	--	Unchanged

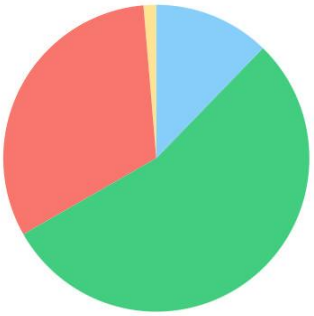
Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Fanwort*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
Algae	Source Unknown (N)	--	--	X	X	X

Scotts Brook (MA52-09)

Location:	Headwaters, north of High Street, North Attleborough to mouth at confluence with Ten Mile River, North Attleborough.
AU Type:	RIVER
AU Size:	2.1 MILES
Classification/Qualifier:	B

Scotts Brook (MA52-09)

Watershed Area: 1.21 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	1.21	1.21	0.67	0.67
Agriculture	1.3%	1.3%	1.4%	1.4%
Developed	31.9%	31.9%	30.2%	30.2%
Natural	54.5%	54.5%	49.6%	49.6%
Wetland	12.3%	12.3%	18.7%	18.7%
Impervious	9.5%	9.5%	8.8%	8.8%

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Dewatering*)	Source Unknown (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 recently, so the Fish Consumption Use for Scotts Brook (MA52-09) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for Scotts Brook (MA52-09), so it is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Since no new data are available, the Primary Contact Recreational Use for Scotts Brook (MA52-09) will continue to be assessed as Not Supporting with the *Escherichia Coli* (*E. Coli*) impairment 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 Scotts Brook (MA52-09) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed. *E. coli* bacteria data were collected by MassDEP staff at two North Attleboro locations in Scotts Brook at the following sampling stations, data years: High Street (W1580) in 2007 (n=4) and upstream at South Washington Street (W1581) in 2007 (n=3). Too limited bacteria data are available from station W1581 to assess the Secondary Contact Recreational Use according to the 2024 CALM, though it should be noted that one sample did exceed the 794 CFU/100ml STV (maximum *E.coli* concentration of 4,100 CFU/100ml). Analysis of the single year, low frequency data collected at W1580 also indicated poor conditions at times, but overall the data was below the 2024 CALM impairment thresholds; i.e. while 50% of the intervals had GMs >244 CFU/100ml and the seasonal GM was 321 CFU/100ml, only one sample exceeded the 794 CFU/100ml STV (maximum *E.coli* concentration of 5,700 CFU/100ml). 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
W1580	MassDEP	Water Quality	Scotts Brook	[High Street, North Attleborough]	41.988562	-71.347473
W1581	MassDEP	Water Quality	Scotts Brook	[upstream at South Washington Street, North Attleborough]	41.977630	-71.334538

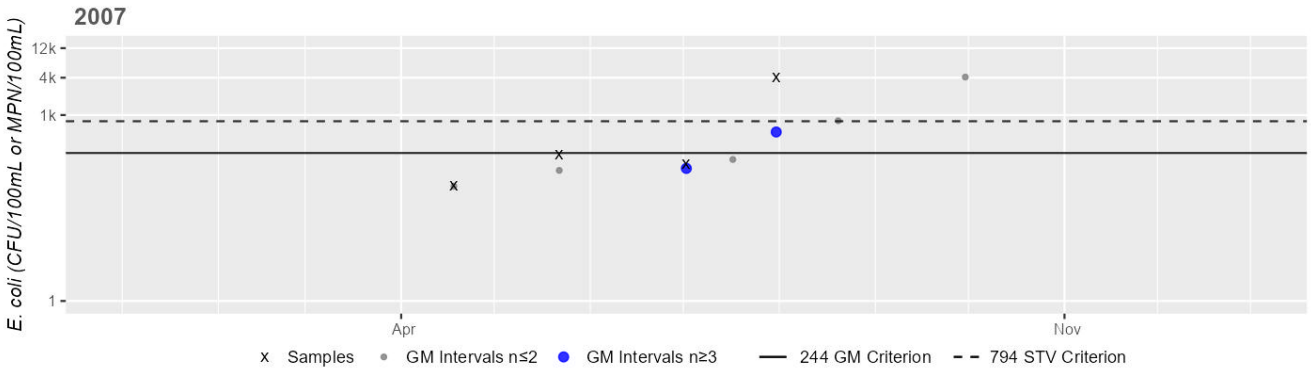
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W1580	MassDEP	E. coli	04/18/07	07/31/07	4	71	4100	321
W1581	MassDEP	E. coli	04/18/07	07/31/07	3	130	5700	570

Station MASSDEP_W1580 - Escherichia coli

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



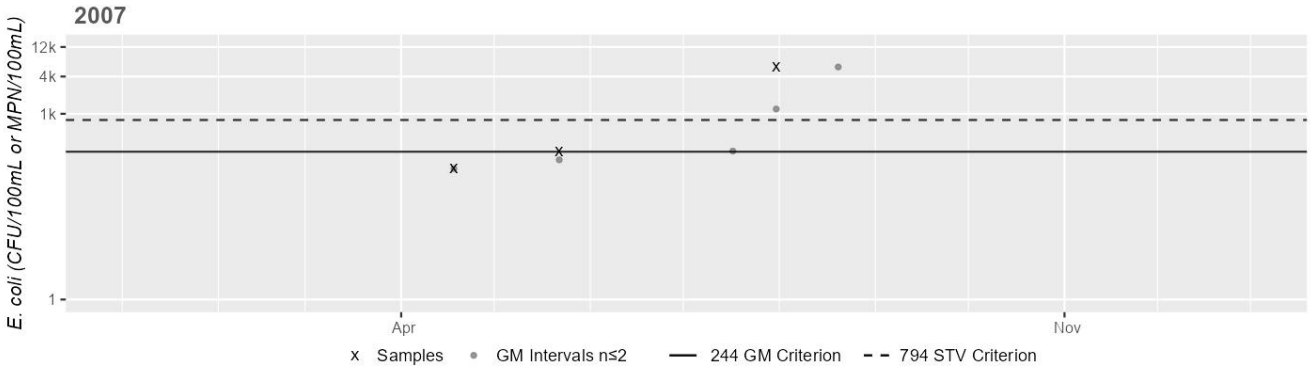
Variable*	Result
Samples	4
SeasGM	321
#GMI	2
#GMI Ex	1
%GMI Ex	50%
n>STV	1
%n>STV	25%

Cumulative %GMI Exceedance
Historic (1997-2010)
50%

**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_W1581 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	570
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	33%

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

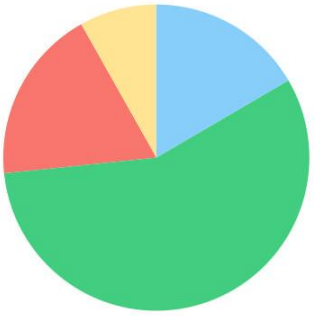
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Sevenmile River (MA52-07)

Location:	Headwaters, outlet Hoppin Hill Reservoir, North Attleborough to inlet Orrs Pond, Attleboro (through former 2006 segment: Luther Reservoir MA52025).
AU Type:	RIVER
AU Size:	3.2 MILES
Classification/Qualifier:	A: PWS, ORW

Sevenmile River (MA52-07)

Watershed Area: 4.98 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	4.98	3.22	3.23	2.17
Agriculture	8.2%	3%	8.7%	1.8%
Developed	18.5%	24.2%	15.6%	20.6%
Natural	56.8%	57.1%	53.3%	57%
Wetland	16.6%	15.6%	22.4%	20.6%
Impervious	10.4%	14.1%	8.3%	11.2%

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)	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
Although fish toxics sampling was done in 1984 just upstream of Draper Avenue, North Attleboro and in 1986 just downstream of Sunset Road, Attleboro in the Luther Reservoir impoundment, no site-specific fish consumption advisory is in place, therefore the Fish Consumption Use for this Sevenmile River AU (MA52-07) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for this Sevenmile River AU (MA52-07), so it is Not Assessed.

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
Since no new data are available, the Primary Contact Recreational Use for Sevenmile River (MA52-07) will continue to be assessed as Not Supporting with the *Escherichia Coli* (*E. Coli*) impairment being carried forward.

Secondary Contact Recreation

2024/26 Use Attainment	Alert

Not Assessed	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreational Use for this Sevenmile River AU (MA52-07) is Not Assessed.
E. coli bacteria data were collected by MassDEP staff at one location in this Sevenmile River AU at Draper Avenue, North Attleborough (W0182) in 1997 (n=2), 2002 (n=5) and 2007 (n=5). Analysis of the multi-year, low frequency dataset (when enough data were available for analysis according to the 2024 CALM in 2002 and 2007), indicated 66% of intervals had GMs >244 CFU/100ml in 2007 (>20% in just one year), only 1 sample overall (in 2007) exceeded the 794 CFU/100ml STV, though 33% of the cumulative intervals had GMs >244 CFU/100ml.
While the *E. coli* concentrations were below the 2024 CALM impairment thresholds for the multi-year low frequency dataset at Draper Avenue, North Attleborough, these data were collected prior to the current IR window (2011-2022).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0182	MassDEP	Water Quality	Sevenmile River	[Draper Avenue, North Attleborough]	41.951178	-71.341841

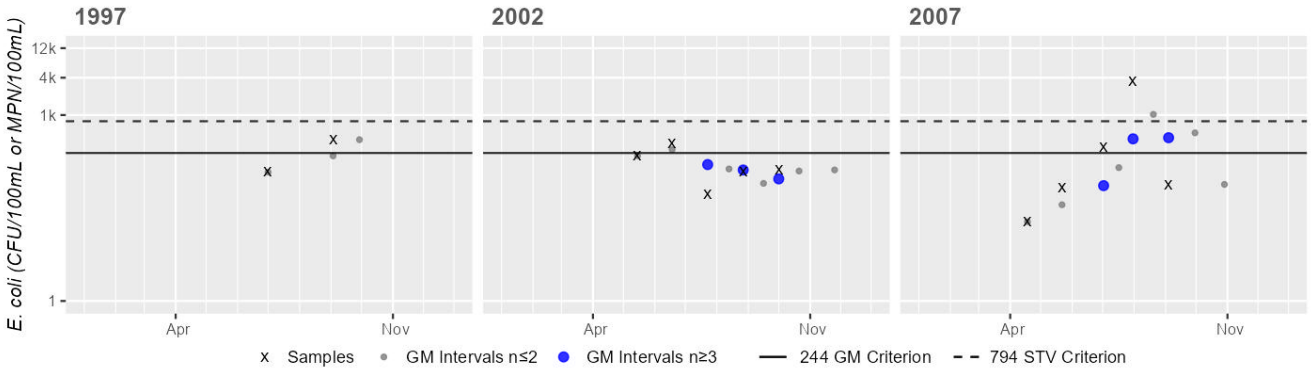
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0182	MassDEP	E. coli	07/01/97	09/03/97	2	120	400	219
W0182	MassDEP	E. coli	05/15/02	10/01/02	5	52	350	144
W0182	MassDEP	E. coli	04/18/07	09/04/07	5	19	3500	158

Station MASSDEP_W0182 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	219
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	144
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	158
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

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

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

Sevenmile River (MA52-08)

Location:	Outlet Orrs Pond, Attleboro to mouth at confluence with Ten Mile River, Pawtucket, Rhode Island.
AU Type:	RIVER
AU Size:	3.4 MILES
Classification/Qualifier:	B

Sevenmile River (MA52-08)

Watershed Area: 12.58 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area* (square miles)	12.50	6.18	6.94	2.68
Agriculture	4.3%	1.8%	4.9%	1.9%
Developed	28.1%	38.9%	19.3%	26.4%
Natural	52.5%	44.6%	53.9%	46.8%
Wetland	15.1%	14.7%	21.9%	24.9%
Impervious	15.4%	21.2%	10.1%	13.5%

**Land cover analysis only includes watershed area within Massachusetts.*

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

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

Supporting Information for Removed Impairments

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

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
Although fish toxics sampling was done in 1986 just upstream of Read Street, Attleboro, no site-specific fish consumption advisory is in place, therefore the Fish Consumption Use for this Sevenmile River AU (MA52-08) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	YES

2024/26 Use Attainment Summary

The Aesthetics Use for Sevenmile River (MA52-08) is assessed as Fully Supporting. The Alert status identified in the 2022IR will be retained (observations of moderate turbidity at County St. in 2013 and 2015).
MassDEP staff recorded aesthetics observations at eleven stations along this Sevenmile River AU in Attleboro between the summers of 2013 and 2017 as follows: at Read St. (W2424; 2013, n=2), Roy Avenue (W2423; 2013, n=2), ~ 440 ft downstream from Roy Avenue (W2179; 2011, n=9), due east between the eastern ends of Lockwood and Simpson Avenues (W2740; 2017, n=2), Pitas Avenue (W0900; 2016, 2017, n=2/yr), ~ 650 ft downstream of Pitas Avenue (W2421; 2013, 2016, 2017, n=2/yr), ~ 910 ft upstream of Rt. 95 (W2659; 2016, n=2), ~ 325 ft downstream of Rt. 95 (W2587; 2015, 2016, n=2-4/yr), County St. (W0183; 2013-2015, n=2-3/yr), ~ 2200 ft downstream of County St. (W2493; 2014, n=2), ~ 120 ft upstream of confluence with Ten Mile River, Pawtucket, RI (W2417; 2013, 2014, n=3/yr). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during the surveys at most of the stations, although the water was observed to be moderately turbid at County St. (W0183) for all site visits in 2013 and 2015 (n=7).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0183	MassDEP	Water Quality	Sevenmile River	[County Street, Attleboro]	41.901258	-71.343429
W0900	MassDEP	Water Quality	Sevenmile River	[Pitas Avenue, Attleboro]	41.910298	-71.351910
W2179	MassDEP	Water Quality	Sevenmile River	[approximately 440 feet downstream from Roy Avenue, Attleboro]	41.917866	-71.352161
W2417	MassDEP	Water Quality	Sevenmile River	[approximately 120 feet upstream of confluence with Ten Mile River, Pawtucket, Rhode Island]	41.894620	-71.340481
W2421	MassDEP	Water Quality	Sevenmile River	[approximately 650 feet downstream/south of Pitas Avenue, Attleboro (upstream of influence of unnamed tributary draining Sweedens Swamp)]	41.908564	-71.351341
W2423	MassDEP	Water Quality	Sevenmile River	[Roy Avenue, Attleboro]	41.918904	-71.352300
W2424	MassDEP	Water Quality	Sevenmile River	[Read Street, Attleboro]	41.925726	-71.341611
W2493	MassDEP	Water Quality	Sevenmile River	[approximately 2200 feet downstream (southeast) of County Street, Attleboro, MA (just downstream of Crest Drive pump station, Pawtucket, RI)]	41.898152	-71.339842
W2587	MassDEP	Water Quality	Sevenmile River	[325 feet downstream/south of Route 95, Attleboro]	41.904353	-71.346752
W2659	MassDEP	Water Quality	Sevenmile River	[approximately 910 feet upstream of Route 95, Attleboro]	41.906938	-71.349929
W2740	MassDEP	Water Quality	Sevenmile River	[due east between the eastern ends of Lockwood and Simpson avenues, Attleboro]	41.914846	-71.352554

Aesthetic Observations

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

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

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W0183	Sevenmile River	2013	3	Aesthetic observations were made by MassDEP field sampling crews at Station W0183 on Sevenmile River (MA52-08) during 3 site visits between Jun 2013 and Sep 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted moderate turbidity (n=3).
W0183	Sevenmile River	2014	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0183 on Sevenmile River (MA52-08) during 2 site visits in Jul 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W0183	Sevenmile River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W0183 on Sevenmile River (MA52-08) during 4 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted moderate turbidity (n=4).
W0900	Sevenmile River	2016	1	Aesthetic observations were made by MassDEP field sampling crews at Station W0900 on Sevenmile River (MA52-08) during 1 site visit on Jul 26, 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W0900	Sevenmile River	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0900 on Sevenmile River (MA52-08) 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).
W2179	Sevenmile River	2011	6	Aesthetic observations were made by MassDEP field sampling crews at Station W2179 on Sevenmile River (MA52-08) during 6 site visits between May 2011 and Sep 2011. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted grey water color (n=1) and moderate turbidity (n=3).
W2417	Sevenmile River	2013	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2417 on Sevenmile River (MA52-08) during 3 site visits between Jun 2013 and Sep 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted dense/very dense aquatic plants (n=2).
W2417	Sevenmile River	2014	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2417 on Sevenmile River (MA52-08) during 2 site visits in Jul 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2421	Sevenmile River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2421 on Sevenmile River (MA52-08) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2421	Sevenmile River	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2421 on Sevenmile River (MA52-08) 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).
W2421	Sevenmile River	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2421 on Sevenmile River (MA52-08) 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).
W2423	Sevenmile River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2423 on Sevenmile River (MA52-08) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2424	Sevenmile River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2424 on Sevenmile River (MA52-08) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2493	Sevenmile River	2014	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2493 on Sevenmile River (MA52-08) during 2 site visits in Jul 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2587	Sevenmile River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2587 on Sevenmile River (MA52-08) during 4 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2587	Sevenmile River	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2587 on Sevenmile River (MA52-08) 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).

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2659	Sevenmile River	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2659 on Sevenmile River (MA52-08) 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).
W2740	Sevenmile River	2017	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2740 on Sevenmile River (MA52-08) 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 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W0183	2013	3	3	0
W0183	2014	2	2	0
W0183	2015	4	3	0
W0900	2016	1	1	0
W0900	2017	2	2	0
W2179	2011	6	2	0
W2417	2013	3	3	0
W2417	2014	2	2	0
W2421	2013	2	2	0
W2421	2016	2	2	0
W2421	2017	2	1	0
W2423	2013	2	2	0
W2424	2013	2	2	0
W2493	2014	2	2	0
W2587	2015	4	4	0
W2587	2016	2	2	0
W2659	2016	2	2	0
W2740	2017	2	0	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0183	Sevenmile River	2013	Color	None	3	3
W0183	Sevenmile River	2013	Odor	None	3	3
W0183	Sevenmile River	2013	Turbidity	Moderately Turbid	3	3
W0183	Sevenmile River	2014	Color	None	2	2
W0183	Sevenmile River	2014	Odor	None	2	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0183	Sevenmile River	2014	Turbidity	Slightly Turbid	2	2
W0183	Sevenmile River	2015	Color	None	4	4
W0183	Sevenmile River	2015	Odor	None	4	4
W0183	Sevenmile River	2015	Turbidity	Moderately Turbid	4	4
W0183	Sevenmile River	2013	Aquatic Plant Density, Overall	Sparse	3	3
W0183	Sevenmile River	2014	Aquatic Plant Density, Overall	Sparse	2	2
W0183	Sevenmile River	2015	Aquatic Plant Density, Overall	Sparse	4	4
W0183	Sevenmile River	2013	Periphyton Density, Filamentous	None	3	3
W0183	Sevenmile River	2013	Periphyton Density, Film	None	1	3
W0183	Sevenmile River	2013	Periphyton Density, Film	Sparse	2	3
W0183	Sevenmile River	2014	Periphyton Density, Filamentous	None	2	2
W0183	Sevenmile River	2014	Periphyton Density, Film	Sparse	1	2
W0183	Sevenmile River	2014	Periphyton Density, Film	Moderate	1	2
W0183	Sevenmile River	2015	Periphyton Density, Filamentous	Unobservable	1	4
W0183	Sevenmile River	2015	Periphyton Density, Filamentous	None	2	4
W0183	Sevenmile River	2015	Periphyton Density, Filamentous	Sparse	1	4
W0183	Sevenmile River	2015	Periphyton Density, Film	Unobservable	1	4
W0183	Sevenmile River	2015	Periphyton Density, Film	Sparse	3	4
W0900	Sevenmile River	2016	Color	None	1	1
W0900	Sevenmile River	2016	Odor	None	1	1
W0900	Sevenmile River	2016	Turbidity	Slightly Turbid	1	1
W0900	Sevenmile River	2017	Color	None	2	2
W0900	Sevenmile River	2017	Odor	None	2	2
W0900	Sevenmile River	2017	Turbidity	Slightly Turbid	1	2
W0900	Sevenmile River	2017	Turbidity	Moderately Turbid	1	2
W0900	Sevenmile River	2016	Aquatic Plant Density, Overall	None	1	1
W0900	Sevenmile River	2017	Aquatic Plant Density, Overall	None	2	2
W0900	Sevenmile River	2016	Periphyton Density, Filamentous	None	1	1
W0900	Sevenmile River	2016	Periphyton Density, Film	None	1	1
W0900	Sevenmile River	2017	Periphyton Density, Filamentous	None	2	2
W0900	Sevenmile River	2017	Periphyton Density, Film	Sparse	2	2
W2179	Sevenmile River	2011	Color	None	2	6
W2179	Sevenmile River	2011	Color	Light Yellow/Tan	3	6
W2179	Sevenmile River	2011	Color	Greyish	1	6
W2179	Sevenmile River	2011	Odor	None	6	6
W2179	Sevenmile River	2011	Turbidity	None	2	6
W2179	Sevenmile River	2011	Turbidity	Slightly Turbid	1	6
W2179	Sevenmile River	2011	Turbidity	Moderately Turbid	3	6
W2179	Sevenmile River	2011	Objectionable Deposits	No	6	6
W2179	Sevenmile River	2011	Scum	No	6	6
W2179	Sevenmile River	2011	Aquatic Plant Density, Overall	Unobservable	2	6
W2179	Sevenmile River	2011	Aquatic Plant Density, Overall	None	3	6

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2179	Sevenmile River	2011	Aquatic Plant Density, Overall	Sparse	1	6
W2179	Sevenmile River	2011	Periphyton Density, Filamentous	Unobservable	4	6
W2179	Sevenmile River	2011	Periphyton Density, Filamentous	None	2	6
W2179	Sevenmile River	2011	Periphyton Density, Film	Unobservable	4	6
W2179	Sevenmile River	2011	Periphyton Density, Film	None	2	6
W2417	Sevenmile River	2013	Color	None	3	3
W2417	Sevenmile River	2013	Odor	None	3	3
W2417	Sevenmile River	2013	Turbidity	Slightly Turbid	3	3
W2417	Sevenmile River	2014	Color	None	2	2
W2417	Sevenmile River	2014	Odor	None	2	2
W2417	Sevenmile River	2014	Turbidity	Slightly Turbid	2	2
W2417	Sevenmile River	2013	Aquatic Plant Density, Overall	Sparse	1	3
W2417	Sevenmile River	2013	Aquatic Plant Density, Overall	Dense	2	3
W2417	Sevenmile River	2014	Aquatic Plant Density, Overall	Moderate	1	2
W2417	Sevenmile River	2014	Aquatic Plant Density, Overall	Dense	1	2
W2417	Sevenmile River	2013	Periphyton Density, Filamentous	None	3	3
W2417	Sevenmile River	2013	Periphyton Density, Film	Sparse	3	3
W2417	Sevenmile River	2014	Periphyton Density, Filamentous	None	2	2
W2417	Sevenmile River	2014	Periphyton Density, Film	Sparse	2	2
W2421	Sevenmile River	2013	Color	None	2	2
W2421	Sevenmile River	2013	Odor	None	2	2
W2421	Sevenmile River	2013	Turbidity	Slightly Turbid	2	2
W2421	Sevenmile River	2016	Color	None	2	2
W2421	Sevenmile River	2016	Odor	None	2	2
W2421	Sevenmile River	2016	Turbidity	Moderately Turbid	2	2
W2421	Sevenmile River	2017	Color	None	2	2
W2421	Sevenmile River	2017	Odor	None	2	2
W2421	Sevenmile River	2017	Turbidity	Slightly Turbid	1	2
W2421	Sevenmile River	2017	Turbidity	Moderately Turbid	1	2
W2421	Sevenmile River	2013	Aquatic Plant Density, Overall	None	2	2
W2421	Sevenmile River	2016	Aquatic Plant Density, Overall	None	2	2
W2421	Sevenmile River	2017	Aquatic Plant Density, Overall	None	2	2
W2421	Sevenmile River	2013	Periphyton Density, Filamentous	None	2	2
W2421	Sevenmile River	2013	Periphyton Density, Film	None	2	2
W2421	Sevenmile River	2016	Periphyton Density, Filamentous	None	2	2
W2421	Sevenmile River	2016	Periphyton Density, Film	Sparse	2	2
W2421	Sevenmile River	2017	Periphyton Density, Filamentous	Unobservable	1	2
W2421	Sevenmile River	2017	Periphyton Density, Filamentous	None	1	2
W2421	Sevenmile River	2017	Periphyton Density, Film	Unobservable	1	2
W2421	Sevenmile River	2017	Periphyton Density, Film	Sparse	1	2
W2423	Sevenmile River	2013	Color	None	2	2
W2423	Sevenmile River	2013	Odor	None	2	2
W2423	Sevenmile River	2013	Turbidity	None	1	2
W2423	Sevenmile River	2013	Turbidity	Slightly Turbid	1	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2423	Sevenmile River	2013	Aquatic Plant Density, Overall	Moderate	2	2
W2423	Sevenmile River	2013	Periphyton Density, Filamentous	None	1	2
W2423	Sevenmile River	2013	Periphyton Density, Filamentous	Sparse	1	2
W2423	Sevenmile River	2013	Periphyton Density, Film	None	1	2
W2423	Sevenmile River	2013	Periphyton Density, Film	Sparse	1	2
W2424	Sevenmile River	2013	Color	None	2	2
W2424	Sevenmile River	2013	Odor	None	2	2
W2424	Sevenmile River	2013	Turbidity	Slightly Turbid	2	2
W2424	Sevenmile River	2013	Aquatic Plant Density, Overall	None	2	2
W2424	Sevenmile River	2013	Periphyton Density, Filamentous	None	2	2
W2424	Sevenmile River	2013	Periphyton Density, Film	None	1	2
W2424	Sevenmile River	2013	Periphyton Density, Film	Moderate	1	2
W2493	Sevenmile River	2014	Color	None	2	2
W2493	Sevenmile River	2014	Odor	None	2	2
W2493	Sevenmile River	2014	Turbidity	Slightly Turbid	2	2
W2493	Sevenmile River	2014	Aquatic Plant Density, Overall	Sparse	1	2
W2493	Sevenmile River	2014	Aquatic Plant Density, Overall	Moderate	1	2
W2493	Sevenmile River	2014	Periphyton Density, Filamentous	None	2	2
W2493	Sevenmile River	2014	Periphyton Density, Film	Sparse	2	2
W2587	Sevenmile River	2015	Color	None	4	4
W2587	Sevenmile River	2015	Odor	None	4	4
W2587	Sevenmile River	2015	Turbidity	None	1	4
W2587	Sevenmile River	2015	Turbidity	Slightly Turbid	2	4
W2587	Sevenmile River	2015	Turbidity	Moderately Turbid	1	4
W2587	Sevenmile River	2016	Color	None	2	2
W2587	Sevenmile River	2016	Odor	None	2	2
W2587	Sevenmile River	2016	Turbidity	Slightly Turbid	2	2
W2587	Sevenmile River	2015	Aquatic Plant Density, Overall	Sparse	2	4
W2587	Sevenmile River	2015	Aquatic Plant Density, Overall	Moderate	2	4
W2587	Sevenmile River	2016	Aquatic Plant Density, Overall	Dense	2	2
W2587	Sevenmile River	2015	Periphyton Density, Filamentous	None	3	4
W2587	Sevenmile River	2015	Periphyton Density, Filamentous	Sparse	1	4
W2587	Sevenmile River	2015	Periphyton Density, Film	Sparse	3	4
W2587	Sevenmile River	2015	Periphyton Density, Film	Moderate	1	4
W2587	Sevenmile River	2016	Periphyton Density, Filamentous	None	2	2
W2587	Sevenmile River	2016	Periphyton Density, Film	Sparse	1	2
W2587	Sevenmile River	2016	Periphyton Density, Film	Moderate	1	2
W2659	Sevenmile River	2016	Color	None	2	2
W2659	Sevenmile River	2016	Odor	None	2	2
W2659	Sevenmile River	2016	Turbidity	Slightly Turbid	2	2
W2659	Sevenmile River	2016	Aquatic Plant Density, Overall	Dense	2	2
W2659	Sevenmile River	2016	Periphyton Density, Filamentous	None	2	2
W2659	Sevenmile River	2016	Periphyton Density, Film	None	2	2
W2740	Sevenmile River	2017	Color	None	2	2
W2740	Sevenmile River	2017	Odor	None	2	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2740	Sevenmile River	2017	Turbidity	Slightly Turbid	1	2
W2740	Sevenmile River	2017	Turbidity	Moderately Turbid	1	2
W2740	Sevenmile River	2017	Aquatic Plant Density, Overall	Sparse	1	2
W2740	Sevenmile River	2017	Aquatic Plant Density, Overall	Moderate	1	2
W2740	Sevenmile River	2017	Periphyton Density, Filamentous	Unobservable	2	2
W2740	Sevenmile River	2017	Periphyton Density, Film	Unobservable	2	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreational Use for this Sevenmile River AU (MA52-08) will continue to be assessed as Not Supporting, with the *Escherichia Coli* (*E. Coli*) and Fecal coliform impairments being carried forward.

E. coli (and occasionally Enterococcus) bacteria samples were collected by MassDEP staff at ten stations in Attleboro (and one in Pawtucket, RI), along this Sevenmile River AU as part of the MAP2 monitoring project during the summer of 2011 and the MassDEP Bacteria Source Tracking (BST) project during the summers of 2013 to 2017. Overall, samples were collected between one and four times per year at: Read St. (W2424, 2013), Roy Avenue (W2423, 2013), ~ 440 ft downstream from Roy Avenue (W2179, 2011), due east between the eastern ends of Lockwood and Simpson Avenues (W2740, 2017), Pitas Avenue (W0900, 2016 & 2017), ~ 650 ft downstream of Pitas Avenue (W2421, 2013, 2016 & 2017), ~ 910 ft upstream of Rt. 95 (W2659, 2016), ~ 325 ft downstream of Rt. 95 (W2587, 2015 & 2016), County St. (W0183, 2013-2015), ~ 2200 ft downstream of County St. (W2493, 2014), ~ 120 ft upstream of confluence with Ten Mile River, Pawtucket, RI (W2417, 2013 & 2014). There were only sufficient *E. coli* samples to calculate usable GMs at four of the stations, namely W2179, W2587, W0183 and W2417 (n=20). Data analysis of these single and multi-year, low frequency *E. coli* datasets indicated generally poor water quality conditions (elevated bacteria) at all four sample stations; as 100% of intervals had GMs > 126 CFU/100ml, the single year datasets had seasonal GMs of 422 (at W2179), 752 (at W2587) and 384 (at W2417) and 100% of the cumulative GMs were >126 CFU/100ml for the multi-year dataset (at W0183). The available Enterococcus data were too limited to assess the Primary Contact Recreational Use for this AU according to the 2024 CALM. BST project notes indicated that the dry weather bacteria concentrations seemed to fluctuate widely from year to year, with 2016 having comparatively much higher counts. However, detergents, ammonia/potassium and human marker analysis data collected in 2016 at Pitas Avenue were not indicative of a human source. Also, a “none” human marker analysis result was recorded at the downstream end of the AU in 2014. No correctable source was ever found.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0183	MassDEP	Water Quality	Sevenmile River	[County Street, Attleboro]	41.901258	-71.343429
W0900	MassDEP	Water Quality	Sevenmile River	[Pitas Avenue, Attleboro]	41.910298	-71.351910
W2179	MassDEP	Water Quality	Sevenmile River	[approximately 440 feet downstream from Roy Avenue, Attleboro]	41.917866	-71.352161
W2417	MassDEP	Water Quality	Sevenmile River	[approximately 120 feet upstream of confluence with Ten Mile River, Pawtucket, Rhode Island]	41.894620	-71.340481
W2421	MassDEP	Water Quality	Sevenmile River	[approximately 650 feet downstream/south of Pitas Avenue, Attleboro (upstream of influence of unnamed tributary draining Sweedens Swamp)]	41.908564	-71.351341
W2423	MassDEP	Water Quality	Sevenmile River	[Roy Avenue, Attleboro]	41.918904	-71.352300
W2424	MassDEP	Water Quality	Sevenmile River	[Read Street, Attleboro]	41.925726	-71.341611
W2493	MassDEP	Water Quality	Sevenmile River	[approximately 2200 feet downstream (southeast) of County Street, Attleboro, MA (just downstream of Crest Drive pump station, Pawtucket, RI)]	41.898152	-71.339842
W2587	MassDEP	Water Quality	Sevenmile River	[325 feet downstream/south of Route 95, Attleboro]	41.904353	-71.346752
W2659	MassDEP	Water Quality	Sevenmile River	[approximately 910 feet upstream of Route 95, Attleboro]	41.906938	-71.349929
W2740	MassDEP	Water Quality	Sevenmile River	[due east between the eastern ends of Lockwood and Simpson avenues, Attleboro]	41.914846	-71.352554

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis) (MassDEP Undated 7) (MassDEP Undated 4)

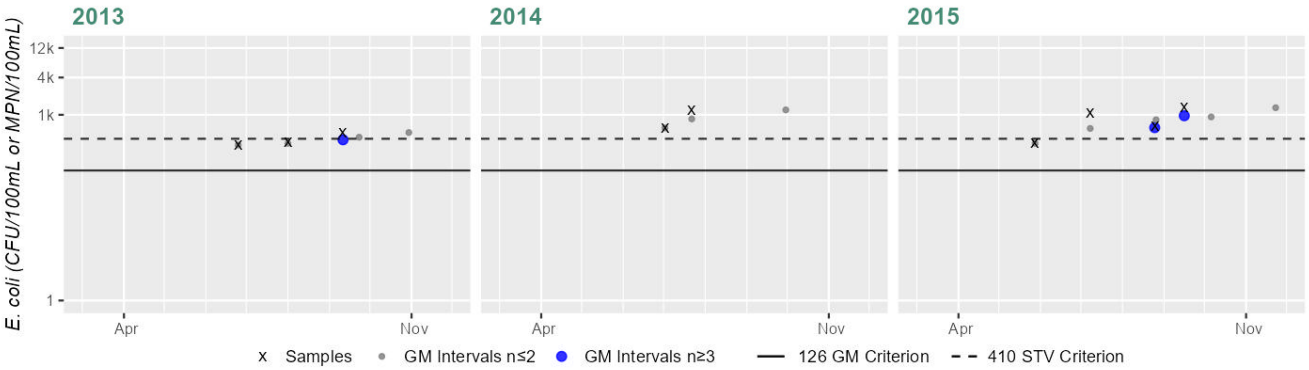
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0183	MassDEP	E. coli	06/25/13	09/11/13	3	326	517	394
W0183	MassDEP	E. coli	07/02/14	07/22/14	2	613	1200	857
W0183	MassDEP	E. coli	05/28/15	09/16/15	4	345	1300	745
W0900	MassDEP	E. coli	07/26/16	07/26/16	1	816	816	815
W0900	MassDEP	Enterococci	10/26/16	10/26/16	1	170	170	170
W0900	MassDEP	E. coli	07/19/17	08/15/17	2	238	649	393
W2179	MassDEP	E. coli	05/17/11	09/26/11	6	185	1730	422
W2417	MassDEP	E. coli	06/25/13	09/11/13	3	248	816	383
W2417	MassDEP	E. coli	07/02/14	07/22/14	2	345	727	500
W2417	MassDEP	Enterococci	08/19/14	08/19/14	1	130	130	129
W2421	MassDEP	E. coli	06/25/13	08/01/13	2	326	326	326
W2421	MassDEP	E. coli	07/20/16	07/26/16	2	1470	2419	1885
W2421	MassDEP	E. coli	07/19/17	08/15/17	2	210	410	293
W2423	MassDEP	E. coli	06/25/13	08/01/13	2	210	291	247
W2424	MassDEP	E. coli	06/25/13	08/01/13	2	51	66	58
W2493	MassDEP	E. coli	07/02/14	07/22/14	2	345	579	446
W2587	MassDEP	E. coli	05/28/15	09/16/15	4	201	1350	751

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2587	MassDEP	E. coli	07/20/16	07/26/16	2	1050	2419	1593
W2659	MassDEP	E. coli	07/20/16	07/26/16	2	1250	1990	1577
W2740	MassDEP	E. coli	07/19/17	08/15/17	2	17	866	121

Station MASSDEP_W0183 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	394
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

Variable*	Result
Samples	2
SeasGM	857
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

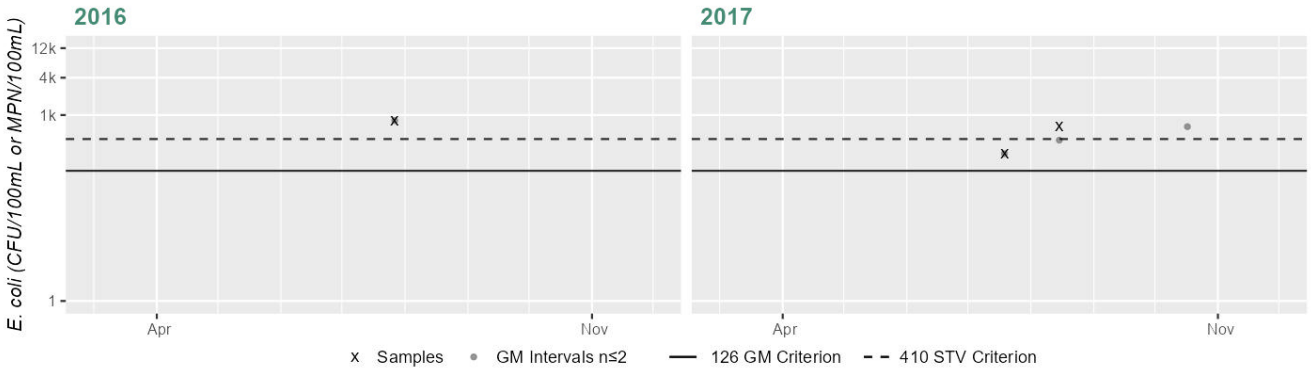
Variable*	Result
Samples	4
SeasGM	745
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	3
%n>STV	75%

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_W0900 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	816
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

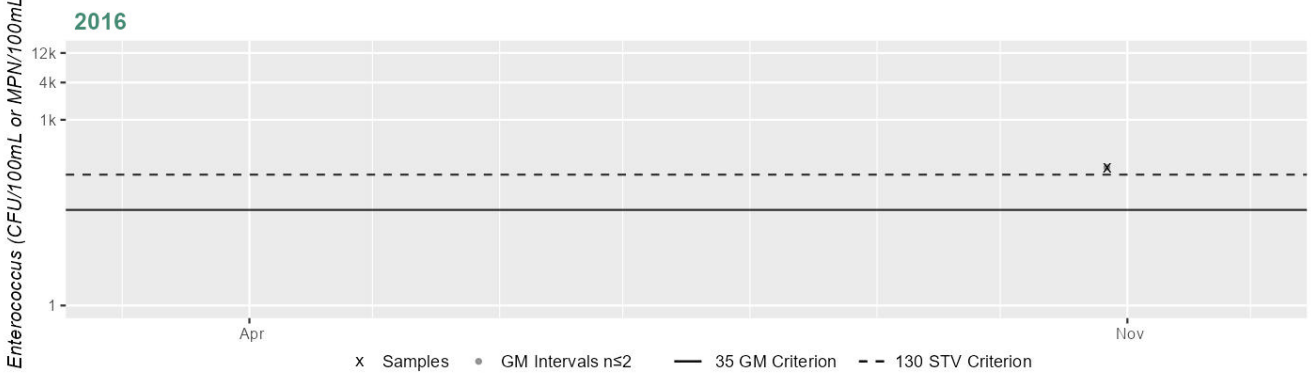
Variable*	Result
Samples	2
SeasGM	393
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W0900 - Enterococcus

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



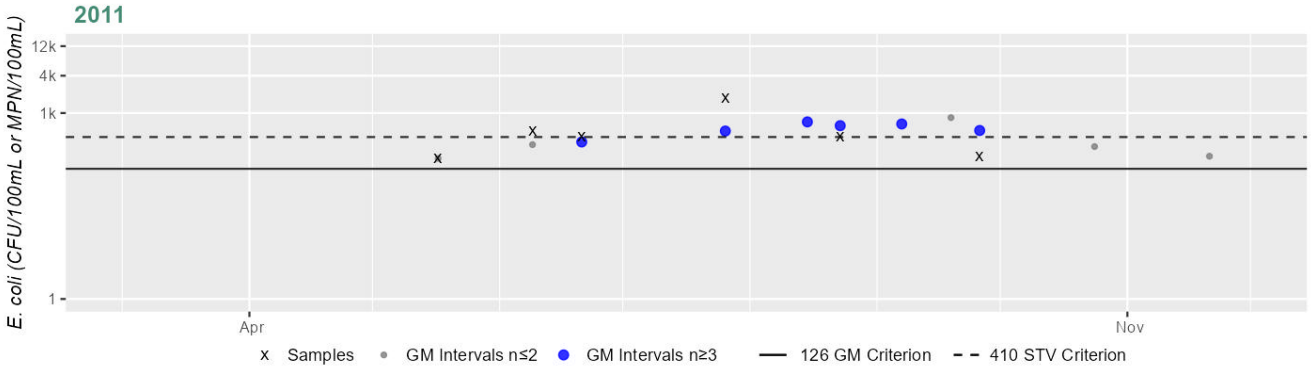
Variable*	Result
Samples	1
SeasGM	170
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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_W2179 - Escherichia coli

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



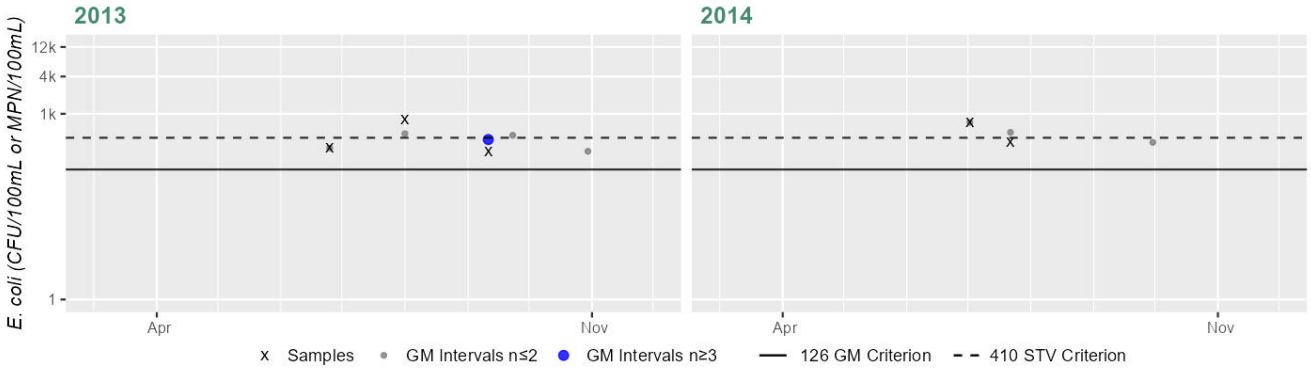
Variable*	Result
Samples	6
SeasGM	422
#GMI	6
#GMI Ex	6
%GMI Ex	100%
n>STV	4
%n>STV	66%

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.*

Station MASSDEP_W2417 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	383
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

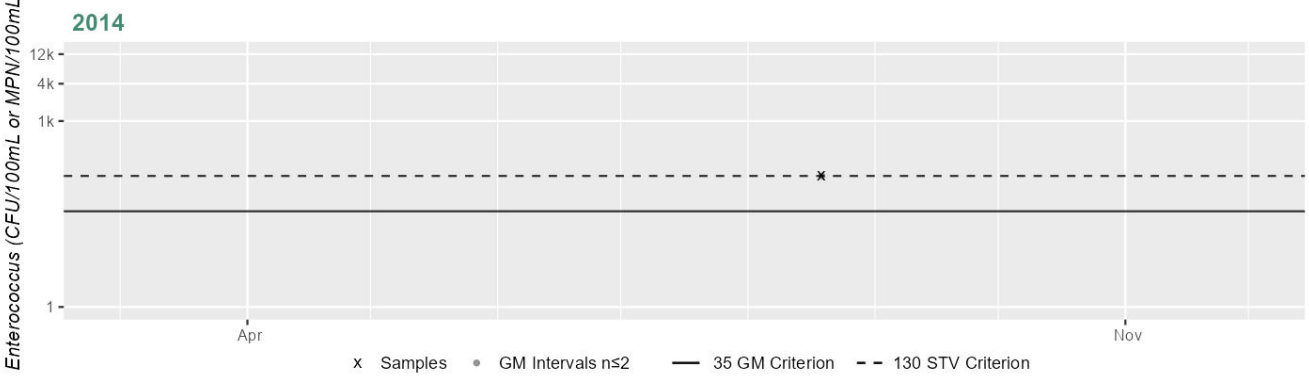
Variable*	Result
Samples	2
SeasGM	500
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W2417 - Enterococcus

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



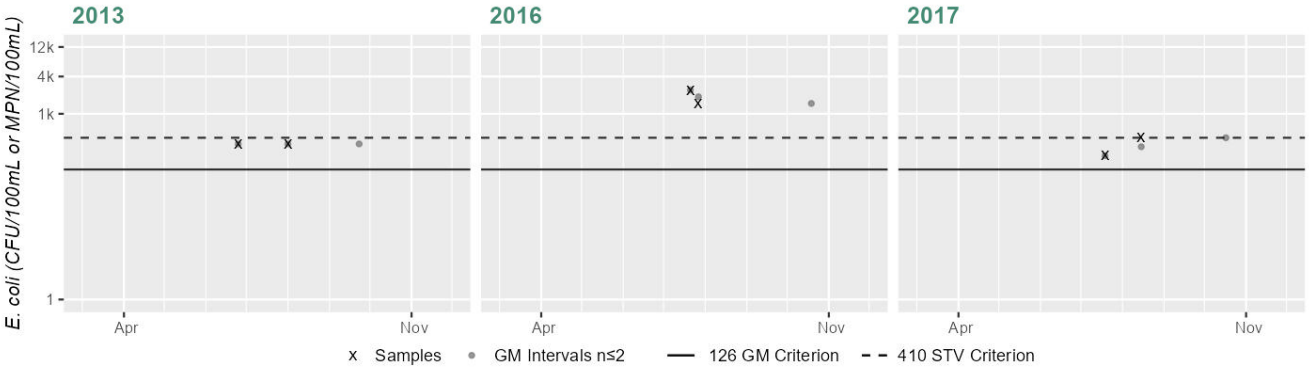
Variable*	Result
Samples	1
SeasGM	130
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2421 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	326
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	1885
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

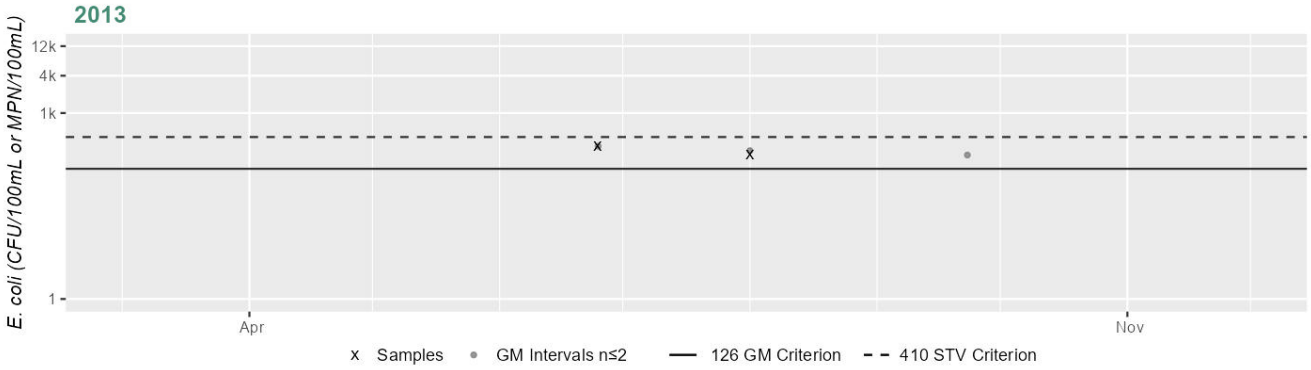
Variable*	Result
Samples	2
SeasGM	293
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2423 - Escherichia coli

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



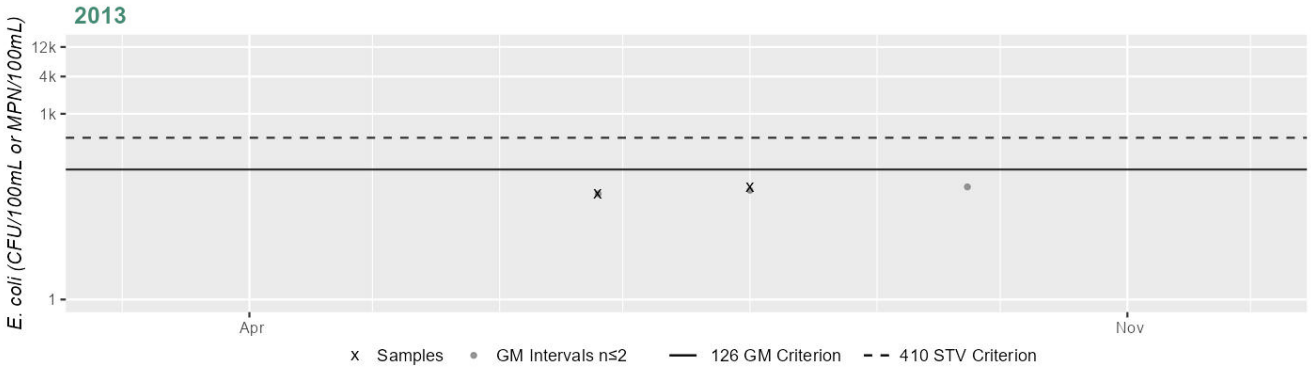
Variable*	Result
Samples	2
SeasGM	247
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2424 - Escherichia coli

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



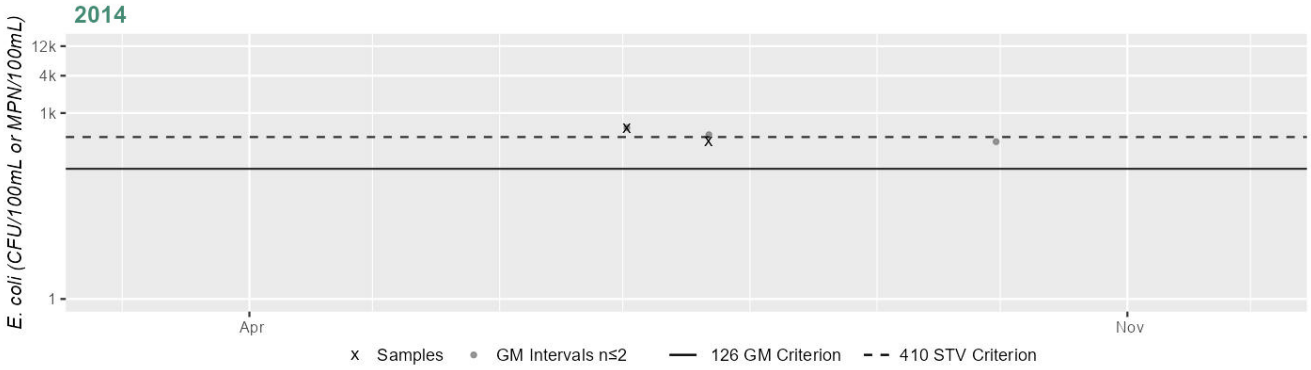
Variable*	Result
Samples	2
SeasGM	58
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2493 - Escherichia coli

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



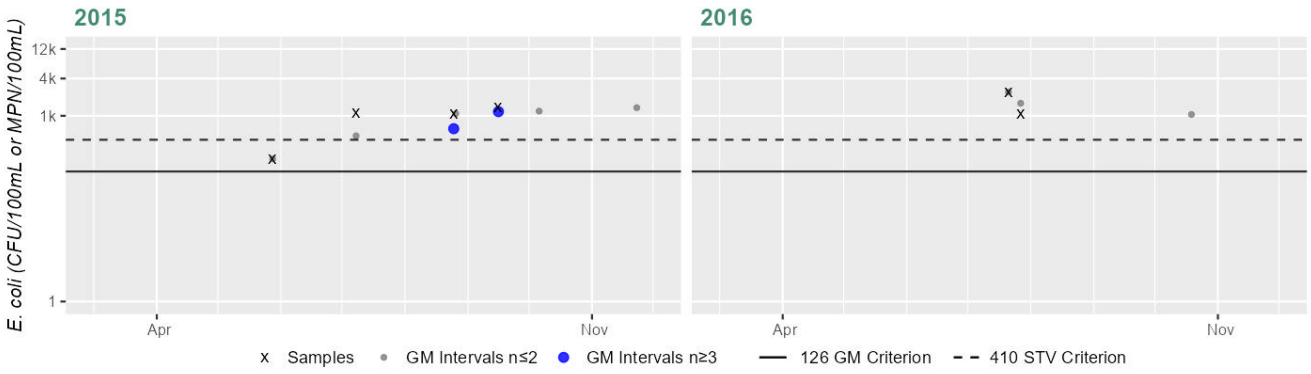
Variable*	Result
Samples	2
SeasGM	446
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W2587 - Escherichia coli

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



Variable*	Result
Samples	4
SeasGM	751
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	3
%n>STV	75%

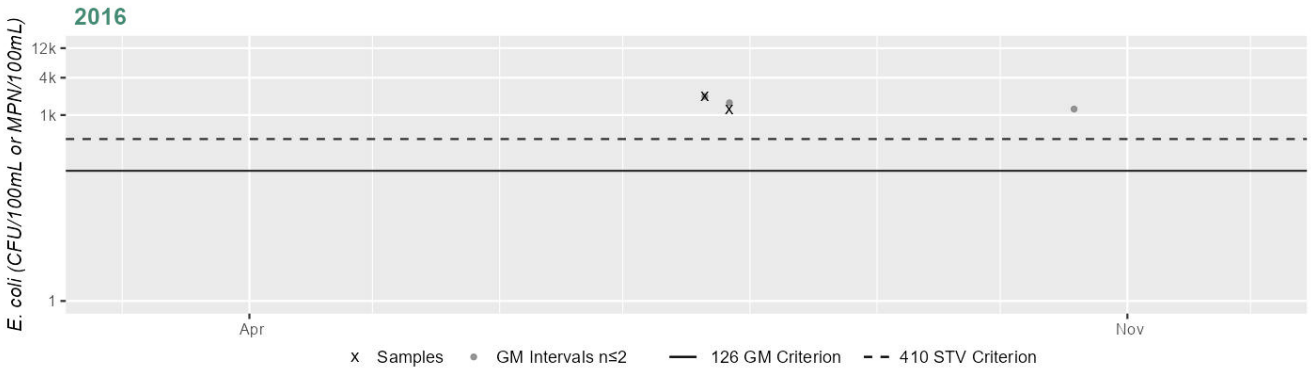
Variable*	Result
Samples	2
SeasGM	1593
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

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

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

Station MASSDEP_W2659 - Escherichia coli

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



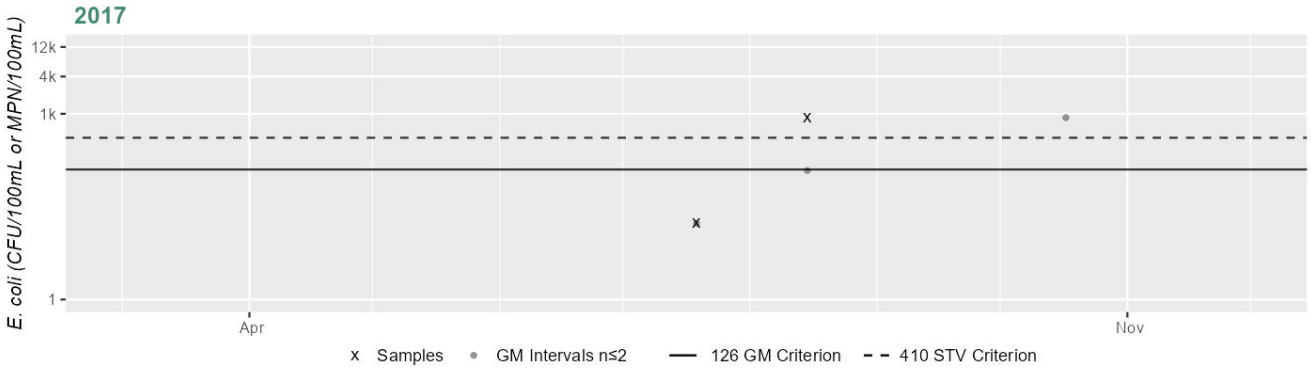
Variable*	Result
Samples	2
SeasGM	1577
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

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.*

Station MASSDEP_W2740 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	121
#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.*

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

Summary
BST work was conducted between 2013 and 2017 at 13 sites along the Sevenmile River AU (MA52-08) and an additional 7 unnamed tributary sites; with E.coli concentrations ranging 11 to >2,419.6MPN. Overall the dry weather bacteria concentrations seemed to fluctuate widely from year to year, with 2016 showing comparatively much higher counts. However, detergents, ammonia/potassium and human marker analysis data collected in 2016 at Pitas Avenue were not indicative of a human source. Also a "none" human marker analysis result was recorded at the bottom of the AU in 2014. No correctable source was ever found.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreational Use for this Sevenmile River AU (MA52-08) will be assessed as Not Supporting based on the *E. coli* data collected by MassDEP staff at four stations throughout the AU between 2011 and 2015, as well as incidences of occasional very high *E. coli* counts, particularly around the middle section of the AU (max 2,419 CFU/100ml). An *Escherichia Coli* (*E. Coli*) impairment is being added and the prior Alert identified due to elevated *E.coli* concentrations is being removed. *E. coli* bacteria samples were collected by MassDEP staff at ten stations in Attleboro (and one in Pawtucket, RI), along this Sevenmile River AU historically in 1997, 2002 and 2007, as part of the MAP2 monitoring project during the summer of 2011 and for the MassDEP Bacteria Source Tracking (BST) project during the summers of 2013 to 2017. The *E. coli* samples were collected at the following stations, data years: Read St. (W2424, 2013 n=2), Roy Ave (W2423, 2013 n=2), ~ 440 ft downstream from Roy Ave (W2179, 2011 n=6), due east between the eastern ends of Lockwood and Simpson Ave (W2740, 2017 n=2), Pitas Ave (W0900, 2002 n=5, 2007 n=5, 2016 n=1 & 2017 n=2), ~ 650 ft downstream of Pitas Ave (W2421, 2013, 2016, 2017 n=2/yr), ~ 910 ft upstream of Rt. 95 (W2659, 2016 n=2), ~ 325 ft downstream of Rt. 95 (W2587, 2015 n=4 & 2016 n=2), County St. (W0183, 1997 n=2, 2002 n=5, 2007 n=5 & 2013-2015 2-4/yr), ~ 2200 ft downstream of County St. (W2493, 2014 n=2), ~ 120 ft upstream of confluence with Ten Mile River, Pawtucket, RI (W2417, 2013 n=3 & 2014 n=2). Where enough historical data were available for analysis according to the 2024 CALM (i.e. W0900 and W0183 in 2002 & 2007), while the data from County St. (W0183) was generally indicative of good conditions, at Pitas Ave water quality conditions were poor. In addition the data from the current IR window (2011-2022) is also indicative of poor conditions. From the current IR window there were only sufficient samples to calculate usable GMs at four of the stations, namely W2179 (n=6), W2587 (n=4), W0183 (n=7 over 2 yrs) and W2417 (n=3). Data analysis of these single and multi-year, low frequency *E. coli* datasets can be summarized as follows: 100% of the intervals had GMs >244 CFU/100ml and for the multi-year dataset at W0183 100% of the cumulative intervals had GMs >244 CFU/100ml. The bacteria data from stations W2179, W2587, W0183, and W2417 are indicative of an *E. coli* impairment.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0183	MassDEP	Water Quality	Sevenmile River	[County Street, Attleboro]	41.901258	-71.343429
W0900	MassDEP	Water Quality	Sevenmile River	[Pitas Avenue, Attleboro]	41.910298	-71.351910
W2179	MassDEP	Water Quality	Sevenmile River	[approximately 440 feet downstream from Roy Avenue, Attleboro]	41.917866	-71.352161
W2417	MassDEP	Water Quality	Sevenmile River	[approximately 120 feet upstream of confluence with Ten Mile River, Pawtucket, Rhode Island]	41.894620	-71.340481
W2421	MassDEP	Water Quality	Sevenmile River	[approximately 650 feet downstream/south of Pitas Avenue, Attleboro (upstream of influence of unnamed tributary draining Sweedens Swamp)]	41.908564	-71.351341
W2423	MassDEP	Water Quality	Sevenmile River	[Roy Avenue, Attleboro]	41.918904	-71.352300
W2424	MassDEP	Water Quality	Sevenmile River	[Read Street, Attleboro]	41.925726	-71.341611
W2493	MassDEP	Water Quality	Sevenmile River	[approximately 2200 feet downstream (southeast) of County Street, Attleboro, MA (just downstream of Crest Drive pump station, Pawtucket, RI)]	41.898152	-71.339842
W2587	MassDEP	Water Quality	Sevenmile River	[325 feet downstream/south of Route 95, Attleboro]	41.904353	-71.346752
W2659	MassDEP	Water Quality	Sevenmile River	[approximately 910 feet upstream of Route 95, Attleboro]	41.906938	-71.349929
W2740	MassDEP	Water Quality	Sevenmile River	[due east between the eastern ends of Lockwood and Simpson avenues, Attleboro]	41.914846	-71.352554

Bacteria Data

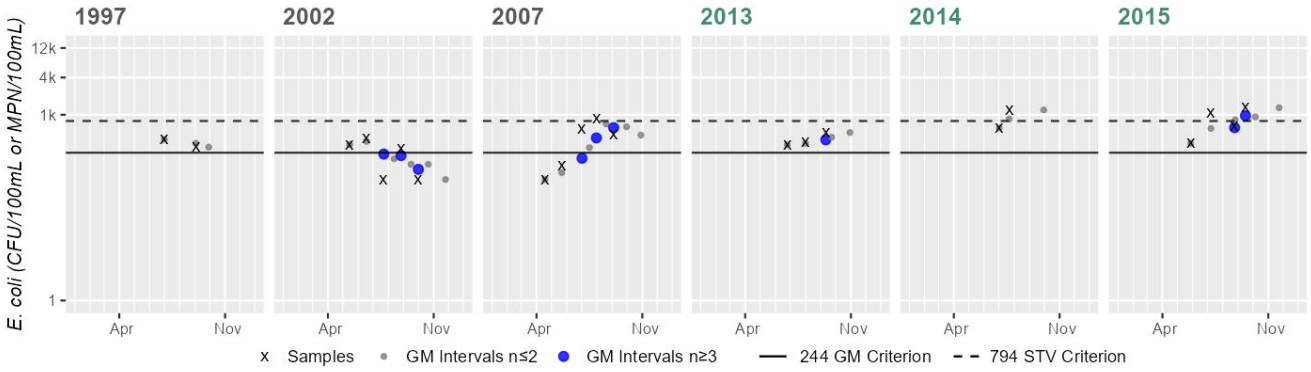
Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0183	MassDEP	E. coli	07/01/97	09/03/97	2	300	400	346
W0183	MassDEP	E. coli	05/15/02	10/01/02	5	90	420	199
W0183	MassDEP	E. coli	04/18/07	09/04/07	5	90	870	317
W0183	MassDEP	E. coli	06/25/13	09/11/13	3	326	517	394
W0183	MassDEP	E. coli	07/02/14	07/22/14	2	613	1200	857
W0183	MassDEP	E. coli	05/28/15	09/16/15	4	345	1300	745
W0900	MassDEP	E. coli	05/15/02	10/01/02	5	130	500	271
W0900	MassDEP	E. coli	04/18/07	09/04/07	5	38	930	262
W0900	MassDEP	E. coli	07/26/16	07/26/16	1	816	816	815
W0900	MassDEP	E. coli	07/19/17	08/15/17	2	238	649	393
W2179	MassDEP	E. coli	05/17/11	09/26/11	6	185	1730	422
W2417	MassDEP	E. coli	06/25/13	09/11/13	3	248	816	383
W2417	MassDEP	E. coli	07/02/14	07/22/14	2	345	727	500
W2421	MassDEP	E. coli	06/25/13	08/01/13	2	326	326	326
W2421	MassDEP	E. coli	07/20/16	07/26/16	2	1470	2419	1885
W2421	MassDEP	E. coli	07/19/17	08/15/17	2	210	410	293
W2423	MassDEP	E. coli	06/25/13	08/01/13	2	210	291	247
W2424	MassDEP	E. coli	06/25/13	08/01/13	2	51	66	58
W2493	MassDEP	E. coli	07/02/14	07/22/14	2	345	579	446
W2587	MassDEP	E. coli	05/28/15	09/16/15	4	201	1350	751

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2587	MassDEP	E. coli	07/20/16	07/26/16	2	1050	2419	1593
W2659	MassDEP	E. coli	07/20/16	07/26/16	2	1250	1990	1577
W2740	MassDEP	E. coli	07/19/17	08/15/17	2	17	866	121

Station MASSDEP_W0183 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	346
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	199
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	317
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	3
SeasGM	394
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	857
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

Variable*	Result
Samples	4
SeasGM	745
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	2
%n>STV	50%

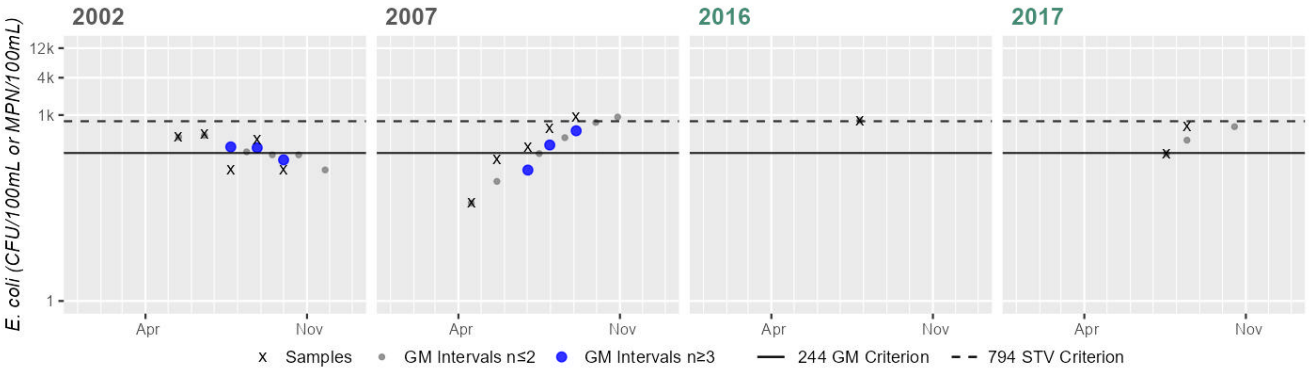
Cumulative %GMI Exceedance Historic (1997-2010)
33%

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_W0900 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	271
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	262
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	1
SeasGM	816
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

Variable*	Result
Samples	2
SeasGM	393
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

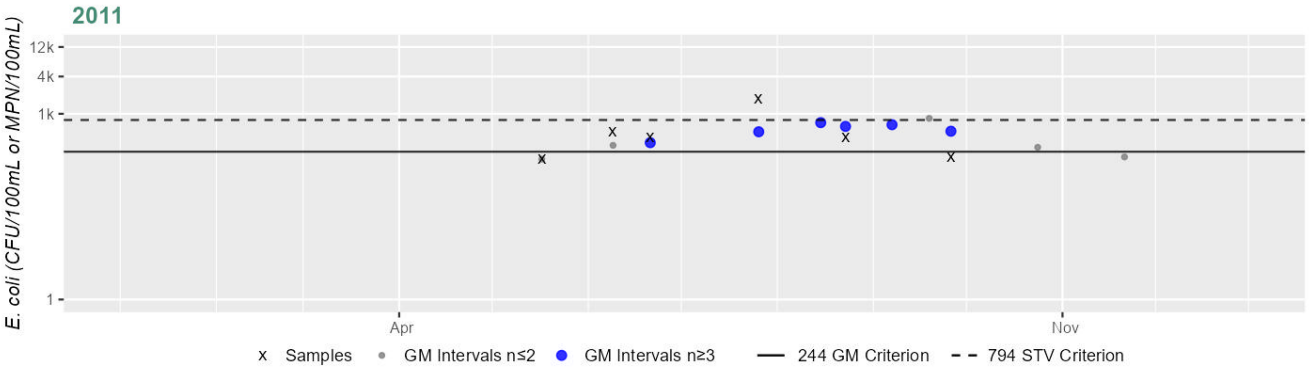
Cumulative %GMI Exceedance
Historic (1997-2010)
66%

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_W2179 - Escherichia coli

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



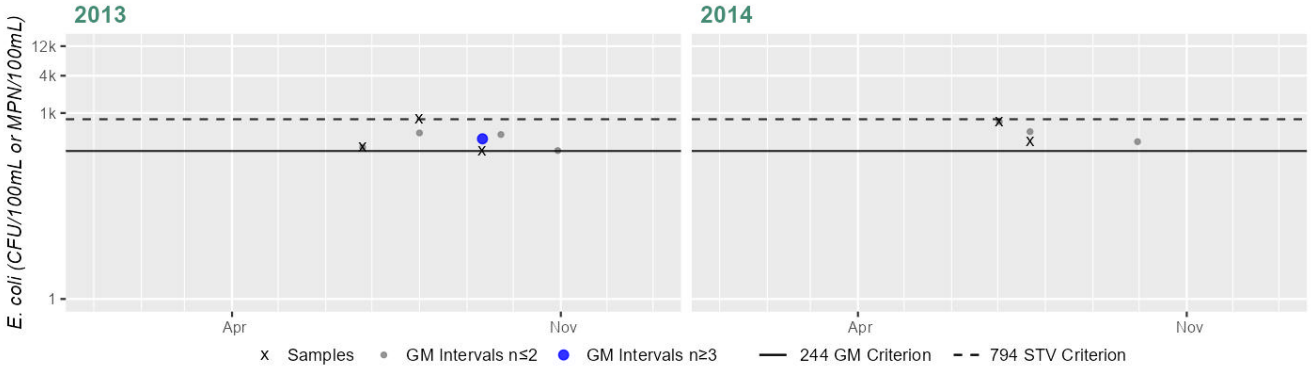
Variable*	Result
Samples	6
SeasGM	422
#GMI	6
#GMI Ex	6
%GMI Ex	100%
n>STV	1
%n>STV	16%

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_W2417 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	383
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

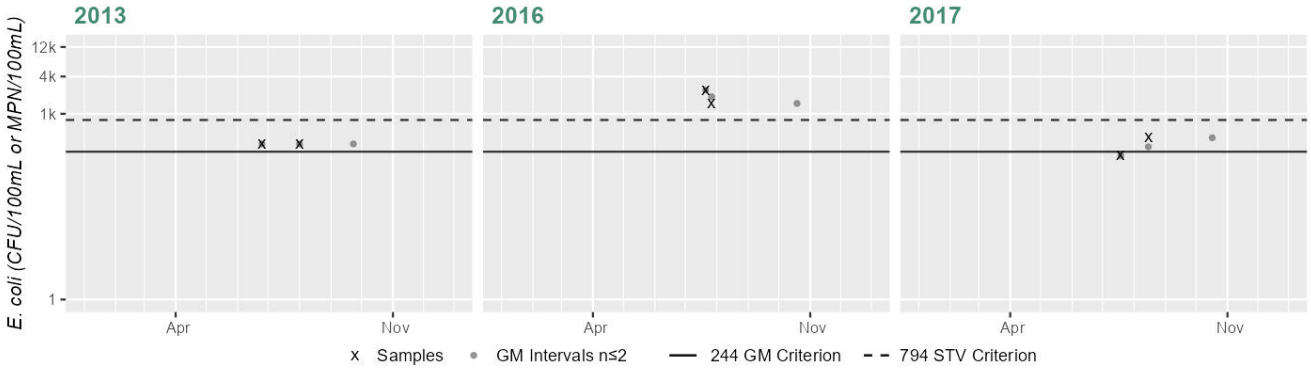
Variable*	Result
Samples	2
SeasGM	500
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2421 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	326
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	1885
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

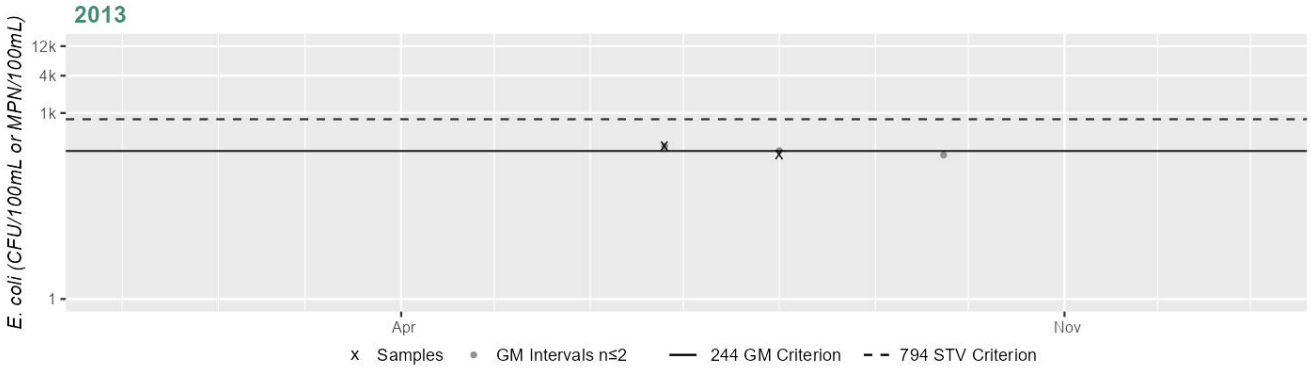
Variable*	Result
Samples	2
SeasGM	293
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2423 - Escherichia coli

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



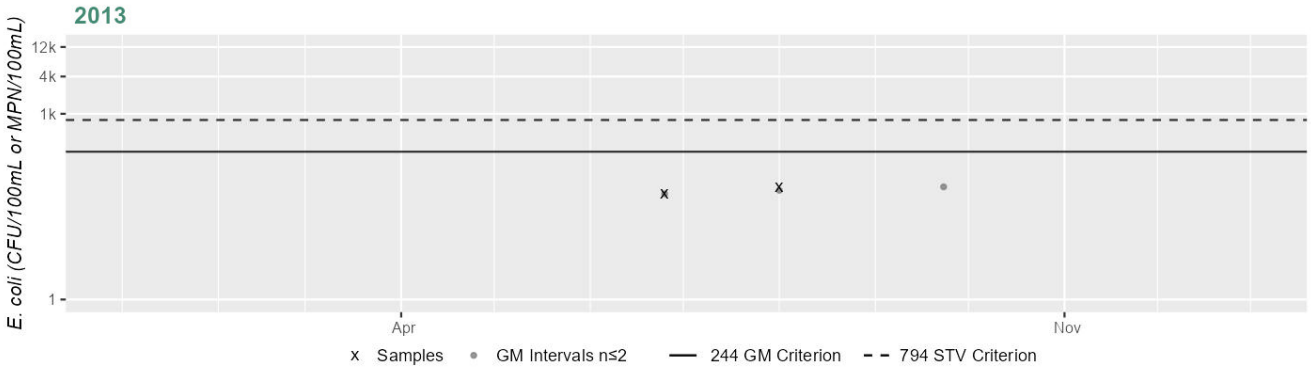
Variable*	Result
Samples	2
SeasGM	247
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2424 - Escherichia coli

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



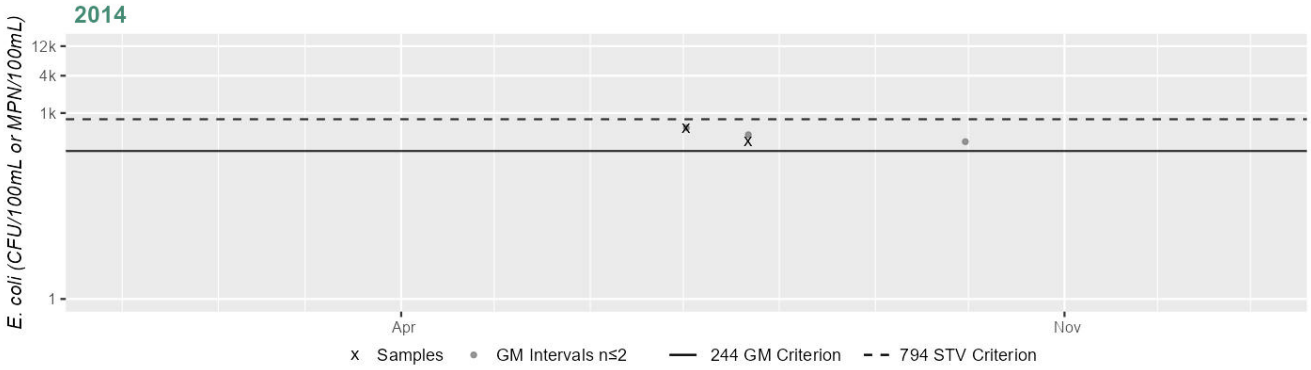
Variable*	Result
Samples	2
SeasGM	58
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2493 - Escherichia coli

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



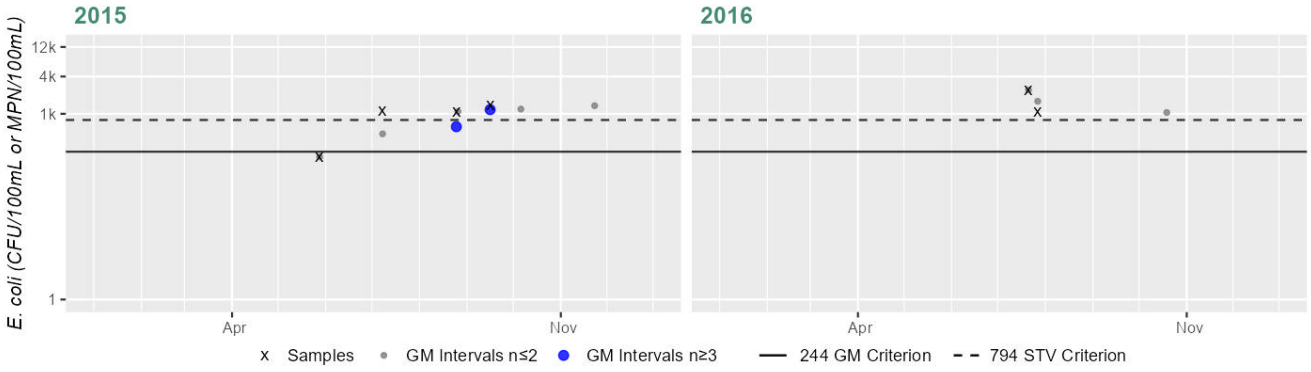
Variable*	Result
Samples	2
SeasGM	446
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2587 - Escherichia coli

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



Variable*	Result
Samples	4
SeasGM	751
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	3
%n>STV	75%

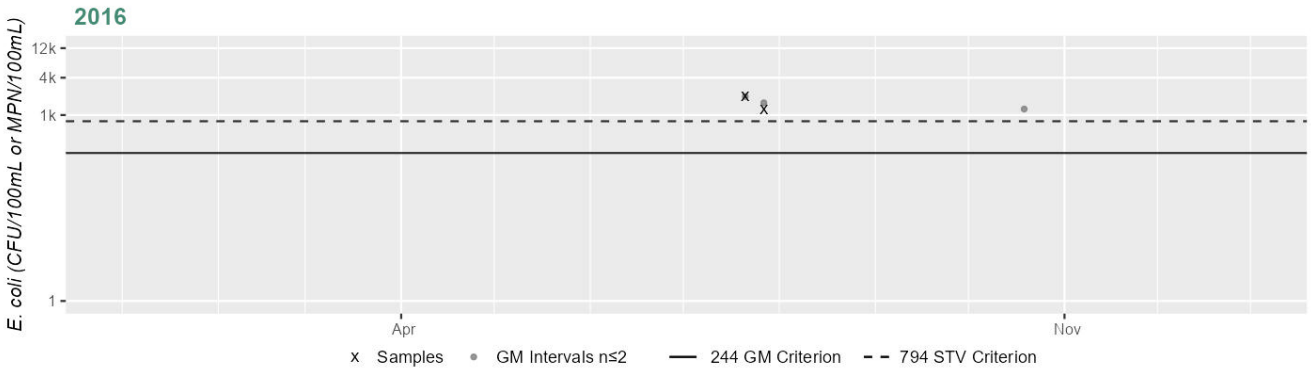
Variable*	Result
Samples	2
SeasGM	1593
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

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

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

Station MASSDEP_W2659 - Escherichia coli

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



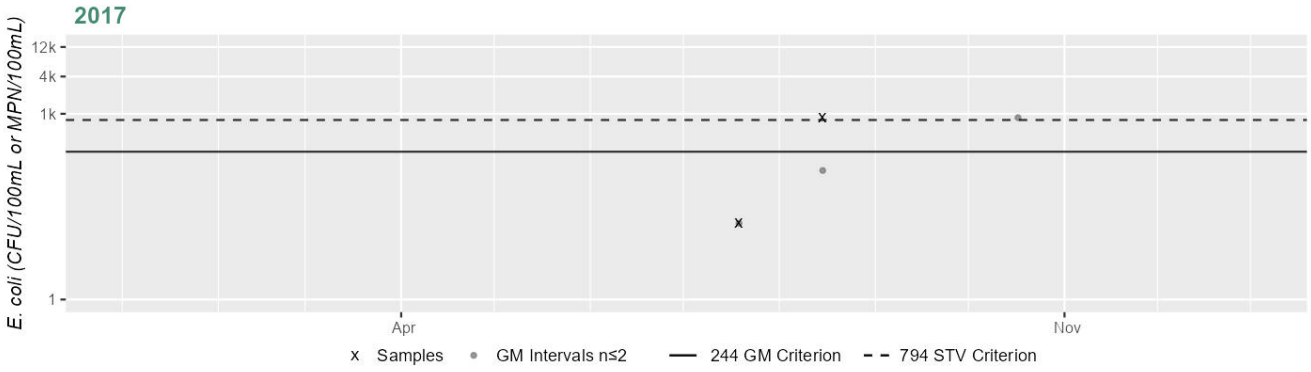
Variable*	Result
Samples	2
SeasGM	1577
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

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.*

Station MASSDEP_W2740 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	121
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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

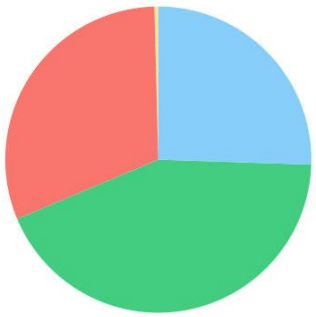
**Samples = # of samples; SeasGM = Seasonal Geometric Mean (GM); #GMI = # of GM Intervals; #GMI Ex = # of GMI Exeedances; %GMI Ex = % GMI Exeedances; n>STV = # of samples > Statistical Threshold Value (STV); %n > STV = % of samples > STV; "Recent 5 Years" may not be consecutive as the analysis excludes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

Speedway Brook (MA52-05)

Location:	(locally known as Thacher Brook) Headwaters, Attleboro to mouth at inlet of Dodgeville Pond (a Ten Mile River impoundment), Attleboro.
AU Type:	RIVER
AU Size:	0.9 MILES
Classification/Qualifier:	B: WWF

Speedway Brook (MA52-05)

Watershed Area: 3.40 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	3.40	3.40	1.15	1.15
Agriculture	0.4%	0.4%	0.1%	0.1%
Developed	30.9%	30.9%	16.6%	16.6%
Natural	43.1%	43.1%	39.7%	39.7%
Wetland	25.5%	25.5%	43.6%	43.6%
Impervious	18.8%	18.8%	8.7%	8.7%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Alteration in Stream-side or Littoral Vegetative Covers*)	--	Unchanged
5	5	(Habitat Assessment*)	--	Unchanged
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Fecal Coliform	R1_MA_2024_04	Changed
5	5	Metals	--	Unchanged
5	5	Sedimentation/Siltation	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Alteration in Stream-side or Littoral Vegetative Covers*)	Source Unknown (N)	X	--	--	--	--
(Habitat Assessment*)	Source Unknown (N)	X	--	--	--	--
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Source Unknown (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Waterfowl (Y)	--	--	--	X	X
Fecal Coliform	Source Unknown (N)	--	--	--	X	--
Fecal Coliform	Waterfowl (Y)	--	--	--	X	--
Metals	Source Unknown (N)	X	--	--	--	--
Sedimentation/Siltation	Source Unknown (N)	X	--	--	--	--

Supporting Information for Removed Impairments

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

Recommendations

2024/26 Recommendations
2024/2026 IR [Bacteria, Low] Additional monitoring should be conducted for Speedway Brook (MA52-05) in particular in the area of Dexter Street {W1517} to confirm if this AU should be impaired for Enterococcus. An Alert was identified for Enterococcus based on the single sample collected at {W1517} in 2014, because it was extremely elevated (700 CFU). This AU is already impaired for *E.coli* and Fecal Coliform. This is of low priority.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No site-specific fish consumption advisory has been issued by DPH; therefore, the Fish Consumption Use for Speedway Brook (MA52-05) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary
The Aesthetics Use for Speedway Brook (MA52-05) is assessed as Fully Supporting. MassDEP staff recorded aesthetics observations at four stations in Attleboro along Speedway Brook between the summers of 2011 and 2016 described upstream to downstream as follows: at emergence from culvert south of Maple Street (W1618; 2011, 2014, 2015, 2016 n= 2-5/yr), approximately 1300 feet upstream (northeast) of Dexter Street (W2494; 2014, 2015, 2016 n= 2-4/yr), Dexter Street (W1517; 2013, 2014, 2015 n= 2-5/yr), and Rt.152 (W0180; 2013, 2014, 2015, 2016 n= 2-4/yr). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during the surveys at all four stations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0180	MassDEP	Water Quality	Speedway Brook	[Route 152, Attleboro]	41.927261	-71.285224
W1517	MassDEP	Water Quality	Speedway Brook	[Dexter Street, Attleboro]	41.928698	-71.280345
W1618	MassDEP	Water Quality	Speedway Brook	[at emergence from culvert south of Maple Street, Attleboro]	41.935108	-71.275443
W2494	MassDEP	Water Quality	Speedway Brook	[approximately 1300 feet upstream (northeast) of Dexter Street (downstream of unnamed tributary), Attleboro]	41.931486	-71.277031

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)
[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W0180	Speedway Brook	2013	3	Aesthetic observations were made by MassDEP field sampling crews at Station W0180 on Speedway Brook (MA52-05) during 3 site visits between Jun 2013 and Sep 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W0180	Speedway Brook	2014	1	Aesthetic observations were made by MassDEP field sampling crews at Station W0180 on Speedway Brook (MA52-05) during 1 site visit on Jun 17, 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W0180	Speedway Brook	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W0180 on Speedway Brook (MA52-05) during 4 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W0180	Speedway Brook	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0180 on Speedway Brook (MA52-05) during 2 site visits between Jun 2016 and Jul 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W1517	Speedway Brook	2013	3	Aesthetic observations were made by MassDEP field sampling crews at Station W1517 on Speedway Brook (MA52-05) during 3 site visits between Jun 2013 and Sep 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W1517	Speedway Brook	2014	3	Aesthetic observations were made by MassDEP field sampling crews at Station W1517 on Speedway Brook (MA52-05) during 3 site visits between Jun 2014 and Jul 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W1517	Speedway Brook	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W1517 on Speedway Brook (MA52-05) during 4 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W1517	Speedway Brook	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W1517 on Speedway Brook (MA52-05) during 2 site visits between Jun 2016 and Jul 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W1618	Speedway Brook	2011	3	Aesthetic observations were made by MassDEP field sampling crews at Station W1618 on Speedway Brook (MA52-05) during 3 site visits between Jun 2011 and Sep 2011. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W1618	Speedway Brook	2014	3	Aesthetic observations were made by MassDEP field sampling crews at Station W1618 on Speedway Brook (MA52-05) during 3 site visits between Jun 2014 and Jul 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W1618	Speedway Brook	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W1618 on Speedway Brook (MA52-05) during 4 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W1618	Speedway Brook	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W1618 on Speedway Brook (MA52-05) during 2 site visits between Jun 2016 and Jul 2016. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2494	Speedway Brook	2014	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2494 on Speedway Brook (MA52-05) during 2 site visits in Jul 2014. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2494	Speedway Brook	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2494 on Speedway Brook (MA52-05) during 4 site visits between May 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2494	Speedway Brook	2016	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2494 on Speedway Brook (MA52-05) during 2 site visits between Jun 2016 and Jul 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 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W0180	2013	3	3	0
W0180	2014	1	1	0
W0180	2015	4	4	1
W0180	2016	2	2	0
W1517	2013	3	3	0
W1517	2014	3	2	0
W1517	2015	4	4	0
W1517	2016	2	2	0
W1618	2011	3	3	0
W1618	2014	3	3	0
W1618	2015	4	4	0
W1618	2016	2	2	0
W2494	2014	2	2	0
W2494	2015	4	4	0
W2494	2016	2	2	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0180	Speedway Brook	2013	Color	None	2	3
W0180	Speedway Brook	2013	Color	Light Yellow/Tan	1	3
W0180	Speedway Brook	2013	Odor	None	2	3
W0180	Speedway Brook	2013	Odor	Musty (Basement)	1	3
W0180	Speedway Brook	2013	Turbidity	Slightly Turbid	2	3
W0180	Speedway Brook	2013	Turbidity	Moderately Turbid	1	3
W0180	Speedway Brook	2014	Color	None	1	1
W0180	Speedway Brook	2014	Odor	None	1	1
W0180	Speedway Brook	2014	Turbidity	Slightly Turbid	1	1
W0180	Speedway Brook	2015	Color	None	3	4
W0180	Speedway Brook	2015	Color	Light Yellow/Tan	1	4
W0180	Speedway Brook	2015	Odor	None	4	4
W0180	Speedway Brook	2015	Turbidity	Slightly Turbid	3	4
W0180	Speedway Brook	2015	Turbidity	Moderately Turbid	1	4
W0180	Speedway Brook	2016	Color	None	1	2
W0180	Speedway Brook	2016	Color	Light Yellow/Tan	1	2
W0180	Speedway Brook	2016	Odor	None	2	2
W0180	Speedway Brook	2016	Turbidity	Slightly Turbid	2	2
W0180	Speedway Brook	2013	Aquatic Plant Density, Overall	Sparse	1	3
W0180	Speedway Brook	2013	Aquatic Plant Density, Overall	Moderate	1	3
W0180	Speedway Brook	2013	Aquatic Plant Density, Overall	Dense	1	3
W0180	Speedway Brook	2014	Aquatic Plant Density, Overall	Sparse	1	1
W0180	Speedway Brook	2015	Aquatic Plant Density, Overall	Sparse	1	4
W0180	Speedway Brook	2015	Aquatic Plant Density, Overall	Moderate	2	4
W0180	Speedway Brook	2015	Aquatic Plant Density, Overall	Dense	1	4
W0180	Speedway Brook	2016	Aquatic Plant Density, Overall	Moderate	1	2
W0180	Speedway Brook	2016	Aquatic Plant Density, Overall	Dense	1	2
W0180	Speedway Brook	2013	Periphyton Density, Filamentous	None	3	3
W0180	Speedway Brook	2013	Periphyton Density, Film	None	1	3
W0180	Speedway Brook	2013	Periphyton Density, Film	Sparse	2	3
W0180	Speedway Brook	2014	Periphyton Density, Filamentous	None	1	1
W0180	Speedway Brook	2014	Periphyton Density, Film	Sparse	1	1
W0180	Speedway Brook	2015	Periphyton Density, Filamentous	None	4	4
W0180	Speedway Brook	2015	Periphyton Density, Film	None	1	4
W0180	Speedway Brook	2015	Periphyton Density, Film	Sparse	1	4
W0180	Speedway Brook	2015	Periphyton Density, Film	Moderate	1	4
W0180	Speedway Brook	2015	Periphyton Density, Film	Dense	1	4
W0180	Speedway Brook	2016	Periphyton Density, Filamentous	None	2	2
W0180	Speedway Brook	2016	Periphyton Density, Film	Moderate	2	2
W1517	Speedway Brook	2013	Color	None	2	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W1517	Speedway Brook	2013	Color	Light Yellow/Tan	1	3
W1517	Speedway Brook	2013	Odor	None	3	3
W1517	Speedway Brook	2013	Turbidity	Slightly Turbid	2	3
W1517	Speedway Brook	2013	Turbidity	Moderately Turbid	1	3
W1517	Speedway Brook	2014	Color	None	2	3
W1517	Speedway Brook	2014	Color	Light Yellow/Tan	1	3
W1517	Speedway Brook	2014	Odor	None	3	3
W1517	Speedway Brook	2014	Turbidity	Slightly Turbid	2	3
W1517	Speedway Brook	2014	Turbidity	Moderately Turbid	1	3
W1517	Speedway Brook	2015	Color	None	4	4
W1517	Speedway Brook	2015	Odor	None	4	4
W1517	Speedway Brook	2015	Turbidity	Slightly Turbid	2	4
W1517	Speedway Brook	2015	Turbidity	Moderately Turbid	2	4
W1517	Speedway Brook	2016	Color	None	1	2
W1517	Speedway Brook	2016	Color	Light Yellow/Tan	1	2
W1517	Speedway Brook	2016	Odor	None	2	2
W1517	Speedway Brook	2016	Turbidity	Slightly Turbid	2	2
W1517	Speedway Brook	2013	Aquatic Plant Density, Overall	None	3	3
W1517	Speedway Brook	2014	Aquatic Plant Density, Overall	Not Recorded	1	3
W1517	Speedway Brook	2014	Aquatic Plant Density, Overall	None	1	3
W1517	Speedway Brook	2014	Aquatic Plant Density, Overall	Sparse	1	3
W1517	Speedway Brook	2015	Aquatic Plant Density, Overall	None	4	4
W1517	Speedway Brook	2016	Aquatic Plant Density, Overall	None	2	2
W1517	Speedway Brook	2013	Periphyton Density, Filamentous	None	3	3
W1517	Speedway Brook	2013	Periphyton Density, Film	None	2	3
W1517	Speedway Brook	2013	Periphyton Density, Film	Sparse	1	3
W1517	Speedway Brook	2014	Periphyton Density, Filamentous	Not Recorded	1	3
W1517	Speedway Brook	2014	Periphyton Density, Filamentous	None	2	3
W1517	Speedway Brook	2014	Periphyton Density, Film	Not Recorded	1	3
W1517	Speedway Brook	2014	Periphyton Density, Film	Moderate	2	3
W1517	Speedway Brook	2015	Periphyton Density, Filamentous	None	4	4
W1517	Speedway Brook	2015	Periphyton Density, Film	Sparse	3	4
W1517	Speedway Brook	2015	Periphyton Density, Film	Moderate	1	4
W1517	Speedway Brook	2016	Periphyton Density, Filamentous	None	2	2
W1517	Speedway Brook	2016	Periphyton Density, Film	Sparse	2	2
W1618	Speedway Brook	2011	Color	None	3	3
W1618	Speedway Brook	2011	Odor	None	1	3
W1618	Speedway Brook	2011	Odor	Musty (Basement)	1	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W1618	Speedway Brook	2011	Odor	Sulfide (rotten egg)	1	3
W1618	Speedway Brook	2011	Turbidity	None	1	3
W1618	Speedway Brook	2011	Turbidity	Slightly Turbid	2	3
W1618	Speedway Brook	2014	Color	None	3	3
W1618	Speedway Brook	2014	Odor	None	3	3
W1618	Speedway Brook	2014	Turbidity	Slightly Turbid	3	3
W1618	Speedway Brook	2015	Color	None	4	4
W1618	Speedway Brook	2015	Odor	None	3	4
W1618	Speedway Brook	2015	Odor	Septic	1	4
W1618	Speedway Brook	2015	Turbidity	Slightly Turbid	3	4
W1618	Speedway Brook	2015	Turbidity	Moderately Turbid	1	4
W1618	Speedway Brook	2016	Color	None	1	2
W1618	Speedway Brook	2016	Color	Light Yellow/Tan	1	2
W1618	Speedway Brook	2016	Odor	None	2	2
W1618	Speedway Brook	2016	Turbidity	Slightly Turbid	2	2
W1618	Speedway Brook	2011	Aquatic Plant Density, Overall	None	3	3
W1618	Speedway Brook	2014	Aquatic Plant Density, Overall	None	3	3
W1618	Speedway Brook	2015	Aquatic Plant Density, Overall	None	4	4
W1618	Speedway Brook	2016	Aquatic Plant Density, Overall	None	2	2
W1618	Speedway Brook	2011	Periphyton Density, Filamentous	None	3	3
W1618	Speedway Brook	2011	Periphyton Density, Film	Sparse	2	3
W1618	Speedway Brook	2011	Periphyton Density, Film	Moderate	1	3
W1618	Speedway Brook	2014	Periphyton Density, Filamentous	None	3	3
W1618	Speedway Brook	2014	Periphyton Density, Film	Moderate	3	3
W1618	Speedway Brook	2015	Periphyton Density, Filamentous	None	3	4
W1618	Speedway Brook	2015	Periphyton Density, Filamentous	Moderate	1	4
W1618	Speedway Brook	2015	Periphyton Density, Film	None	2	4
W1618	Speedway Brook	2015	Periphyton Density, Film	Moderate	2	4
W1618	Speedway Brook	2016	Periphyton Density, Filamentous	None	2	2
W1618	Speedway Brook	2016	Periphyton Density, Film	None	1	2
W1618	Speedway Brook	2016	Periphyton Density, Film	Sparse	1	2
W2494	Speedway Brook	2014	Color	None	2	2
W2494	Speedway Brook	2014	Odor	None	2	2
W2494	Speedway Brook	2014	Turbidity	Slightly Turbid	1	2
W2494	Speedway Brook	2014	Turbidity	Moderately Turbid	1	2
W2494	Speedway Brook	2015	Color	None	4	4
W2494	Speedway Brook	2015	Odor	None	4	4
W2494	Speedway Brook	2015	Turbidity	Slightly Turbid	2	4
W2494	Speedway Brook	2015	Turbidity	Moderately Turbid	2	4
W2494	Speedway Brook	2016	Color	None	1	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2494	Speedway Brook	2016	Color	Light Yellow/Tan	1	2
W2494	Speedway Brook	2016	Odor	None	2	2
W2494	Speedway Brook	2016	Turbidity	Slightly Turbid	2	2
W2494	Speedway Brook	2014	Aquatic Plant Density, Overall	None	1	2
W2494	Speedway Brook	2014	Aquatic Plant Density, Overall	Sparse	1	2
W2494	Speedway Brook	2015	Aquatic Plant Density, Overall	None	4	4
W2494	Speedway Brook	2016	Aquatic Plant Density, Overall	None	2	2
W2494	Speedway Brook	2014	Periphyton Density, Filamentous	None	2	2
W2494	Speedway Brook	2014	Periphyton Density, Film	Sparse	2	2
W2494	Speedway Brook	2015	Periphyton Density, Filamentous	None	4	4
W2494	Speedway Brook	2015	Periphyton Density, Film	None	1	4
W2494	Speedway Brook	2015	Periphyton Density, Film	Sparse	3	4
W2494	Speedway Brook	2016	Periphyton Density, Filamentous	None	2	2
W2494	Speedway Brook	2016	Periphyton Density, Film	None	1	2
W2494	Speedway Brook	2016	Periphyton Density, Film	Sparse	1	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary

The Primary Contact Recreational Use for Speedway Brook (MA52-05) will continue to be assessed as Not Supporting with both the *E. coli* and Fecal Coliform impairments being carried forward. An Alert is being identified for Enterococcus based on a bacteria data collected at Dexter Street in 2014.

E. coli (EC) and occasionally Enterococcus (Ent) bacteria samples were collected by MassDEP staff in Speedway Brook from 2011-2016 at four sampling stations in Attleboro, as part the MassDEP Bacteria Source Tracking (BST) project. Samples were collected from the following stations/sample years from upstream to downstream: W1618 [at emergence from culvert S of Maple St] in 2011 and 2014-2016 (EC n=2-4/yr & Ent n=1), W2494 [~1300 ft upstream (northeast) of Dexter St (downstream of unnamed tributary)] in 2014-2016 (EC n=2-4/yr), W1517 [Dexter St] in 2013-2016 (EC n=2-4/yr & Ent n=1) and W0180 [Rt. 152] in 2013-2016 (EC n=1-4/yr & Ent n=1/yr). Data analysis of the single and multi-year low frequency *E. coli* datasets (when enough data were available for analysis according to the 2024 CALM) indicated generally poor water quality conditions (elevated bacteria) at the majority of sample stations, as 100% of intervals (in the single year dataset at W2494 in 2015) and 50-100% of intervals (in the two-year datasets) had GMs >126 CFU/100ml; also with the single year dataset the seasonal GM was 361 CFU/100ml and for the two-year datasets 67-100% of the cumulative GMs were >126 CFU/100ml. While the available Enterococcus data for Speedway Brook are too limited to assess according to the 2024 CALM, it should be noted that the single sample collected at Dexter Street (W1517) (collected in 2014) was extremely elevated at 700 CFU (clearly exceeds the 130 CFU/100ml STV). Consequently, an Alert is being identified for Enterococcus on Speedway Brook. BST project notes indicated that human marker analysis results at Rt.152 in 2014 were “weak”, indicating a possible human source(s); however, it was concluded that this is more likely the result of industrial source optical brighteners (such as a car wash or laundry) combining with fecal matter from the ducks and geese on the pond at the Brook Haven Estates condo complex. Based on intermittently elevated *E. coli* and detergents at Maple Street in 2015 and 2016, it was concluded that an early season intermittent human source may still exist within the drainage infrastructure upstream of Maple Street.

Monitoring Stations

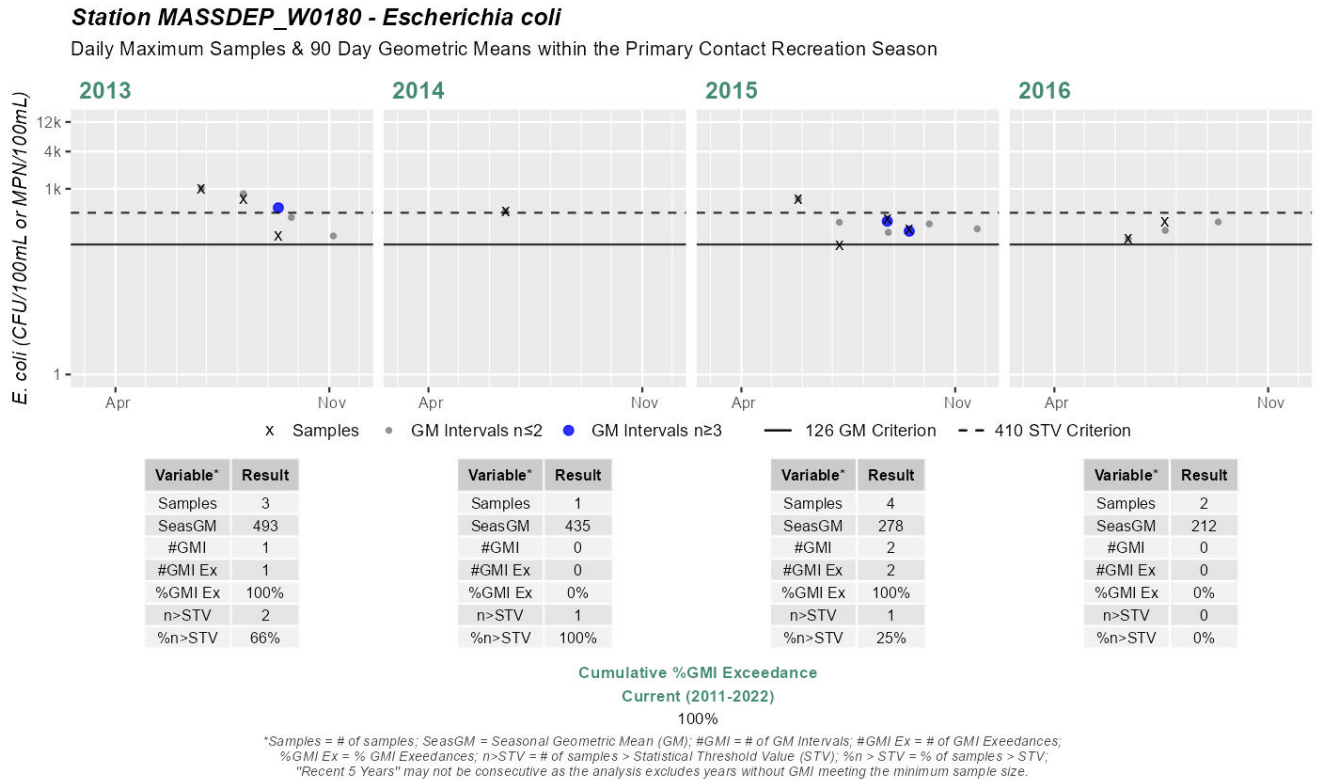
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0180	MassDEP	Water Quality	Speedway Brook	[Route 152, Attleboro]	41.927261	-71.285224
W1517	MassDEP	Water Quality	Speedway Brook	[Dexter Street, Attleboro]	41.928698	-71.280345
W1618	MassDEP	Water Quality	Speedway Brook	[at emergence from culvert south of Maple Street, Attleboro]	41.935108	-71.275443
W2494	MassDEP	Water Quality	Speedway Brook	[approximately 1300 feet upstream (northeast) of Dexter Street (downstream of unnamed tributary), Attleboro]	41.931486	-71.277031

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis) (MassDEP Undated 7) (MassDEP Undated 4)

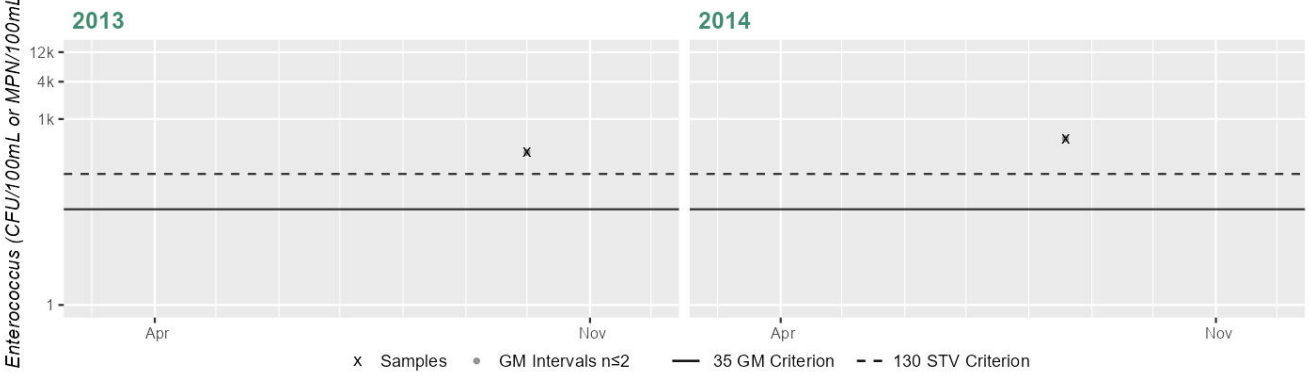
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0180	MassDEP	E. coli	06/26/13	09/11/13	3	173	1010	493
W0180	MassDEP	Enterococci	10/01/13	10/01/13	1	290	290	289
W0180	MassDEP	E. coli	06/17/14	06/17/14	1	435	435	435
W0180	MassDEP	Enterococci	08/19/14	08/19/14	1	480	480	480
W0180	MassDEP	E. coli	05/28/15	09/16/15	4	120	687	278
W0180	MassDEP	E. coli	06/13/16	07/20/16	2	155	291	212
W1517	MassDEP	E. coli	06/26/13	09/11/13	3	196	1440	516
W1517	MassDEP	E. coli	06/17/14	07/30/14	3	308	387	348
W1517	MassDEP	Enterococci	08/19/14	08/19/14	1	700	700	699
W1517	MassDEP	E. coli	05/28/15	09/16/15	4	145	1660	475
W1517	MassDEP	E. coli	06/13/16	07/20/16	2	96	387	192
W1618	MassDEP	E. coli	06/02/11	09/20/11	3	146	980	328
W1618	MassDEP	E. coli	06/17/14	07/30/14	3	105	556	225
W1618	MassDEP	Enterococci	08/19/14	08/19/14	1	44	44	43
W1618	MassDEP	E. coli	05/28/15	09/16/15	4	88	1730	241
W1618	MassDEP	E. coli	06/13/16	07/20/16	2	261	305	282
W2494	MassDEP	E. coli	07/22/14	07/30/14	2	579	613	595
W2494	MassDEP	E. coli	05/28/15	09/16/15	4	96	1730	361
W2494	MassDEP	E. coli	06/13/16	07/20/16	2	59	565	182



Station MASSDEP_W0180 - Enterococcus

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



Variable*	Result
Samples	1
SeasGM	290
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

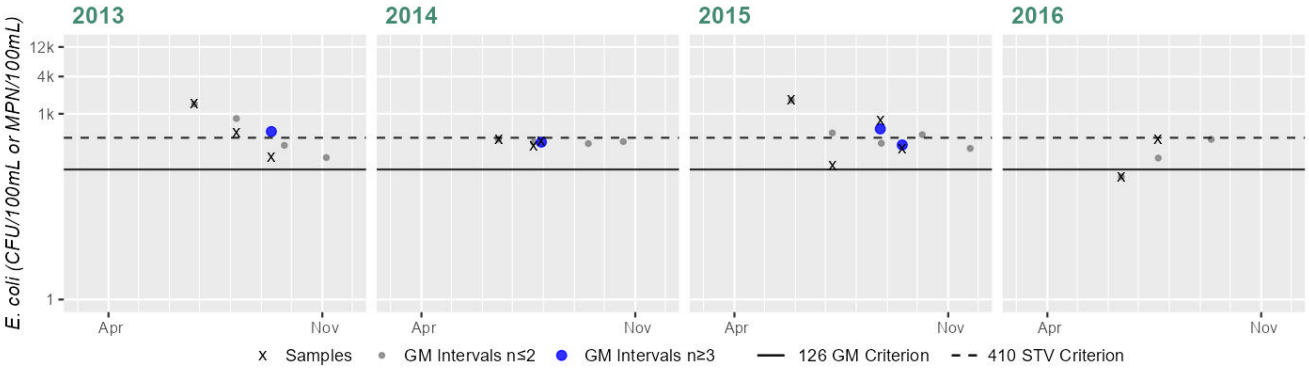
Variable*	Result
Samples	1
SeasGM	480
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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_W1517 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	516
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	2
%n>STV	66%

Variable*	Result
Samples	3
SeasGM	348
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	4
SeasGM	475
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	2
%n>STV	50%

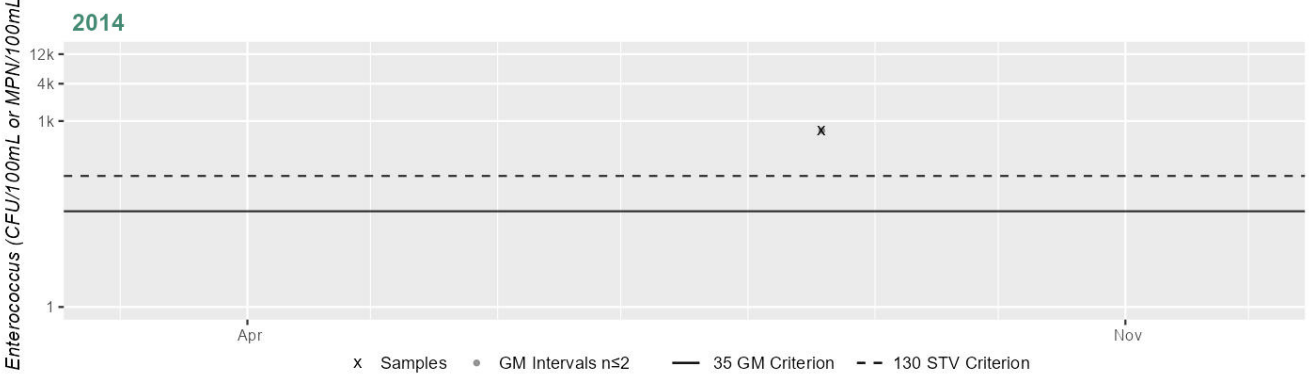
Variable*	Result
Samples	2
SeasGM	192
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W1517 - Enterococcus

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



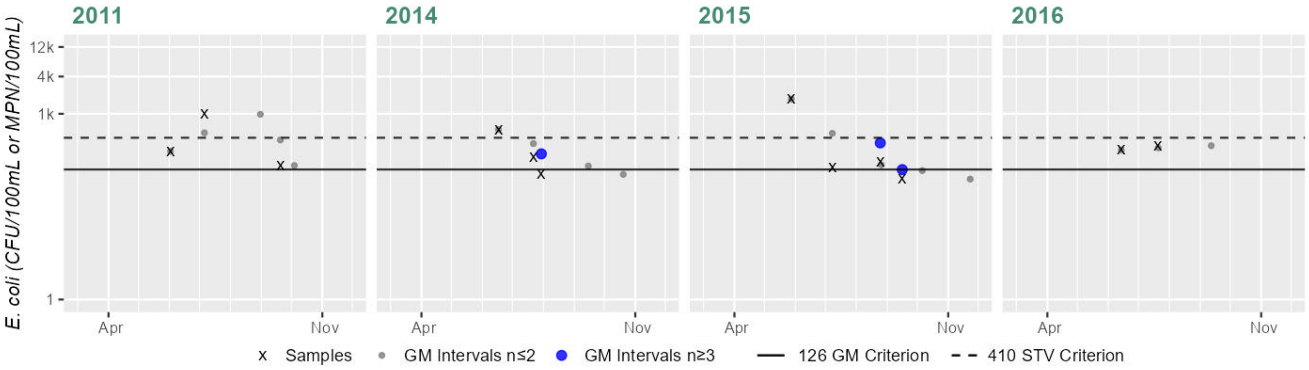
Variable*	Result
Samples	1
SeasGM	700
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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_W1618 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	328
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	33%

Variable*	Result
Samples	3
SeasGM	225
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

Variable*	Result
Samples	4
SeasGM	241
#GMI	2
#GMI Ex	1
%GMI Ex	50%
n>STV	1
%n>STV	25%

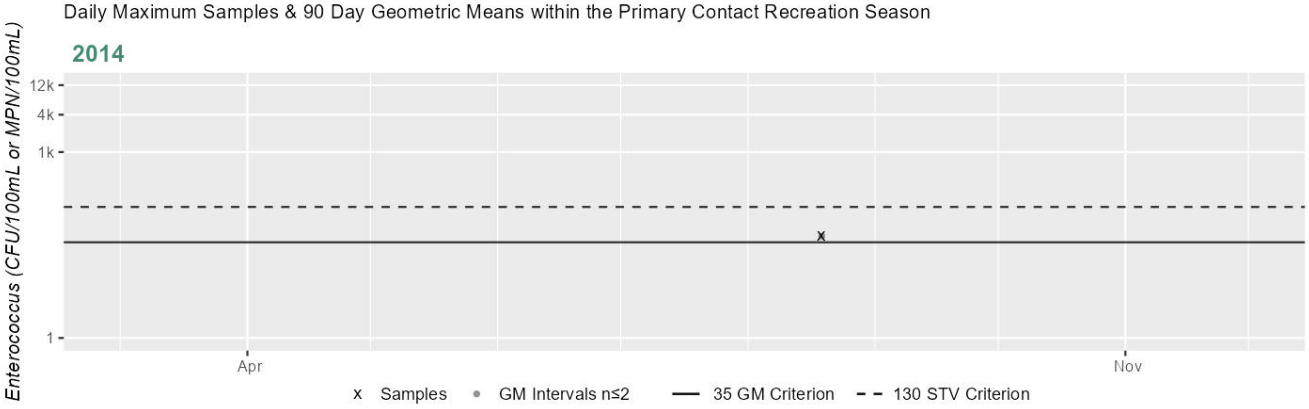
Variable*	Result
Samples	2
SeasGM	282
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
66%

**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_W1618 - Enterococcus

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



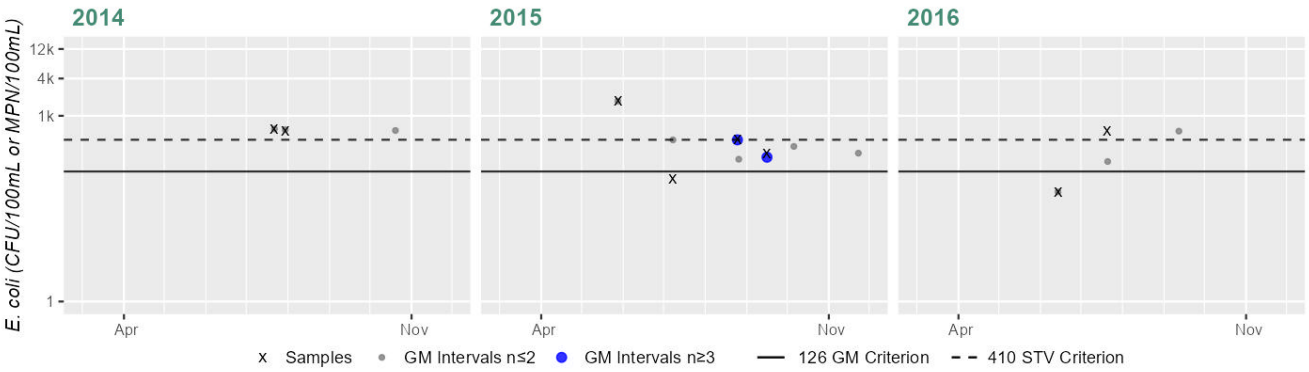
Variable*	Result
Samples	1
SeasGM	44
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2494 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	595
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

Variable*	Result
Samples	4
SeasGM	361
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	2
%n>STV	50%

Variable*	Result
Samples	2
SeasGM	182
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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.*

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

Summary
Prior to 2011, BST work was conducted along the Speedway Brook AU (MA52-05) and within the stormwater infrastructure upgradient of Maple Street; with a max E.coli concentration of 19,863MPN. In 2011 human sources of bacteria were found and corrected by the City of Attleboro. Additional BST work was conducted between 2011 and 2016 years at 6 sites along Speedway Brook and an additional 4 unnamed tributary sites; with E.coli concentrations ranging 105 to 1,733MPN. Human marker analysis results at Rt.152 in 2014 were “weak”, indicating a human source(s); however, it was concluded that this is likely the result of industrial source optical brighteners (such as a car wash or laundry) combining with fecal matter from the ducks and geese on the pond at the Brook Haven Estates condo complex. Based on intermittently elevated E.coli and detergents at Maple Street in 2015 and 2016, it was concluded that an early season intermittent human source may still exist within the drainage infrastructure upstream of Maple Street.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Secondary Contact Recreational Use for Speedway Brook (MA52-05) is assessed as Not Supporting since the *E. coli* data collected by the MassDEP BST project in 2013-2015 at Dexter Street and Rt.152, exceeded the 2024 CALM impairment thresholds. An *Escherichia Coli* (*E. Coli*) impairment is being added.
E. coli bacteria samples were collected by MassDEP staff from this Speedway Brook AU at six sampling stations in Attleboro, historically in 1997, 2002, 2006 and 2007 and also during the summers of 2013-2016 for the MassDEP Bacteria Source Tracking (BST) project. The *E. coli* samples were collected at the following stations, data years: the emergence from culvert south of Maple Street (W1618, 2006 n=3, 2011 & 2014-2016 n=2-4/yr), ~800 feet downstream from Maple Street (W1620, 2006 n=4) ~1300 feet upstream (northeast) of Dexter Street (W2494, 2014-2016 n=2-4/yr), ~950 feet upstream of Dexter Street (W1623, 2006 n=6), Dexter Street (W1517, 2006 n=6 & 2013-2016 n=2-4/yr) and Rt.152 (W0180, 1997 n=2, 2002 n=5, 2006 n=6, 2007 n=5, 2013 n=3, 2014 n=1, 2015 n=4, 2016 n=2). Where enough data were available according to the 2024 CALM, analysis of the historical single and multi-year, limited-moderate frequency *E. coli* datasets is indicative of poor water quality conditions (elevated bacteria) throughout the AU. The single year analysis i.e. for 2006 at stations W1618, W1620, W1623 & W1517 indicates 100% of intervals had GMs >244 CFU/100ml. The multi-year analysis for 2002, 2006 & 2007 at W0180 indicates 33%, 100% and 100% of GM intervals respectively were >244 CFU/100ml with 4 and 2 samples exceeding the 794 STV criterion in 2006 and 2007 respectively and 83% of the cumulative intervals had GMs >244 CFU/100ml. While analysis of the multi-year, limited frequency *E.coli* data from the current IR window (2011-2022) indicates improved conditions (at stations W1618 and W2494), water quality conditions are apparently still poor at W1517 and W0180. At W1517 (where enough data were available for analysis according to the 2024 CALM i.e. 2013-2015 n=3-4), 100% of intervals had GMs >244 CFU/100ml in 3 years and 100% of the cumulative intervals had GMs >244 CFU/100ml. At W0180 (where enough data were available for analysis according to the 2024 CALM i.e. 2013 & 2015 n=3-4), both these yrs had intervals where >20% of the GMs were >244 CFU/100ml (100 & 50% respectively) and cumulatively across years 66% of intervals had GMs >244 CFU/100ml. Bacteria data from stations W1517 and W0180 are indicative of an *E. coli* impairment. BST project notes indicated that human marker analysis results at Rt.152 in 2014 were “weak”, indicating a possible human source(s); however, it was concluded that this is more likely the result of industrial source optical brighteners (such as a car wash or laundry) combining with fecal matter from the ducks and geese on the pond at the Brook Haven Estates condo complex. Based on intermittently elevated *E. coli* and detergents at Maple Street in 2015 and 2016, it was concluded that an early season intermittent human source may still exist within the drainage infrastructure upstream of Maple Street.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0180	MassDEP	Water Quality	Speedway Brook	[Route 152, Attleboro]	41.927261	-71.285224

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W1517	MassDEP	Water Quality	Speedway Brook	[Dexter Street, Attleboro]	41.928698	-71.280345
W1618	MassDEP	Water Quality	Speedway Brook	[at emergence from culvert south of Maple Street, Attleboro]	41.935108	-71.275443
W1620	MassDEP	Water Quality	Speedway Brook	[approximately 800 feet downstream from Maple Street, Attleboro (approximately 15 feet upstream of unnamed tributary confluence)]	41.933047	-71.276322
W1623	MassDEP	Water Quality	Speedway Brook	[approximately 950 feet upstream of Dexter Street (near bend in trail along western bank), Attleboro]	41.930587	-71.277940
W2494	MassDEP	Water Quality	Speedway Brook	[approximately 1300 feet upstream (northeast) of Dexter Street (downstream of unnamed tributary), Attleboro]	41.931486	-71.277031

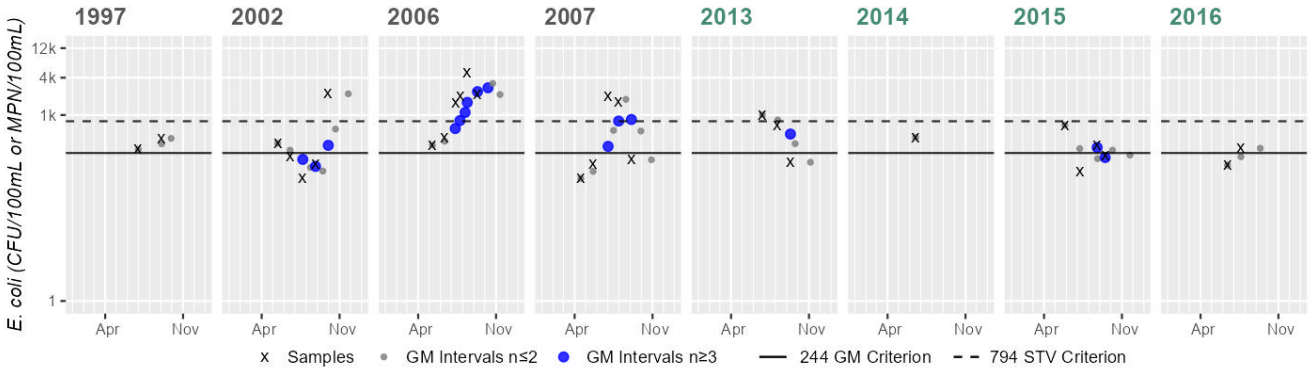
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0180	MassDEP	E. coli	07/01/97	09/03/97	2	280	420	342
W0180	MassDEP	E. coli	05/15/02	10/01/02	5	97	2200	301
W0180	MassDEP	E. coli	05/10/06	09/11/06	6	328	4880	1289
W0180	MassDEP	E. coli	04/18/07	09/04/07	5	95	2000	391
W0180	MassDEP	E. coli	06/26/13	09/11/13	3	173	1010	493
W0180	MassDEP	E. coli	06/17/14	06/17/14	1	435	435	435
W0180	MassDEP	E. coli	05/28/15	09/16/15	4	120	687	278
W0180	MassDEP	E. coli	06/13/16	07/20/16	2	155	291	212
W1517	MassDEP	E. coli	05/10/06	10/04/06	9	199	7270	1396
W1517	MassDEP	E. coli	06/26/13	09/11/13	3	196	1440	516
W1517	MassDEP	E. coli	06/17/14	07/30/14	3	308	387	348
W1517	MassDEP	E. coli	05/28/15	09/16/15	4	145	1660	475
W1517	MassDEP	E. coli	06/13/16	07/20/16	2	96	387	192
W1618	MassDEP	E. coli	09/11/06	10/04/06	3	771	7800	3522
W1618	MassDEP	E. coli	06/02/11	09/20/11	3	146	980	328
W1618	MassDEP	E. coli	06/17/14	07/30/14	3	105	556	225
W1618	MassDEP	E. coli	05/28/15	09/16/15	4	88	1730	241
W1618	MassDEP	E. coli	06/13/16	07/20/16	2	261	305	282
W1620	MassDEP	E. coli	08/14/06	10/04/06	4	1070	24200	4845
W1623	MassDEP	E. coli	07/25/06	10/04/06	6	388	4610	1741
W2494	MassDEP	E. coli	07/22/14	07/30/14	2	579	613	595
W2494	MassDEP	E. coli	05/28/15	09/16/15	4	96	1730	361
W2494	MassDEP	E. coli	06/13/16	07/20/16	2	59	565	182

Station MASSDEP_W0180 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	342
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	301
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	6
SeasGM	1289
#GMI	6
#GMI Ex	6
%GMI Ex	100%
n>STV	4
%n>STV	66%

Variable*	Result
Samples	5
SeasGM	391
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	2
%n>STV	40%

Variable*	Result
Samples	3
SeasGM	493
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

Variable*	Result
Samples	1
SeasGM	435
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	4
SeasGM	278
#GMI	2
#GMI Ex	1
%GMI Ex	50%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	212
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

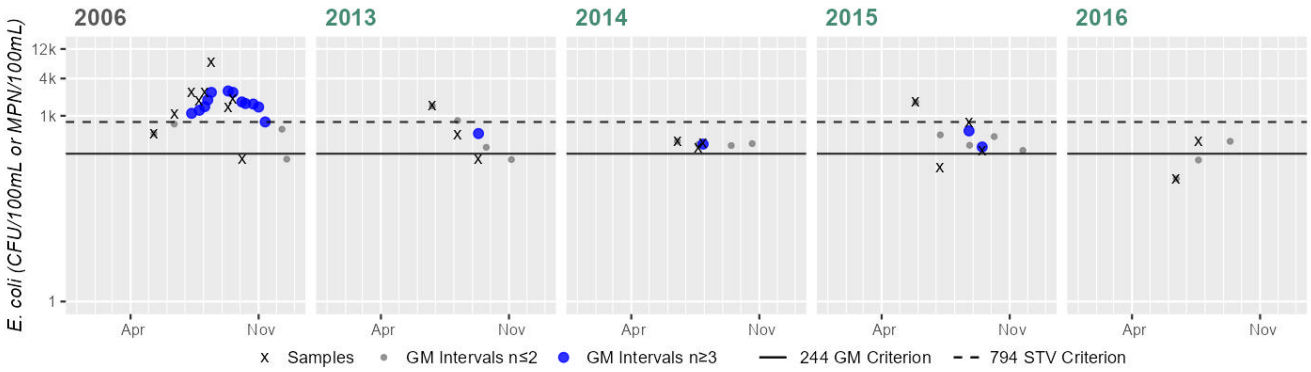
Cumulative %GMI Exceedance
Historic (1997-2010)
83%

Cumulative %GMI Exceedance
Current (2011-2022)
66%

**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_W1517 - Escherichia coli

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



Variable*	Result
Samples	9
SeasGM	1396
#GMI	12
#GMI Ex	12
%GMI Ex	100%
n>STV	7
%n>STV	77%

Variable*	Result
Samples	3
SeasGM	516
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	1
%n>STV	33%

Variable*	Result
Samples	3
SeasGM	348
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	4
SeasGM	475
#GMI	2
#GMI Ex	2
%GMI Ex	100%
n>STV	1
%n>STV	25%

Variable*	Result
Samples	2
SeasGM	192
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

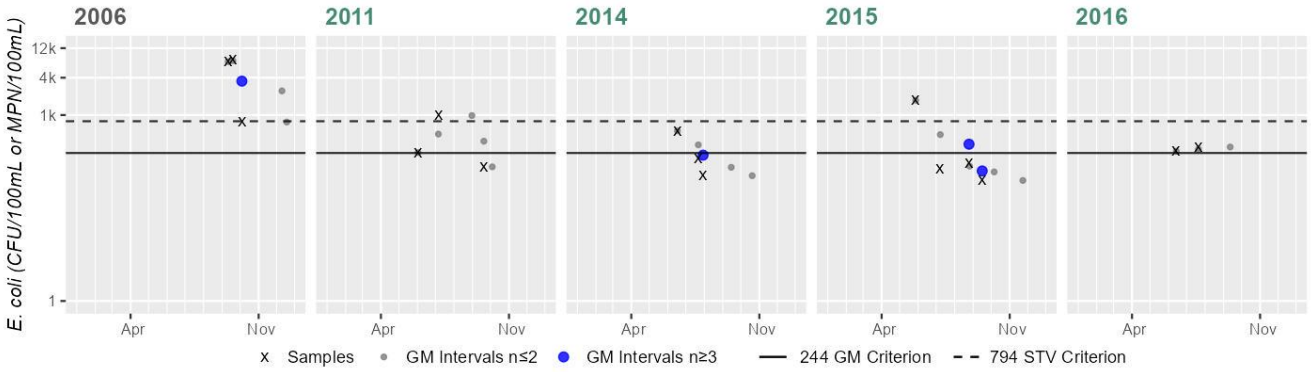
Cumulative %GMI Exceedance
Historic (1997-2010)
100%

Cumulative %GMI Exceedance
Current (2011-2022)
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_W1618 - Escherichia coli

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



Variable*	Result
Samples	3
SeasGM	3522
#GMI	1
#GMI Ex	1
%GMI Ex	100%
n>STV	2
%n>STV	66%

Variable*	Result
Samples	3
SeasGM	328
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	33%

Variable*	Result
Samples	3
SeasGM	225
#GMI	1
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	4
SeasGM	241
#GMI	2
#GMI Ex	1
%GMI Ex	50%
n>STV	1
%n>STV	25%

Variable*	Result
Samples	2
SeasGM	282
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

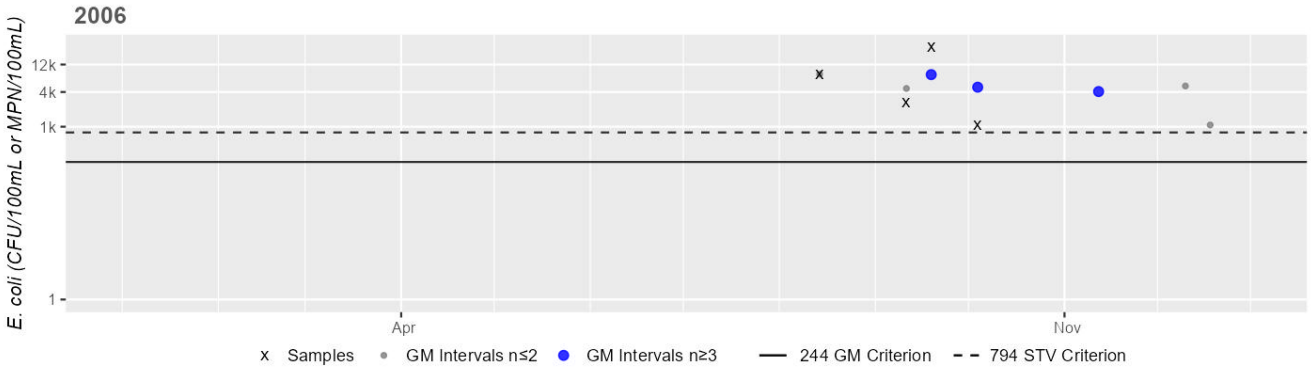
Cumulative %GMI Exceedance Historic (1997-2010)
100%

Cumulative %GMI Exceedance Current (2011-2022)
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_W1620 - Escherichia coli

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



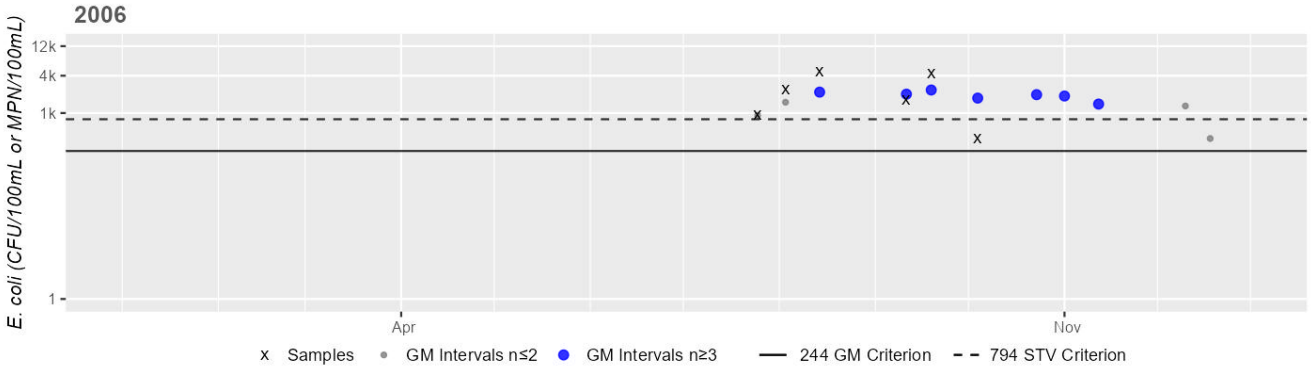
Variable*	Result
Samples	4
SeasGM	4845
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	4
%n>STV	100%

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_W1623 - Escherichia coli

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



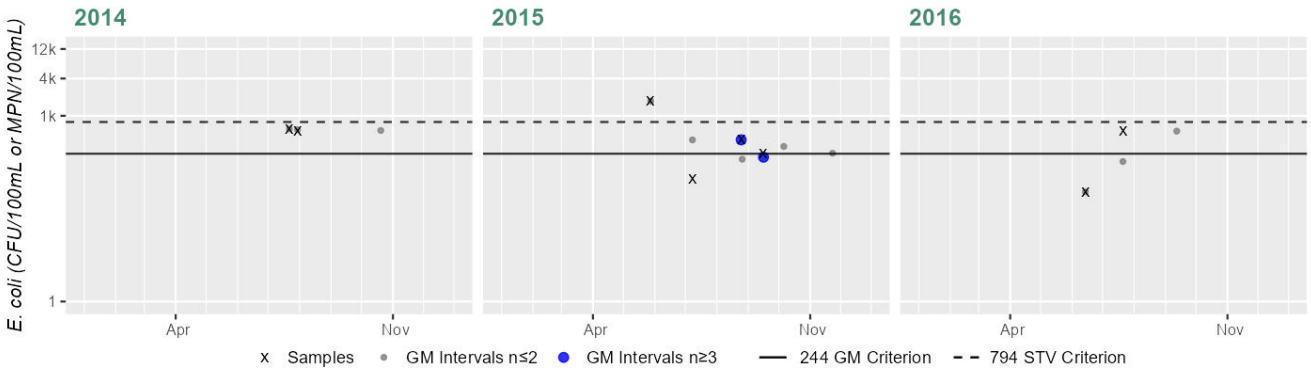
Variable*	Result
Samples	6
SeasGM	1741
#GMI	7
#GMI Ex	7
%GMI Ex	100%
n>STV	5
%n>STV	83%

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_W2494 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	595
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	4
SeasGM	361
#GMI	2
#GMI Ex	1
%GMI Ex	50%
n>STV	1
%n>STV	25%

Variable*	Result
Samples	2
SeasGM	182
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Current (2011-2022)
50%

**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.*

Ten Mile River (MA52-01)

Location:	Headwaters, outlet Cargill Pond, Plainville to West Bacon Street, Plainville (through former 2006 segment: Fuller Pond MA52016).
AU Type:	RIVER
AU Size:	1.5 MILES
Classification/Qualifier:	B: WWF, HQW

Ten Mile River (MA52-01)

Watershed Area: 3.32 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	3.32	3.32	0.64	0.64
Agriculture	2.1%	2.1%	2.2%	2.2%
Developed	35%	35%	23.8%	23.8%
Natural	54.5%	54.5%	50.6%	50.6%
Wetland	8.4%	8.4%	23.3%	23.3%
Impervious	14.9%	14.9%	13.1%	13.1%

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Metals	Contaminated Sediments (N)	X	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
Although fish toxics sampling was conducted in this Ten Mile River AU (MA52-01) in 1984 just upstream of Fuller Street, Plainville, no site-specific fish consumption advisory is in place, therefore the Fish Consumption Use for Ten Mile River is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for Ten Mile River (MA52-01), so it 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 Ten Mile River (MA52-01) 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 Ten Mile River (MA52-01) 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 Ten Mile River (MA52-01) from 1997-2007 at 2 stations. Samples were collected from the following stations/sample years from upstream to downstream: W0168 [Fuller St (downstream of Fuller Pond) , Plainville] from 1997, 2002, and 2007 (n=2-5/yr), W0905 [W Bacon St, Plainville] from 2002 and 2007 (n=5/yr). Historic E. coli data from W0168 and W0905 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.

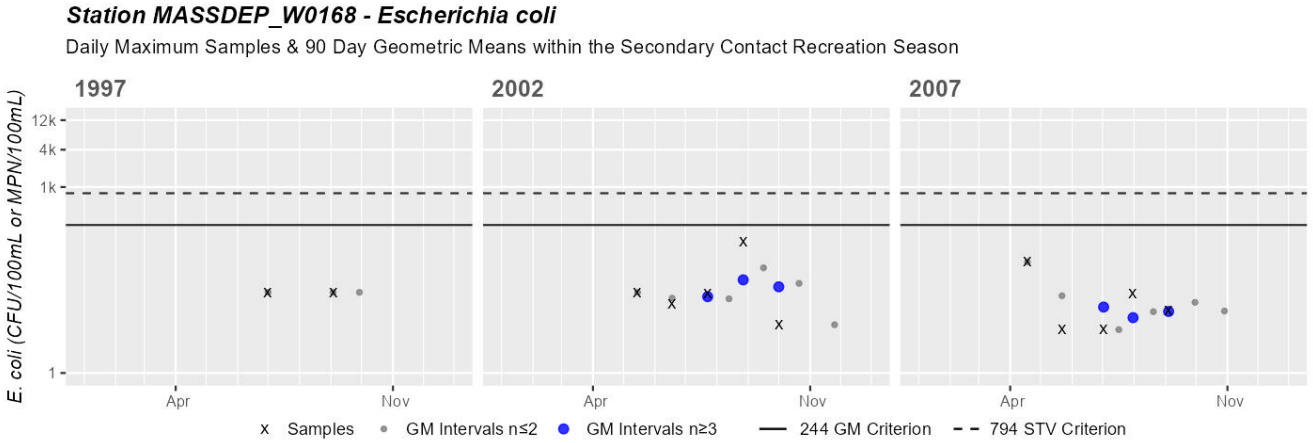
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0168	MassDEP	Water Quality	Ten Mile River	[Fuller Street (downstream of Fuller Pond), Plainville]	42.012720	-71.347631
W0905	MassDEP	Water Quality	Ten Mile River	[West Bacon Street, Plainville]	42.002863	-71.338404

Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0168	MassDEP	E. coli	07/01/97	09/03/97	2	20	20	19
W0168	MassDEP	E. coli	05/15/02	10/01/02	5	6	130	20
W0168	MassDEP	E. coli	04/18/07	09/04/07	5	5	62	12
W0905	MassDEP	E. coli	05/15/02	10/01/02	5	26	1600	129
W0905	MassDEP	E. coli	04/18/07	09/04/07	5	10	1100	75



Variable*	Result
Samples	2
SeasGM	20
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

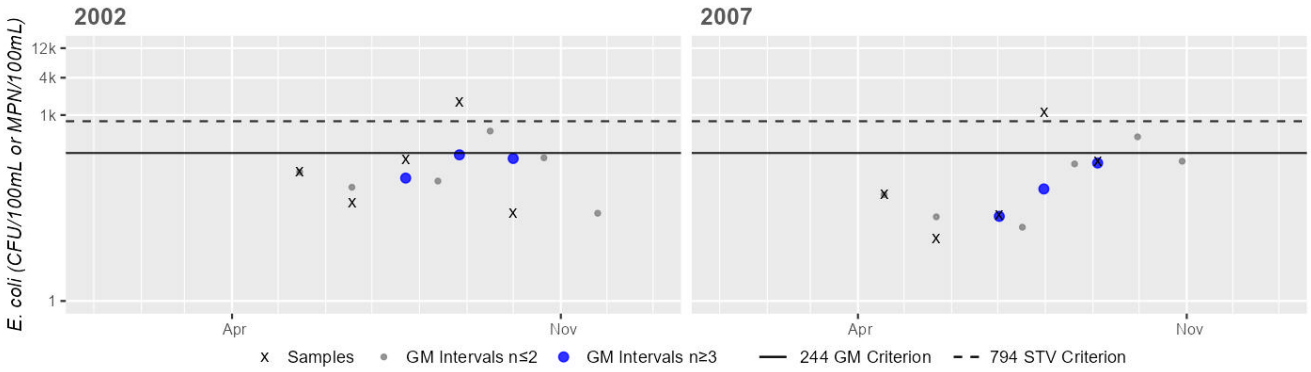
Variable*	Result
Samples	5
SeasGM	12
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

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

Station MASSDEP_W0905 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	129
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	5
SeasGM	75
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	20%

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.*

Ten Mile River (MA52-02)

Location:	West Bacon Street, Plainville to North Attleborough WWTP discharge (NPDES: MA0101036), Attleboro (excluding 0.9 miles through Falls Pond segment MA52013, but including through former 2006 segment: Wetherells Pond MA52041) (HQW qualifier applies to portion of river upstream of Whiting Pond Dam (NATID: MA00859)).
AU Type:	RIVER
AU Size:	4.1 MILES
Classification/Qualifier:	B: WWF, HQW* (*HQW qualifier applies to portion upstream of Whiting Pond Dam)

Ten Mile River (MA52-02)

Watershed Area: 11.00 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	11.00	6.40	4.16	2.95
Agriculture	0.9%	0.2%	0.6%	0%
Developed	38.7%	41.4%	31.8%	33.7%
Natural	51%	48.5%	50.3%	50.2%
Wetland	9.4%	9.9%	17.3%	16.1%
Impervious	19.1%	23.1%	16.7%	19%

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

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

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Metals	Contaminated Sediments (N)	X	--	--	--	--

Supporting Information for Removed Impairments

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

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Assessed	NO

2024/26 Use Attainment Summary
Although fish toxics sampling was conducted in this Ten Mile River AU (MA52-02) in 1984 near Cedar Road, Attleboro, no site-specific fish consumption advisory is in place, therefore the Fish Consumption Use for this Ten Mile River (MA52-02) is Not Assessed.

Aesthetic

2024/26 Use Attainment	Alert
Fully Supporting	NO

2024/26 Use Attainment Summary

The Aesthetics Use for Ten Mile River (MA52-02) is assessed as Fully Supporting based on the lack of objectionable conditions at any of the sites sampled by MassDEP staff in 2012, 2013, or 2015.
MassDEP staff recorded aesthetics observations along this Ten Mile River AU in North Attleboro at six stations from up to downstream as follows: North Washington Street (W2349; 2012 n=1, 2013 n=2); Fisher Street (W0904; 2013 n=2); downstream at Orne Street (W1594; 2013 n=3); just upstream of the culvert under Rt.1/Elm Street intersection (W2348; 2012 n=1, 2013 n=2); Rt.1 (W0169; 2015 n=2) and at the outlet of Falls Pond (W2589; 2015 n=2). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during any of the surveys at these stations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0169	MassDEP	Water Quality	Ten Mile River	[Route 1, North Attleborough]	41.974633	-71.329576
W0904	MassDEP	Water Quality	Ten Mile River	[Fisher Street, North Attleborough]	41.986132	-71.329522
W1594	MassDEP	Water Quality	Ten Mile River	[downstream at Orne Street, North Attleborough (this portion of the Ten Mile River not depicted on the 1987 USGS Attleboro quadrangle)]	41.982719	-71.328462
W2348	MassDEP	Water Quality	Ten Mile River	[just upstream of culvert under Route 1/Elm Street intersection, North Attleborough (this portion of the Ten Mile River not depicted on the 1987 USGS Attleboro quadrangle)]	41.981317	-71.329580
W2349	MassDEP	Water Quality	Ten Mile River	[North Washington Street, North Attleborough]	41.992433	-71.329822
W2589	MassDEP	Water Quality	Ten Mile River	[outlet of Falls Pond, just downstream of Mount Hope Street bridge, North Attleboro]	41.970938	-71.318217

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)
[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W0169	Ten Mile River	2015	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0169 on Ten Mile River (MA52-02) during 2 site visits in Jul 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W0904	Ten Mile River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0904 on Ten Mile River (MA52-02) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W1594	Ten Mile River	2013	3	Aesthetic observations were made by MassDEP field sampling crews at Station W1594 on Ten Mile River (MA52-02) during 3 site visits between Jun 2013 and Oct 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2348	Ten Mile River	2012	1	Aesthetic observations were made by MassDEP field sampling crews at Station W2348 on Ten Mile River (MA52-02) during 1 site visit on Aug 08, 2012. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2348	Ten Mile River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2348 on Ten Mile River (MA52-02) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2349	Ten Mile River	2012	1	Aesthetic observations were made by MassDEP field sampling crews at Station W2349 on Ten Mile River (MA52-02) during 1 site visit on Aug 08, 2012. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2349	Ten Mile River	2013	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2349 on Ten Mile River (MA52-02) during 2 site visits between Jun 2013 and Aug 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded. However, aesthetic observations are limited (n<3).
W2589	Ten Mile River	2015	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2589 on Ten Mile River (MA52-02) during 2 site visits in Jul 2015. 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 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W0169	2015	2	1	0
W0904	2013	2	2	0
W1594	2013	3	3	0
W2348	2012	1	1	0
W2348	2013	2	2	0
W2349	2012	1	1	0
W2349	2013	2	2	0
W2589	2015	2	2	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0169	Ten Mile River	2015	Color	None	2	2
W0169	Ten Mile River	2015	Odor	None	2	2
W0169	Ten Mile River	2015	Turbidity	Moderately Turbid	2	2
W0169	Ten Mile River	2015	Aquatic Plant Density, Overall	None	1	2
W0169	Ten Mile River	2015	Aquatic Plant Density, Overall	Sparse	1	2
W0169	Ten Mile River	2015	Periphyton Density, Filamentous	Unobservable	1	2
W0169	Ten Mile River	2015	Periphyton Density, Filamentous	None	1	2
W0169	Ten Mile River	2015	Periphyton Density, Film	Unobservable	1	2
W0169	Ten Mile River	2015	Periphyton Density, Film	Sparse	1	2
W0904	Ten Mile River	2013	Color	None	2	2
W0904	Ten Mile River	2013	Odor	None	2	2
W0904	Ten Mile River	2013	Turbidity	Slightly Turbid	2	2
W0904	Ten Mile River	2013	Aquatic Plant Density, Overall	Sparse	2	2
W0904	Ten Mile River	2013	Periphyton Density, Filamentous	Sparse	2	2
W0904	Ten Mile River	2013	Periphyton Density, Film	Sparse	1	2
W0904	Ten Mile River	2013	Periphyton Density, Film	Moderate	1	2
W1594	Ten Mile River	2013	Color	None	3	3
W1594	Ten Mile River	2013	Odor	None	3	3
W1594	Ten Mile River	2013	Turbidity	Slightly Turbid	3	3
W1594	Ten Mile River	2013	Aquatic Plant Density, Overall	Sparse	2	3
W1594	Ten Mile River	2013	Aquatic Plant Density, Overall	Moderate	1	3
W1594	Ten Mile River	2013	Periphyton Density, Filamentous	None	3	3
W1594	Ten Mile River	2013	Periphyton Density, Film	None	2	3
W1594	Ten Mile River	2013	Periphyton Density, Film	Sparse	1	3
W2348	Ten Mile River	2012	Color	None	1	1
W2348	Ten Mile River	2012	Odor	None	1	1
W2348	Ten Mile River	2012	Turbidity	Slightly Turbid	1	1
W2348	Ten Mile River	2013	Color	None	2	2
W2348	Ten Mile River	2013	Odor	None	2	2
W2348	Ten Mile River	2013	Turbidity	Slightly Turbid	2	2
W2348	Ten Mile River	2012	Aquatic Plant Density, Overall	Sparse	1	1
W2348	Ten Mile River	2013	Aquatic Plant Density, Overall	Sparse	1	2
W2348	Ten Mile River	2013	Aquatic Plant Density, Overall	Moderate	1	2
W2348	Ten Mile River	2012	Periphyton Density, Filamentous	None	1	1
W2348	Ten Mile River	2012	Periphyton Density, Film	Sparse	1	1
W2348	Ten Mile River	2013	Periphyton Density, Filamentous	None	2	2
W2348	Ten Mile River	2013	Periphyton Density, Film	None	2	2
W2349	Ten Mile River	2012	Color	None	1	1
W2349	Ten Mile River	2012	Odor	None	1	1
W2349	Ten Mile River	2012	Turbidity	Slightly Turbid	1	1
W2349	Ten Mile River	2013	Color	None	2	2
W2349	Ten Mile River	2013	Odor	None	2	2
W2349	Ten Mile River	2013	Turbidity	Slightly Turbid	2	2
W2349	Ten Mile River	2012	Aquatic Plant Density, Overall	Sparse	1	1
W2349	Ten Mile River	2013	Aquatic Plant Density, Overall	None	2	2

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2349	Ten Mile River	2012	Periphyton Density, Filamentous	None	1	1
W2349	Ten Mile River	2012	Periphyton Density, Film	Sparse	1	1
W2349	Ten Mile River	2013	Periphyton Density, Filamentous	None	2	2
W2349	Ten Mile River	2013	Periphyton Density, Film	None	2	2
W2589	Ten Mile River	2015	Color	None	2	2
W2589	Ten Mile River	2015	Odor	None	2	2
W2589	Ten Mile River	2015	Turbidity	Slightly Turbid	2	2
W2589	Ten Mile River	2015	Aquatic Plant Density, Overall	None	2	2
W2589	Ten Mile River	2015	Periphyton Density, Filamentous	None	2	2
W2589	Ten Mile River	2015	Periphyton Density, Film	Sparse	2	2

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreational Use for this Ten Mile River AU (MA52-02) will continue to be assessed as Not Supporting, with the *Escherichia Coli* (*E. Coli*) and Fecal Coliform impairments being carried forward.

E. coli (and occasionally Enterococcus) bacteria samples were collected (1 to 3 times per year) by MassDEP staff from this Ten Mile River AU between 2012 and 2015 at the following sampling stations (data years): North Washington Street (W2349, 2012 & 2013); Fisher Street (W0904, 2013); downstream at Orne Street (W1594, 2013); just upstream of the culvert under Rt.1/Elm Street intersection (W2348, 2012 & 2013); Rt.1 (W0169, 2015) and at the outlet of Falls Pond (W2589, 2015). Analysis of this low frequency multi-year dataset indicated insufficient samples to calculate usable GMs i.e., there were never more than two samples within a 90-day GM interval. However, six out of the fifteen *E. coli* samples exceed the 410 CFU/100ml STV with seasonal GMs ranging 54-921 CFU/100ml; and both Enterococcus samples exceed the 130 CFU/100ml STV, with a max of 250 CFU/100ml just upstream of the culvert under Rt.1/Elm Street (W2348). MassDEP staff also conducted Bacteria Source Tracking (BST) work between 2011 and 2013 at six sites along this Ten Mile River AU. Despite the identification of hotspot areas, human marker analysis in 2012 was “inconclusive” and no correctable source was ever found. Too limited data are available to assess the Primary Recreational Use for this Ten Mile River AU (MA52-02) according to the 2024 CALM.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0169	MassDEP	Water Quality	Ten Mile River	[Route 1, North Attleborough]	41.974633	-71.329576

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0904	MassDEP	Water Quality	Ten Mile River	[Fisher Street, North Attleborough]	41.986132	-71.329522
W1594	MassDEP	Water Quality	Ten Mile River	[downstream at Orne Street, North Attleborough (this portion of the Ten Mile River not depicted on the 1987 USGS Attleboro quadrangle)]	41.982719	-71.328462
W2348	MassDEP	Water Quality	Ten Mile River	[just upstream of culvert under Route 1/Elm Street intersection, North Attleborough (this portion of the Ten Mile River not depicted on the 1987 USGS Attleboro quadrangle)]	41.981317	-71.329580
W2349	MassDEP	Water Quality	Ten Mile River	[North Washington Street, North Attleborough]	41.992433	-71.329822
W2589	MassDEP	Water Quality	Ten Mile River	[outlet of Falls Pond, just downstream of Mount Hope Street bridge, North Attleboro]	41.970938	-71.318217

Bacteria Data

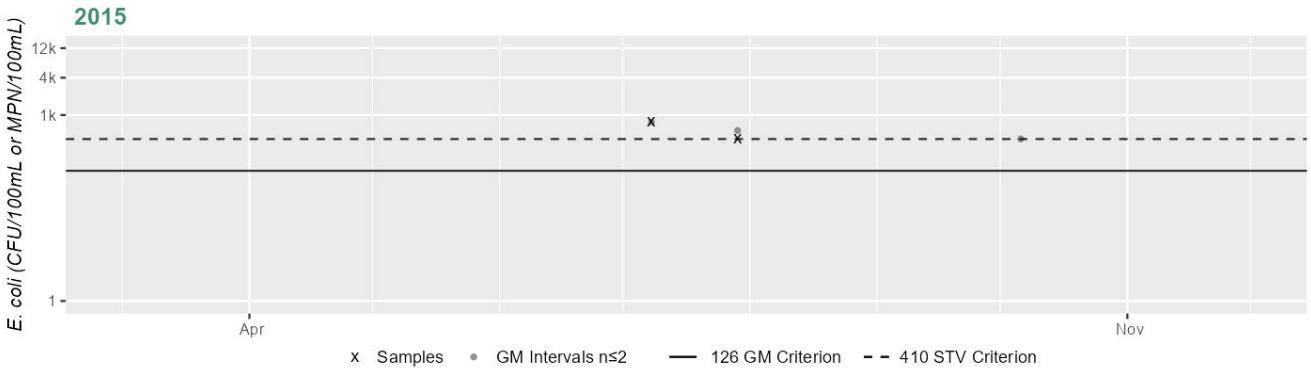
Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis) (MassDEP Undated 7) (MassDEP Undated 4)

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0169	MassDEP	E. coli	07/08/15	07/29/15	2	411	770	562
W0904	MassDEP	E. coli	06/26/13	08/07/13	2	88	236	144
W1594	MassDEP	E. coli	06/26/13	10/16/13	3	102	649	190
W2348	MassDEP	E. coli	08/08/12	08/08/12	1	770	770	769
W2348	MassDEP	Enterococci	09/26/12	09/26/12	1	250	250	249
W2348	MassDEP	E. coli	06/26/13	08/07/13	2	128	548	264
W2349	MassDEP	E. coli	08/08/12	08/08/12	1	921	921	921
W2349	MassDEP	Enterococci	08/22/12	08/22/12	1	160	160	159
W2349	MassDEP	E. coli	06/26/13	08/07/13	2	82	172	118
W2589	MassDEP	E. coli	07/08/15	07/29/15	2	53	55	53

Station MASSDEP_W0169 - Escherichia coli

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



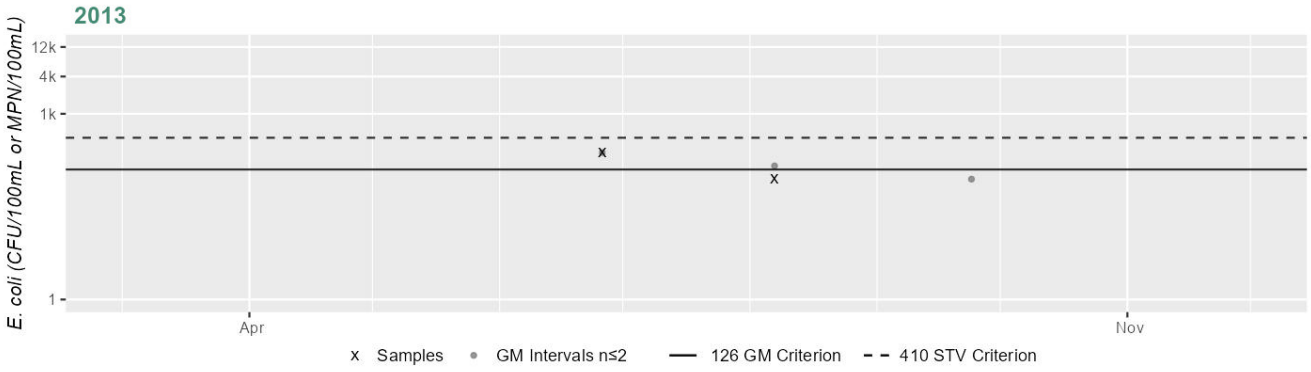
Variable*	Result
Samples	2
SeasGM	562
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	2
%n>STV	100%

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.*

Station MASSDEP_W0904 - Escherichia coli

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



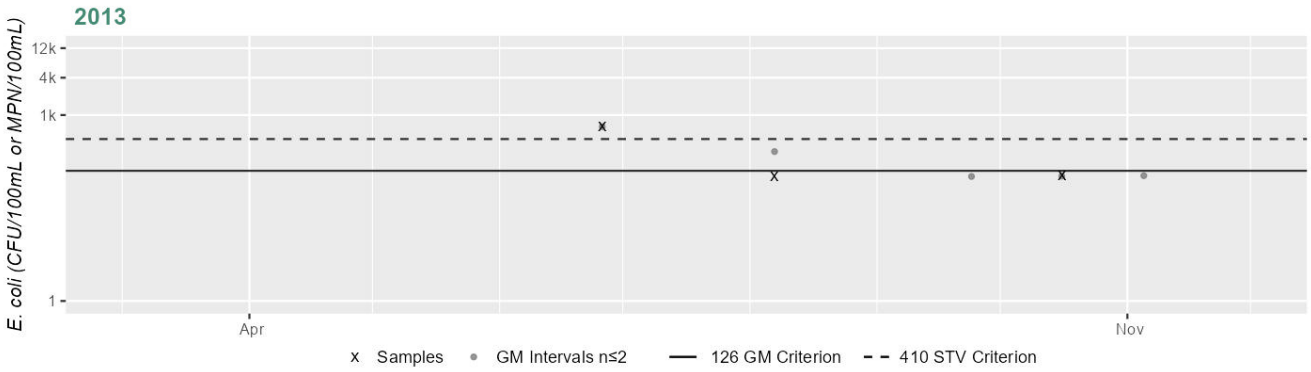
Variable*	Result
Samples	2
SeasGM	144
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W1594 - Escherichia coli

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



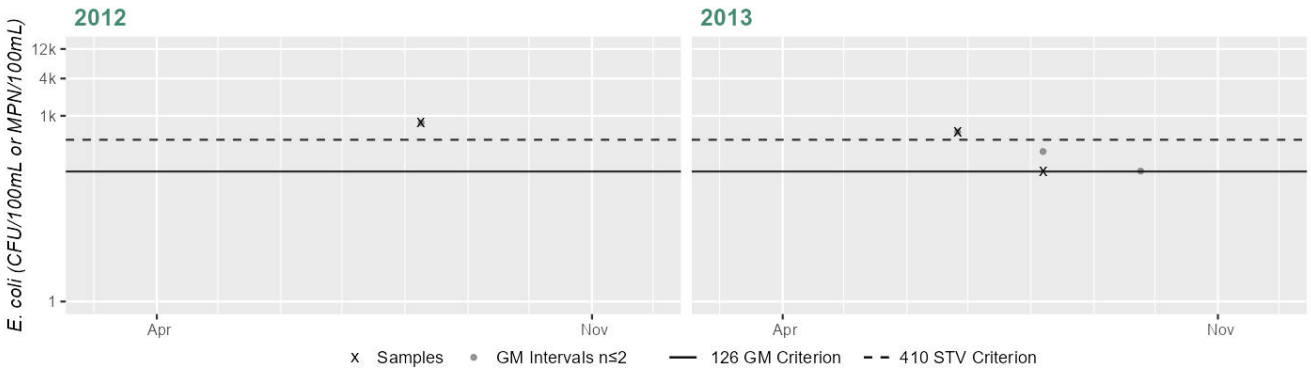
Variable*	Result
Samples	3
SeasGM	190
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	33%

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_W2348 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	770
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

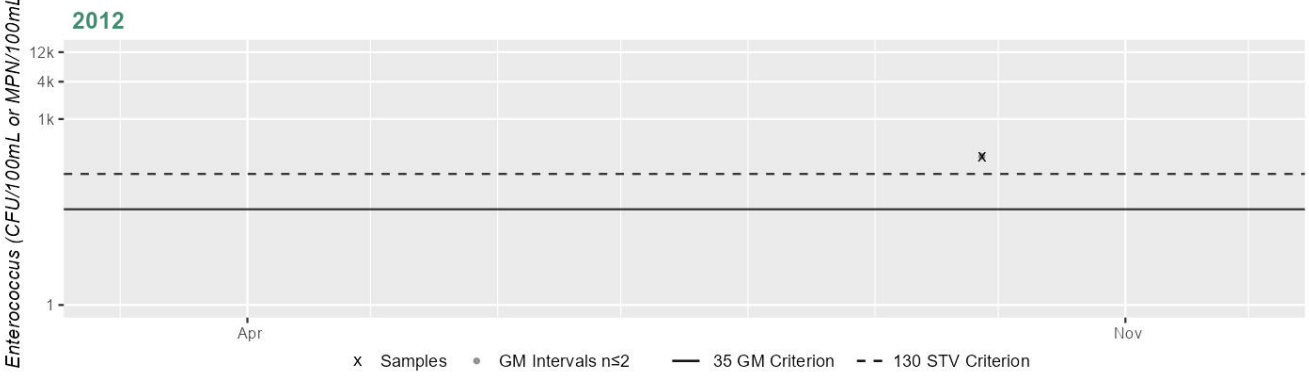
Variable*	Result
Samples	2
SeasGM	264
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	50%

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_W2348 - Enterococcus

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



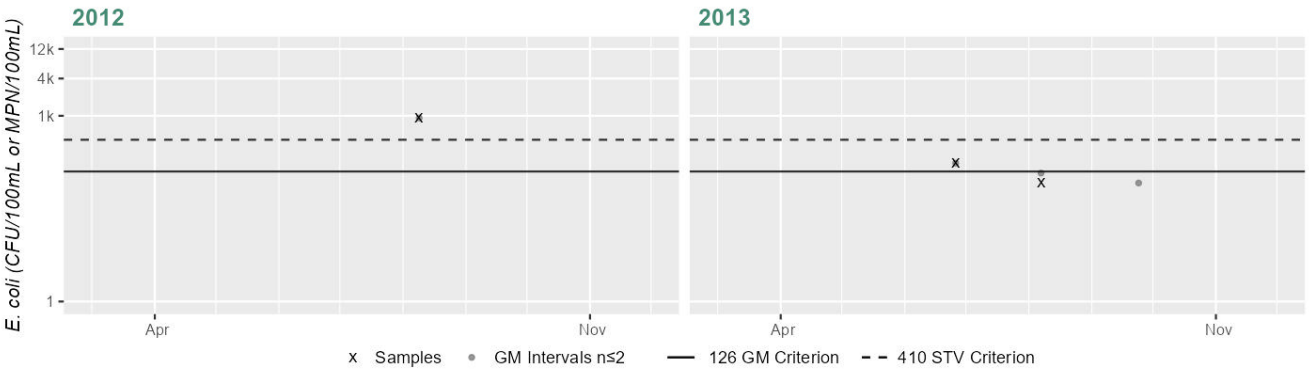
Variable*	Result
Samples	1
SeasGM	250
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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_W2349 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	921
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

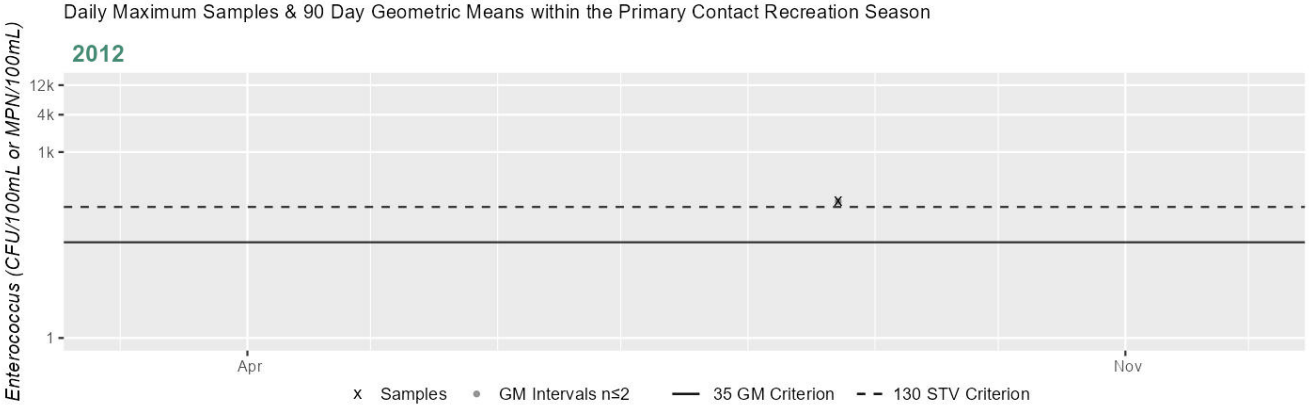
Variable*	Result
Samples	2
SeasGM	118
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2349 - Enterococcus

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



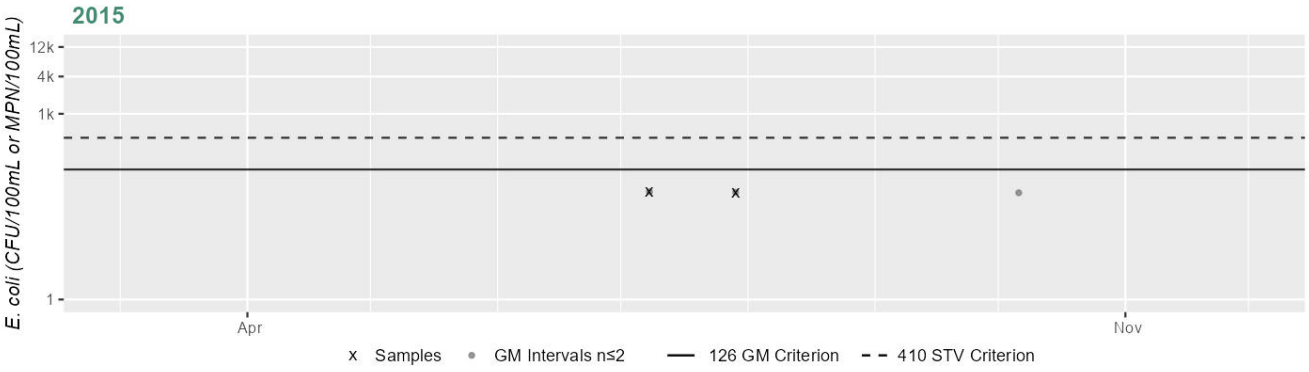
Variable*	Result
Samples	1
SeasGM	160
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

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_W2589 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	53
#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.*

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

Summary
Prior to 2011, BST work was conducted along the Ten Mile River AU (MA52-02), with a max E.coli concentration of 1,733MPN. Additional BST work was conducted between 2011 and 2013 years at 6 sites along the Ten Mile River, with E.coli concentrations ranging 82 to 921MPN. Despite the identification of hotspot areas, human marker analysis in 2012 was “inconclusive”. No correctable source was ever found. BST samples were also collected along the shore at Whiting Pond (n=4) (tributary to this Ten Mile River AU) in 2015. At Whiting Pond a great number of waterfowl and waterfowl fecal matter were observed on the Town beach, which was most likely to be a source of bacteria at this location.

Secondary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Secondary Contact Recreational Use for Ten Mile River (MA52-02) is assessed as Not Supporting, since the reevaluation of historic *E. coli* data collected by the MassDEP staff at Fisher Street in 2002 and at Rt.1 in 2002 & 2007 exceeded the 2024 CALM impairment thresholds. An *Escherichia Coli* (*E. Coli*) impairment is being added. *E. coli* bacteria samples were collected by MassDEP staff from this Ten Mile River AU at seven sampling stations in North Attleboro; historically in 1997, 2002, 2007 as well as in the current IR window 2012, 2013 & 2015. Samples were collected at the following stations, data years: North Washington Street (W2349, 2012-2013 n=1-2/yr), Fisher Street (W0904, 2002 n=5 & 2013 n=2); downstream at Orne Street (W1594, 2007 n=5 & 2013 n=3); just upstream of the culvert under Rt.1/Elm Street intersection (W2348, 2012-2013 n=1-2/yr); Rt.1 (W0169, 1997 n=2, 2002 n=5, 2007 n=5 & 2015 n=2), at the outlet of Falls Pond (W2589, 2015 n=2) and at Cedar Road (W0170, 1997 n=2, 2002 n=5, 2007 n=5). Where enough data were available for analysis according to the 2024 CALM i.e. some of the historical data only; analysis of the single and multi-year limited-moderate frequency *E. coli* datasets was sometimes indicative of poor water quality conditions (elevated bacteria) in the middle of the AU. While the single year analysis for station W1594 (2007) and multi-year analysis for station W0170 (2002 & 2007) did not exceed the 2024 CALM impairment thresholds; at station W0904 the single year analysis for 2002 indicates 100% of intervals had GMs >244 CFU/100ml and at station W0169 the multi-year analysis for 2002 and 2007 indicates 33% and 100% of GM intervals >244 CFU/100ml and 66% of the cumulative intervals had GMs >244 CFU/100ml. MassDEP staff also conducted Bacteria Source Tracking (BST) work between 2011 and 2013 at six sites along this Ten Mile River AU. Despite the identification of hotspot areas, human marker analysis in 2012 was “inconclusive” and no correctable source was ever found.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0169	MassDEP	Water Quality	Ten Mile River	[Route 1, North Attleborough]	41.974633	-71.329576
W0170	MassDEP	Water Quality	Ten Mile River	[Cedar Road, North Attleborough (approximately 850 feet upstream of North Attleborough WWTP discharge, NPDES # MA0101036)]	41.960961	-71.307572
W0904	MassDEP	Water Quality	Ten Mile River	[Fisher Street, North Attleborough]	41.986132	-71.329522
W1594	MassDEP	Water Quality	Ten Mile River	[downstream at Orne Street, North Attleborough (this portion of the Ten Mile River not depicted on the 1987 USGS Attleboro quadrangle)]	41.982719	-71.328462
W2348	MassDEP	Water Quality	Ten Mile River	[just upstream of culvert under Route 1/Elm Street intersection, North Attleborough (this portion of the Ten Mile River not depicted on the 1987 USGS Attleboro quadrangle)]	41.981317	-71.329580
W2349	MassDEP	Water Quality	Ten Mile River	[North Washington Street, North Attleborough]	41.992433	-71.329822
W2589	MassDEP	Water Quality	Ten Mile River	[outlet of Falls Pond, just downstream of Mount Hope Street bridge, North Attleboro]	41.970938	-71.318217

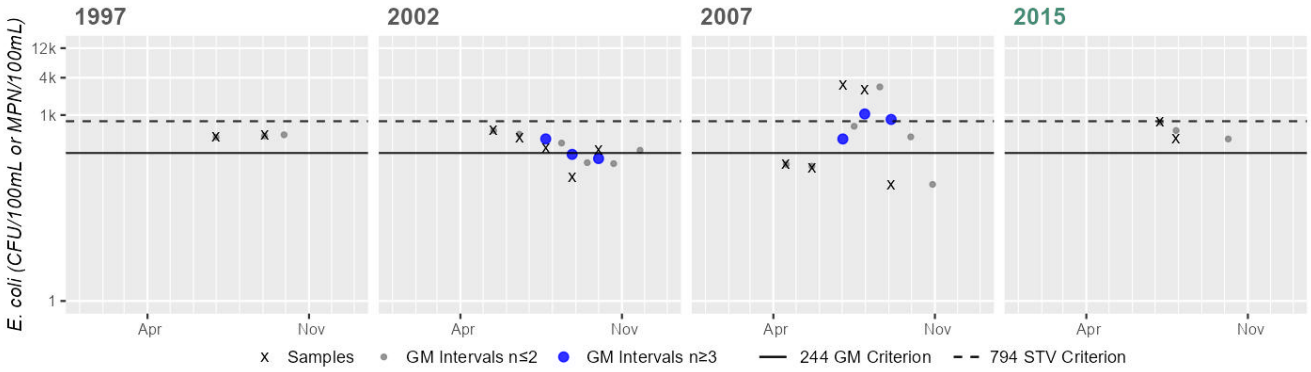
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0169	MassDEP	E. coli	07/01/97	09/03/97	2	440	480	459
W0169	MassDEP	E. coli	05/15/02	10/01/02	5	100	560	285
W0169	MassDEP	E. coli	04/18/07	09/04/07	5	76	3100	424
W0169	MassDEP	E. coli	07/08/15	07/29/15	2	411	770	562
W0170	MassDEP	E. coli	07/01/97	09/03/97	2	80	100	89
W0170	MassDEP	E. coli	05/15/02	10/01/02	5	84	230	140
W0170	MassDEP	E. coli	04/18/07	09/04/07	5	71	320	175
W0904	MassDEP	E. coli	05/15/02	10/01/02	5	150	2200	464
W0904	MassDEP	E. coli	06/26/13	08/07/13	2	88	236	144
W1594	MassDEP	E. coli	04/18/07	09/04/07	5	95	3700	406
W1594	MassDEP	E. coli	06/26/13	10/16/13	3	102	649	190
W2348	MassDEP	E. coli	08/08/12	08/08/12	1	770	770	769
W2348	MassDEP	E. coli	06/26/13	08/07/13	2	128	548	264
W2349	MassDEP	E. coli	08/08/12	08/08/12	1	921	921	921
W2349	MassDEP	E. coli	06/26/13	08/07/13	2	82	172	118
W2589	MassDEP	E. coli	07/08/15	07/29/15	2	53	55	53

Station MASSDEP_W0169 - 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%

Variable*	Result
Samples	5
SeasGM	285
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	424
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	2
%n>STV	40%

Variable*	Result
Samples	2
SeasGM	562
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

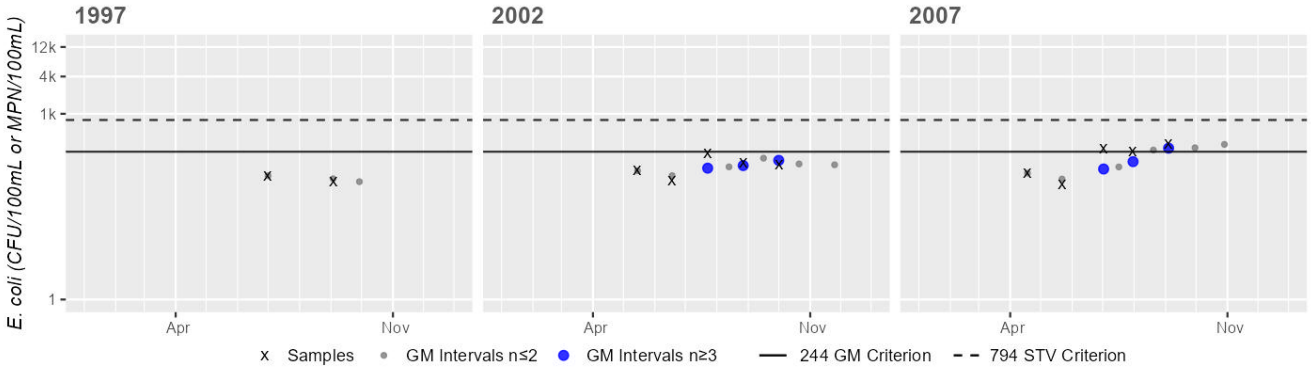
Cumulative %GMI Exceedance
Historic (1997-2010)
66%

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_W0170 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	89
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	140
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

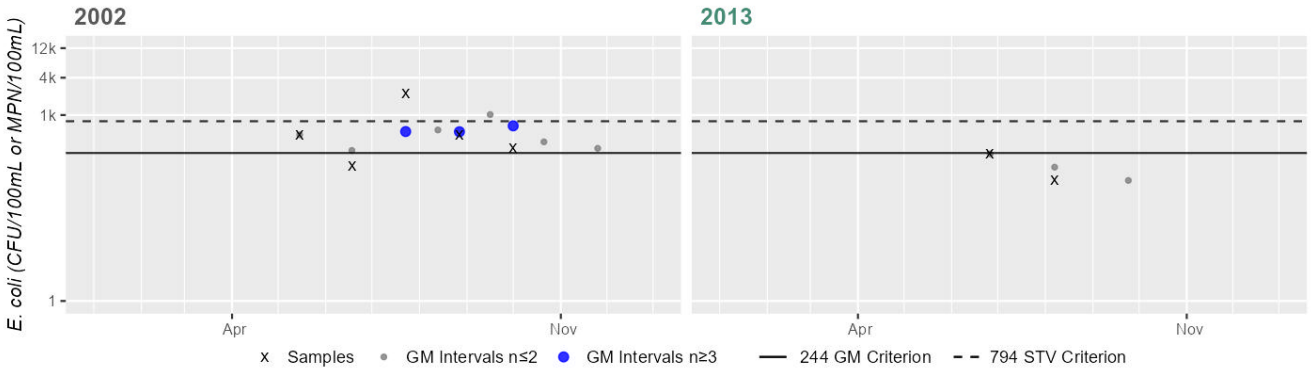
Variable*	Result
Samples	5
SeasGM	175
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	0
%n>STV	0%

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

Station MASSDEP_W0904 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	464
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	2
SeasGM	144
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

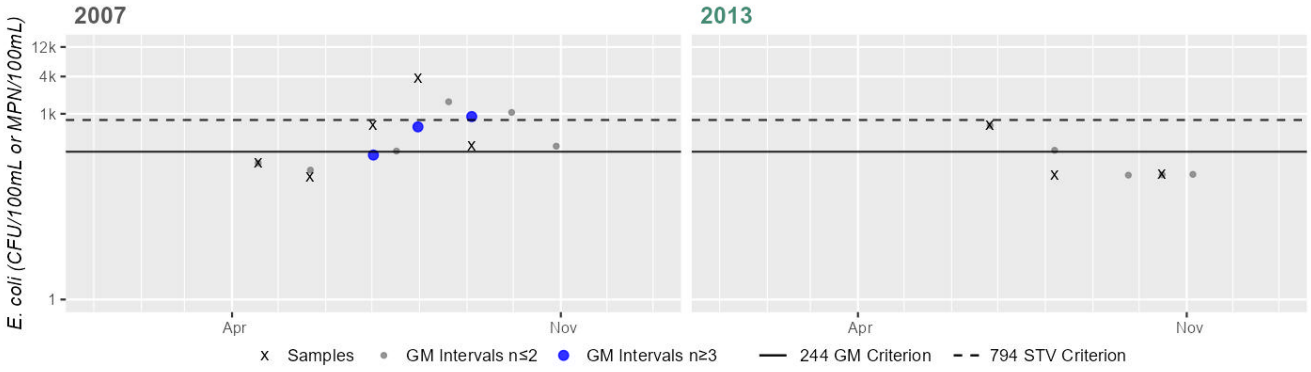
Cumulative %GMI Exceedance Historic (1997-2010)
100%

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_W1594 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	406
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

Variable*	Result
Samples	3
SeasGM	190
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

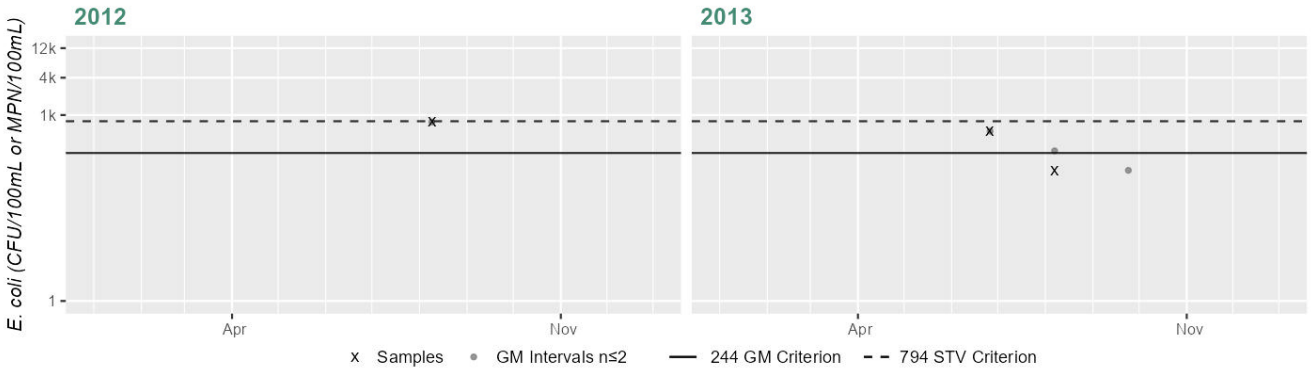
Cumulative %GMI Exceedance Historic (1997-2010)
66%

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_W2348 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	770
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

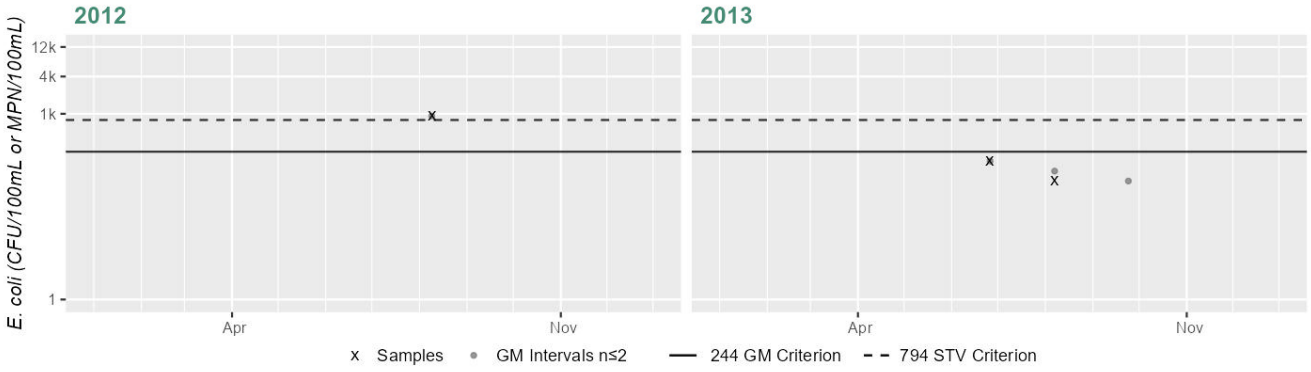
Variable*	Result
Samples	2
SeasGM	264
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2349 - Escherichia coli

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



Variable*	Result
Samples	1
SeasGM	921
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	1
%n>STV	100%

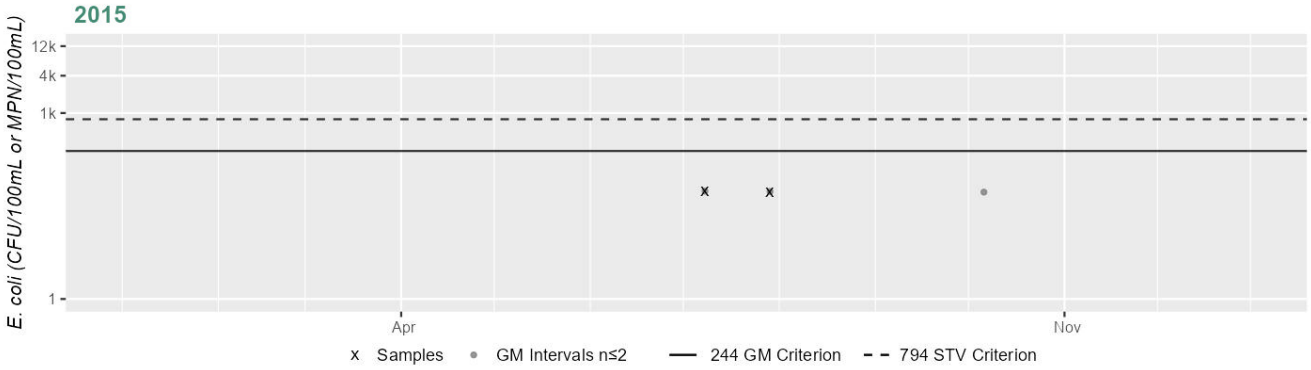
Variable*	Result
Samples	2
SeasGM	118
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2589 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	53
#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.*

Ten Mile River (MA52-03)

Location:	North Attleborough WWTP discharge (NPDES: MA0101036), Attleboro to the MA/RI border near Central Avenue, Seekonk, MA/Pawtucket, RI (through former 2006 segments: Farmers Pond MA52015, Mechanics Pond MA52027, Dodgeville Pond MA52011, Hebronville Pond MA52020).
AU Type:	RIVER
AU Size:	9.1 MILES
Classification/Qualifier:	B: WWF

Ten Mile River (MA52-03)

Watershed Area: 41.90 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area* (square miles)	41.78	9.76	17.72	4.16
Agriculture	1.8%	1.5%	2.2%	1.4%
Developed	34.5%	38.7%	25%	28.2%
Natural	49.3%	45.5%	49.9%	45.7%
Wetland	14.4%	14.3%	23%	24.6%
Impervious	18.1%	19.1%	12.7%	12.9%

**Land cover analysis only includes watershed area within Massachusetts.*

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	(Aquatic Plants (Macrophytes)*)	--	Unchanged
5	5	(Water Chestnut*)	--	Unchanged
5	5	Algae	--	Unchanged
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Chlordane in Fish Tissue	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Fecal Coliform	R1_MA_2024_04	Changed
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Organic Enrichment (Sewage) Biological Indicators	--	Unchanged
5	5	Phosphorus, Total	--	Unchanged
5	5	Unspecified Metals in Sediment	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Aquatic Plants (Macrophytes)*)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
(Aquatic Plants (Macrophytes)*)	Municipal Point Source Discharges (Y)	X	--	X	X	X
(Water Chestnut*)	Introduction of Non-native Organisms (Accidental or Intentional) (Y)	X	--	--	--	--
Algae	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
Algae	Municipal Point Source Discharges (Y)	X	--	X	X	X
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Chlordane in Fish Tissue	Source Unknown (N)	--	X	--	--	--
Dissolved Oxygen	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Dissolved Oxygen	Municipal Point Source Discharges (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	Municipal Point Source Discharges (Y)	--	--	--	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	--
Fecal Coliform	Municipal Point Source Discharges (Y)	--	--	--	X	--
Nutrient/Eutrophication Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Municipal Point Source Discharges (Y)	X	--	X	X	X
Organic Enrichment (Sewage) Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Organic Enrichment (Sewage) Biological Indicators	Municipal Point Source Discharges (Y)	X	--	--	--	--
Phosphorus, Total	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	X	--	--	--	--
Phosphorus, Total	Municipal Point Source Discharges (Y)	X	--	--	--	--
Unspecified Metals in Sediment	Contaminated Sediments (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)

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

Recommendations

2024/26 Recommendations
2024/2026 IR [Aesthetics, Low Priority] Conduct an aesthetics survey of the Ten Mile River (MA52-03) to clarify the presence of trash at Olive Street {W0172} as well as dense duckweed and filamentous algae cover within the impoundment {W2210}.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary
The Fish Consumption Use for this Ten Mile River AU (MA52-03) continues to be assessed as Not Supporting and the prior Chlordane in Fish Tissue impairment is being carried forward. MA DPH included a site-specific advisory for Ten Mile River (referred to by MA DPH as ''Mechanics Pond, Dodgeville Pond, and the section of the Ten Mile River that connects them'') in their January 2025 Freshwater Fish Consumption Advisory List. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations.

Aesthetic

2024/26 Use Attainment	Alert
Not Supporting	YES

2024/26 Use Attainment Summary

The Aesthetics Use for Ten Mile River (MA52-03) will continue to be assessed as Not Supporting with the Algae, Nutrient/Eutrophication Biological indicators, and Aquatic Plants (Macrophytes) impairments being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Aesthetics Use but will continue to be maintained under the Aquatic Life Use. The prior Alert identified for trash in the middle of the AU in the river at Olive Street (W0172) (MassDEP Undated 6) in 2007 will also be carried forward, since this location was not observed in 2011.

MassDEP staff recorded aesthetics observations as part of the MAP2 monitoring project in summer 2011, close to the downstream end of this Ten Mile River AU, approximately 2780 feet downstream from Pond Street, Seekonk (W2210/MAP2-068). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during the surveys (n=6). However, because this sampling station was not located in the impounded reaches of the river, where dense duckweed and filamentous algae cover were originally documented during a 2002 synoptic survey conducted by DEP staff, it cannot be confirmed if these objectionable conditions continue to impair the aesthetics in that section of the Ten Mile River.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2210	MassDEP	Water Quality	Ten Mile River	[approximately 2780 feet downstream from Pond Street, Seekonk]	41.896400	-71.333215

Aesthetic Observations

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

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

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2210	Ten Mile River	2011	6	Aesthetic observations were made by MassDEP field sampling crews at Station W2210 on Ten Mile River (MA52-03) during 6 site visits between May 2011 and Sep 2011. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

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

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2210	2011	6	5	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2210	Ten Mile River	2011	Color	Light Yellow/Tan	6	6
W2210	Ten Mile River	2011	Odor	None	4	6
W2210	Ten Mile River	2011	Odor	Musty (Basement)	2	6
W2210	Ten Mile River	2011	Turbidity	None	1	6
W2210	Ten Mile River	2011	Turbidity	Slightly Turbid	5	6
W2210	Ten Mile River	2011	Objectionable Deposits	No	5	6
W2210	Ten Mile River	2011	Objectionable Deposits	Yes	1	6
W2210	Ten Mile River	2011	Scum	No	6	6
W2210	Ten Mile River	2011	Aquatic Plant Density, Overall	Unobservable	1	6
W2210	Ten Mile River	2011	Aquatic Plant Density, Overall	None	5	6
W2210	Ten Mile River	2011	Periphyton Density, Filamentous	Unobservable	1	6
W2210	Ten Mile River	2011	Periphyton Density, Filamentous	None	5	6
W2210	Ten Mile River	2011	Periphyton Density, Film	Unobservable	1	6
W2210	Ten Mile River	2011	Periphyton Density, Film	None	4	6
W2210	Ten Mile River	2011	Periphyton Density, Film	Sparse	1	6

Primary Contact Recreation

2024/26 Use Attainment	Alert
Not Supporting	NO

2024/26 Use Attainment Summary

The Primary Contact Recreational Use for this Ten Mile River AU (MA52-03) will continue to be assessed as Not Supporting with the Algae, Aquatic Plants (Macrophytes), Nutrient/Eutrophication Biological indicators, *E. Coli*, and Fecal Coliform impairments being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Primary Contact Recreational Use but will continue to be maintained under the Aquatic Life Use. The Alert for trash is being removed from the recreational uses but will continue to be maintained under the Aesthetics Use.

E. coli bacteria samples were collected by MassDEP staff approximately 2780 feet downstream from Pond Street, Seekonk (W2210) six times during the summer of 2011. Analysis of this single year limited frequency data indicated 100% of intervals had GMs >126 CFU/100ml and a seasonal GM of 233 CFU/100ml. Although there were generally no objectionable conditions observed at station W2210 in 2011, this sampling station was not located in the impounded reaches of the river where aesthetics problems were originally documented.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2210	MassDEP	Water Quality	Ten Mile River	[approximately 2780 feet downstream from Pond Street, Seekonk]	41.896400	-71.333215

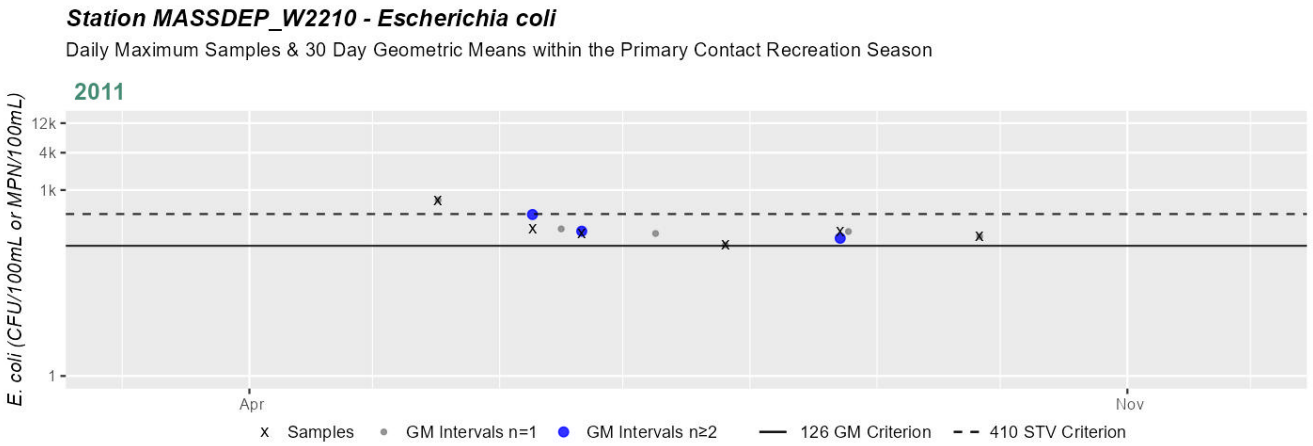
Bacteria Data

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

(MassDEP Undated 7) (MassDEP Undated 4)

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2210	MassDEP	E. coli	05/17/11	09/26/11	6	130	687	232



Variable*	Result
Samples	6
SeasGM	232
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	16%

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 Recreational Use for Ten Mile River (MA52-03) is assessed as Not Supporting since the reevaluation of historic *E. coli* data collected by MassDEP staff at Pond Street (W0175) in 2002 & 2007 exceeded the 2024 CALM impairment thresholds. An *Escherichia Coli* (*E. Coli*) impairment is being added. The Algae, Aquatic Plants (Macrophytes) and Nutrient/Eutrophication Biological indicators impairments are being carried forward. Since the Total Phosphorus impairment was redundantly duplicated across multiple uses for this waterbody, the Total Phosphorus impairment is being removed from the Secondary Contact Recreational Use but will continue to be maintained under the Aquatic Life Use. The Alert for trash is being removed from the recreational uses but will continue to be maintained under the Aesthetics Use.

E. coli bacteria samples were collected by MassDEP staff from this Ten Mile River AU at ten sampling stations in Attleboro/Seekonk; historically in 1997, 2002, 2007 as well as within the current IR window in 2011. Samples were collected at the following stations and data years: ~500 feet downstream of North Attleborough WWTP (MA0101036) discharge (W0903, 2002 n=5), ~900 feet downstream of North Attleborough WWTP discharge (W1595, 2007 n=4), ~2100 feet downstream of North Attleborough WWTP discharge (W1577, 2007 n=1), 200 yards downstream of Rt. 95 (off Woodcock Lane) (W0171, 1997 n=2), Olive Street (W0172, 1997 n=2, 2002 n=5 & 2007 n=5), Tiffany Street (W0173, 1997 n=2, 2002 n=5 & 2007 n=5), 200 yards downstream of Bridge Street (W0174, 1997 n=2), Pond Street (W0175, 1997 n=2, 2002 n=5 & 2007 n=5), ~2780 feet downstream from Pond Street (W2210, 2011 n=6) and Central Avenue, Seekonk Massachusetts/Pawtucket, Rhode Island (~1/2 mile downstream of Attleboro WWTP discharge) (W0176, 1997 n=2, 2002 n=5 & 2007 n=5).

Where enough data were available according to the 2024 CALM, analysis of the historical single and multi-year limited-moderate frequency *E. coli* datasets were usually indicative of good water quality conditions, however the exception was historically at Pond Street (W0175) where the multi-year analysis for 2002 and 2007 indicates 100% and 66% of GM intervals respectively being >244 CFU/100ml and 83% of the cumulative intervals had GMs >244 CFU/100ml. The only station sampled during the current IR window was W2210, where the single year analysis for 2011 indicates 33% of intervals had GMs >244 CFU/100ml, 0 samples exceeding the 794 STV criterion and the seasonal GM was 232 CFU/100ml. Despite analysis of data collected at W2210 in the current IR window being indicative of good conditions, there were no samples collected at Pond Street (W0175) in the current IR window, so it cannot be determined if conditions have improved in that area of the AU. Although there were generally no objectionable conditions observed at station W2210 in 2011, this sampling station was not located in the impounded reaches of the river where water quality problems are more evident (based on data at Pond Street in 2002 and 2007).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0171	MassDEP	Water Quality	Ten Mile River	[200 yards downstream of Route 95 (off Woodcock Lane), Attleboro]	41.951307	-71.304517

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0172	MassDEP	Water Quality	Ten Mile River	[Olive Street, Attleboro]	41.937422	-71.290266
W0173	MassDEP	Water Quality	Ten Mile River	[Tiffany Street , Attleboro]	41.917826	-71.305838
W0174	MassDEP	Water Quality	Ten Mile River	[200 yards downstream of Bridge Street (between Old Mill apartment - upstream of railroad - southeast of Read Street), Attleboro]	41.904335	-71.321004
W0175	MassDEP	Water Quality	Ten Mile River	[Pond Street, Seekonk]	41.896093	-71.325765
W0176	MassDEP	Water Quality	Ten Mile River	[Central Avenue, Seekonk Massachusetts/Pawtucket, Rhode Island (approximately 1/2 mile downstream of Attleboro WWTP discharge, NPDES # MA0100595)]	41.890269	-71.340114
W0903	MassDEP	Water Quality	Ten Mile River	[east off Clifton Street (behind house #355), Attleboro (approximately 500 feet downstream of North Attleborough WWTP (MA0101036) discharge)]	41.957664	-71.308625
W1577	MassDEP	Water Quality	Ten Mile River	[east of the Deanville Road off of Clifton Street, Attleboro (approximately 2100 feet downstream of the North Attleborough WWTP (MA0101036) discharge)]	41.953262	-71.307813
W1595	MassDEP	Water Quality	Ten Mile River	[east off Clifton Street (approximately 900 feet downstream of North Attleborough WWTP (MA0101036) discharge), Attleboro]	41.956613	-71.308450
W2210	MassDEP	Water Quality	Ten Mile River	[approximately 2780 feet downstream from Pond Street, Seekonk]	41.896400	-71.333215

Bacteria Data

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

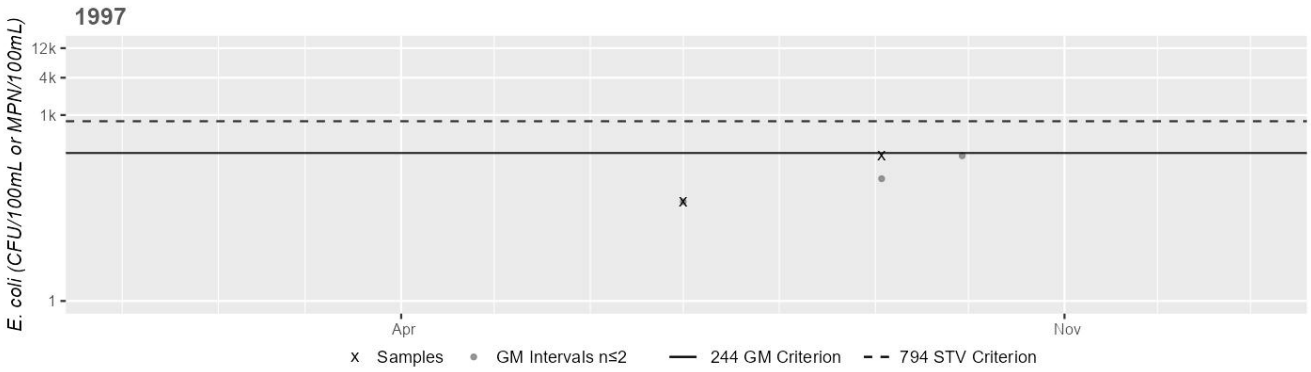
(MassDEP Undated 7) (MassDEP Undated 3)

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0171	MassDEP	E. coli	07/01/97	09/03/97	2	40	220	93
W0172	MassDEP	E. coli	07/01/97	09/03/97	2	160	280	211
W0172	MassDEP	E. coli	05/15/02	10/01/02	5	19	200	82
W0172	MassDEP	E. coli	04/18/07	09/04/07	5	62	640	159
W0173	MassDEP	E. coli	07/01/97	09/03/97	2	20	40	28
W0173	MassDEP	E. coli	05/15/02	10/01/02	5	32	370	108
W0173	MassDEP	E. coli	04/18/07	09/04/07	5	71	880	219
W0174	MassDEP	E. coli	07/01/97	09/03/97	2	100	120	109
W0175	MassDEP	E. coli	07/01/97	09/03/97	2	120	120	119
W0175	MassDEP	E. coli	05/15/02	10/01/02	5	140	590	309
W0175	MassDEP	E. coli	04/18/07	09/04/07	5	76	2900	233
W0176	MassDEP	E. coli	07/01/97	09/03/97	2	200	240	219
W0176	MassDEP	E. coli	05/15/02	10/01/02	5	58	370	157
W0176	MassDEP	E. coli	04/18/07	09/04/07	5	170	880	292
W0903	MassDEP	E. coli	05/15/02	10/01/02	5	6	380	54
W1577	MassDEP	E. coli	04/18/07	04/18/07	1	100	100	100
W1595	MassDEP	E. coli	05/22/07	09/04/07	4	43	620	132
W2210	MassDEP	E. coli	05/17/11	09/26/11	6	130	687	232

Station MASSDEP_W0171 - Escherichia coli

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



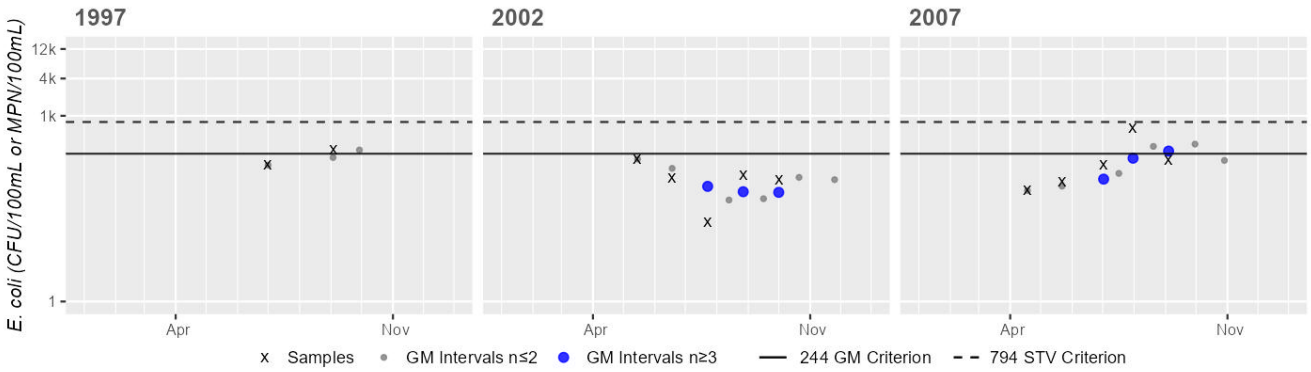
Variable*	Result
Samples	2
SeasGM	93
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W0172 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	211
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	82
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

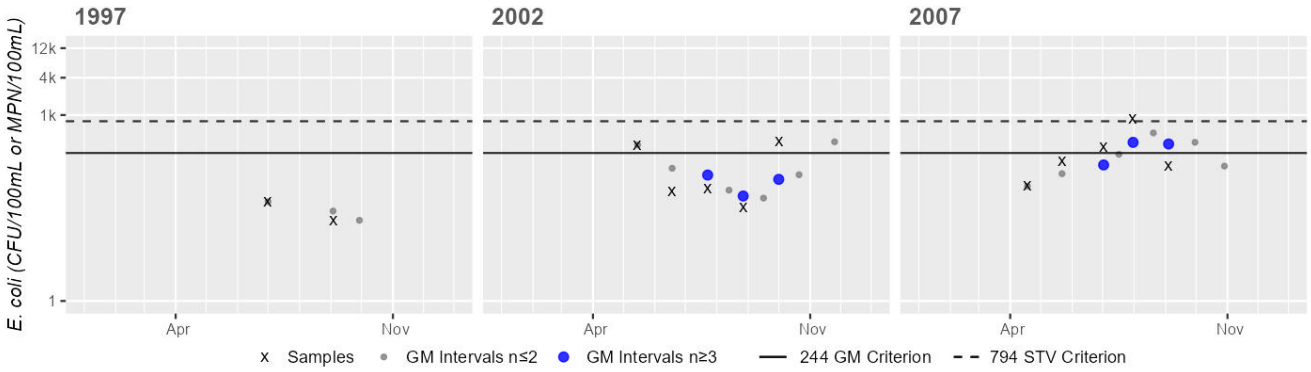
Variable*	Result
Samples	5
SeasGM	159
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	0
%n>STV	0%

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

Station MASSDEP_W0173 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	28
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	108
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

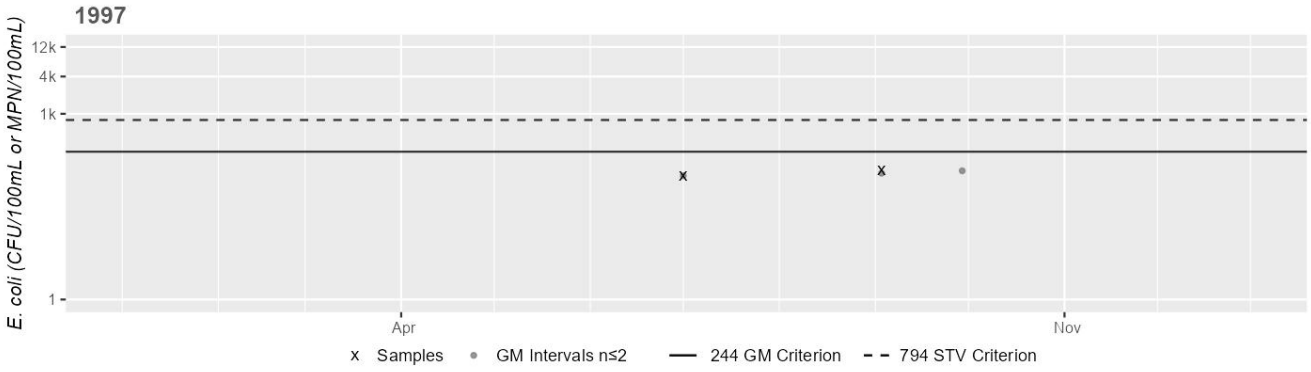
Variable*	Result
Samples	5
SeasGM	219
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

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

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

Station MASSDEP_W0174 - Escherichia coli

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



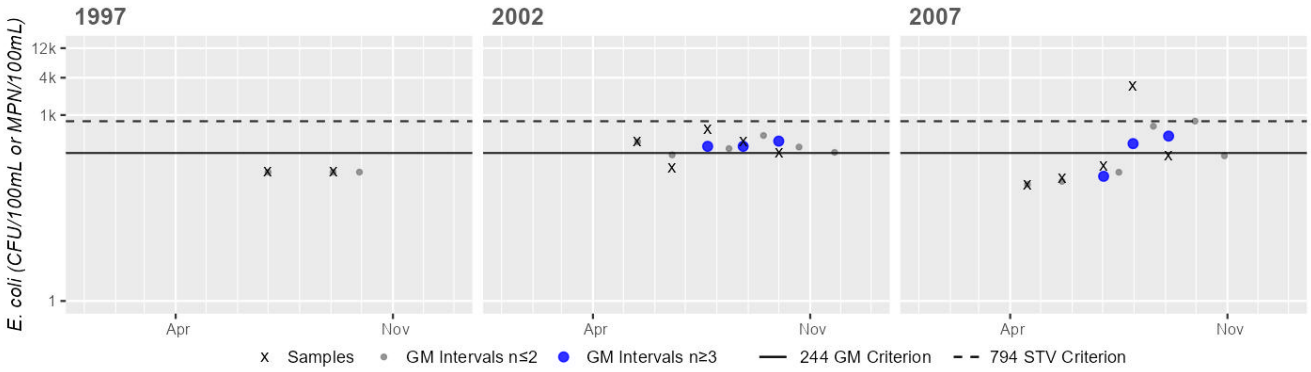
Variable*	Result
Samples	2
SeasGM	109
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W0175 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	120
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	309
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	0
%n>STV	0%

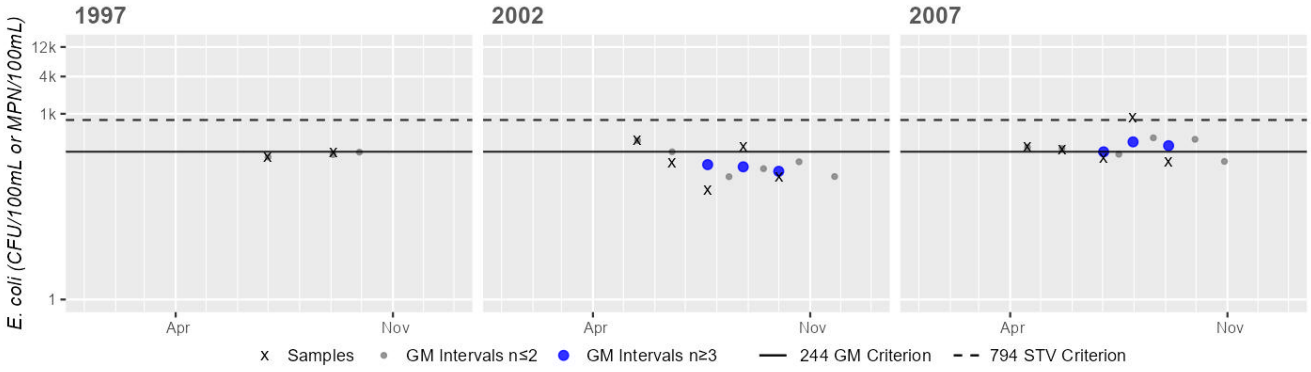
Variable*	Result
Samples	5
SeasGM	233
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

Cumulative %GMI Exceedance
Historic (1997-2010)
83%

**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_W0176 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	219
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	5
SeasGM	157
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

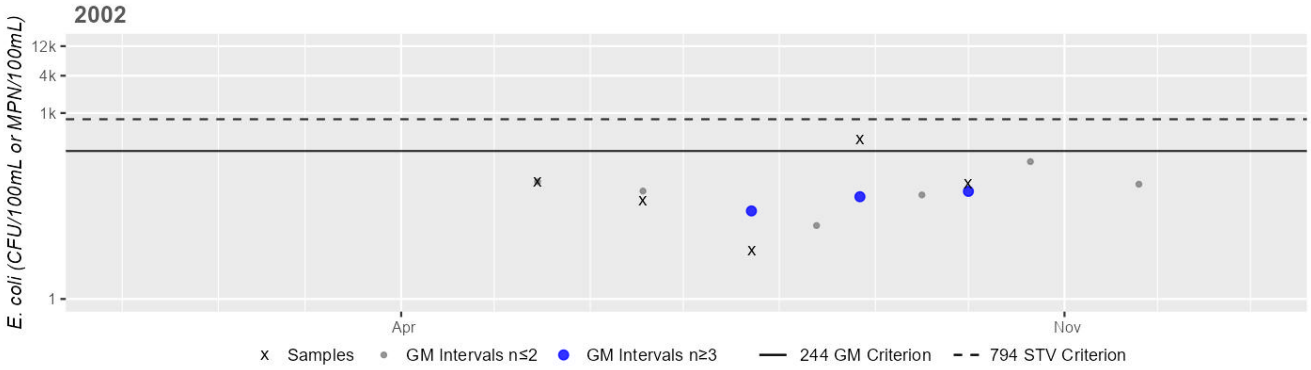
Variable*	Result
Samples	5
SeasGM	292
#GMI	3
#GMI Ex	2
%GMI Ex	66%
n>STV	1
%n>STV	20%

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

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

Station MASSDEP_W0903 - Escherichia coli

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



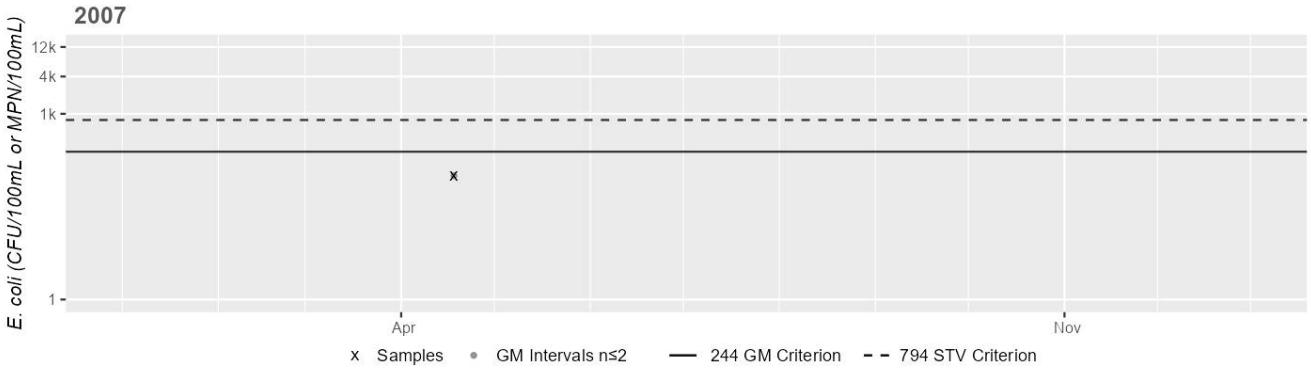
Variable*	Result
Samples	5
SeasGM	54
#GMI	3
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

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

Station MASSDEP_W1577 - Escherichia coli

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



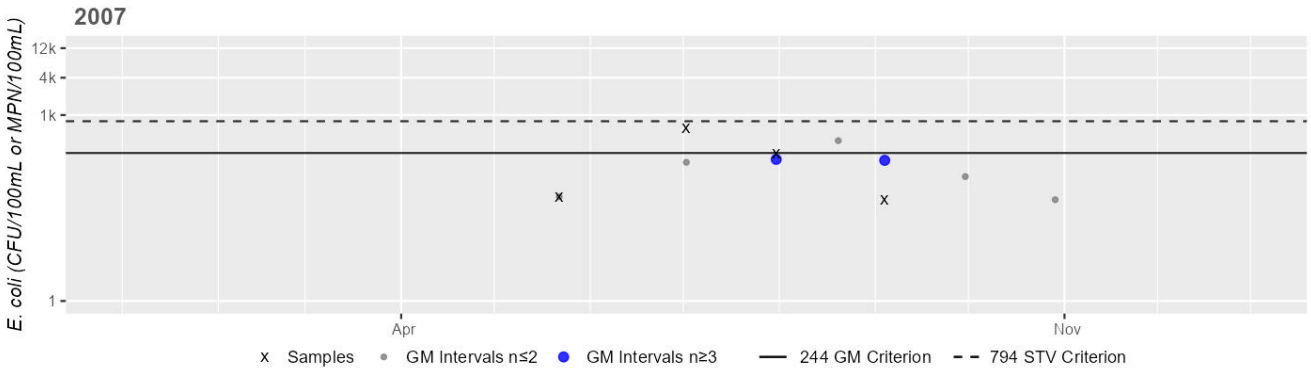
Variable*	Result
Samples	1
SeasGM	100
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W1595 - Escherichia coli

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



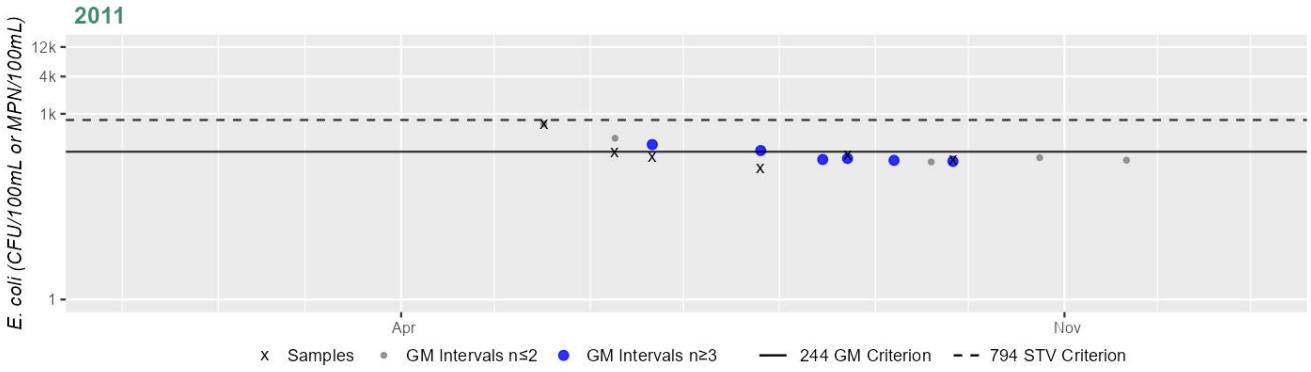
Variable*	Result
Samples	4
SeasGM	132
#GMI	2
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2210 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	232
#GMI	6
#GMI Ex	2
%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.*

Whiting Pond (MA52042)

Location:	North Attleborough/Plainville.
AU Type:	FRESHWATER LAKE
AU Size:	24 ACRES
Classification/Qualifier:	B: WWF, HQW

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

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

Recommendations

2024/26 Recommendations
2024/2026 IR [Harmful Algal Blooms, Low Priority] Follow-up monitoring should be conducted in Whiting Pond (MA52042) to determine if Harmful Algal Blooms may be impairing the Aesthetic use. Monitoring should include observational data and collection of cyanobacteria cell count data, as well as continued reporting of algal blooms to MDPH.; 2024/2026 IR [Bacteria, Low Priority] Additional sampling for *E.coli* bacteria should be conducted in Whiting Pond (MA52042) at the Town beach {W2590} in North Attleboro due to high bacteria counts at the Town beach in 2015.

Designated Use Attainment Decisions

Fish Consumption

2024/26 Use Attainment	Alert

Not Supporting	NO

2024/26 Use Attainment Summary
The Fish Consumption Use for Whiting Pond (MA52042) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. MA DPH included a site-specific advisory for Whiting Pond (referred to by MA DPH as ''Whitings 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
Insufficient Information	YES

2024/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Whiting Pond (MA52042), 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 2022. MassDEP aesthetics observations for station W2590 (the Town beach) on Whiting Pond can be summarized as follows: there were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during summer 2015 (n=1). During the period 2015 through 2022, C-HAB postings for Whiting Pond were reported to MDPH based on visual observations for 21 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 in this waterbody and a recommendation for follow-up sampling will be made.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2590	MassDEP	Water Quality	Ten Mile River/Whiting Pond	[from the town beach on Whiting Pond (an impoundment on a braid of the Ten Mile River), North Attleboro]	41.994566	-71.336185

Aesthetic Observations

Aesthetics Summary Statements for MassDEP Stations (2011-2020) (MassDEP Undated 4)
[Note: scums of natural origins (e.g. pollen blankets or natural foams) are excluded.]

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2590	Whiting Pond	2015	1	Aesthetic observations were made by MassDEP field sampling crews at Station W2590 on Whiting Pond (MA52042) during 1 site visit on Jul 29, 2015. 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 7) (MassDEP Undated 4)

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W2590	2015	1	0	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2590	Whiting Pond	2015	Color	Not Recorded	1	1
W2590	Whiting Pond	2015	Odor	None	1	1
W2590	Whiting Pond	2015	Turbidity	Not Recorded	1	1
W2590	Whiting Pond	2015	Aquatic Plant Density, Overall	Not Recorded	1	1
W2590	Whiting Pond	2015	Periphyton Density, Filamentous	Not Recorded	1	1
W2590	Whiting Pond	2015	Periphyton Density, Film	Not Recorded	1	1

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 Whiting Pond (MA52042) were reported to MDPH based on visual observations for 21 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)

Waterbody	Town	Bloom Days, 2015	Bloom Days, 2016	Bloom Days, 2017	Bloom Days, 2018	Bloom Days, 2019	Bloom Days, 2020	Bloom Days, 2021	Bloom Days, 2022
Whiting's Pond	North Attleboro								21

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 Recreational Use and available aesthetics observations did not result in any impairments for Whiting Pond (MA52042), so it is assessed as having Insufficient Information. An Alert is being identified for elevated *E. coli* bacteria based on high counts at the Town beach in 2015 and 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 2022. MassDEP staff conducted a limited amount of *E. coli* bacteria sampling in Whiting Pond (an impoundment on a braid of the Ten Mile River) at the Town beach in North Attleboro (W2590) in 2015. Of the two samples collected, *E. coli* concentrations were elevated (both above 126 CFU /100ml and one above the 410 STV criterion, with an overall GM of 656 CFU/100ml). MassDEP staff also conducted Bacteria Source Tracking (BST) work at four sites along the shore of Whiting Pond in 2015, reporting a max *E. coli* of 2,419.6MPN. Waterfowl and waterfowl fecal matter were observed sources of bacteria on the Town beach. During the period 2015 through 2022, C-HAB postings for Whiting Pond were reported to MDPH based on visual observations for 21 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 in this waterbody and a recommendation for follow-up sampling will be made. Overall, too limited data are available to assess the Primary Contact Recreational Use for Whiting Pond according to the 2024 CALM.

Monitoring Stations

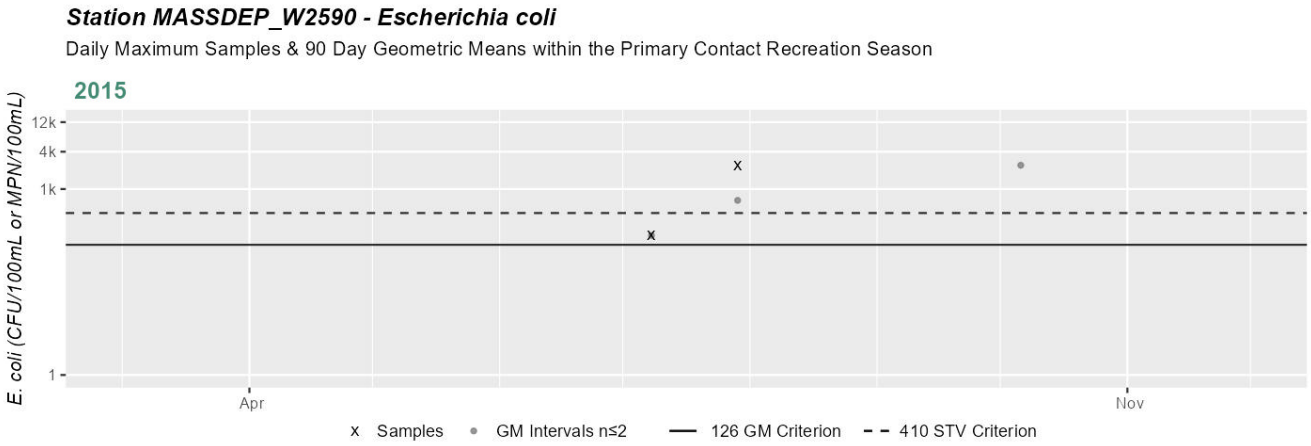
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2590	MassDEP	Water Quality	Ten Mile River/Whiting Pond	[from the town beach on Whiting Pond (an impoundment on a braid of the Ten Mile River), North Attleboro]	41.994566	-71.336185

Bacteria Data

Bacteria Data Collected by MassDEP (2011-2020) and External Data Providers (2011-2022) (90-day Interval Analysis) (MassDEP Undated 7) (MassDEP Undated 4)

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2590	MassDEP	E. coli	07/08/15	07/29/15	2	178	2420	656



Variable*	Result
Samples	2
SeasGM	656
#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.*

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

Summary
BST samples were collected at 4 sites along the shore of the Whiting Pond AU (MA52042) in 2015, with a max E.coli concentration of 2,419.6 in dry weather conditions. A great number of waterfowl and waterfowl fecal matter were observed on the Town beach, which was most likely to be a source of bacteria at this location. No correctable source was ever found.

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 and available aesthetics observations did not result in any impairments for Whiting Pond (MA52042), 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 2022.
MassDEP staff conducted a limited amount of *E. coli* bacteria sampling in Whiting Pond (an impoundment on a braid of the Ten Mile River) at the Town beach in North Attleboro (W2590) in 2015. Of the two samples collected, *E. coli* concentrations were once greater than 244 CFU/100ml and also greater than the 794 STV criterion. MassDEP staff also conducted Bacteria Source Tracking (BST) work at four sites along the shore of Whiting Pond in 2015, reporting a max *E. coli* concentration of 2,419.6MPN. Waterfowl and waterfowl fecal matter were observed sources of bacteria on the Town beach. During the period 2015 through 2022, C-HAB postings for Whiting Pond were reported to MDPH based on visual observations for 21 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 in this waterbody and a recommendation for follow-up sampling will be made. Too limited data are available to assess the Secondary Contact Recreational Use for Whiting Pond according to the 2024 CALM.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2590	MassDEP	Water Quality	Ten Mile River/Whiting Pond	[from the town beach on Whiting Pond (an impoundment on a braid of the Ten Mile River), North Attleboro]	41.994566	-71.336185

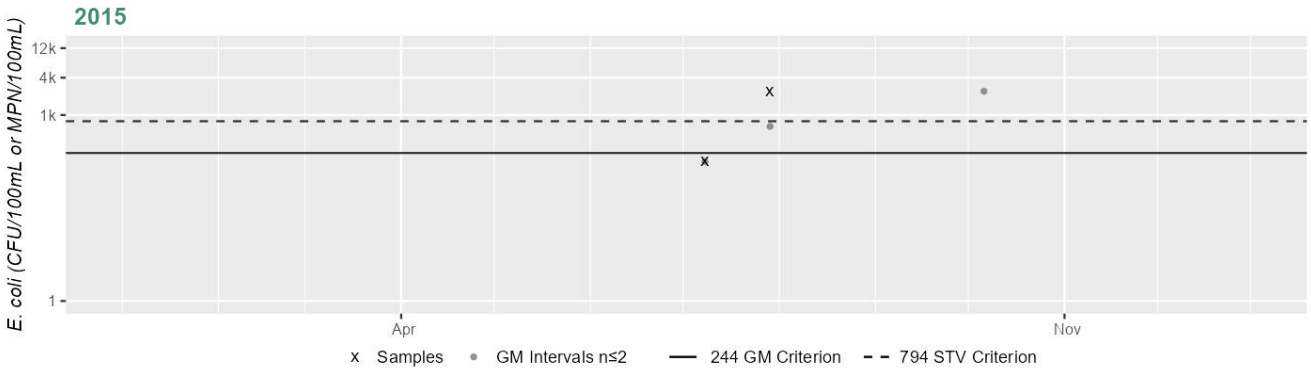
Bacteria Data

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

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2590	MassDEP	E. coli	07/08/15	07/29/15	2	178	2420	656

Station MASSDEP_W2590 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	656
#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.*

Data Sources

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.

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MassDEP. "2015 Scanned Project Files, Ten Mile watershed lake survey data, 1997, D01-31.PDF." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, 1997.

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

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

MassDEP. "Open files of fish toxicity testing data, metadata, and GIS datalayers in development." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 5.

MassDEP. "Open files of repository documents for the 2016 Integrated Report cycle." Division of Watershed Management, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 6.

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

—. "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).

Mattson, Mark D. "Baseline Lake Survey 2002 Technical Memo." CN 204.0, Division of Watershed Management, Massachusetts Department of Environmental Protection, Worcester, MA, 2007.