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

Appendix 18
Mount Hope Bay (Shore) Drainage Area
Assessment and Listing Decision Summary

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December 2025

CN 625.0

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

The 2024/2026 Integrated Report (IR) could not have been produced without the dedicated efforts of program staff and input from other Executive Office of Energy and Environmental Affairs (EEA) staff, EPA colleagues, and stakeholder groups. Many thanks to WPP staff who worked directly on the assessments and supporting tasks (e.g., GIS support, data reviews, data analyses, ATTAINS and reports), including Mason Saleeba, Jenny Peet, Jenny Sheppard, Kari Winfield, Stephanie Figary, Bob Smith, Tim Gardner, Anna Mayor, Shervon De Leon, Matt Reardon, Richard Chase, and Richard Carey. Many thanks to WPP field sampling crews, WPP interns, laboratory staff at the Wall Experiment Station, and external data providers who all played important roles in generating the water quality data used to inform decisions.

Disclaimer

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

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Notice of Availability

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

Overview of Appendix Contents

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

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

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

The following abbreviations are used when referencing designated uses:

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

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

Table of Contents

2024/26 Cycle Impairment Changes

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Cole River	MA61-03	4c	4c	(Fish Passage Barrier*)	--	Unchanged
Cole River	MA61-04	5	5	Chlorophyll-a	--	Unchanged
Cole River	MA61-04	5	5	Dissolved Oxygen	--	Unchanged
Cole River	MA61-04	5	5	Fecal Coliform	38907	Unchanged
Cole River	MA61-04	5	5	Nitrogen, Total	--	Unchanged
Cole River	MA61-10	5	5	Dissolved Oxygen	--	Unchanged
Cole River	MA61-10	5	5	Escherichia Coli (E. Coli)	--	Unchanged
Cole River	MA61-10	5	5	Lead	--	Unchanged
Cook Pond	MA61001	3	3	None	--	Unchanged
Kickamuit River	MA61-08	5	5	(Physical Substrate Habitat Alterations*)	--	Unchanged
Kickamuit River	MA61-08	5	5	Benthic Macroinvertebrates	--	Unchanged
Kickamuit River	MA61-08	5	5	Dissolved Oxygen	--	Unchanged
Kickamuit River	MA61-08	5	5	Escherichia Coli (E. Coli)	30702	Unchanged
Kickamuit River	MA61-08	5	5	Fecal Coliform	30702	Unchanged
Lee River	MA61-01	5	5	Fecal Coliform	38905	Unchanged
Lee River	MA61-01	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Lee River	MA61-02	5	5	Chlorophyll-a	--	Unchanged
Lee River	MA61-02	5	5	Dissolved Oxygen	--	Unchanged
Lee River	MA61-02	5	5	Fecal Coliform	38906	Unchanged

Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Lee River	MA61-02	5	5	Nitrogen, Total	--	Unchanged
Lewin Brook	MA61-09	5	4a	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
Lewin Brook Pond	MA61011	4a	4a	Mercury in Fish Tissue	33880	Unchanged
Mount Hope Bay	MA61-06	5	5	Chlorophyll-a	--	Unchanged
Mount Hope Bay	MA61-06	5	5	Dissolved Oxygen	--	Unchanged
Mount Hope Bay	MA61-06	5	5	Enterococcus	38908	Unchanged
Mount Hope Bay	MA61-06	5	5	Fecal Coliform	38908	Unchanged
Mount Hope Bay	MA61-06	5	5	Fish Bioassessments	--	Unchanged
Mount Hope Bay	MA61-06	5	5	Nitrogen, Total	--	Unchanged
Mount Hope Bay	MA61-07	5	5	Chlorophyll-a	--	Unchanged
Mount Hope Bay	MA61-07	5	5	Dissolved Oxygen	--	Unchanged
Mount Hope Bay	MA61-07	5	5	Fecal Coliform	38909	Unchanged
Mount Hope Bay	MA61-07	5	5	Fish Bioassessments	--	Unchanged
Mount Hope Bay	MA61-07	5	5	Nitrogen, Total	--	Unchanged
North Watuppa Pond	MA61004	4a	4a	Mercury in Fish Tissue	33880	Unchanged
Quequechan River	MA61-05	5	5	(Debris*)	--	Unchanged
Quequechan River	MA61-05	5	5	(Habitat Assessment*)	--	Unchanged
Quequechan River	MA61-05	5	5	Algae	--	Unchanged
Quequechan River	MA61-05	5	5	Dissolved Oxygen	--	Unchanged
Quequechan River	MA61-05	5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed

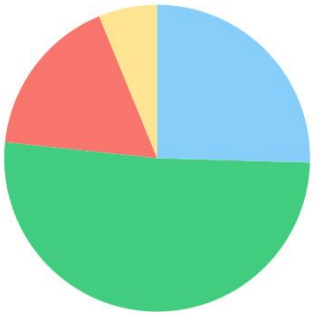
Waterbody	AU_ID	AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
Quequechan River	MA61-05	5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
Quequechan River	MA61-05	5	5	Trash	--	Unchanged
Sawdy Pond	MA61005	4a	4a	Mercury in Fish Tissue	42407	Unchanged
South Watuppa Pond	MA61006	5	5	Harmful Algal Blooms	--	Unchanged
South Watuppa Pond	MA61006	5	5	PFAS in Fish Tissue	--	Added
South Watuppa Pond	MA61006	5	5	Transparency / Clarity	--	Added

Cole River (MA61-03)

Location:	Wood Street, Swansea to Route 6, Swansea.
AU Type:	RIVER
AU Size:	1.6 MILES
Classification/Qualifier:	B: WWF

Cole River (MA61-03)

Watershed Area: 11.51 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	11.51	5.17	2.89	1.72
Agriculture	6.2%	8.9%	8.1%	12.4%
Developed	17.1%	21%	9.5%	9.2%
Natural	51.2%	50.9%	41.3%	44.5%
Wetland	25.5%	19.1%	41.1%	33.9%
Impervious	7%	9.8%	3.3%	3.4%

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4c	4c	(Fish Passage Barrier*)	--	Unchanged

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics sampling has been conducted in this Cole River AU (MA61-03), therefore the Fish Consumption Use is Not Assessed.

Aesthetic

2026/26 Use Attainment	Alert
Insufficient Information	NO

2026/26 Use Attainment Summary
Too limited data are available to assess the Aesthetics Use for Cole River (MA61-03) so it is assessed as having Insufficient Information. MassDEP staff recorded aesthetics observations at one station along this Cole River AU at Rt.6, Swansea (W0642) in 2015 (n=2). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0642	MassDEP	Water Quality	Cole River	[Route 6, Swansea]	41.746430	-71.202122

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
W0642	Cole River	2015	2	Aesthetic observations were made by MassDEP field sampling crews at Station W0642 on Cole River (MA61-03) during 2 site visits between Jul 2015 and Sep 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
W0642	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
W0642	Cole River	2015	Color	None	1	2
W0642	Cole River	2015	Color	Light Yellow/Tan	1	2
W0642	Cole River	2015	Odor	None	2	2
W0642	Cole River	2015	Turbidity	Slightly Turbid	2	2
W0642	Cole River	2015	Aquatic Plant Density, Overall	None	2	2
W0642	Cole River	2015	Periphyton Density, Filamentous	None	2	2
W0642	Cole River	2015	Periphyton Density, Film	Sparse	2	2

Primary Contact Recreation

2026/26 Use Attainment	Alert
Insufficient Information	NO

2026/26 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 this Cole River AU (MA61-03), so it is assessed as having Insufficient Information. *E. coli* bacteria data were collected by MassDEP staff for the purposes of bacteria source tracking (BST) in this Cole River AU (MA61-03) twice in 2015 –at Rt.6, Swansea (W0642).

Monitoring Stations

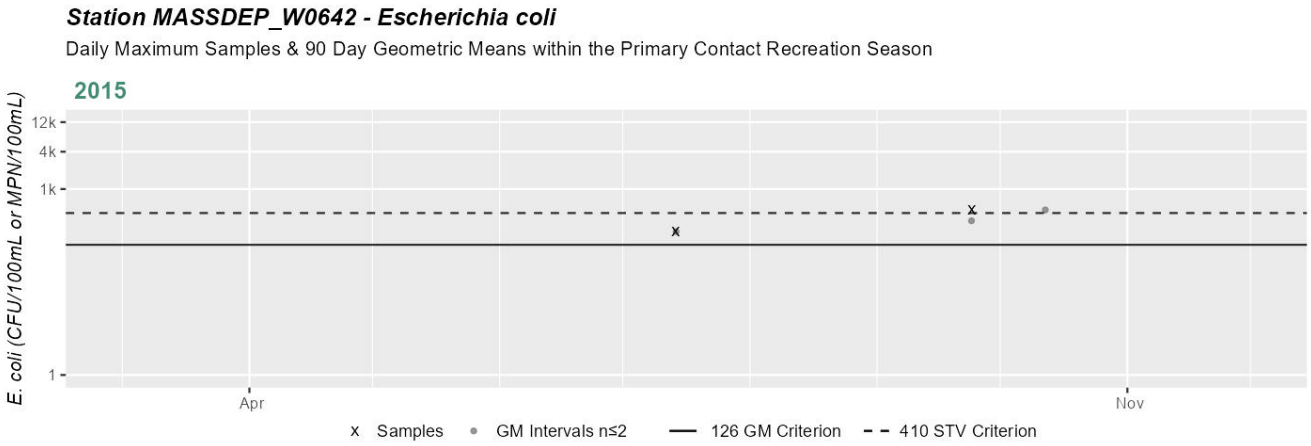
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0642	MassDEP	Water Quality	Cole River	[Route 6, Swansea]	41.746430	-71.202122

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
W0642	MassDEP	E. coli	07/14/15	09/24/15	2	205	461	307



Variable*	Result
Samples	2
SeasGM	307
#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 in 2015 at 1 site at the downstream end of the Cole River AU (MA61-03), with E.coli concentrations ranging 205-461MPN (n=2). No correctable source was ever found.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Insufficient Information	NO

2026/26 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 this Cole River AU (MA61-03), so it is assessed as having Insufficient Information. *E. coli* bacteria data were collected by MassDEP staff in this Cole River AU at the following sampling stations in Swansea: downstream/south of Wood St in Milford Pond (W0659, in 1999 n=2), below the outlet of Milford Pond at Milford Rd (W0641, once in 1999 and in 2009 roughly monthly between May and September n=6), as well at Rt.6, Swansea (W0642, in 1999 n=2 and 2015 n=2). While data from station W0641 in 2009 are indicative of good conditions, too limited bacteria data from the current IR window (2011-2022) are available to assess the Secondary Contact Recreational Use for this Cole River AU.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0641	MassDEP	Water Quality	Cole River	[below outlet of Milford Pond at Milford Road, Swansea]	41.750383	-71.203927
W0642	MassDEP	Water Quality	Cole River	[Route 6, Swansea]	41.746430	-71.202122
W0659	MassDEP	Water Quality	Cole River/Milford Pond	[downstream/south of Wood Street (in Milford Pond), Swansea]	41.763438	-71.211633

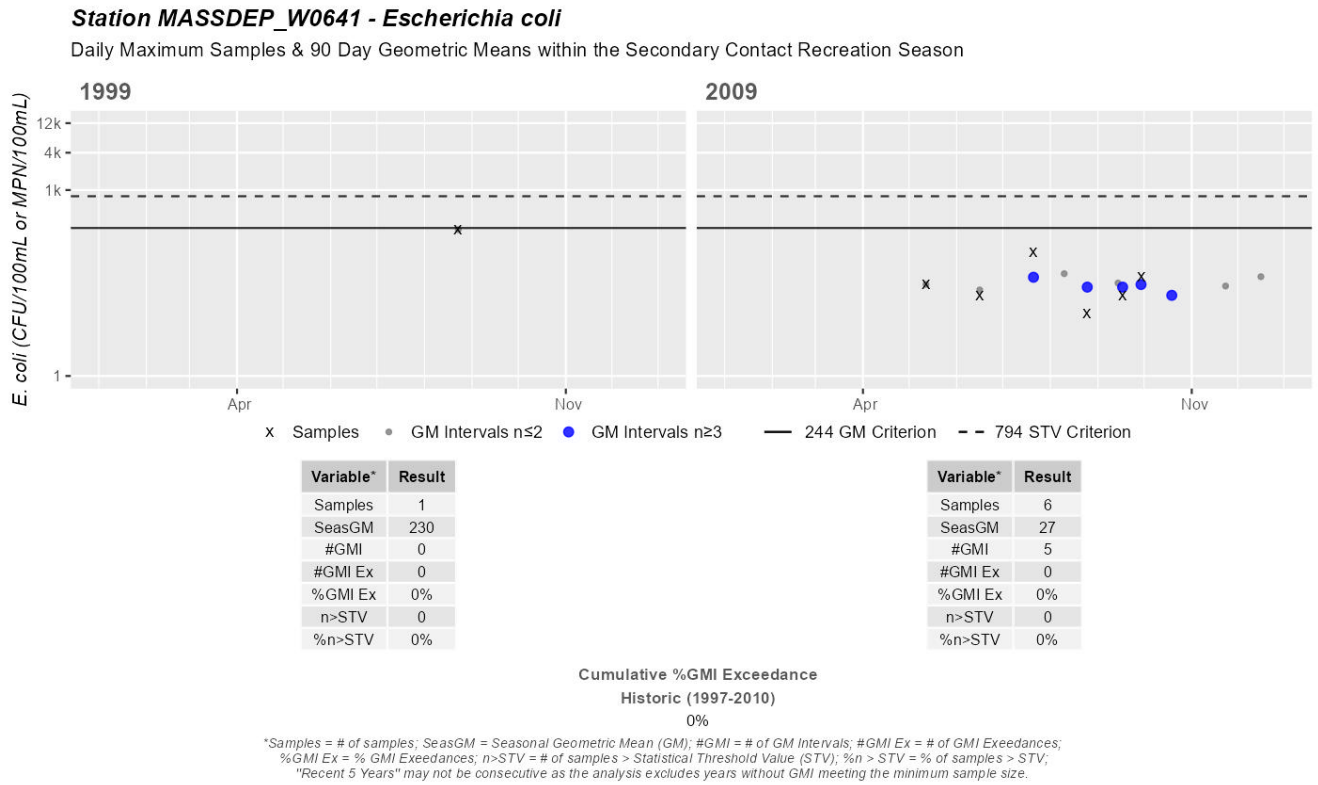
Bacteria Data

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

(MassDEP Undated 7) (MassDEP Undated 3)

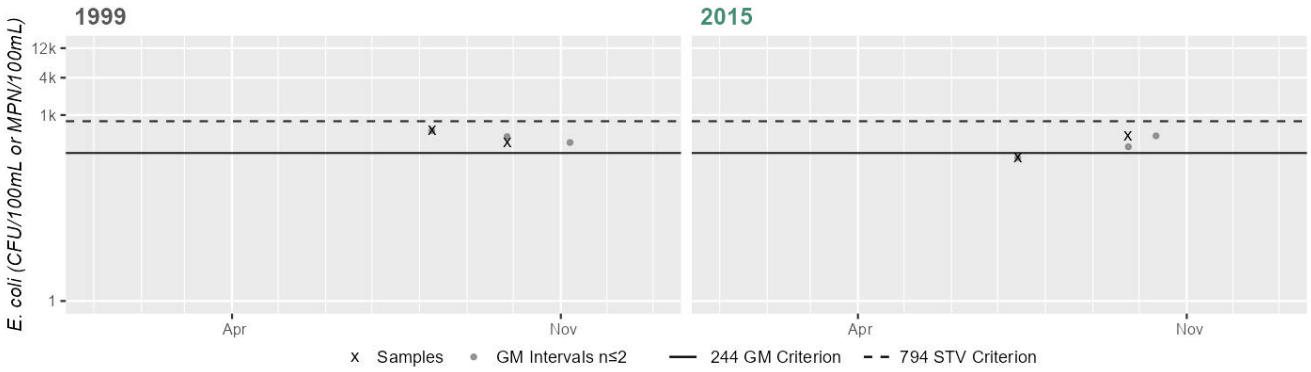
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0641	MassDEP	E. coli	08/23/99	08/23/99	1	230	230	230
W0641	MassDEP	E. coli	05/12/09	09/29/09	6	10	100	27
W0642	MassDEP	E. coli	08/09/99	09/27/99	2	360	560	448
W0642	MassDEP	E. coli	07/14/15	09/24/15	2	205	461	307
W0659	MassDEP	E. coli	08/23/99	09/27/99	2	41	140	75



Station MASSDEP_W0642 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	448
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

Variable*	Result
Samples	2
SeasGM	307
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

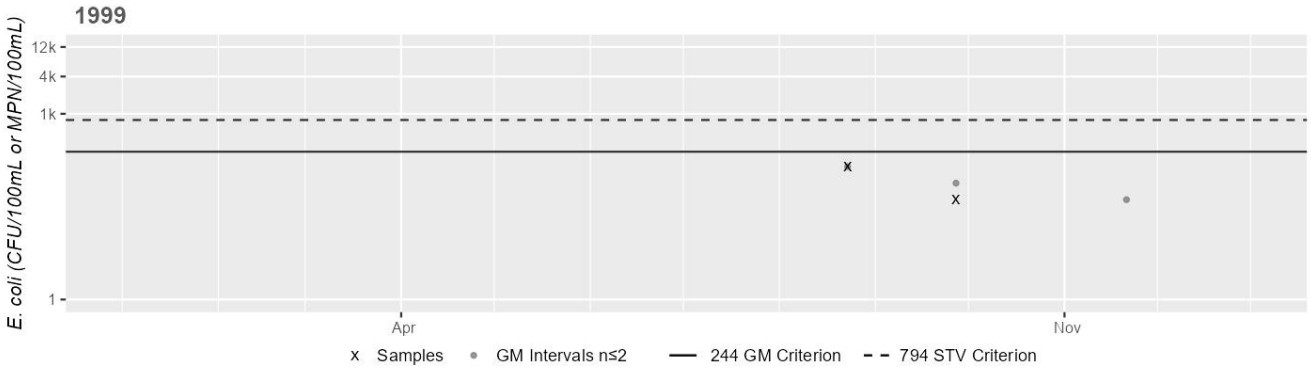
Cumulative %GMI Exceedance
Historic (1997-2010)
0%

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

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

Station MASSDEP_W0659 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	75
#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.*

Cole River (MA61-04)

Location:	Route 6, Swansea to the mouth at Mount Hope Bay at old railway grade, Swansea.
AU Type:	ESTUARY
AU Size:	0.35 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Chlorophyll-a	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Fecal Coliform	38907	Unchanged
5	5	Nitrogen, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Chlorophyll-a	Source Unknown (N)	X	--	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--	--
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	--	--	--
Fecal Coliform	Illicit Connections/Hook-ups to Storm Sewers (Y)	--	--	X	--	--	--
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	X	--	--	--
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	X	--	--	--
Nitrogen, Total	Source Unknown (N)	X	--	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics monitoring has been conducted in this Cole River AU (MA61-04); therefore the Fish Consumption Use is Not Assessed.

Shellfish Harvesting

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
Cole River (MA61-04): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.3446 sq mi (99%). The approved shellfish growing area represents 0 sq mi (0%). The Shellfish Harvesting Use is assessed as not supporting because the growing area (normalized to the AU area) is < 100% approved. Based on the new growing area classifications and the prior classifications, the existing fecal coliform impairment is being retained.

Shellfish Growing Area Classifications

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

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
MHB4.1	Coles River	Conditionally Approved	0.15611	45.0%
MHB4.5	Circuit Drive	Prohibited	0.00104	0.3%
MHB4.6	Pine Street	Conditionally Approved	0.05027	14.5%
MHB4.7	Willow Circle	Prohibited	0.00591	1.7%
MHB4.8	Route 195	Prohibited	0.07878	22.7%
MHB4.9	Pleasure Island	Prohibited	0.05250	15.1%

Aesthetic

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary

The Aesthetics Use for Cole River (MA61-04) is assessed as Fully Supporting based on the general lack of any objectionable conditions observed at two stations during the summer of 2015.
MassDEP staff recorded observations related to aesthetics at two stations in Swansea in this Cole River AU between July and September 2015: near the northern end of Lafayette St. (W2559; n=2) and at Wilbur Ave (Rt.103) (W0643; n=3). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded at either station.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0643	MassDEP	Water Quality	Cole River	[Route 103, Swansea]	41.733666	-71.215412
W2559	MassDEP	Water Quality	Cole River	[near the northern end of Lafayette Street, Swansea]	41.735201	-71.203686

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
W0643	Cole River	2015	3	Aesthetic observations were made by MassDEP field sampling crews at Station W0643 on Cole River (MA61-04) during 3 site visits between Jul 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2559	Cole River	2015	2	Aesthetic observations were made by MassDEP field sampling crews at Station W2559 on Cole River (MA61-04) during 2 site visits between Jul 2015 and Sep 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
W0643	2015	3	0	0
W2559	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
W0643	Cole River	2015	Color	None	3	3
W0643	Cole River	2015	Odor	None	3	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W0643	Cole River	2015	Turbidity	Unobservable	1	3
W0643	Cole River	2015	Turbidity	Moderately Turbid	2	3
W0643	Cole River	2015	Aquatic Plant Density, Overall	Unobservable	3	3
W0643	Cole River	2015	Periphyton Density, Filamentous	Unobservable	3	3
W0643	Cole River	2015	Periphyton Density, Film	Unobservable	3	3
W2559	Cole River	2015	Color	None	2	2
W2559	Cole River	2015	Odor	None	2	2
W2559	Cole River	2015	Turbidity	Slightly Turbid	2	2
W2559	Cole River	2015	Aquatic Plant Density, Overall	Unobservable	2	2
W2559	Cole River	2015	Periphyton Density, Filamentous	Unobservable	2	2
W2559	Cole River	2015	Periphyton Density, Film	Unobservable	2	2

Primary Contact Recreation

2026/26 Use Attainment	Alert
Insufficient Information	NO

2026/26 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 this Cole River AU (MA61-04), so it is assessed as having Insufficient Information.
Enterococci bacteria data were collected by the MassDEP for the purposes of bacteria source tracking (BST) in this Cole River AU in July and September 2015 – near the northern end of Lafayette St. (W2559) and at Wilbur Ave (Rt.103) (W0643), in Swansea. *Enterococci* counts were always less than the 35 CFU/100ml criterion. BST work was also conducted in 2015-2018 on two unnamed tributaries to this AU. In 2018 human marker analysis on one of the unnamed tributaries (discharging close to the downstream end of MA61-04) indicated “weak” evidence of a human source. There was no caffeine detected in the sample, but bacteriodetes markers, fluorescent whitening agents and optical brighteners were all present. Stream walk efforts made to locate a human source were unsuccessful. It was concluded that the results were likely indicative of a combination of wash water and bird fecal matter. No correctable source was ever found. Too limited *Enterococci* bacteria data are available to assess the Primary Contact Recreation Use for this Cole River AU according to the 2024 CALM.

Monitoring Stations

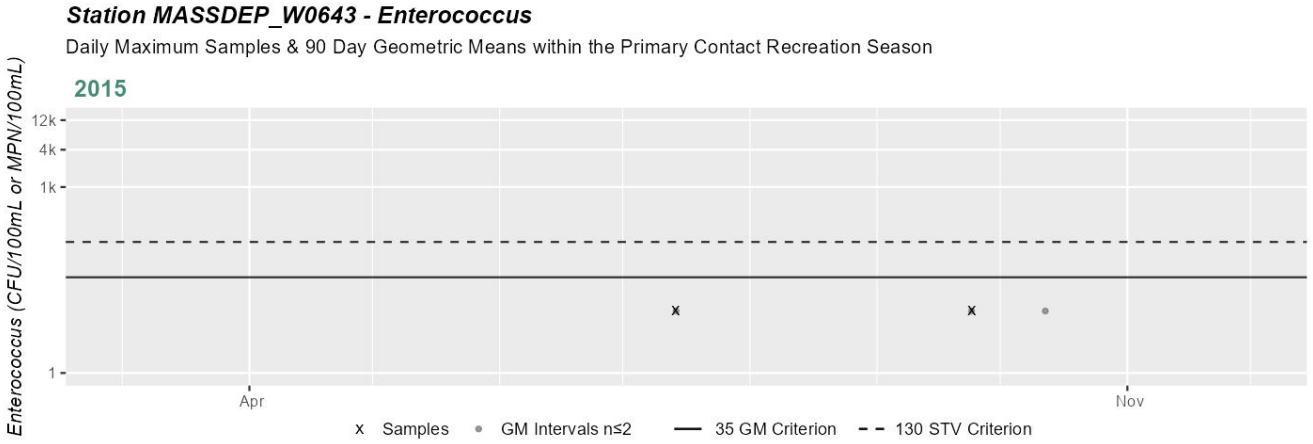
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0643	MassDEP	Water Quality	Cole River	[Route 103, Swansea]	41.733666	-71.215412
W2559	MassDEP	Water Quality	Cole River	[near the northern end of Lafayette Street, Swansea]	41.735201	-71.203686

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]

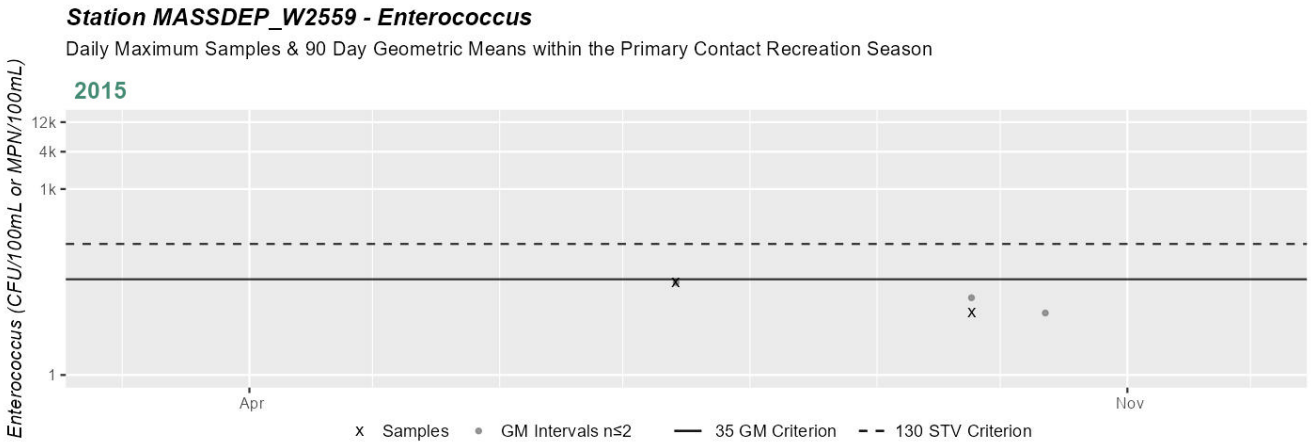
Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W0643	MassDEP	Enterococci	07/14/15	09/24/15	2	10	10	10
W2559	MassDEP	Enterococci	07/14/15	09/24/15	2	10	31	17



Variable*	Result
Samples	2
SeasGM	10
#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.*



Variable*	Result
Samples	2
SeasGM	17
#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 in 2015 at 3 sites along the Coles River AU (MA61-04), with E.coli concentrations ranging <10 - 809MPN. BST work was also conducted in 2015-2018 on 2 unnamed tributaries with E.coli concentrations ranging 40 to >2,419.6MPN. In 2018 human marker analysis on one of the unnamed tributaries (discharging close to the downstream end of the AU) indicated “weak” evidence of a human source. There was no caffeine detected in the sample, but bacteriodetes markers, flurorescent whitening agents and optical brightners were all present. Stream walk efforts made to locate a human source were unsuccessful. It was concluded that the results were likely indicative of a combination of wash water and bird fecal matter. No correctable source was ever found.

Shellfish Growing Area Classifications

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

Summary
Cole River (MA61-04): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.3446 sq mi (99%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2026/26 Use Attainment	Alert

Insufficient Information	NO

2026/26 Use Attainment Summary

Too limited *Enterococci* data are available to assess the Secondary Contact Recreational Use according to the 2024 CALM and available aesthetics observations did not result in any impairments for this Cole River AU (MA61-04), so it is assessed as having Insufficient Information.

Enterococci bacteria data were collected by the MassDEP for the purposes of bacteria source tracking (BST) in this Cole River AU in July and September 2015 – near the northern end of Lafayette St. (W2559) and at Wilbur Ave (Rt.103) (W0643), in Swansea. BST work was also conducted in 2015-2018 on two unnamed tributaries to this AU. In 2018 human marker analysis on one of the unnamed tributaries (discharging close to the downstream end of MA61-04) indicated "weak" evidence of a human source. There was no caffeine detected in the sample, but bacteriodetes markers, fluorescent whitening agents and optical brighteners were all present. Stream-walk efforts made to locate a human source were unsuccessful. It was concluded that the results were likely indicative of a combination of wash water and bird fecal matter. No correctable source was ever found.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0643	MassDEP	Water Quality	Cole River	[Route 103, Swansea]	41.733666	-71.215412
W2559	MassDEP	Water Quality	Cole River	[near the northern end of Lafayette Street, Swansea]	41.735201	-71.203686

Bacteria Data

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

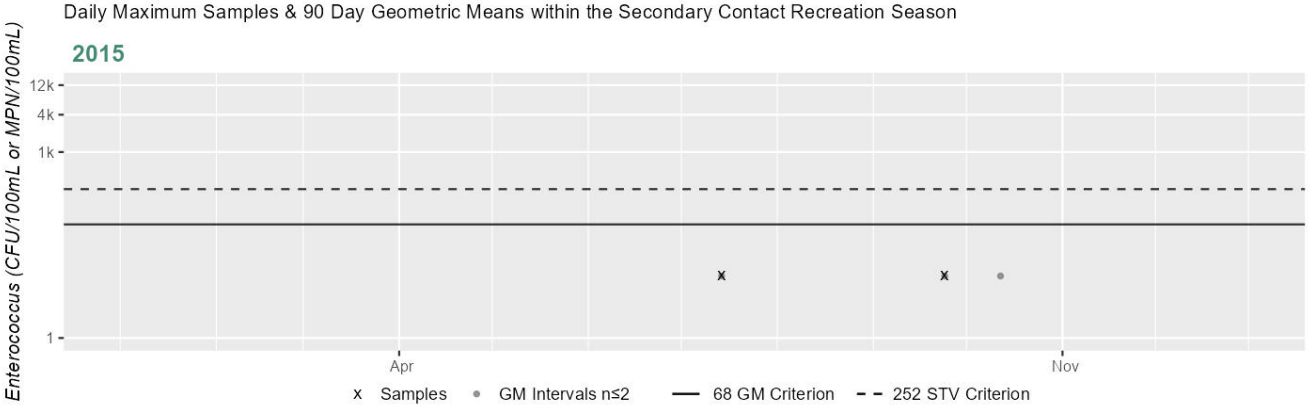
(MassDEP Undated 7) (MassDEP Undated 3)

[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
W0643	MassDEP	Enterococci	07/14/15	09/24/15	2	10	10	10
W2559	MassDEP	Enterococci	07/14/15	09/24/15	2	10	31	17

Station MASSDEP_W0643 - Enterococcus

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



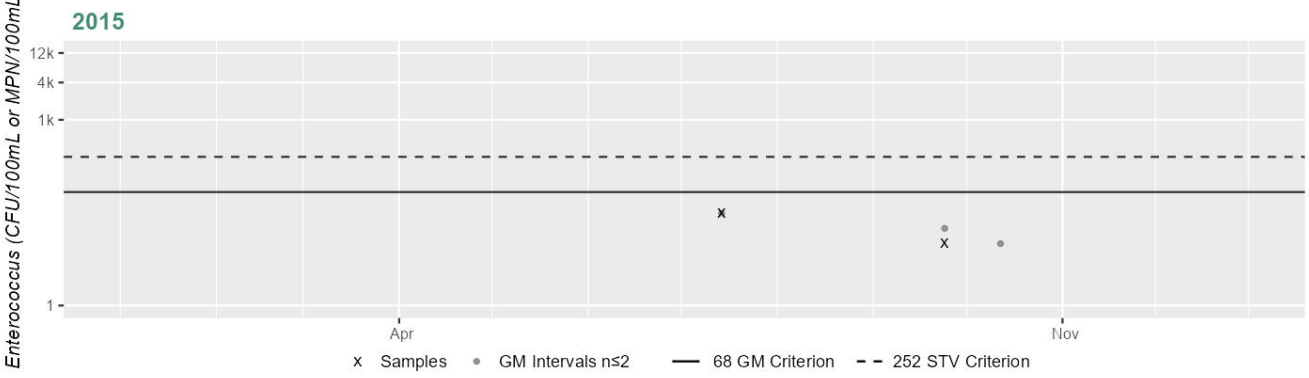
Variable*	Result
Samples	2
SeasGM	10
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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_W2559 - Enterococcus

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



Variable*	Result
Samples	2
SeasGM	17
#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.*

Shellfish Growing Area Classifications

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

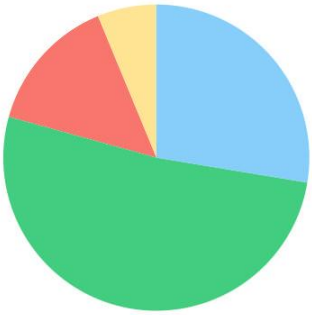
Summary
Cole River (MA61-04): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.3446 sq mi (99%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Cole River (MA61-10)

Location:	Headwaters, south of Wellington Street, Dighton to Wood Street, Swansea.
AU Type:	RIVER
AU Size:	6.4 MILES
Classification/Qualifier:	B: WWF

Cole River (MA61-10)

Watershed Area: 10.26 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	10.26	6.14	2.43	1.61
Agriculture	6.2%	7.9%	7.9%	10.8%
Developed	14.5%	15%	8.6%	8.7%
Natural	51.7%	51.7%	37.5%	38.8%
Wetland	27.6%	25.4%	46%	41.7%
Impervious	4.8%	5%	2.7%	2.5%

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

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics sampling has been conducted in this Cole River AU (MA61-10), therefore the Fish Consumption Use is Not Assessed.

Aesthetic

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary
The Aesthetics Use for Cole River (MA61-10) will continue to be assessed as Fully Supporting based on the general lack of any objectionable conditions in the river upstream from Hortonville Road, Swansea during the summer of 2013. MassDEP staff aesthetics observations in this Cole River AU approximately 2200 feet upstream from Hortonville Road, Swansea (station W2387) can be summarized as follows: There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during the summer of 2013 (n=8).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2387	MassDEP	Water Quality	Cole River	[approximately 2200 feet upstream/east from Hortonville Road, Swansea]	41.777309	-71.192532

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
W2387	Cole River	2013	8	Aesthetic observations were made by MassDEP field sampling crews at Station W2387 on Cole River (MA61-10) during 8 site visits between May 2013 and Sep 2013. There were some objectionable conditions recorded, including dense/very dense aquatic plants (n=4). These conditions are indicative of an Alert status.

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
W2387	2013	8	8	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2387	Cole River	2013	Color	Light Yellow/Tan	1	8
W2387	Cole River	2013	Color	Brownish	4	8
W2387	Cole River	2013	Color	Rusty	1	8
W2387	Cole River	2013	Color	Reddish	2	8
W2387	Cole River	2013	Odor	None	8	8
W2387	Cole River	2013	Turbidity	None	6	8
W2387	Cole River	2013	Turbidity	Slightly Turbid	2	8
W2387	Cole River	2013	Objectionable Deposits	No	8	8
W2387	Cole River	2013	Scum	No	7	8
W2387	Cole River	2013	Scum	Yes	1	8
W2387	Cole River	2013	Aquatic Plant Density, Overall	Not Recorded	1	8
W2387	Cole River	2013	Aquatic Plant Density, Overall	None	1	8
W2387	Cole River	2013	Aquatic Plant Density, Overall	Sparse	1	8
W2387	Cole River	2013	Aquatic Plant Density, Overall	Moderate	1	8
W2387	Cole River	2013	Aquatic Plant Density, Overall	Dense	2	8
W2387	Cole River	2013	Aquatic Plant Density, Overall	Very Dense	2	8
W2387	Cole River	2013	Periphyton Density, Filamentous	None	5	8
W2387	Cole River	2013	Periphyton Density, Filamentous	Sparse	3	8
W2387	Cole River	2013	Periphyton Density, Film	None	8	8
W2387	Cole River	2013	Aesthetics Impaired?	Not Recorded	1	8
W2387	Cole River	2013	Aesthetics Impaired?	No	7	8

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary

The Primary Contact Recreation Use for the Cole River (MA61-10) continues to be assessed as Not Supporting. The prior Escherichia Coli (E. Coli) impairment is being carried forward based on bacteria data not meeting the threshold at W2387.
E. coli bacteria samples were collected at one station along this Cole River AU as part of the MAP2 monitoring project during the summer of 2013. Samples were collected approximately 2200 ft upstream from Hortonville Road, Swansea. Data analysis of this single-year, low frequency *E. coli* dataset indicated generally poor conditions (elevated bacteria) as 100% of intervals had GMs >126 CFU/100ml, 3 samples exceeded the 410 CFU/100ml STV, with a seasonal GM of 441 CFU/100ml.

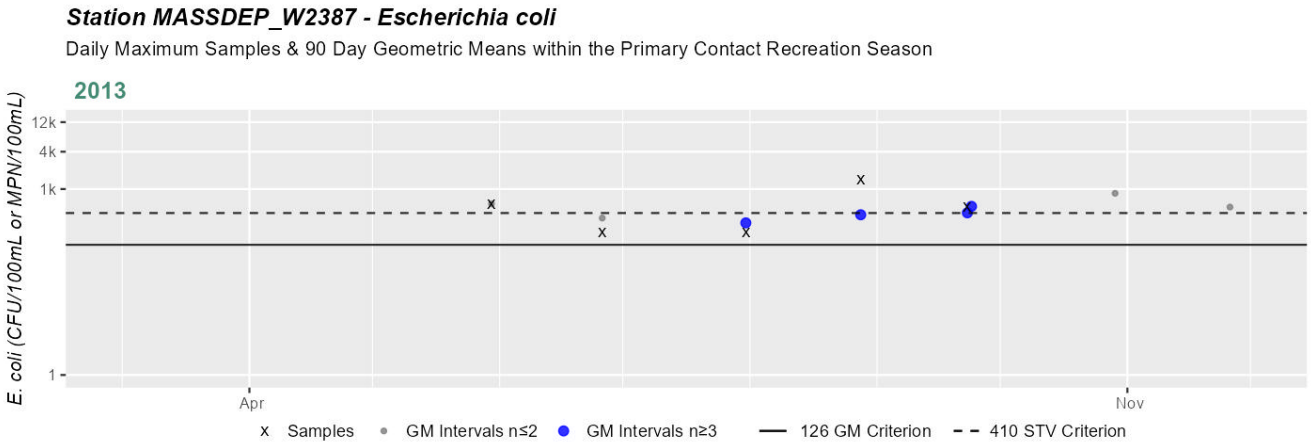
Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2387	MassDEP	Water Quality	Cole River	[approximately 2200 feet upstream/east from Hortonville Road, Swansea]	41.777309	-71.192532

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
W2387	MassDEP	E. coli	05/30/13	09/23/13	5	199	1420	441



Variable*	Result
Samples	5
SeasGM	441
#GMI	4
#GMI Ex	4
%GMI Ex	100%
n>STV	3
%n>STV	60%

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

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

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Secondary Contact Recreation Use for the Cole River (MA61-10) is assessed as Not Supporting. An Escherichia Coli (E. Coli) impairment is being added based on a re-evaluation of bacteria data not meeting the threshold at W2387. *E. coli* bacteria data were collected by MassDEP staff in this Cole River AU at the following sampling stations in Swansea: ~2200 ft upstream from Hortonville Road (W2387, in 2013 roughly monthly between May and September n=5) as part of the MAP2 monitoring project, as well as at Hortonville Road (W0661, in 1999 n=2 and in 2009 n=6). Analysis of the single year, low frequency data collected during the current IR window (2011-2022) at W2387 indicated generally poor conditions (elevated bacteria), as 100% of intervals had GMs >244 CFU/100ml, with a seasonal GM of 441 CFU/100ml.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W0661	MassDEP	Water Quality	Cole River	[Hortonville Road, Swansea]	41.775390	-71.198814
W2387	MassDEP	Water Quality	Cole River	[approximately 2200 feet upstream/east from Hortonville Road, Swansea]	41.777309	-71.192532

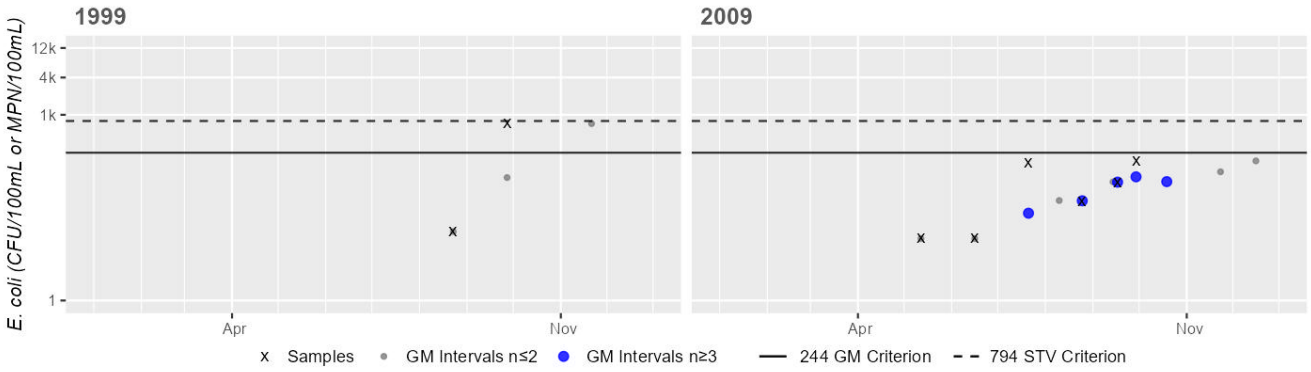
Bacteria Data

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
W0661	MassDEP	E. coli	08/23/99	09/27/99	2	13	720	96
W0661	MassDEP	E. coli	05/12/09	09/29/09	6	10	180	46
W2387	MassDEP	E. coli	05/30/13	09/23/13	5	199	1420	441

Station MASSDEP_W0661 - Escherichia coli

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



Variable*	Result
Samples	2
SeasGM	96
#GMI	0
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

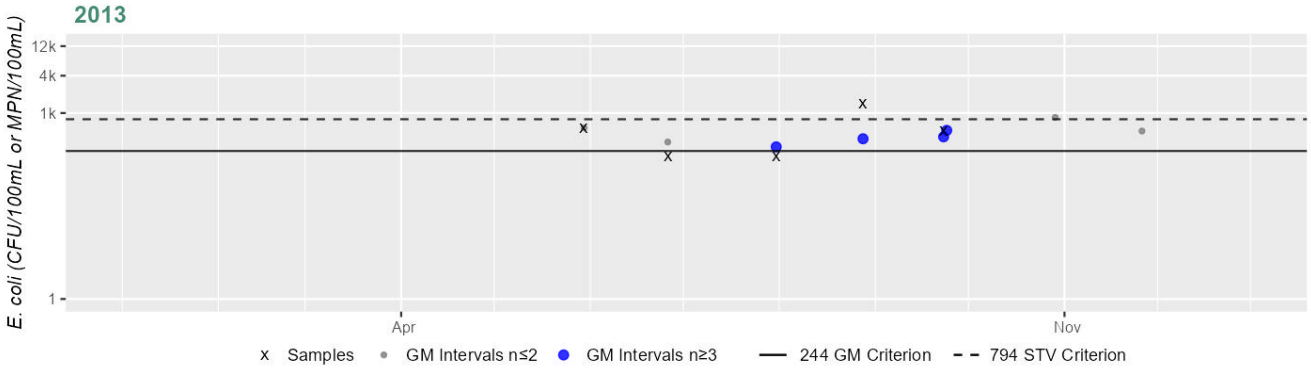
Variable*	Result
Samples	6
SeasGM	46
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

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

Station MASSDEP_W2387 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	441
#GMI	4
#GMI Ex	4
%GMI Ex	100%
n>STV	1
%n>STV	20%

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

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

Cook Pond (MA61001)

Location:	Fall River, MA/Tiverton, RI.
AU Type:	FRESHWATER LAKE
AU Size:	157 ACRES
Classification/Qualifier:	B

No usable data were available for Cook Pond (MA61001) for the 2024/26 Integrated Reporting cycle, therefore its category, use attainments, impairments, associated actions, and sources remain unchanged from the previous cycle.

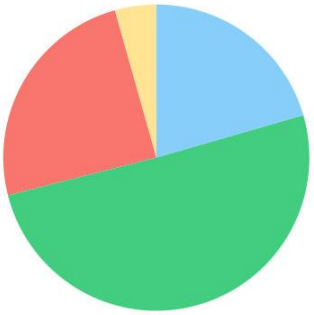
AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
3	3	None	--	Unchanged

Kickamuit River (MA61-08)

Location:	Headwaters, outlet Warren Reservoir, Swansea, to state line, Swansea, MA/Warren, RI.
AU Type:	RIVER
AU Size:	2.8 MILES
Classification/Qualifier:	B

Kickamuit River (MA61-08)

Watershed Area: 3.62 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area* (square miles)	3.61	3.44	1.03	1.03
Agriculture	4.4%	4.5%	3.1%	3.1%
Developed	24.6%	25%	15.2%	15.2%
Natural	50.5%	49.6%	48.3%	48.3%
Wetland	20.5%	20.8%	33.4%	33.4%
Impervious	9.1%	9.3%	5.6%	5.6%

**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	(Physical Substrate Habitat Alterations*)	--	Unchanged
5	5	Benthic Macroinvertebrates	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	30702	Unchanged
5	5	Fecal Coliform	30702	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Physical Substrate Habitat Alterations*)	Channelization (Y)	X	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Benthic Macroinvertebrates	Source Unknown (N)	X	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--
Escherichia Coli (E. Coli)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Escherichia Coli (E. Coli)	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	--	X	X
Escherichia Coli (E. Coli)	Unspecified Urban Stormwater (Y)	--	--	--	X	X
Escherichia Coli (E. Coli)	Waterfowl (N)	--	--	--	X	X
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	--	X	X
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	--	X	X
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	--	X	X
Fecal Coliform	Waterfowl (N)	--	--	--	X	X

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics sampling has been conducted in the Kickamuit River (MA61-08); therefore, the Fish Consumption Use is Not Assessed.

Aesthetic

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary
The Aesthetics Use for Kickamuit River (MA61-08) is assessed as Fully Supporting based on the general lack of any objectionable conditions observed by MassDEP staff at six stations along the river during the summers of 2013 and 2015. MassDEP staff recorded aesthetics observations at six stations along this Kickamuit River AU in Swansea, in either the summer of 2013 or 2015, from up to downstream as follows: Stephen French Rd (W2564; 2015 n=4), ~60 ft downstream of culvert in Columbus Energies Inc. parking lot, south of Rt. 6 (W2563; 2015 n=4), Burnside Drive (W2562; 2015 n=4), Lynwood Road (W2561; 2015 n=4), ~1630 ft upstream from Bushee Rd (W2376; 2013 n=9), and Bushee Road (W1961; 2015 n=4). There were generally no noted objectionable conditions (odors, deposits, growths, or turbidity) recorded by DEP field sampling crews during the surveys at any of the sampling stations.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W1961	MassDEP	Water Quality	Kickamuit River	[Bushee Road, Swansea]	41.746914	-71.251302
W2376	MassDEP	Water Quality	Kickamuit River	[approximately 1630 feet upstream/east from Bushee Road, Swansea]	41.744702	-71.248262
W2561	MassDEP	Water Quality	Kickamuit River	[Lynwood Road, Swansea]	41.747132	-71.244039
W2562	MassDEP	Water Quality	Kickamuit River	[Burnside Drive, Swansea]	41.749290	-71.244048
W2563	MassDEP	Water Quality	Kickamuit River	[approximately 60 feet downstream of culvert in Columbus Energies Inc. parking lot, south off of Route 6, Swansea NOTE: between the road and the parking lot the river culverted approximately 160 feet]	41.753880	-71.239165
W2564	MassDEP	Water Quality	Kickamuit River	[Stephen French Road, Swansea]	41.761077	-71.232870

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
W1961	Kickamuit River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W1961 on Kickamuit River (MA61-08) during 4 site visits between Jun 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted dense/very dense aquatic plants (n=3).

Station Code	Waterbody	Data Year	Field Sheet Count	Aesthetics Summary Statement
W2376	Kickamuit River	2013	7	Aesthetic observations were made by MassDEP field sampling crews at Station W2376 on Kickamuit River (MA61-08) during 7 site visits between May 2013 and Sep 2013. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2561	Kickamuit River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2561 on Kickamuit River (MA61-08) during 4 site visits between Jun 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2562	Kickamuit River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2562 on Kickamuit River (MA61-08) during 4 site visits between Jun 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2563	Kickamuit River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2563 on Kickamuit River (MA61-08) during 4 site visits between Jun 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.
W2564	Kickamuit River	2015	4	Aesthetic observations were made by MassDEP field sampling crews at Station W2564 on Kickamuit River (MA61-08) during 4 site visits between Jun 2015 and Sep 2015. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded.

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

Station Code	Data Year	Field Sheet Count	Field Sheet Count w/ Film & Filamentous Algae Observations	Dense/ Very Dense Film/ Filamentous Algae
W1961	2015	4	2	0
W2376	2013	7	7	0
W2561	2015	4	4	0
W2562	2015	4	4	0
W2563	2015	4	4	0
W2564	2015	4	4	0

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W1961	Kickamuit River	2015	Color	None	4	4
W1961	Kickamuit River	2015	Odor	None	4	4
W1961	Kickamuit River	2015	Turbidity	Slightly Turbid	4	4
W1961	Kickamuit River	2015	Aquatic Plant Density, Overall	Moderate	1	4
W1961	Kickamuit River	2015	Aquatic Plant Density, Overall	Very Dense	3	4
W1961	Kickamuit River	2015	Periphyton Density, Filamentous	Unobservable	2	4
W1961	Kickamuit River	2015	Periphyton Density, Filamentous	None	2	4
W1961	Kickamuit River	2015	Periphyton Density, Film	Unobservable	2	4
W1961	Kickamuit River	2015	Periphyton Density, Film	None	1	4
W1961	Kickamuit River	2015	Periphyton Density, Film	Sparse	1	4

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2376	Kickamuit River	2013	Color	None	4	7
W2376	Kickamuit River	2013	Color	Light Yellow/Tan	3	7
W2376	Kickamuit River	2013	Odor	Not Recorded	1	7
W2376	Kickamuit River	2013	Odor	None	6	7
W2376	Kickamuit River	2013	Turbidity	None	6	7
W2376	Kickamuit River	2013	Turbidity	Slightly Turbid	1	7
W2376	Kickamuit River	2013	Objectionable Deposits	No	7	7
W2376	Kickamuit River	2013	Scum	Not Recorded	1	7
W2376	Kickamuit River	2013	Scum	No	6	7
W2376	Kickamuit River	2013	Aquatic Plant Density, Overall	None	7	7
W2376	Kickamuit River	2013	Periphyton Density, Filamentous	None	7	7
W2376	Kickamuit River	2013	Periphyton Density, Film	None	7	7
W2376	Kickamuit River	2013	Aesthetics Impaired?	No	7	7
W2561	Kickamuit River	2015	Color	None	4	4
W2561	Kickamuit River	2015	Odor	None	4	4
W2561	Kickamuit River	2015	Turbidity	Slightly Turbid	4	4
W2561	Kickamuit River	2015	Aquatic Plant Density, Overall	None	3	4
W2561	Kickamuit River	2015	Aquatic Plant Density, Overall	Sparse	1	4
W2561	Kickamuit River	2015	Periphyton Density, Filamentous	None	4	4
W2561	Kickamuit River	2015	Periphyton Density, Film	None	1	4
W2561	Kickamuit River	2015	Periphyton Density, Film	Sparse	3	4
W2562	Kickamuit River	2015	Color	None	4	4
W2562	Kickamuit River	2015	Odor	None	4	4
W2562	Kickamuit River	2015	Turbidity	Slightly Turbid	4	4
W2562	Kickamuit River	2015	Aquatic Plant Density, Overall	None	1	4
W2562	Kickamuit River	2015	Aquatic Plant Density, Overall	Sparse	3	4
W2562	Kickamuit River	2015	Periphyton Density, Filamentous	None	4	4
W2562	Kickamuit River	2015	Periphyton Density, Film	None	1	4
W2562	Kickamuit River	2015	Periphyton Density, Film	Sparse	3	4
W2563	Kickamuit River	2015	Color	None	4	4
W2563	Kickamuit River	2015	Odor	None	3	4
W2563	Kickamuit River	2015	Odor	Other (Metallic)	1	4
W2563	Kickamuit River	2015	Turbidity	Slightly Turbid	4	4
W2563	Kickamuit River	2015	Aquatic Plant Density, Overall	Sparse	4	4
W2563	Kickamuit River	2015	Periphyton Density, Filamentous	None	4	4
W2563	Kickamuit River	2015	Periphyton Density, Film	Sparse	4	4
W2564	Kickamuit River	2015	Color	None	4	4
W2564	Kickamuit River	2015	Odor	None	4	4
W2564	Kickamuit River	2015	Turbidity	Slightly Turbid	2	4
W2564	Kickamuit River	2015	Turbidity	Moderately Turbid	2	4
W2564	Kickamuit River	2015	Aquatic Plant Density, Overall	None	4	4
W2564	Kickamuit River	2015	Periphyton Density, Filamentous	None	4	4
W2564	Kickamuit River	2015	Periphyton Density, Film	None	2	4

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2564	Kickamuit River	2015	Periphyton Density, Film	Sparse	2	4

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary

The Primary Contact Recreational Use for the Kickamuit River (MA61-08) will continue to be assessed as Not Supporting, since the *E. coli* bacteria concentrations in samples collected from the river by MassDEP staff in 2013 and 2015 exceeded the 2024 CALM impairment thresholds. Both the *Escherichia Coli* (*E. coli*) and Fecal Coliform impairments are being carried forward.

E. coli bacteria samples were collected in Kickamuit River by MassDEP staff four to five times per year for the purpose of either bacteria source tracking (BST) or the MAP2 project, at the following sampling stations, data years: Stephen French Rd (W2564, 2015), ~60 ft downstream of culvert in Columbus Energies Inc. parking lot, south of Rt. 6 (W2563, 2015), Burnside Drive (W2562, 2015), Lynwood Rd (W2561, 2015), ~1630 ft upstream from Bushee Rd (W2376, 2013) and Bushee Road (W1961, 2015). Analysis of these single-year low frequency *E. coli* datasets indicated 100% of intervals had GMs >126 CFU/100ml at all six stations, with seasonal GM's ranging 205-618 CFU/100ml and >two samples exceeded the 410 CFU/100ml STV at four out of the six stations.

Monitoring Stations

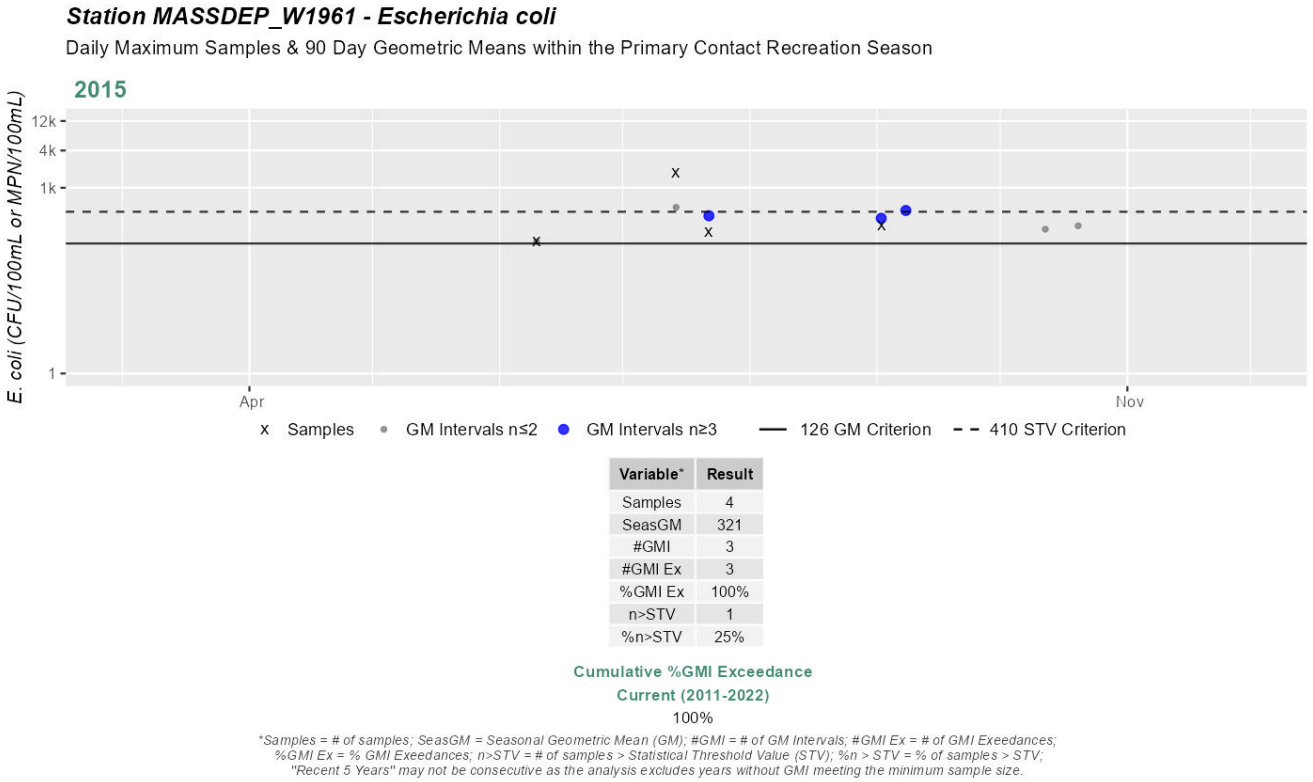
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W1961	MassDEP	Water Quality	Kickamuit River	[Bushee Road, Swansea]	41.746914	-71.251302
W2376	MassDEP	Water Quality	Kickamuit River	[approximately 1630 feet upstream/east from Bushee Road, Swansea]	41.744702	-71.248262
W2561	MassDEP	Water Quality	Kickamuit River	[Lynwood Road, Swansea]	41.747132	-71.244039
W2562	MassDEP	Water Quality	Kickamuit River	[Burnside Drive, Swansea]	41.749290	-71.244048
W2563	MassDEP	Water Quality	Kickamuit River	[approximately 60 feet downstream of culvert in Columbus Energies Inc. parking lot, south off of Route 6, Swansea NOTE: between the road and the parking lot the river culverted approximately 160 feet]	41.753880	-71.239165
W2564	MassDEP	Water Quality	Kickamuit River	[Stephen French Road, Swansea]	41.761077	-71.232870

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)

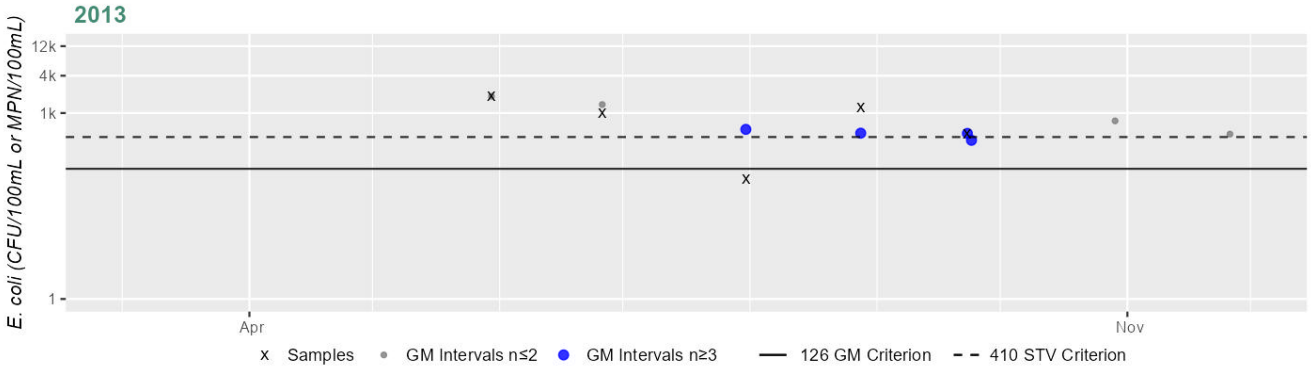
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W1961	MassDEP	E. coli	06/10/15	09/02/15	4	135	1730	321
W2376	MassDEP	E. coli	05/30/13	09/23/13	5	86	1860	617
W2561	MassDEP	E. coli	06/10/15	09/02/15	4	96	2419	390
W2562	MassDEP	E. coli	06/10/15	09/02/15	4	88	727	336
W2563	MassDEP	E. coli	06/10/15	09/02/15	4	27	1200	204
W2564	MassDEP	E. coli	06/10/15	09/02/15	4	214	770	356



Station MASSDEP_W2376 - Escherichia coli

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



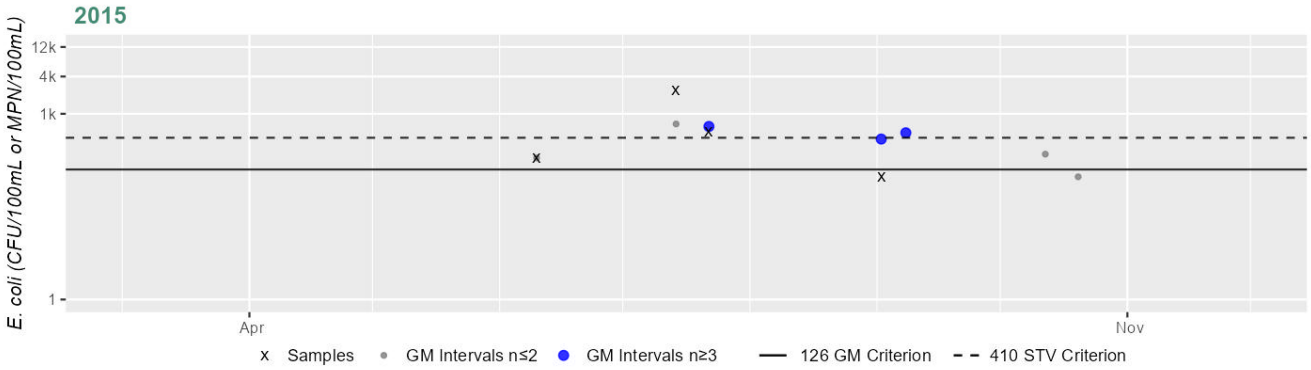
Variable*	Result
Samples	5
SeasGM	617
#GMI	4
#GMI Ex	4
%GMI Ex	100%
n>STV	4
%n>STV	80%

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_W2561 - Escherichia coli

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



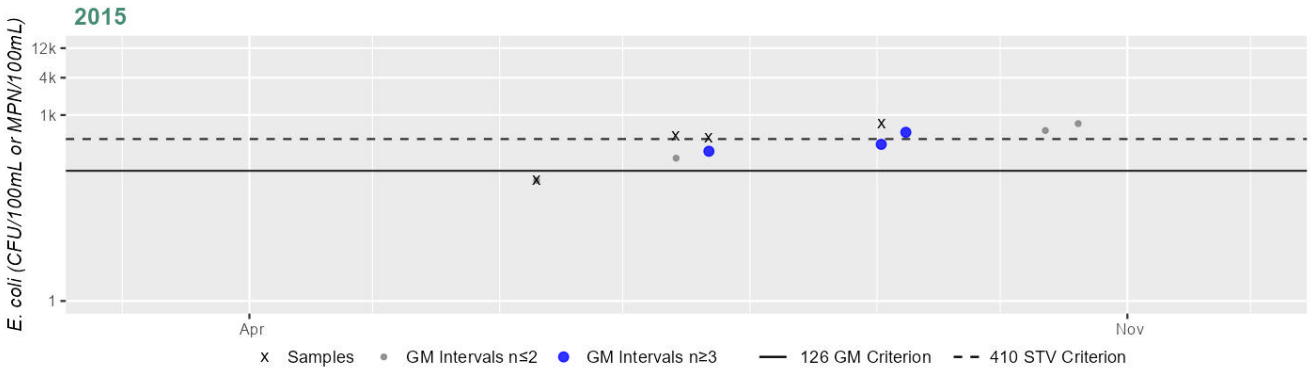
Variable*	Result
Samples	4
SeasGM	390
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	2
%n>STV	50%

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_W2562 - Escherichia coli

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



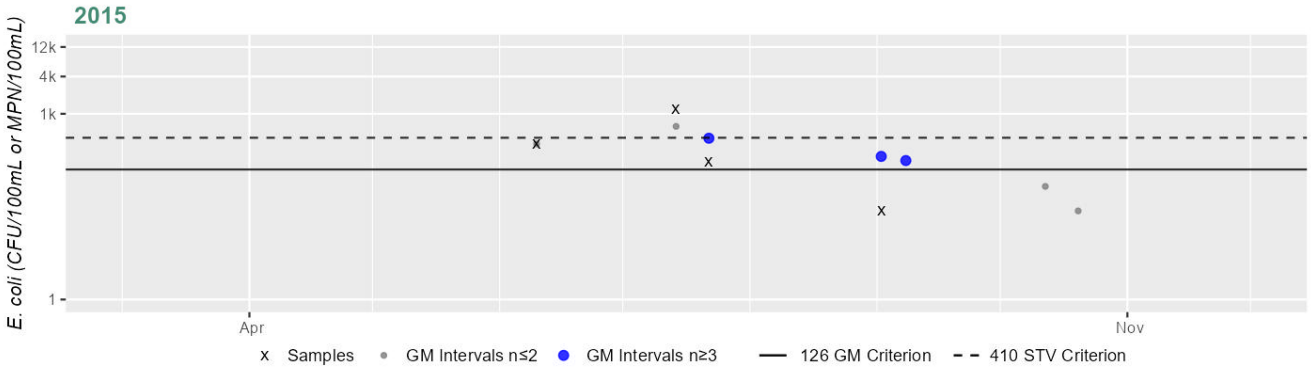
Variable*	Result
Samples	4
SeasGM	336
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	3
%n>STV	75%

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_W2563 - Escherichia coli

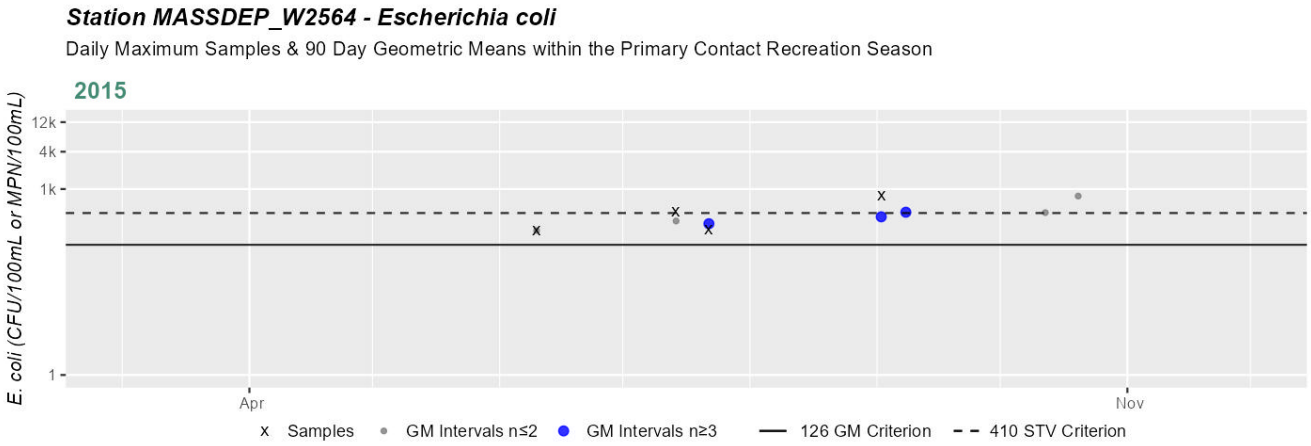
Daily Maximum Samples & 90 Day Geometric Means within the Primary Contact Recreation Season



Variable*	Result
Samples	4
SeasGM	204
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	25%

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.*



Variable*	Result
Samples	4
SeasGM	356
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	2
%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
BST work was conducted in 2015 at 5 sites along the Kickamuit River AU (MA61-08), with E.coli concentrations ranging 27 to >2,419.6MPN and on 1 unnamed tributary discharging to the downstream half of the AU with a max E.coli concentration of 2,419.6MPN. In 2015 human marker analysis on the tributary indicated “inconclusive” evidence of a human source. Overall, it was concluded that the data collected did not suggest the presence of a human source of bacteria in this watershed.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary

The Secondary Contact Recreational Use for the Kickamuit River (MA61-08) is assessed as Not Supporting with the *Escherichia Coli* (*E. Coli*) impairment being added. Although the *Escherichia Coli* (*E. coli*) impairment was removed in the 2022 IR cycle, the impairment is being reinstated based on this reevaluation of the data using lower thresholds (exceedances occurred at W2561 in 2015 and W2376 in 2013) as per the 2024 CALM.
E. coli bacteria samples were collected in Kickamuit River by MassDEP between May and September at the following sampling stations, data years: Stephen French Rd (W2564, 2015 n=4), ~60 ft downstream of culvert in Columbus Energies Inc. parking lot, south of Rt. 6 (W2563, 2015 n=4), Burnside Drive (W2562, 2015 n=4), Lynwood Rd (W2561, 2015 n=4), ~1630 ft upstream from Bushee Rd (W2376, 2013 n=5) and Bushee Road (W1961, 2009 n=6 & 2015 n=4). Analysis of the single year low frequency *E. coli* datasets in the current IR window (2011-2022) indicated that at two of the six sample stations (W2561 and W2376) 100% of GM intervals >244 CFU/100ml, with seasonal GM's of 390 and 617 CFU/100ml and 1 or 3 samples exceeding the 794 CFU/100ml STV respectively. Historic data collected in 2009 at W1961 were also indicative of poor conditions.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W1961	MassDEP	Water Quality	Kickamuit River	[Bushee Road, Swansea]	41.746914	-71.251302
W2376	MassDEP	Water Quality	Kickamuit River	[approximately 1630 feet upstream/east from Bushee Road, Swansea]	41.744702	-71.248262
W2561	MassDEP	Water Quality	Kickamuit River	[Lynwood Road, Swansea]	41.747132	-71.244039
W2562	MassDEP	Water Quality	Kickamuit River	[Burnside Drive, Swansea]	41.749290	-71.244048
W2563	MassDEP	Water Quality	Kickamuit River	[approximately 60 feet downstream of culvert in Columbus Energies Inc. parking lot, south off of Route 6, Swansea NOTE: between the road and the parking lot the river culverted approximately 160 feet]	41.753880	-71.239165
W2564	MassDEP	Water Quality	Kickamuit River	[Stephen French Road, Swansea]	41.761077	-71.232870

Bacteria Data

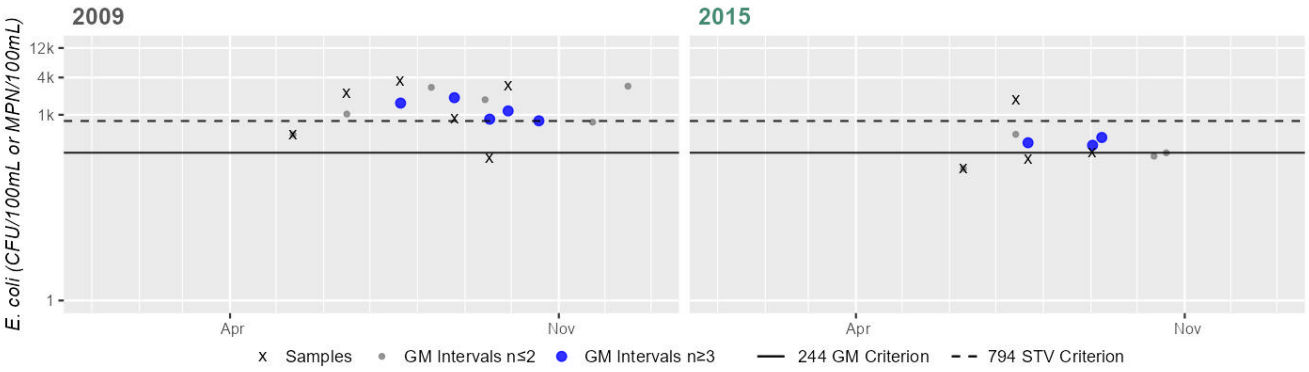
Bacteria Data Collected by MassDEP (1997-2020) and External Data Providers (1997-2022) (90-day Interval Analysis)
(MassDEP Undated 7) (MassDEP Undated 3)
[Result units are CFU/100ml or MPN/100ml]

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W1961	MassDEP	E. coli	05/12/09	09/29/09	6	200	3490	1111
W1961	MassDEP	E. coli	06/10/15	09/02/15	4	135	1730	321
W2376	MassDEP	E. coli	05/30/13	09/23/13	5	86	1860	617
W2561	MassDEP	E. coli	06/10/15	09/02/15	4	96	2419	390
W2562	MassDEP	E. coli	06/10/15	09/02/15	4	88	727	336
W2563	MassDEP	E. coli	06/10/15	09/02/15	4	27	1200	204

Station Code	Organization	Indicator	Start Date	End Date	Sample Count	Minimum Sample Result	Maximum Sample Result	Seasonal Geometric Mean
W2564	MassDEP	E. coli	06/10/15	09/02/15	4	214	770	356

Station MASSDEP_W1961 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	1111
#GMI	5
#GMI Ex	5
%GMI Ex	100%
n>STV	4
%n>STV	66%

Variable*	Result
Samples	4
SeasGM	321
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	25%

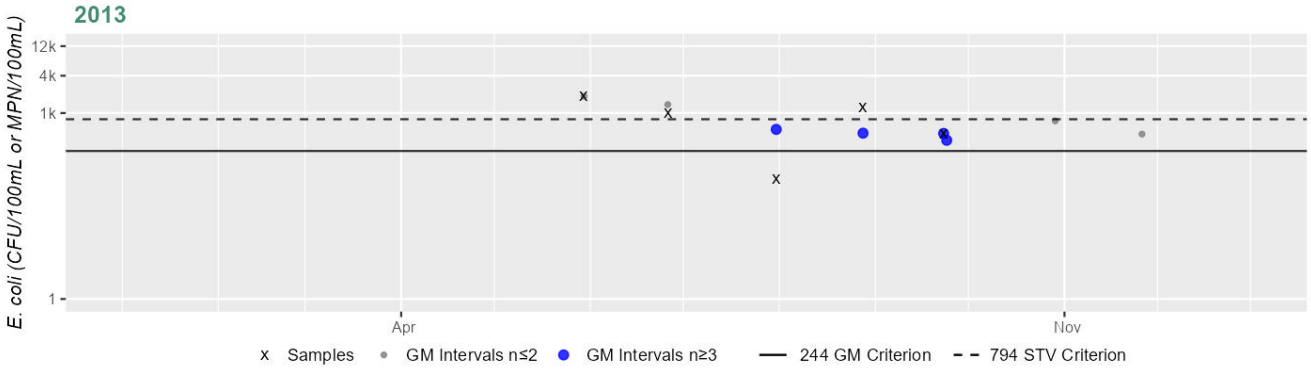
Cumulative %GMI Exceedance
Historic (1997-2010)
100%

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_W2376 - Escherichia coli

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



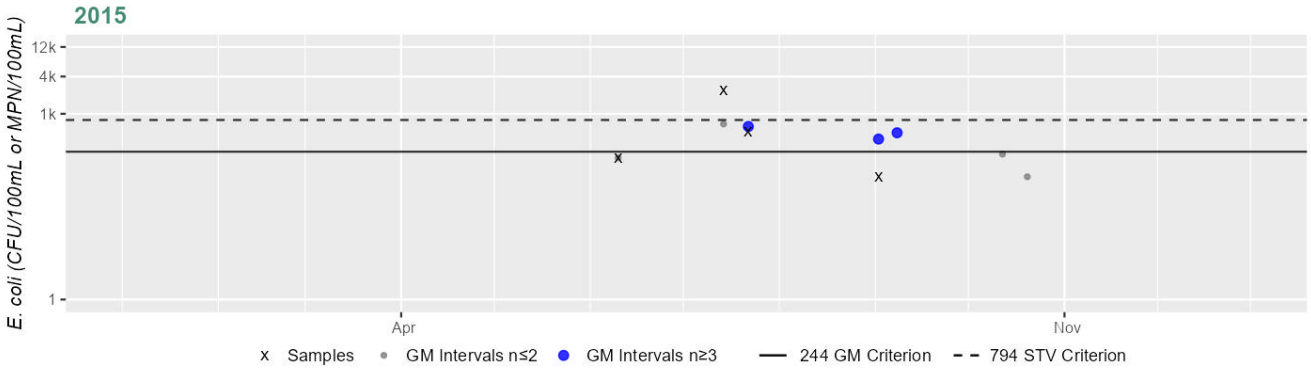
Variable*	Result
Samples	5
SeasGM	617
#GMI	4
#GMI Ex	4
%GMI Ex	100%
n>STV	3
%n>STV	60%

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

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

Station MASSDEP_W2561 - Escherichia coli

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



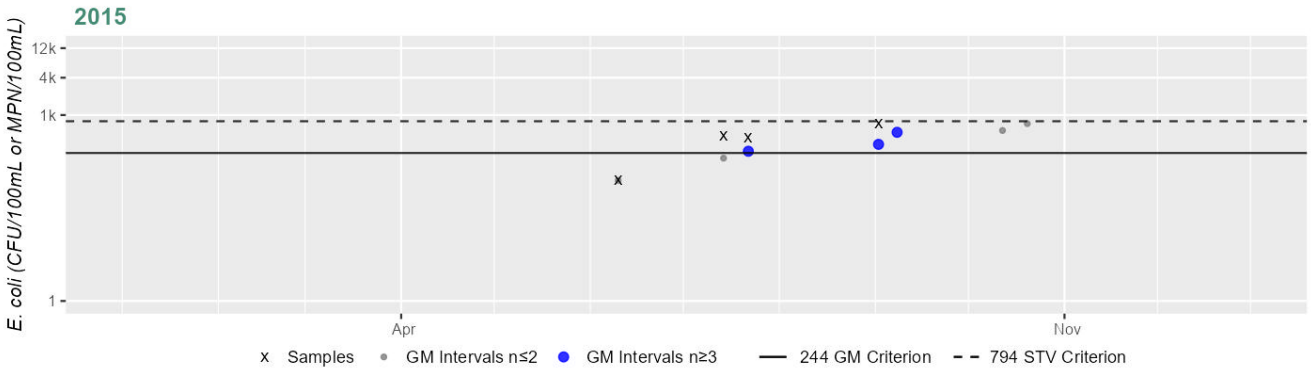
Variable*	Result
Samples	4
SeasGM	390
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	1
%n>STV	25%

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_W2562 - Escherichia coli

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



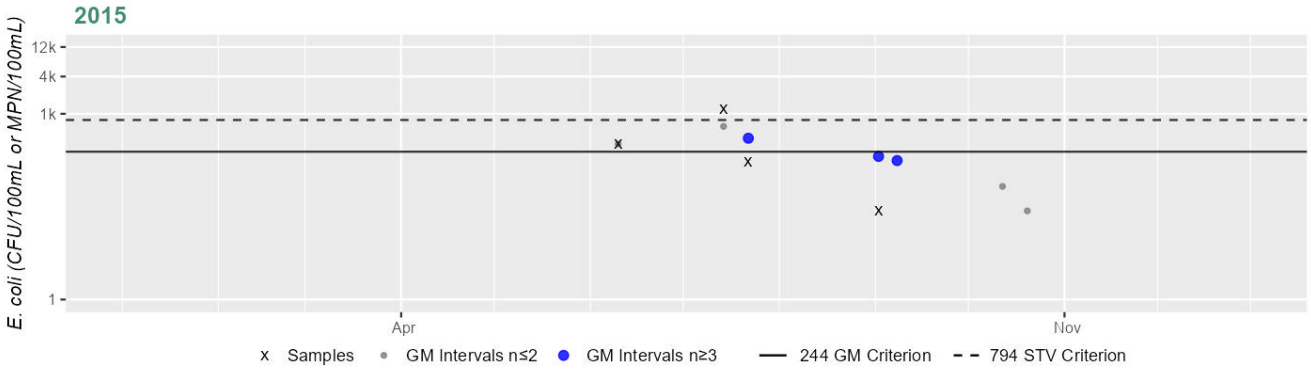
Variable*	Result
Samples	4
SeasGM	336
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	0
%n>STV	0%

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

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

Station MASSDEP_W2563 - Escherichia coli

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



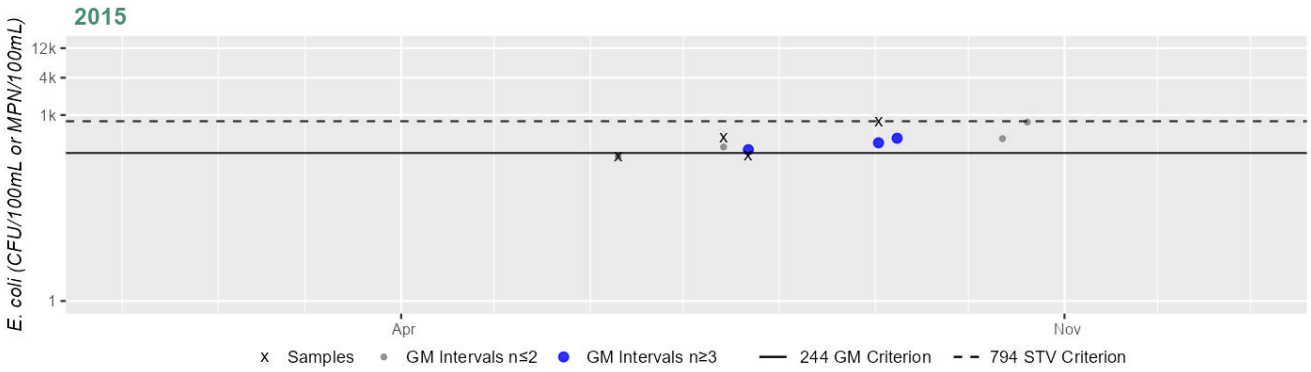
Variable*	Result
Samples	4
SeasGM	204
#GMI	3
#GMI Ex	1
%GMI Ex	33%
n>STV	1
%n>STV	25%

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_W2564 - Escherichia coli

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



Variable*	Result
Samples	4
SeasGM	356
#GMI	3
#GMI Ex	3
%GMI Ex	100%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance

Current (2011-2022)

100%

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

Lee River (MA61-01)

Location:	From confluence with Lewin Brook, Swansea to Route 6, Swansea/Somerset.
AU Type:	ESTUARY
AU Size:	0.02 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Fecal Coliform	38905	Unchanged
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (N)	--	--	X	--	X	--
Fecal Coliform	Illicit Connections/Hook-ups to Storm Sewers (N)	--	--	X	--	X	--
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	X	--	X	--
Nutrient/Eutrophication Biological Indicators	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	X	--	--	X	X	X
Nutrient/Eutrophication Biological Indicators	Unspecified Urban Stormwater (N)	X	--	--	X	X	X

Recommendations

2024/26 Recommendations
2022 IR [Bacteria, Medium] Conduct high frequency monitoring for Enterococcus bacteria in Lee River (MA61-01) at stations {LR07, LR07A} since at least one significant source of bacteria has recently been eliminated by the Town of Swansea Board of Health, overseen by the SERO BST program. This data is necessary to better assess the status of the Primary and Secondary Contact Recreational Uses. This is of medium priority.

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics sampling has been conducted in this Lee River AU (MA61-01), therefore the Fish Consumption Use is Not Assessed.

Shellfish Harvesting

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
Lee River (MA61-01): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0197 sq mi (95%). The approved shellfish growing area represents 0 sq mi (0%). The prohibited shellfish growing area represents 0.0197 sq mi (95%). There is insufficient information available to assess the Shellfish Harvesting Use because the growing areas within this AU are classified as either entirely prohibited or a combination of approved and prohibited. There is insufficient information available to delist the existing Fecal Coliform impairment so the Shellfish Harvesting Use is evaluated as not supporting.

Shellfish Growing Area Classifications

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

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
MHB3.8	Lee River Prohibited	Prohibited	0.01971	94.6%

Aesthetic

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
Since no new data are available, the Aesthetics Use for Lee River (MA61-01) will continue to be assessed as Not Supporting with the Nutrient/Eutrophication Biological Indicators impairment being carried forward.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Primary Contact Recreational Use for this Lee River AU (MA61-01) will continue to be assessed as Not Supporting, with the Fecal Coliform and Nutrient/Eutrophication Biological Indicators impairments being carried forward. MassDEP conducted BST work prior to 2011 and also in 2011-2013, on an unnamed tributary discharging roughly to the middle of this Lee River AU (MA61-01). In 2009, human marker analysis indicated "strong" evidence of a human source just upstream of Elm Street, with a max *E. coli* concentration of 19,863MPN. In 2012/2013 a human source was identified associated with a wetland just upstream of Elm Street (an old cesspool that had not been correctly abandoned, with a washing machine tied in). The Town of Swansea Board of Health arranged to have this source removed. Later in 2013 once corrections had been confirmed, follow-up samples at the Elm Street Bridge were very low in July and August (119 & 193MPN respectively). No other more recent data are available.

Bacteria Data

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

Summary
BST work was conducted prior to 2011 and also 2011-2013, on an unnamed tributary discharging roughly to the middle of the Lee River AU (MA61-01). In 2009, human marker analysis indicated "strong" evidence of a human source just upstream of Elm Street, with a max E.coli concentration of 19,863MPN. In 2012/2013 a human source was identified associated with a wetland just upstream of Elm Street (an old cess pool that had not been correctly abandoned, with a washing machine tied in). The Town of Swansea Board of Health arranged to have this source removed. Later in 2013 once corrections had been confirmed, follow-up samples at the Elm Street Bridge were very low, meeting single sample standards both in July and August.

Shellfish Growing Area Classifications

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

Summary
Lee River (MA61-01): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0197 sq mi (95%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Secondary Contact Recreational Use for this Lee River AU (MA61-01) will continue to be assessed as Not Supporting, with the Nutrient/Eutrophication Biological Indicators impairment being carried forward. MassDEP conducted BST work prior to 2011 and also 2011-2013, on an unnamed tributary discharging roughly to the middle of this Lee River AU (MA61-01). In 2009, human marker analysis indicated "strong" evidence of a human source just upstream of Elm Street, with a max *E. coli* concentration of 19,863MPN. In 2012/2013 a human source was identified associated with a wetland just upstream of Elm Street (an old cesspool that had not been correctly abandoned, with a washing machine tied in). The Town of Swansea Board of Health arranged to have this source removed. Later in 2013 once corrections had been confirmed, follow-up samples at the Elm Street Bridge were very low in July and August (119 & 193MPN respectively). No other more recent data are available.

Shellfish Growing Area Classifications

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

Summary
Lee River (MA61-01): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.0197 sq mi (95%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Lee River (MA61-02)

Location:	Route 6, Swansea/Somerset to mouth at Mount Hope Bay, Swansea/Somerset.
AU Type:	ESTUARY
AU Size:	0.51 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Chlorophyll-a	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Fecal Coliform	38906	Unchanged
5	5	Nitrogen, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Chlorophyll-a	Source Unknown (N)	X	--	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--	--
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	--	--	--
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (Y)	--	--	X	--	--	--
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	X	--	--	--
Nitrogen, Total	Source Unknown (N)	X	--	--	--	--	--

Recommendations

2024/26 Recommendations
2016 IR [Aesthetics, Low]; As was first recommended in the 2016IR, conduct a thorough survey of aesthetics conditions in this Lee River AU (MA61-02) paying close attention to presence/absence of trash & debris, presence/absence of any colored discharge(s) at storm-drain outfall pipes, and presence/absence of septic odor. The original data (used to assess the aesthetics use as impaired) was based on notes from locals identifying these issues after rainfall events. This is of low priority.

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics sampling has been conducted in this Lee River AU (MA61-02), therefore the Fish Consumption Use is Not Assessed.

Shellfish Harvesting

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
Lee River (MA61-02): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.5012 sq mi (98%). The approved shellfish growing area represents 0 sq mi (0%). The Shellfish Harvesting Use is assessed as not supporting because the growing area (normalized to the AU area) is < 100% approved. Based on the new growing area classifications and the prior classifications, the existing fecal coliform impairment is being retained.

Shellfish Growing Area Classifications

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

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
MHB1.1	Mount Hope Bay	Conditionally Approved	0.00015	0.0%
MHB3.1	Lower River, Swansea	Conditionally Approved	0.19293	37.9%
MHB3.2	Lees River - Swansea	Prohibited	0.00003	0.0%
MHB3.3	Lees River - Swansea	Prohibited	0.00003	0.0%
MHB3.8	Lee River Prohibited	Prohibited	0.30808	60.5%

Aesthetic

2026/26 Use Attainment	Alert
Not Assessed	YES

2026/26 Use Attainment Summary
There are no data available to assess the status of the Aesthetics Use for Lee River (MA61-02), so it is Not Assessed. The Alert identified in the 2016IR is being retained (i.e. localized and occasional areas of trash/debris and odor).

Primary Contact Recreation

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary
The Primary Contact Recreational Use for Lee River (MA61-02) will continue to be assessed as Fully Supporting because there were infrequent swimming advisory postings at Leeside Beach between 2014 and 2022. The Alert for localized and occasional areas of trash/debris and odor (identified in the 2016IR) is being removed from the recreational uses but continues to be maintained under the Aesthetics Use. The Leeside Beach, located in Swansea along the western shore of this Lee River AU, was infrequently posted for swimming between 2014 and 2022, except during the summer of 2015 when posting exceeded 10% (at 16%). Note that the maximum percentage of beach closures in the seven years from 2016 through 2022 was 7% and there were no closures in the last three years. The Alert identified for the 2022IR, due to "two" years where postings exceeded 10% of the swimming season, was in error and is being removed; the number of postings for 2016 has now been corrected to 6% (2016 data for Leeside beach in the 2022IR was erroneously reported as 14%).

Beach Postings

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

Beach ID	Beach Name/ Town	Left Border (Lat., Long)	Right Border (Lat., Long)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
5413	Leeside/ Swansea	41.71830, -71.19780	41.71900, -71.19670	6%	16%	6%	0%	7%	7%	0%	0%	0%	1

Shellfish Growing Area Classifications

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

Summary
Lee River (MA61-02): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.5012 sq mi (98%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary
The Secondary Contact Recreational Use for Lee River (MA61-02) will continue to be assessed as Fully Supporting because there were infrequent swimming advisory postings at Leeside Beach between 2014 and 2022. The Alert for localized and occasional areas of trash/debris and odor (identified in the 2016IR) is being removed from the recreational uses but continues to be maintained under the Aesthetics Use. The Leeside Beach, located in Swansea along the western shore of this Lee River AU (MA61-02), was infrequently posted for swimming between 2014 and 2022 except during the summer of 2015 when posting exceeded 10% (at 16%). Note that the maximum percentage of beach closures in the seven years from 2016 through 2022 was 7% and there were no closures in the last three years. The Alert identified for the 2022IR due to "two” years where postings exceeded 10% of the swimming season was in error and is being removed; the number of postings for 2016 has now been corrected to 6% (2016 data for Leeside beach in the 2022IR was erroneously reported as 14%).

Shellfish Growing Area Classifications

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

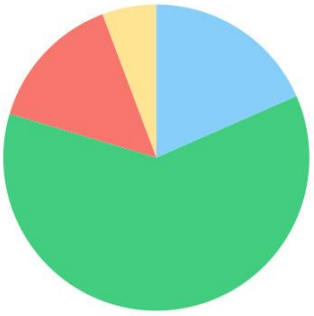
Summary
Lee River (MA61-02): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 0.5012 sq mi (98%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Lewin Brook (MA61-09)

Location:	Headwaters, west of Sharps Lot Road, Swansea to the inlet of the unnamed impoundment north of Lewin Lane, Swansea (impoundment upstream of dam, NATID# MA03247).
AU Type:	RIVER
AU Size:	1.9 MILES
Classification/Qualifier:	B

Lewin Brook (MA61-09)

Watershed Area: 2.67 square miles



Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area (square miles)	2.67	2.67	0.81	0.81
Agriculture	5.7%	5.7%	4.3%	4.3%
Developed	14.7%	14.7%	10.7%	10.7%
Natural	61.2%	61.2%	58.2%	58.2%
Wetland	18.4%	18.4%	26.9%	26.9%
Impervious	5.4%	5.4%	3.9%	3.9%

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

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

Supporting Information for Removed Impairments

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics sampling has been conducted in this Lewin Brook AU (MA61-09), therefore the Fish Consumption Use is Not Assessed.

Aesthetic

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for this Lewin Brook AU (MA61-09), so it is Not Assessed.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
There are no new/recent *E. Coli* bacteria data available to assess the status of the Primary Contact Recreational Use for this Lewin Brook AU (MA61-09) so it will continue to be assessed as Not Supporting with the Escherichia Coli (E. Coli) impairment being carried forward.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Secondary Contact Recreation Use for Lewin Brook (MA61-09) 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 W0654. *E. coli* bacteria data were collected by MassDEP staff in this Lewin Brook AU at Robin Brook Road, Swansea (W0654), once in September 1999 and roughly monthly between May and September 2009 (n=6). Analysis of the single year, low frequency data collected during 2009 indicated poor conditions as 80% of the intervals had GMs >244 CFU/100ml and the seasonal GM was 247 CFU/100ml. The *E. coli* concentrations at Robin Brook Road were above the 2024 CALM impairment thresholds for the single year low frequency dataset in 2009 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
W0654	MassDEP	Water Quality	Lewin Brook	[Robin Brook Road, Swansea]	41.766953	-71.185525

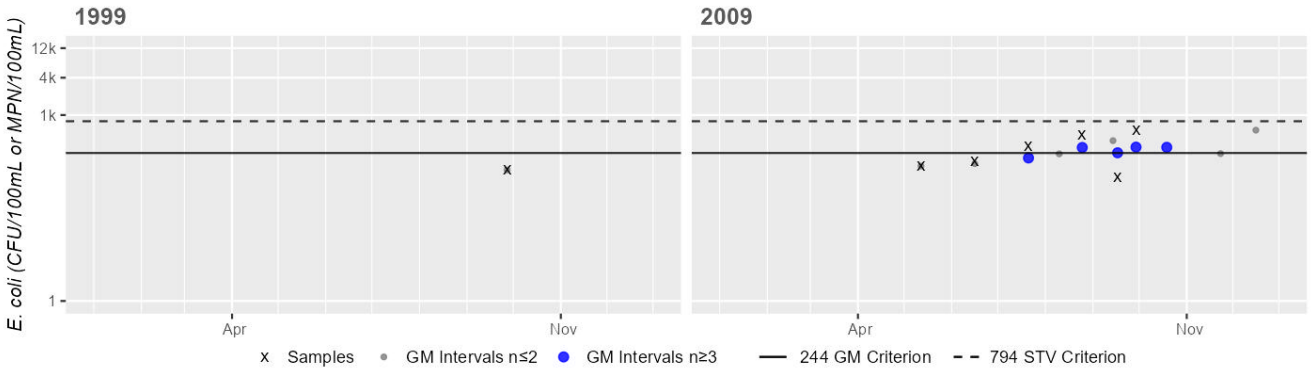
Bacteria Data

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
W0654	MassDEP	E. coli	09/27/99	09/27/99	1	130	130	129
W0654	MassDEP	E. coli	05/12/09	09/29/09	6	100	570	247

Station MASSDEP_W0654 - Escherichia coli

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



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

Variable*	Result
Samples	6
SeasGM	247
#GMI	5
#GMI Ex	4
%GMI Ex	80%
n>STV	0
%n>STV	0%

Cumulative %GMI Exceedance
Historic (1997-2010)
80%

**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.*

Lewin Brook Pond (MA61011)

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

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

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Fish Consumption Use for Lewin Brook Pond (MA61011) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Lewin Brook Pond in their January 2025 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

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Lewin Brook Pond (MA61011) is Not Assessed.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No bacteria or other indicator data for Lewin Brook Pond (MA61011) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No bacteria or other indicator data for Lewin Brook Pond (MA61011) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Mount Hope Bay (MA61-06)

Location:	The Massachusetts portion just upstream of the Braga Bridge, Fall River/Somerset to the state border Fall River, MA/Tiverton, RI to the line from Brayton Point Somerset to MA/RI border approximately 3/4 of a mile due east of Spar Island, RI.
AU Type:	ESTUARY
AU Size:	2.32 SQUARE MILES
Classification/Qualifier:	SB: SFR, CSO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Chlorophyll-a	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Enterococcus	38908	Unchanged
5	5	Fecal Coliform	38908	Unchanged
5	5	Fish Bioassessments	--	Unchanged
5	5	Nitrogen, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Chlorophyll-a	Municipal Point Source Discharges (Y)	X	--	--	--	--	--
Chlorophyll-a	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO) (N)	X	--	--	--	--	--
Dissolved Oxygen	Source Unknown (N)	X	--	--	--	--	--
Enterococcus	Combined Sewer Overflows (Y)	--	--	--	--	X	X
Fecal Coliform	Combined Sewer Overflows (Y)	--	--	X	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	--	--	--
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (N)	--	--	X	--	--	--
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	X	--	--	--
Fecal Coliform	Waterfowl (N)	--	--	X	--	--	--
Fish Bioassessments	Historical Source, No Longer Present (Y)	X	--	--	--	--	--
Nitrogen, Total	Municipal Point Source Discharges (Y)	X	--	--	--	--	--
Nitrogen, Total	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO) (N)	X	--	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
Since there is no site-specific fish consumption advisory for this Mount Hope Bay AU (MA61-06), the Fish Consumption Use is Not Assessed.

Shellfish Harvesting

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
Mount Hope Bay (MA61-06): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 2.3148 sq mi (100%). The sum of the approved, conditionally approved, and restricted shellfish growing areas represents 0 sq mi (0%). The prohibited shellfish growing area represents 2.3148 sq mi (100%). There is insufficient information available to assess the Shellfish Harvesting Use because the growing areas within this AU are classified as either entirely prohibited or a combination of prohibited and approved, conditionally approved, and/or restricted. There is insufficient information available to delist the existing Fecal Coliform impairment so the Shellfish Harvesting Use is evaluated as not supporting.

Shellfish Growing Area Classifications

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

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
MHB1.2	Mount Hope Bay	Prohibited	1.36468	58.8%
MHB2.3	Taunton River	Prohibited	0.95007	40.9%

Aesthetic

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
There are no data available to assess the status of the Aesthetics Use for Mount Hope Bay (MA61-06), so it is Not Assessed. The Alert previously identified for high possibility of aesthetic degradation (i.e. odors, turbidity, trash/debris) associated with the multiple CSO discharges to this Mount Hope Bay AU, is being removed from the Aesthetics Use (due to redundant duplication across multiple Uses). The CSO related impairment for this Mount Hope Bay AU will be maintained under the Primary Contact Recreation use as an *E.coli* impairment.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
There are no new/recent Enterococci bacteria data available to assess the status of the Primary Contact Recreational Use for this Mount Hope Bay AU (MA61-06) so it will continue to be assessed as Not Supporting with the Enterococcus impairment being carried forward.

Shellfish Growing Area Classifications

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

Summary
Mount Hope Bay (MA61-06): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 2.3148 sq mi (100%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
There are no new/recent Enterococci bacteria data available to assess the status of the Secondary Contact Recreational Use for this Mount Hope Bay AU (MA61-06) so it will continue to be assessed as Not Supporting, with the Enterococcus impairment being carried forward.

Shellfish Growing Area Classifications

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

Summary
Mount Hope Bay (MA61-06): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 2.3148 sq mi (100%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Mount Hope Bay (MA61-07)

Location:	the Massachusetts portion from mouth of Cole River (at old railway grade), Swansea to state border Swansea, MA/Warren, RI to the line from Brayton Point, Somerset to MA/RI border approximately 3/4 of a mile due east of Spar Island, RI to the line between Bay Point, Swansea and Brayton Point, Somerset (the mouth of the Lee River).
AU Type:	ESTUARY
AU Size:	1.84 SQUARE MILES
Classification/Qualifier:	SA: SFO

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Chlorophyll-a	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Fecal Coliform	38909	Unchanged
5	5	Fish Bioassessments	--	Unchanged
5	5	Nitrogen, Total	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Chlorophyll-a	Municipal Point Source Discharges (Y)	X	--	--	--	--	--
Chlorophyll-a	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO) (Y)	X	--	--	--	--	--
Dissolved Oxygen	Municipal Point Source Discharges (Y)	X	--	--	--	--	--

Impairment	Source (Confirmed Y/N)	ALU	FC	SH	AES	PCR	SCR
Dissolved Oxygen	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO) (Y)	X	--	--	--	--	--
Fecal Coliform	Combined Sewer Overflows (Y)	--	--	X	--	--	--
Fecal Coliform	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	--	--	--
Fecal Coliform	Illicit Connections/Hook-ups to Storm Sewers (Y)	--	--	X	--	--	--
Fecal Coliform	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) (N)	--	--	X	--	--	--
Fecal Coliform	Unspecified Urban Stormwater (Y)	--	--	X	--	--	--
Fecal Coliform	Waterfowl (N)	--	--	X	--	--	--
Fish Bioassessments	Historical Source, No Longer Present (Y)	X	--	--	--	--	--
Nitrogen, Total	Municipal Point Source Discharges (Y)	X	--	--	--	--	--
Nitrogen, Total	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO) (Y)	X	--	--	--	--	--

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
Since there is no site-specific fish consumption advisory for this Mount Hope Bay AU (MA61-07), the Fish Consumption Use is Not Assessed.

Shellfish Harvesting

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
Mount Hope Bay (MA61-07): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 1.8316 sq mi (100%). The approved shellfish growing area represents 0 sq mi (0%). The Shellfish Harvesting Use is assessed as not supporting because the growing area (normalized to the AU area) is < 100% approved. Based on the new growing area classifications and the prior classifications, the existing fecal coliform impairment is being retained.

Shellfish Growing Area Classifications

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

Area Name	Waterbody/Area Description	Classification	Area (Sq. Mi.)	Area (% of AU)
MHB1.1	Mount Hope Bay	Conditionally Approved	0.79982	43.6%
MHB1.2	Mount Hope Bay	Prohibited	0.30393	16.6%
MHB3.1	Lower River, Swansea	Conditionally Approved	0.00240	0.1%
MHB3.8	Lee River Prohibited	Prohibited	0.00586	0.3%
MHB4.01	Seaview Ave Mooring Area	Conditionally Approved	0.04892	2.7%
MHB4.1	Coles River	Conditionally Approved	0.50765	27.6%
MHB4.2	Pearse Road	Prohibited	0.00300	0.2%
MHB4.3	Swansea Marina and Mooring Area	Conditionally Approved	0.16004	8.7%

Aesthetic

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for this Mount Hope Bay AU (MA61-07), so it is Not Assessed.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary

The Primary Contact Recreational Use for this Mount Hope Bay AU (MA61-07) is assessed as Fully Supporting since there were very few if any swimming advisory postings at the Cedar Cove Club, Swansea Town, Coles River Club, and Sandy beaches between 2014 and 2022. MassDEP BST work was conducted from 2015-2016 at one unnamed tributary discharging into this Mount Hope Bay AU in the northwest corner. *E. coli* concentrations in this tributary ranged 10 to 5,172 MPN. In 2016, human marker analysis (just upstream of Pearse Rd) indicated "inconclusive" evidence of a human source. No correctable source was ever found. Four Swansea beaches (Cedar Cove Club, Swansea Town, Coles River Club, & Sandy Beach) were rarely, if at all, posted for swimming between 2014 and 2022, never exceeding 10% of the swimming season (Note that the 2014-2019 data were previously reported in the 2022 IR; at that time the 2016 postings for Cedar Cove Club beach were erroneously reported as 14% of the season and they have now been corrected to 6%; there is no change in the use attainment decision).

Bacteria Data

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

Summary
BST work was conducted from 2015-2016 at 1 unnamed tributary discharging near the upstream end of the Mount Hope Bay AU (MA61-07). E.coli concentrations on the tributary ranged 10 to 5,172 MPN. In 2016, human marker analysis (just upstream of Pearse Rd) indicated "inconclusive" evidence of a human source. No correctable source was ever found.

Beach Postings

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

Beach ID	Beach Name/ Town	Left Border (Lat., Long)	Right Border (Lat., Long)	2014	2015	2016	2017	2018	2019	2020	2021	2022	# years >10%
3242	Sandy Beach/ Swansea	41.72249, -71.21090	41.72212, -71.21030	6%	2%	0%	0%	0%	0%	0%	0%	0%	0
3243	Cedar Cove Club/ Swansea	41.71474, -71.21300	41.71504, -71.21220	0%	0%	6%	6%	3%	0%	0%	0%	0%	0
3244	Swansea Town Beach/ Swansea	41.72603, -71.22200	41.72443, -71.21580	0%	2%	0%	0%	2%	0%	0%	0%	0%	0
5203	Coles River Club off Harbor Rd/ Swansea	41.71774, -71.22490	41.71727, -71.22540	0%	0%	0%	0%	8%	0%	0%	7%	0%	0

Shellfish Growing Area Classifications

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

Summary
Mount Hope Bay (MA61-07): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 1.8316 sq mi (100%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Primary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Fully Supporting	NO

2026/26 Use Attainment Summary
The Secondary Contact Recreational Use for this Mount Hope Bay AU (MA61-07) is assessed as Fully Supporting since there were very few if any swimming advisory postings at the Cedar Cove Club, Swansea Town, Coles River Club, and Sandy beaches between 2014 and 2022. The four Swansea beaches (Cedar Cove Club, Swansea Town, Coles River Club, & Sandy Beach) along the shore of this Mount Hope Bay AU were rarely, if at all, posted for swimming between 2014 and 2022, never exceeding 10% of the swimming season.

Shellfish Growing Area Classifications

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

Summary
Mount Hope Bay (MA61-07): The total of all shellfish growing area classifications (MassGIS, 2024) within this AU is 1.8316 sq mi (100%). The approved shellfish growing area represents 0 sq mi (0%). Because the total of all shellfish growing area classifications is anything less than “approved”, the Secondary Contact Recreational Use cannot be assessed for 2024 using the shellfish classification data.

North Watuppa Pond (MA61004)

Location:	Fall River/Westport.
AU Type:	FRESHWATER LAKE
AU Size:	1728 ACRES
Classification/Qualifier:	A: PWS, ORW

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

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Fish Consumption Use for North Watuppa Pond (MA61004) continues to be assessed as Not Supporting. The prior Mercury in Fish Tissue impairment is being carried forward. Fish toxics sampling was conducted in North Watuppa Pond at station F0299 in 2019 and 2022 as part of the MassDEP Office of Research and Standards Mercury Initiative. MA DPH indicated they did not issue a site-specific fish consumption advisory because the pond is a fenced off public water supply where fishing is strictly prohibited. Because fish tissue sampling at the pond in 2007 revealed elevated mercury levels, the prior Mercury in Fish Tissue impairment is being retained until such a time that the concentration of mercury in fish tissue samples collected from North Watuppa Pond meets the human health criterion of 0.3 ppm or less.

Fish Consumption Advisories

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

Summary
Fish toxics sampling was conducted in North Watuppa Pond (MA61004) at station F0299 in 2019 and 2022 as part of the MassDEP Office of Research and Standards Mercury Initiative. MA DPH indicated they did not issue a site-specific fish consumption advisory because the pond is a fenced off public water supply where fishing is prohibited.

Aesthetic

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No data are available to assess the status of the Aesthetics Use for this North Watuppa Pond AU (MA61004), so it is Not Assessed.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No bacteria or other indicator data for North Watuppa Pond (MA61004) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No bacteria or other indicator data for North Watuppa Pond (MA61004) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

Quequechan River (MA61-05)

Location:	Outlet South Watuppa Pond, Fall River to confluence with Mt. Hope Bay at mouth of Taunton River (just upstream of the Braga Bridge), Fall River.
AU Type:	RIVER
AU Size:	2.4 MILES
Classification/Qualifier:	B: WWF, CSO

Quequechan River (MA61-05)

Watershed Area: 30.58 square miles

Land Cover Type	Entire Basin	Proximal Subbasin (5 km radius)	Stream Buffer (100 m)	Proximal Stream Buffer
Land Cover Area* (square miles)	24.40	10.38	10.39	4.76
Agriculture	1.5%	0.3%	0.8%	0.2%
Developed	27.3%	48.1%	10.9%	17%
Natural	60%	47.6%	78.5%	76.4%
Wetland	11.2%	4.1%	9.8%	6.5%
Impervious	16.6%	32.3%	6.5%	11.2%

**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	(Debris*)	--	Unchanged
5	5	(Habitat Assessment*)	--	Unchanged
5	5	Algae	--	Unchanged
5	5	Dissolved Oxygen	--	Unchanged
5	5	Escherichia Coli (E. Coli)	R1_MA_2024_04	Changed
5	5	Nutrient/Eutrophication Biological Indicators	--	Unchanged
5	5	Trash	--	Unchanged

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
(Debris*)	Combined Sewer Overflows (Y)	--	--	X	X	X
(Debris*)	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	X	X
(Debris*)	Unspecified Urban Stormwater (Y)	--	--	X	X	X
(Habitat Assessment*)	Channelization (Y)	X	--	--	--	--
Algae	Combined Sewer Overflows (Y)	--	--	X	X	X
Algae	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	X	X
Algae	Unspecified Urban Stormwater (Y)	--	--	X	X	X
Dissolved Oxygen	Combined Sewer Overflows (Y)	X	--	--	--	--
Dissolved Oxygen	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	X	--	--	--	--
Dissolved Oxygen	Unspecified Urban Stormwater (Y)	X	--	--	--	--
Escherichia Coli (E. Coli)	Combined Sewer Overflows (Y)	--	--	--	X	X
Nutrient/Eutrophication Biological Indicators	Combined Sewer Overflows (Y)	X	--	--	--	--
Nutrient/Eutrophication Biological Indicators	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	X	--	--	--	--
Nutrient/Eutrophication Biological Indicators	Unspecified Urban Stormwater (Y)	X	--	--	--	--
Trash	Combined Sewer Overflows (Y)	--	--	X	X	X

Impairment	Source (Confirmed Y/N)	ALU	FC	AES	PCR	SCR
Trash	Discharges from Municipal Separate Storm Sewer Systems (MS4) (Y)	--	--	X	X	X
Trash	Unspecified Urban Stormwater (Y)	--	--	X	X	X

Supporting Information for Removed Impairments

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No fish toxics monitoring has been conducted in this Quequechan River AU (MA61-05); therefore the Fish Consumption Use is Not Assessed.

Aesthetic

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
No new data are available to evaluate the Aesthetics Use for this Quequechan River AU (MA61-05). The Aesthetics Use will continue to be assessed as Not Supporting with the Algae, Debris and Trash impairments being carried forward.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
There are no new/recent *E.coli* bacteria data available to assess the status of the Primary Contact Recreational Use for this Quequechan River AU (MA61-05), so it will continue to be assessed as Not Supporting with the Algae, Debris, *Escherichia Coli* (*E. Coli*) and Trash impairments being carried forward.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Secondary Contact Recreational Use for this Quequechan River AU (MA61-05) will continue to be assessed as Not Supporting. The Algae, Debris, *Escherichia Coli* (*E. Coli*) and Trash impairments are being carried forward. *E. coli* bacteria data were collected by MassDEP staff in this Quequechan River AU at the culvert entrance southeast of the intersection of Routes 81 and 195, Fall River (W1962), roughly monthly between May and September 2009 (n=6). Analysis of this single year, low frequency data 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 32 CFU/100ml. While the *E. coli* concentrations were below the 2024 CALM impairment thresholds for the single year low frequency dataset in 2009, these data were collected prior to the current IR window (2011-2022).

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W1962	MassDEP	Water Quality	Quequechan River	[at culvert entrance southeast of the intersection of Routes 81 and 195, Fall River]	41.696330	-71.148604

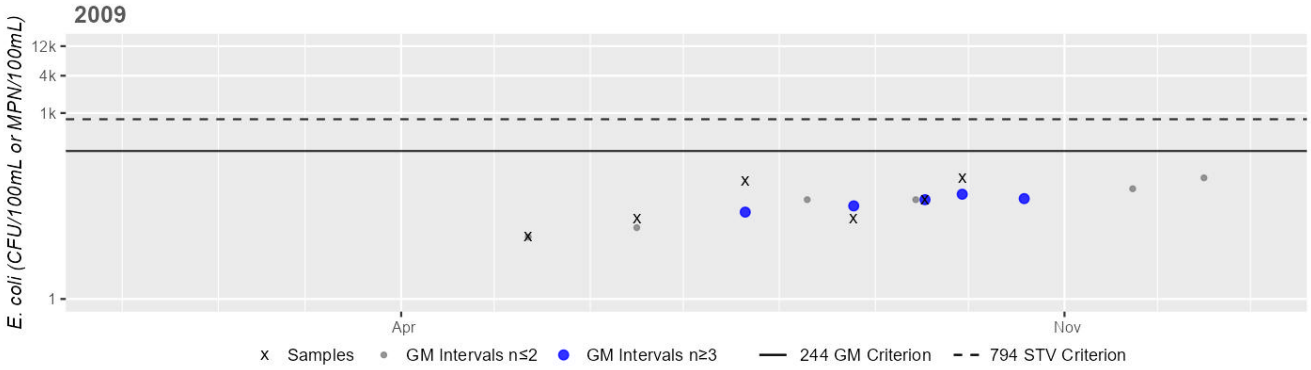
Bacteria Data

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
W1962	MassDEP	E. coli	05/12/09	09/29/09	6	10	90	32

Station MASSDEP_W1962 - Escherichia coli

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



Variable*	Result
Samples	6
SeasGM	32
#GMI	5
#GMI Ex	0
%GMI Ex	0%
n>STV	0
%n>STV	0%

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

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

Sawdy Pond (MA61005)

Location:	Westport/Fall River.
AU Type:	FRESHWATER LAKE
AU Size:	369 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
4a	4a	Mercury in Fish Tissue	42407	Unchanged

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

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Fish Consumption Use for Sawdy Pond (MA61005) continues to be assessed as Not Supporting and the prior Mercury in Fish Tissue impairment is being carried forward. DPH included a site-specific advisory for Sawdy Pond in their January 2025 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

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No data are available, so the Aesthetics Use for Sawdy Pond (MA61005) is Not Assessed.

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No bacteria or other indicator data for Sawdy Pond (MA61005) are available, so the Primary Contact Recreation Use is Not Assessed.

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Assessed	NO

2026/26 Use Attainment Summary
No bacteria or other indicator data for Sawdy Pond (MA61005) are available in the current IR window (2011-2022), so the Secondary Contact Recreation Use is Not Assessed.

South Watuppa Pond (MA61006)

Location:	Fall River/Westport.
AU Type:	FRESHWATER LAKE
AU Size:	1473 ACRES
Classification/Qualifier:	B

AU Category 2022	AU Category 2024/26	Impairment	ATTAINS Action ID	Impairment Change Summary
5	5	Harmful Algal Blooms	--	Unchanged
5	5	PFAS in Fish Tissue	--	Added
5	5	Transparency / Clarity	--	Added

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

Recommendations

2024/26 Recommendations
2024/26IR [Color, Low] Conduct follow-up sampling in South Watuppa Pond (MA61006) at deep hole index station {W2775} and shoreline station {W2776}, to evaluate the status of the Alert for green color identified by DEP biologists due to habitat observations during a 2018 MAP2 lake monitoring survey. This is a low priority.

Designated Use Attainment Decisions

Fish Consumption

2026/26 Use Attainment	Alert

Not Supporting	NO

2026/26 Use Attainment Summary
The Fish Consumption Use for South Watuppa Pond (MA61006) is assessed as Not Supporting with a new impairment being added for PFAS in Fish Tissue. Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in South Watuppa Pond at station F0193 in 2018 as part of the probabilistic lake surveys (MAP2). No site-specific fish consumption advisory was issued by MA DPH as a result of this monitoring. Fish toxics sampling was also conducted in South Watuppa Pond at station F0193 (PFAS Study ID 51) on 11/15/2022 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 a site-specific advisory for PFAS in South Watuppa Pond in their May 2024 Freshwater Fish Consumption Advisory List and retained the advisories in their January 2025 list. The public should refer to the most recent DPH Freshwater Fish Consumption Advisory List for the most up to date meal advice for sensitive and general populations. No source of PFAS has been identified at this time.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
F0193	MassDEP	Fish Toxics	South Watuppa Pond	[Fall River/Westport]	41.668550	-71.126526

Fish Tissue Data

Summary of Fish Tissue Data and Resulting Fish Consumption Advisories (MA DPH 2025) (MassDEP 2023) (MassDEP Undated 6)

Summary
Fish toxics sampling for mercury, organochlorine pesticides, and metals was performed by MassDEP WPP biologists in South Watuppa Pond (MA61006) at station F0193 in 2018 as part of the probabilistic lake surveys (MAP2). No site-specific fish consumption advisory was issued by MA DPH as a result of this monitoring. Fish toxics sampling was also conducted in South Watuppa Pond at station F0193 (PFAS Study ID 51) on 11/15/2022 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 South Watuppa Pond in their May 2024 Freshwater Fish Consumption Advisory List and retained the advisories in their January 2025 list. The site specific DPH advisories are indicative of a Fish Consumption Use impairment for PFAS in Fish Tissue for South Watuppa Pond (MA61006).

MassDEP 2022 PFAS in Fish Tissue Data for Massachusetts Surface Waters (MassDEP 2023) (MassDEP Undated 6) (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: B = bluegill, P = pumpkinseed, YP = yellow perch]

Station Code	PFAS Study ID	Sample Date	Species	Mean PFHxS ng/g	Mean PFNA ng/g	Mean PFOA ng/g	Mean PFOS ng/g	Analytes with ≥ 1 Sample Qualified
F0193	51	11/15/2022	B	ND	0.19	ND	9.75	PFNA & PFOS
F0193	51	11/15/2022	P	ND	ND	ND	5.30	PFOS
F0193	51	11/15/2022	YP	ND	0.25	ND	16.50	PFNA & PFOS

Aesthetic

2026/26 Use Attainment	Alert
Not Supporting	YES

2026/26 Use Attainment Summary

The Aesthetics Use for South Watuppa Pond (MA61006) will continue to be assessed as Not Supporting with the Harmful Algal Blooms impairment being carried forward, since C-HAB postings were reported to MDPH in 2018, 2019 & 2021. An Alert is being identified for water color. MassDEP staff surveyed South Watuppa Pond at the deep hole index station W2775 (MAP2L-259; n=3) and shoreline station on the northwestern edge of the pond at the boat launch off Jefferson Street W2776 (MAP2L-259S; n=7), from May to Sep 2018 as part of the MAP2 lakes monitoring project. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted green water color twice at the index station and three times at the shoreline station (shoreline algal blooms were noted by DEP crews on the Jul 16 and Sep 17 site visits), which is indicative of an Alert status. During the MAP2 macrophyte mapping survey (n=1) in Jul 2018, less than 25% (4.7%) of the waterbody was determined to have an aquatic macrophyte biovolume >50%, however field crews noted an aesthetics impairment flag during that visit due to excessive algal growth and turbidity (this is likely due to the same harmful algal bloom reported to DPH in 2018). A littoral zone survey (n=1) was conducted at the shoreline station as part of the MAP2 project and duckweed was not noted in any of the 10 shoreline plots. During the period 2015 through 2022, C-HAB postings for South Watuppa Pond were reported to MDPH based on visual observations for 147 days in 2018, 330 days in 2019, 68 days in 2021, and no blooms were reported in other years. Since blooms were reported in recent years this reflects the existing Harmful Algal Blooms impairment. MassDEP collected elevated cyanobactaria cell count data on six occasions during summer 2018 (overlapping with the bloom postings) which confirms that the 2018 DPH bloom postings were cyanobacterial in nature.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2775	MassDEP	Water Quality	South Watuppa Pond	[index site, Fall River/Westport]	41.671546	-71.126475

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2776	MassDEP	Water Quality	South Watuppa Pond	[northwestern edge of pond, at boat launch off Jefferson Street, Fall River]	41.674166	-71.139607

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
W2775	South Watuppa Pond	2018	3	Aesthetic observations were made by MassDEP field sampling crews at Station W2775 (MAP2L-259) on South Watuppa Pond (MA61006) during 3 site visits between Jun 2018 and Sep 2018. There were generally no persistent objectionable conditions (odors, deposits, growths, or turbidity) recorded, though field staff noted green water color (n=2). During the MAP2 macrophyte mapping survey (n=1) in Jul 2018, less than 25% (4.7%) of the waterbody was determined to have an aquatic macrophyte biovolume >50% and the survey also noted an aesthetics impairment flag due to excessive algal growth and turbidity.
W2776	South Watuppa Pond	2018	7	Aesthetic observations were made by MassDEP field sampling crews at Station W2776 (MAP2L-259S) on South Watuppa Pond (MA61006) during 7 site visits between May 2018 and Sep 2018. There were some objectionable conditions recorded, including green water color (n=3); this condition is indicative of an Alert status. Field staff also noted high turbidity (n=1). During the MAP2 littoral survey (n=1), duckweed was not noted in any of the 10 shoreline plots. Shoreline algal blooms were noted by DEP field crews on Jul 16, 2018 and Sep 17, 2018.

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

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2775	South Watuppa Pond	2018	Color	Dark Tan	1	3
W2775	South Watuppa Pond	2018	Color	Greenish	2	3
W2775	South Watuppa Pond	2018	Odor	None	2	3
W2775	South Watuppa Pond	2018	Odor	Musty (Basement)	1	3
W2775	South Watuppa Pond	2018	Turbidity	Slightly Turbid	1	3
W2775	South Watuppa Pond	2018	Turbidity	Moderately Turbid	2	3
W2775	South Watuppa Pond	2018	Objectionable Deposits	No	2	3
W2775	South Watuppa Pond	2018	Objectionable Deposits	Yes	1	3
W2775	South Watuppa Pond	2018	Scum	No	3	3
W2775	South Watuppa Pond	2018	Aquatic Plant Density, Overall	None	2	3
W2775	South Watuppa Pond	2018	Aquatic Plant Density, Overall	Sparse	1	3
W2775	South Watuppa Pond	2018	Aesthetics Impaired?	No	3	3

Station Code	Waterbody	Data Year	Parameter	Result	Result Count	Total Field Sheet Count
W2776	South Watuppa Pond	2018	Color	None	2	7
W2776	South Watuppa Pond	2018	Color	Light Yellow/Tan	1	7
W2776	South Watuppa Pond	2018	Color	Brownish	1	7
W2776	South Watuppa Pond	2018	Color	Greenish	3	7
W2776	South Watuppa Pond	2018	Odor	None	4	7
W2776	South Watuppa Pond	2018	Odor	Musty (Basement)	3	7
W2776	South Watuppa Pond	2018	Turbidity	None	1	7
W2776	South Watuppa Pond	2018	Turbidity	Slightly Turbid	3	7
W2776	South Watuppa Pond	2018	Turbidity	Moderately Turbid	2	7
W2776	South Watuppa Pond	2018	Turbidity	Highly Turbid	1	7
W2776	South Watuppa Pond	2018	Objectionable Deposits	No	7	7
W2776	South Watuppa Pond	2018	Scum	No	7	7
W2776	South Watuppa Pond	2018	Aesthetics Impaired?	No	7	7

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 South Watuppa Pond (MA61006) were reported to MDPH based on visual observations for 147 days in 2018, 330 days in 2019, and 68 days in 2021. No blooms were reported in other years. Since blooms were reported in recent years, 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
South Watuppa Pond	Fall River, Westport				147	330		68	

Primary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary
The Primary Contact Recreation Use for South Watuppa Pond (MA61006) continues to be assessed as Not Supporting. The prior Harmful Algal Blooms impairment is being carried forward based on cyanobacteria cell count data not meeting the threshold at W2775 and the occurrence of C-HAB postings extending >20 days in 3 years. A Transparency / Clarity impairment is being added due to Secchi data not meeting the threshold at W2775. Surface water sampling was conducted by MassDEP staff at two locations in this South Watuppa Pond AU as part of the MAP2 monitoring project in summer 2018, the northwestern shoreline at the boat ramp off Jefferson Street in Fall River (W2776) and at the deep hole index station W2775 (MAP2L-259). Analysis of the single year of *E. coli* data collected at W2776 (low frequency n=5) 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 9 CFU/100ml. However, Cyanobacteria cell counts at W2775 (n=3) and W2776 (n=3) exceeded 70,000 cells/ml on Jun 19, Jul 16, Jul 31, Aug 15, Sep 06 and Sep 17, indicating a cyanobacteria bloom occurring during six 10-day periods. Of note, at the deep hole index station (W2775, station depth=6.8 m) Secchi depth measurements ranged from 0.85-1.28 m (n=3) with 2 measurements taken in Jun and Jul that were less than the 1.2 m (4 ft) threshold. Despite the high cyanobacteria cell counts, analysis of shoreline samples from W2776 (n=6) for microcystins and cylindrospermopsin indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L. During the period 2015 through 2022, C-HAB postings for South Watuppa Pond were reported to MDPH based on visual observations for 147 days in 2018, 330 days in 2019, 68 days in 2021, and no blooms were reported in other years. As noted above, the MAP2 elevated cyanobactaria cell count data on six occasions during summer 2018 (overlapping with the MDPH bloom postings) confirms that the 2018 MDPH bloom postings were cyanobacterial in nature. At another station close to the deep hole, surface water sampling was conducted at station W3316 (PFAS Study ID 51) on 11/15/2022 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.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2775	MassDEP	Water Quality	South Watuppa Pond	[index site, Fall River/Westport]	41.671546	-71.126475
W2776	MassDEP	Water Quality	South Watuppa Pond	[northwestern edge of pond, at boat launch off Jefferson Street, Fall River]	41.674166	-71.139607

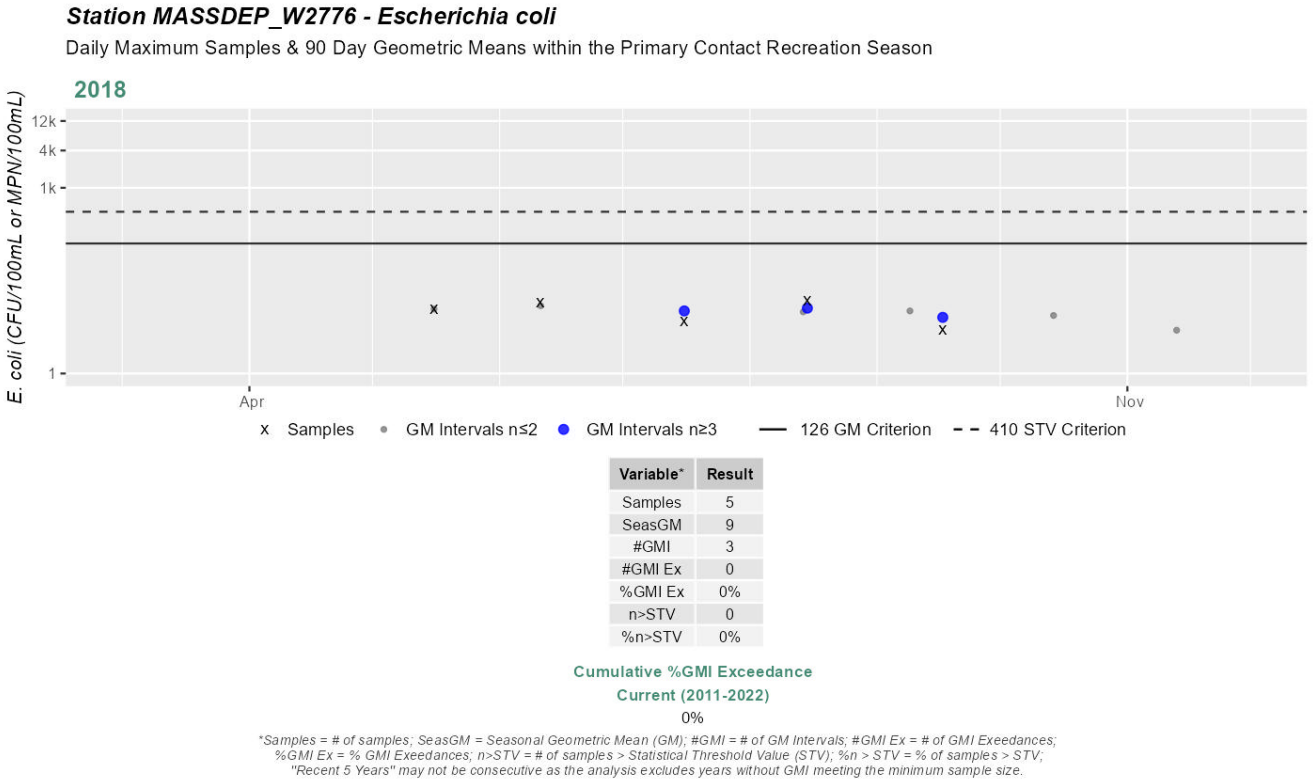
Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W3316	MassDEP	Water Quality	South Watuppa Pond	[the default location representing co-located water/fish PFAS sampling, Fall River/Westport]	41.668550	-71.126526

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
W2776	MassDEP	E. coli	05/16/18	09/17/18	5	5	15	9



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 South Watuppa Pond (MA61006) at station W3316 (PFAS Study ID 51) on 11/15/2022 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
W3316	51	11/15/2022	9.6	6.1	1.5j	2.7	4.1j	4.2	<2	23.7*

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

Summary Statement
In South Watuppa Pond (MA61006) in 2018, MassDEP collected Secchi and cyanobacteria cell count data at W2775 [MAP2L-259, Index-deep hole], and cyanobacteria cell count and cyanotoxin data at W2776 [MAP2L-259S, Shoreline]. At station W2775 (station depth=6.8 m) the Secchi depth measurements ranged from 0.85-1.28 m (n=3) with 2 measurements in Jun and Jul that were less than the 1.2 m (4 ft) threshold. The Secchi depth measurements are indicative of a Transparency / Clarity impairment due to conditions at W2775. The cyanobacteria cell count exceeded 70,000 cells/mL on Jun 19, Jul 16, Jul 31, Aug 15, Sep 06, and Sep 17, 2018 indicating a cyanobacteria bloom estimated to have extended at least 90 days (n=6). Analysis of microcystins and cylindrospermopsin samples from W2776 (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)
W2775	South Watuppa Pond	Index	2018	3	3	2018-06-19; 2018-07-31; 2018-09-06
W2776	South Watuppa Pond	Shoreline	2018	3	3	2018-07-16; 2018-08-15; 2018-09-17

Secondary Contact Recreation

2026/26 Use Attainment	Alert
Not Supporting	NO

2026/26 Use Attainment Summary

The Secondary Contact Recreation Use for South Watuppa Pond (MA61006) continues to be assessed as Not Supporting. The prior Harmful Algal Blooms impairment is being carried forward based on cyanobacteria cell count data not meeting the threshold at W2775 and the occurrence of C-HAB postings extending >20 days in 3 years.
Surface water sampling was conducted by MassDEP staff at two locations in this South Watuppa Pond AU as part of the MAP2 monitoring project in summer 2018; the northwestern shoreline at the boat launch off Jefferson Street in Fall River (W2776) and at the deep hole index station W2775 (MAP2L-259). Analysis of the single year of *E.coli* data collected at W2776 (low frequency n=5) 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 9 CFU/100ml. However, Cyanobacteria cell counts at W2775 (n=3) and W2776 (n=3) exceeded 70,000 cells/ml on Jun 19, Jul 16, Jul 31, Aug 15, Sep 06 and Sep 17, indicating a cyanobacteria bloom estimated to have extended at least 90 days. Despite the high cell counts, analysis of shoreline samples (n=5) for microcystins and cylindrospermopsin indicated that the cyanotoxin concentrations did not exceed their respective thresholds of 8 µg/L and 15 µg/L. During the period 2015 through 2022, C-HAB postings for South Watuppa Pond were reported to MDPH based on visual observations for 147 days in 2018, 330 days in 2019, 68 days in 2021, and no blooms were reported in other years. As noted above, the MAP2 elevated cyanobactaria cell count data on six occasions during summer 2018 (overlapping with the MDPH bloom postings) confirms that the 2018 MDPH bloom postings were cyanobacterial in nature. At another deep water station close to the deep hole, surface water sampling was conducted at station W3316 (PFAS Study ID 51) on 11/15/2022 as part of a 2022 MassDEP funded project with ERG evaluating 40 PFAS analytes in selected fresh waters. Analysis of this data indicated the ΣPFAS6 concentration (the sum of PFDA, PFHpA, PFHxS, PFNA, PFOA, PFOS) was 23.7 ng/L (ppt) which 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.

Monitoring Stations

Station Code	Organization	Type	Water Body	Station Description	Latitude	Longitude
W2776	MassDEP	Water Quality	South Watuppa Pond	[northwestern edge of pond, at boat launch off Jefferson Street, Fall River]	41.674166	-71.139607

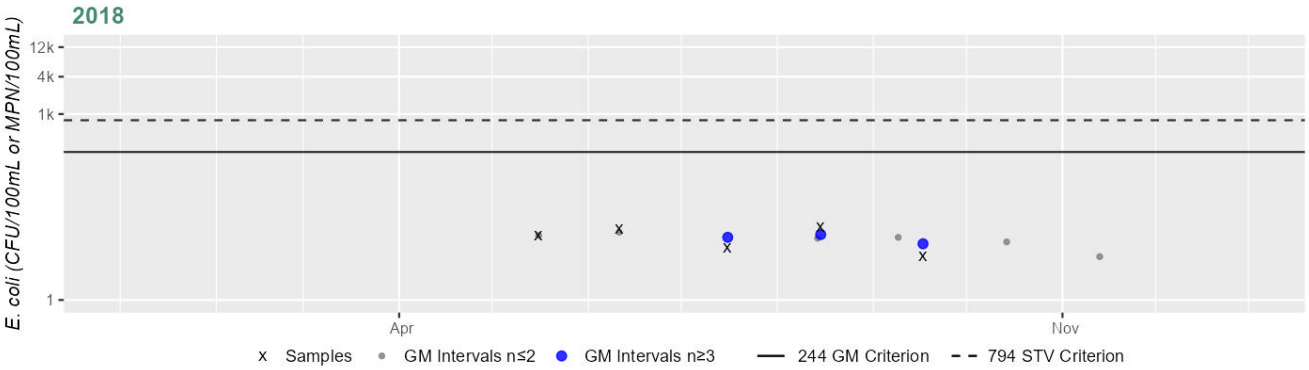
Bacteria Data

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
W2776	MassDEP	E. coli	05/16/18	09/17/18	5	5	15	9

Station MASSDEP_W2776 - Escherichia coli

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



Variable*	Result
Samples	5
SeasGM	9
#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.*

Data Sources

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

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

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

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

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

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

MassDEP. "Open file analysis of external water quality data (potential date range 1997-2022) using 2024 CALM guidance." Watershed Planning Program, Massachusetts Department of Environmental Protection, Worcester, MA, Undated 2.

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

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

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

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

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

—. "PFAS Concentrations in Surface Water and Fish Tissue at Selected Rivers and Lakes in Massachusetts." Watershed Planning Program, Division of Watershed Management, Bureau of Water Resources, Massachusetts Department of Environmental Protection. Worcester, MA. In cooperation with Eastern Research Group, Inc. December 2023. https://www.mass.gov/doc/massdep-final-report-on-pfas-concentrations-in-surface-water-and-fish-tissue-at-selected-rivers-and-lakes-in-massachusetts/download (accessed January 2024).

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