Massachusetts Year 2014 Integrated List of Waters

Final Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act

CN 450.1

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Matthew A. Beaton, Secretary
Massachusetts Department of Environmental Protection
Martin Suuberg, Commissioner
Bureau of Water Resources
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NOTICE OF AVAILABILITY

This report is available via the Massachusetts Department of Environmental Protection's (MassDEP) website: http://www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls.html

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Cover photo: West Branch Westfield River, Middlefield, MA by Matt Reardon

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EXECUTIVE SUMMARY

The *Final Massachusetts Year 2014 Integrated List of Waters* (Integrated List) is submitted to the U.S. Environmental Protection Agency (EPA) in fulfillment of reporting requirements of sections 305(b), 303(d) and 314 of the Clean Water Act (CWA). Section 305(b) of the CWA codifies the process whereby waters are evaluated with respect to their attainment of designated uses such as habitat for fish, other aquatic life and wildlife, fish and shellfish consumption, and primary (e.g., swimming) and secondary (e.g., boating) contact-recreation. Under Section 314 states are requested to report on the trophic status of their lakes and ponds. Finally, Section 303(d) of the CWA requires states to identify those waterbodies that are not expected to meet surface water quality standards after the implementation of technology-based controls and to prioritize and schedule them for the derivation of total maximum daily loads (TMDLs).

In 2012 the Massachusetts Department of Environmental Protection (MassDEP) published the *Massachusetts Consolidated Assessment and Listing Methodology (CALM) Guidance Manual.* This manual contains a brief summary of the Massachusetts Surface Water Quality Standards (SWQS) that define the goals for water quality in the Commonwealth (MassDEP 2006), the requirements for assessing the quality of data to be used for CWA reporting, and the methods of reviewing water quality data and information used by the MassDEP's Division of Watershed Management (DWM) to make use assessment decisions for reporting in accordance with the CWA. The CALM manual, as well as the individual watershed assessment reports that formed the basis for the listing decisions in this report, can be found at http://www.mass.gov/eea/agencies/massdep/water/watersheds/water-quality-assessments.html.

MassDEP stores its assessment and listing decisions in the "Assessment Database" (ADB), the EPA's preferred database application for tracking water quality assessment data, including use attainment, and causes and sources of impairment. The ADB was designed to improve the quality and consistency of water quality reporting, improve water quality data analysis, and reduce the burden of preparing reports under sections 305(b), 303(d), 314 and 319 of the Clean Water Act. MassDEP's conversion to the ADB from its predecessor, the Waterbody System (WBS), began with the development of its Year 2008 Integrated List and the ADB became fully operational for the Year 2010 listing cycle.

The Final *Massachusetts Year 2012 Integrated List of Waters* was submitted to the EPA on March 27, 2013 and the 303(d) List was approved on May 2, 2013. New information included in the 2014 Integrated List was limited to new TMDL approvals by the EPA, recent Department of Public Health (DPH) fish consumption advisories, and the comments received during the public review period. Efforts are ongoing to improve the process by which watershed assessments are carried out and to make substantial revisions to the CALM manual for the 2016 listing cycle and beyond.

The 2014 Integrated List assigns each of 2,182 assessment units (AU's) to one of the following five categories depending upon their status with respect to the support of their designated uses:

1) Unimpaired and not threatened for all designated uses;
2) Unimpaired for some uses and not assessed for others;
3) Insufficient information to make assessments for any uses;
4) Impaired or threatened for one or more uses, but not requiring the calculation of a Total Maximum Daily Load (TMDL); or
5) Impaired or threatened for one or more uses and requiring a TMDL.

The following table summarizes, by waterbody type, the number and total sizes of AU's appearing in each category of the 2014 Integrated List.

Integrated List Category	Rivers		Lakes		Coastal Waters		Total AU's
	AU's	Size (miles)	AU's	Size (acres)	AU's	Size (sq. mi.)	
1	0	0.00	0	0.00	0	0.00	0
2	232	1,018.17	46	2,167.85	16	28.89	294
3	117	337.95	535	32,088.99	2	0.30	654
4a	41	146.39	150	47,812.59	125	56.63	316
4b	0	0.00	0	0.00	0	0.00	0
4c	25	101.08	198	15,217.27	0	0.00	223
5	318	1,551.57	244	21,110.31	133	157.48	695
Totals	*733*	*3,155.16*	*1,173*	*118,397.01*	*276*	*243.30*	*2,182*

The EPA's approval of bacteria TMDLs for waters in the Neponset and North Coastal watersheds led to the ***removal*** of 47 individual bacterial causes (i.e., "Fecal Coliform" or "*Escherichia coli*") and 31 entire waterbody segments (i.e., AU's) from the 303(d) List (i.e., Category 5) when the 2014 Integrated List was prepared. This accounts for all of the "delistings" that occurred for the 2014 listing cycle. Six (6) AU's and 14 individual pollutants were ***added*** to the 2014 303(d) List based on new health advisories pertaining to fish edibility released by the Massachusetts Department of Public Health (DPH) and comments received as part of the public review process.

The *Proposed Massachusetts Year 2014 Integrated List of Waters* was placed on the MassDEP web site at http://www.mass.gov/dep/water/resources/tmdls.htm. Notice of its availability for public review and comment appeared in the June 25, 2014 edition of the Massachusetts Environmental Monitor and was provided directly to over one hundred different watershed associations and other interested parties. Paper copies of the document were also available from the DWM's Watershed Planning Program Office in Worcester. The public comment period ended on August 1, 2014. Seven (7) comment letters were received, including one from the EPA Region 1. A list of the parties that commented is presented below. Responses to the comments are presented in *Massachusetts Year 2014 Integrated List of Waters Responses to Public Comments Pertaining to the Proposed Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act* published under separate cover.

List of organizations that provided comments on the *Proposed Massachusetts Year 2014 Integrated List of Waters*
Back River Watershed Association
Neponset River Watershed Association
Jones River Watershed Association
Buzzards Bay Coalition
Charles River Watershed Association
Center for Biological Diversity
U. S. Environmental Protection Agency Region 1

Massachusetts Category 5 Waters
"Waters requiring a TMDL"

NAME	SEGMENT ID	DESCRIPTION	SIZE	UNITS	IMPAIRMENT CAUSE	EPA TMDL NO.
Merrimack River	MA84A-02	Pawtucket Dam, Lowell to Lowell Regional Wastewater Utilities outfall at Duck Island, Lowell.	3.2	MILES	(Low flow alterations*)	
					Escherichia coli	
					Mercury in Fish Tissue	
					Phosphorus (Total)	
Merrimack River	MA84A-03	Lowell Regional Wastewater Utilities outfall at Duck Island, Lowell to Essex Dam, Lawrence.	8.8	MILES	Escherichia coli	
					Mercury in Fish Tissue	
					PCB in Fish Tissue	
					Phosphorus (Total)	
Merrimack River	MA84A-04	Essex Dam, Lawrence to confluence with Little River, Haverhill.	10	MILES	Escherichia coli	
					PCB in Fish Tissue	
					Phosphorus (Total)	
Merrimack River	MA84A-05	Confluence Little River, Haverhill to confluence Indian River, West Newbury/Amesbury.	1.83	SQUARE MILES	Enterococcus	
					PCB in Fish Tissue	
Merrimack River	MA84A-06	Confluence Indian River, West Newbury/Amesbury to mouth at Atlantic Ocean, Newburyport/Salisbury (includes Back River, Salisbury).	4.46	SQUARE MILES	Enterococcus	
					Fecal Coliform	
					PCB in Fish Tissue	
Merrimack River	MA84A-26	The Basin in the Merrimack River Estuary, Newbury/Newburyport.	0.17	SQUARE MILES	Fecal Coliform	
Mill Pond	MA84038	[North Basin] Littleton	30	ACRES	Aquatic Plants (Macrophytes)	
Mill Pond	MA84081	[South Basin] Littleton	12	ACRES	Aquatic Plants (Macrophytes)	
Millvale Reservoir	MA84041	Haverhill	44	ACRES	Mercury in Fish Tissue	
Newfield Pond	MA84046	Chelmsford	77	ACRES	(Eurasian Water Milfoil, Myriophyllum spicatum*)	
					(Non-Native Aquatic Plants*)	
					Mercury in Fish Tissue	33880
					Oxygen, Dissolved	
Peppermint Brook	MA84A-35	Headwaters, outlet of unnamed pond east of Route 38, Dracut to confluence with Beaver Brook, Dracut.	2.7	MILES	(Debris/Floatables/Trash*)	
					Escherichia coli	
Plum Island River	MA84A-27	From Chaces Island, Merimack River Estuary, to the "high sandy" sand bar just north of the confluence with Pine Island Creek, Newbury (formerly encompassed in MA84A-23).	0.13	SQUARE MILES	Fecal Coliform	
Powwow River	MA84A-08	Tidal portion, just downstream of Main Street, Amesbury to confluence with Merrimack River, Amesbury.	0.06	SQUARE MILES	Escherichia coli	