State of Maine

Department of Environmental Protection

2012 Integrated Water Quality Monitoring and Assessment Report

DEPLW-1246

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Cover photo: wetland on Robert's Pond, Lyman (DEP biomonitoring unit, 2010)

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CHAPTER 1 PREFACE

Contact: Susanne Meidel, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 441-3612 email: Susanne.K.Meidel@maine.gov

This document, which is referred to briefly as the 'Integrated Report' or 'IR', is submitted to fulfill biennial reporting requirements on both a federal and state level. The federal requirement arises from the Clean Water Act (CWA), particularly Section 305(b) (report on the state of waters), Section 303(d) (list of impaired waters), and Section 314 (Clean Lakes Program). The state requirement arises from 38 MRSA Section 464.3.A. (report on the quality of the State's waters to the Maine Legislature). The Maine Department of Environmental Protection (The Department, DEP or MDEP) assembles these reports with input from many sources and recognizes that the Section 305(b) Report and Section 303(d) List are important ways of regularly communicating information on the health, current status and trends of the State's waters.

For the 2012 Integrated Report the Department has updated tabular summaries of water quality status (Appendices; Chapter 4 and Chapter 8) that appeared in the 2010 Integrated Report. Updates were primarily based on monitoring data collected in 2009 and 2010 although more recent data was consulted where appropriate. Department staff and external contacts have also updated narrative content as needed, including programmatic descriptions and summary information. For more in-depth background information about specific water quality programs please refer to the 2006 Integrated Water Quality Report, available on the web at:
http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Maine waterbodies are assigned to one of five categories (or sub-categories) that describe water quality status in the Integrated Report (Executive Summary, pages 8-12, and Chapters 4 and 5). Those waters that are currently listed under Category 5 represent U.S. Clean Water Act (CWA) Section 303(d) list "impaired waters" and require development and submission of a Total Maximum Daily Load (TMDL) report to the United States Environmental Protection Agency (EPA).

The 2012 Integrated Report provides:

- Delineation of water quality assessment units (AUs), identified by their 10-digit HUC (Hydrologic Unit Code) followed by a waterbody-specific code (Appendices II-IV) for rivers/streams, lakes/ponds and wetlands; marine/estuarine waterbodies (Appendix V) are identified by a Waterbody ID, supplemented by the relevant DMR Area code where necessary; river/stream AUs can be viewed using this Google Earth Project (note that the project is in development): www.maine.gov/dep/gis/datamaps/lawb_integrated_report/lawb_integrated_report.kmz ;
  Note that the United States Geological Survey has replaced the HUC system with the WBD (Watershed Boundary Dataset) system. Because of this conversion, a mismatch now exists between some HUCs used in the draft IR and current WBDs (former HUCs). DEP did not update the HUC part of any AU ID to conform to the new WBD system and is retaining the term 'HUC' to indicate continued usage of the older system.
- Water quality attainment status for river/stream, lake/pond, wetland and marine/estuarine AUs (Appendices II-V);
- Basis for the water quality standard attainment determinations for river/stream, lake/pond and marine/estuarine AUs (Chapter 4 and Appendices) and for wetland AUs (Chapter 5 and Appendix IV);
- Schedules for additional monitoring planned for certain AUs (Appendices II-IV);

- Identification of AUs requiring Total Maximum Daily Load (TMDL) determinations and a schedule (priority) for those waters (Chapter 8, Tables 8-13 to 8-16, and Appendices II-V);

The 2012 Integrated Report presents State of Maine water quality assessment summaries for rivers/streams, lakes/ponds and wetlands that have been generated by the Assessment Database (ADB). ADB is public domain software developed by EPA to improve states' ability to track and document water quality assessment results. Though marine/estuarine assessment data are not currently stored in Maine's ADB, assessment results are reported in the 2012 Appendices. The Department plans to incorporate marine/estuarine waterbodies in the ADB over the next two years.

Data Sources and Acknowledgements

Sources of River and Stream Assessment Data

The Department generates much of the data for the assessment through the various monitoring programs it conducts, notably the Biomonitoring Program, Surface Water Ambient Toxics (SWAT) Monitoring Program, the Atlantic Salmon Recovery Plan, and water quality studies for specific rivers and streams for waste load allocation and TMDLs. Additionally, data are provided from a variety of professional and volunteer monitoring groups. These include other state agencies and resources (Department of Inland Fisheries and Wildlife, Atlantic Salmon Commission, Department of Health and Human Services, University of Maine System), federal agencies (U.S. Environmental Protection Agency, U.S. Geological Survey, National Park Service), other governmental agencies (Saco River Corridor Commission, St. Croix International Waterway Commission), tribes (Penobscot Indian Nation, Houlton Band of Maliseet Indians) and a number of volunteer watershed groups and conservation organizations that are working cooperatively with Department staff under the Maine Volunteer River Monitoring Program (VRMP) and that follow an EPA approved Quality Assurance Project Plan, or that follow monitoring practices specifically approved by MDEP (Watershed councils of the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap and Sheepscot Rivers, Presumpscot River Watch, Royal River Conservation Trust, Sheepscot Valley Conservation Association, The Nature Conservancy, Friends of Merrymeeting Bay).

Sources of Lake Assessment Data

The Department's Lake Assessment Section manages much of the data collected from lakes within the state. A strong partnership with the Maine Volunteer Lakes Monitoring Program (VLMP, Inc.) assures the quality and comparability of the data collected through numerous regional entities and local lake associations. Regional entities include Cobbossee Watershed District, Lakes Environmental Association, St. Croix International Waterway Commission, Allagash Wilderness Waterway, Penobscot Indian Nation, Portland Water District, Auburn Water District, Acadia National Park, and Rangeley Lakes Heritage Trust. Data has also been acquired from private consultants (such as Lake and Watershed Resource Management Assoc., Biodiversity Research Institute, Florida Power and Light as part of regulatory requirements) and water utilities that belong to the Maine Water Utility Association. Additional data is acquired through the Maine Department of Inland Fisheries & Wildlife (DIF&W) and through cooperative projects with the University of Maine System, Colby College, Unity College, Soil and Water Conservation Districts and similar entities. Data collected under probability based studies conducted within EPA Region I and as part of the National Lake Assessment Study being conducted by EPA Headquarters is also considered.

Sources of Marine Assessment Data

The Department utilizes data for assessments in marine waters from its own environmental and toxics monitoring programs including the Surface Water Ambient Toxics and the Gulf of Maine Council on the Marine Environment's Gulfwatch project, and to a large extent from a variety of governmental agencies, academic institutions, non-profit organizations and municipalities, such as the Maine Healthy Beaches program, Maine Department of Marine Resources, New Hampshire Department of Environmental Services, University of Maine, BioDiversity Research Institute, Casco Bay Estuary Partnership, Kennebec Estuary Land Trust, Marine Environmental Research Institute, Mount Desert Island Biological Laboratory, Town of Rockport Conservation Commission, and the Wells National Estuarine Research Reserve. Additionally, a number of volunteer monitoring groups such as the Bagaduce Watershed Association, Friends of Blue Hill Bay, Friends of Casco Bay, Georges River Tidewater Association, Mousam and Kennebunk Rivers Alliance, Sheepscot Valley Conservation Association, and Spruce Creek Association monitor Maine's estuarine and coastal waters. The Department currently accepts data from organizations with approved Quality Assurance Project Plans (QAPPs) whose monitoring programs and analytical labs enable collection and processing of quality data, and from selected organization with Department-approved sampling plans.

Sources of Wetlands Assessment Data

The Department generates most of its assessment data for wetlands through the Biological Monitoring Program (see Chapter 5 for additional information). Wetland biomonitoring is coordinated with the State's river and stream biomonitoring program using a 5-year rotating basin schedule. At present, annual wetland monitoring is primarily focused on freshwater lacustrine and riverine fringe wetlands. Under Maine's Water Classification Program, wetlands are classified with associated surface waters. Wetlands that are part of great ponds or natural lakes and ponds less than 10 acres in size are considered GPA waters. All freshwater wetlands not classified as GPA waters are classified under Sections 467 and 468 (Classification of Major River Basins and Classification of Minor Drainages) according to the drainage basin in which they occur and the classification of associated water bodies. The 2012 Integrated Report includes class attainment determinations for monitored wetlands based on MDEP biologists' expert evaluation of macroinvertebrate community structure and function and statutory narrative aquatic life use criteria (38 MRSA §465). Data for permitted wetland gains and losses is provided through the DEP Wetland Loss Tracking System maintained by the Division of Land Resource Regulation.

CHAPTER 2 EXECUTIVE SUMMARY AND RESPONSE TO COMMENTS

EXECUTIVE SUMMARY

Surface Waters

Updates to water quality assessments for the 2012 Integrated Report were primarily based on monitoring data collected in 2009 and 2010 although more recent data was consulted where appropriate. The report continues to base assessments of rivers/streams, lakes/ponds, wetlands and marine/estuarine waters on the five main listing categories that were initially established for these waters in the 2002 report. These five main assessment categories are as follows:

Category 1: Attaining all designated uses and water quality standards, and no use is threatened.

Category 2: Attains some of the designated uses; no use is threatened; and insufficient data or no data and information is available to determine if the remaining uses are attained or threatened (with presumption that all uses are attained).

Category 3: Insufficient data and information to determine if designated uses are attained (with presumption that one or more uses may be impaired).

Category 4: Impaired or threatened for one or more designated uses, but does not require development of a TMDL (Total Maximum Daily Load) report.

Category 5: Waters impaired or threatened for one or more designated uses by a pollutant(s), and a TMDL report is required.

Section 4-1 on Assessment Methodology contains more detailed information on the listing categories and sub-categories.

SUMMARY OF CHANGES

The size and percentage results from the 2010 through 2012 Integrated Reports (Table 2-1) are not exactly comparable due to changes in assessment and mapping technology over the years and correction of errors, but they can give an idea of changes in the approximate amounts of waters in each category. For rivers and streams, a number of waterbodies (totaling ~240 miles) were administratively moved from Category 4 in 2010 to Category 5 in 2012 to correct an error in the Assessment Database (ADB), which is used to track waterbodies; see pages 78-79 for more information. Note that wetlands areas were established for the first time for the 2012 report; therefore, only 2012 data are shown in Table 2-1 for this waterbody type.

For rivers and streams, there were increases in both Category 3 (10 waters, 69 miles) and Category 5 (7 waters, 125 miles), primarily due to new monitoring data showing that certain waters may not be, or are not, attaining uses. Category 4 increased by 59 miles due to approval of the Maine Statewide % Impervious Cover TMDL, which moved 30 waters from Category 5-A to 4-A; five other waters (94 miles) were moved from Category 5-A to 4-B as a result of new permits. TMDL monitoring confirmed attainment of bacteria criteria for two waterbodies (3.34 miles) previously listed in Category 4-A and they were moved to Category 2. Table 2-1 reveals that the lakes and ponds of Maine were relatively stable (as a percent of total assessed waters) with respect to their listing categories during the 2010 to 2012 time frame. This period saw an increase in Category 2 waters (4 lakes) and the addition of one lake (previously in Category 3) to Category 5a. For wetlands there were increases in

Category 5 in 2012 (3 wetlands, 339 acres) as well as in Category 4-A (5 wetlands, 51 acres due to TMDL approval). For marine waters, the increase in Category 5 area is due to two new listings for non-attainment of Marine Life Use Support standards. No listing changes occurred to Category 4; rather, the difference between 2010 and 2012 areas is due to the inclusion in 2012 of a segment area for one waterbody, and the correction of the segment area for another. One waterbody was delisted to Category 2 due to the removal of a shellfish consumption impairment.

Table 2-1 Summary of Changes to Surface Water Assessment Categories – 2010 to 2012

Note: These figures do not include waters listed under Category 4-A for atmospheric deposition of mercury

Rivers and Streams						
31,215= Total Miles Assessed in 2010						
31,298=Total Miles Assessed in 2012						
	2010 Miles in Category [1]	**% of Total 2010 Assessed Miles**	**2012 Miles in Category [2]**	**% of Total 2012 Assessed Miles**	**% Change '10 - '12**	**Change in Miles '10 - '12**
Category 1	4,338	13.9	4,338	13.9	0	0
Category 2	25,394	81.4	25,371	81.1	-0.3	-23
Category 3	314	1.0	383	1.2	0.2	69
Category 4	446	1.4	273	0.9	-0.6	-173
Category 5	719	2.3	933	3.0	0.7	214
Lakes						
986,952 = Total Acres Assessed in 2010						
986,952 = Total Acres Assessed in 2012						
	2010 Acres in Category	**% of Total 2010 Assessed Acres**	**2012 Acres in Category**	**% of Total 2012 Assessed Acres**	**% Change '10 – '12**	**Change in Acres '10 - '12**
Category 1	295,443	29.9	295,443	29.9	0	0
Category 2	606,236	61.4	606945	61.5	0.1	709
Category 3	410	0.04	0	0	-0.04	-410
Category 4	76,080	7.7	75915	7.7	0	-165
Category 5	8,783	0.9	8649	0.9	-0.01	-134
Wetlands (Acres)						
n/a = Total Acres Assessed in 2010						
1240 = Total Acres Assessed in 2012						
	2010 Acres in Category	**% of Total 2010 Assessed Acres**	**2012 Acres in Category [2]**	**% of Total 2012 Assessed Acres**	**% Change '10 - '12**	**Change in Acres '10 - '12**
Category 1	n/a	n/a	0.00	0.0	n/a	n/a
Category 2	n/a	n/a	undetermined	n/a	n/a	n/a
Category 3	n/a	n/a	841	67.8	n/a	n/a
Category 4	n/a	n/a	57	4.6	n/a	n/a
Category 5	n/a	n/a	342	27.6	n/a	n/a
Marine Waters (Acres)						
1,821,434 = Total Acres Assessed in 2010						
1,840,147 = Total Acres Assessed in 2012						
	2010 Acres in Category	**% of Total 2010 Assessed Acres**	**2012 Acres in Category**	**% of Total 2012 Assessed Acres**	**% Change '10 - '12**	**Change in Acres '10 - '12**
Category 1	0.00	0.00	0.00	0.00	0.00	0.00
Category 2 [3]	1,718,509	94.35	1,721,748	93.56	-0.80 [4]	3,239
Category 3	3,979	0.22	2,835	0.15	-0.07	-1,144
Category 4 [5]	98,380	5.41	111,253 [6]	6.05	0.64	12,873 [6]
Category 5	1,709	0.09	4,311	0.23	0.14	2,602+ [7]

Marine Waters (Square Miles)						
2,846 = Total Square Miles Assessed in 2010						
2,876 = Total Square Miles Assessed in 2012						
	2010 Square Miles in Category	% of Total 2010 Assessed Square Miles	2012 Square Miles in Category	% of Total 2012 Assessed Square Miles	% Change '10 - '12	Change in Square Miles '10 - '12
Category 1	0.00	0.00	0.00	0.00	0.00	0.00
Category 2 [3]	2685.17	94.35	2,690	93.56	-0.79 [4]	4.83
Category 3	6.22	0.22	4.43	0.15	-0.07	-1.79
Category 4 [5]	153.72+ [6]	5.41	174 [6]	6.05	0.64	20.28 [6]
Category 5	2.67	0.09	6.74	0.23	0.14	4.07+ [7]

[1] Single-Category Reporting miles as generated by final 2010 cycle ADB.

[2] Single-Category Reporting miles as generated by final 2012 cycle ADB.

[3] Category 2 areas are an underestimate as not all areas have been quantified.

[4] While the area of Category 2 waters increased slightly in 2012, the larger increase in area for Category 4 and 5 waters caused the percent of the total 2012 assessed area accounted for by Category 2 waters to decrease slightly.

[5] 2010 numbers only reflect Category 4-A listings; 2012 numbers are for Category 4-A, 4-B-1 and 4-C.

[6] No listing changes occurred to Category 4. Difference in 2010 and 2012 acreage due to 1) 2012 inclusion of segment acres for Waterbody ID 812, and 2) corrected calculation of segment area for Waterbody ID 722-25B.

[7] Variable additional miles due to Combined Sewer Overflow waters

All freshwaters in Maine are listed for an impaired Fish Consumption Use caused by mercury from sources beyond the region; miles affected by this statewide listing are not recorded in Table 2-1. These waters were listed in Sub-Category 5-C in the 2006 Integrated Report. These waters were moved to Category 4-A in the 2008 cycle because of US EPA's approval, on December 20, 2007, of a Regional Mercury Total Maximum Daily Load (TMDL). The New England States and New York developed the regional mercury TMDL to address mercury impairments that are caused by sources beyond the Region. The State of Maine has already taken aggressive action to reduce sources of mercury within the State's jurisdiction. Further mercury reductions will be required from sources outside the State's boundaries to provide the desired reduction of mercury in Maine's waters. Category 5-D, Legacy Pollutants, includes many mainstem river segments that are listed for non-attainment of the Fish Consumption use due to PCBs in fish tissue. In September of 2012 EPA approved a statewide % Impervious Cover TMDL that resulted in the removal of 30 impaired segments from Category 5-A to Category 4-A. The TMDL addresses aquatic life use impairments as indicated by habitat and dissolved oxygen assessments as well as macroinvertebrate and algae (periphyton) bioassessments.

Wetlands

Maine DEP began development of a biological monitoring and assessment program for freshwater wetlands in 1998 as part of the biomonitoring program. The Biological Monitoring Program provides water quality information for a wide array of programs, and includes ambient monitoring, evaluation of water quality classification attainment, and assessment of risks and impacts.

The wetlands initiative currently focuses on aquatic macroinvertebrates as indicators of wetland ecological integrity, and plans to build capacity to assess multiple biological assemblages including algae and plant communities. Beginning in 2010, the Biological Monitoring Program has included provisional aquatic life use attainment determinations for wetlands in this report.

Groundwater

The Groundwater Program is described in Chapter 6. Responsibility for groundwater resource assessment and protection is shared among the Department of Environmental Protection, the Department of Health and Human Services' Division of Environmental Health, the Maine Geological Survey in the Department of Conservation and the U. S. Geological Survey. Several other agencies, particularly the Department of Transportation, Department of Agriculture, and State Planning Office (SPO) may investigate groundwater contamination problems in certain areas and they also contribute to groundwater protection through development of ordinances and management practices that are designed to reduce the risk of harming groundwater quality.

A significant portion of Maine's groundwater may be threatened by contamination, particularly in unforested areas, which comprise approximately 11% of the State. Drinking water quality is an issue that carries significant public concern for both private and public well supplies. Public interest in groundwater is primarily focused on its use as a drinking water supply (groundwater provides 60% of all human demand and 75% of livestock demand statewide) and on its use as a source of process water for industry. Numerous wells in Maine have been made unpotable by pollution from specific point sources and also from nonpoint source pollution. Important sources of groundwater contamination in Maine include disposal activities such as septic systems and landfills, leaking storage facilities, agriculture, spilled hazardous materials or previously unregulated activities.

Monitoring of groundwater in Maine is either site-specific or generalized. Monitoring at a particular site is typically done to gather data on water quality impacts of particular activities, and may or may not be research-related. Most of the groundwater data collected in Maine is the result of permit conditions, enforcement agreements or impact assessments. With the advent of the Environmental and Geographic Analysis Database (EGAD) at the DEP, many of these data which are potentially useful for research purposes are now readily made available to the public or other agencies in report or map form. This effort enhances the ability of the DEP to communicate and report groundwater and other data to the EPA and other state or federal agencies, and to share information with the general public.

Ambient monitoring refers to large-area, long-term monitoring conducted to obtain trend information on groundwater quality or quantity. The MGS and the USGS carry out these types of monitoring projects under several cooperative agreements. The USGS and MGS maintain a statewide network of groundwater observation wells to track changes in water quality and quantity. For the purpose of this report, data derived from the DHHS Public Water Supply Monitoring Program are used as ambient groundwater quality data. These water tests are from single-source untreated public water supply wells.

Major impediments to effective groundwater protection in Maine include; the lack of data to quantify the impact of some nonpoint pollution sources and general public unfamiliarity with key groundwater concepts and issues. Public misconception about groundwater is probably the major factor contributing to degradation of this resource. The development of a comprehensive and accessible database for water data (EGAD) has increased the accessibility of the wide variety of data collected on water quality by various state agencies. Continuing use of this database will improve operations at the agencies responsible for groundwater protection and assessment, and provide a resource for increasing the public's awareness of groundwater issues. Relative to groundwater protection, the principal uses of this database are to (1) help design clean-up strategies in areas of known contamination; (2) plan future development that provides for better protection of public health and safety; (3) assist in prioritizing protection of sensitive groundwater and surface water bodies, wetlands, and other resources; (4) enhance understanding of the spatial relationships between water resources and population as they relate to potential or known pollution sources; and (5) assess the flow and transport interrelationships between ground- and surface water, in order to evaluate groundwater impacts on surface water bodies and on groundwater-dependent habitat.

RESPONSE TO COMMENTS

Process to Solicit Public Comments

The following subsections detail the actions taken by the Department of Environmental Protection to promote the public's knowledge of the existence and availability of the draft version of the 2012 Integrated Water Quality Monitoring and Assessment Report (Integrated Report, or IR, for short, formerly know as the 305b Report). This process was undertaken in order to gain comments from the public on the contents and conclusions of the draft report. The official period of time when the Report was available for public comment was from April 10, 2013 to the close of business on May 10, 2013.

In addition to the public comment process outlined below, the draft version of the 2012 Integrated Report was reviewed internally by Department staff as well as by US EPA staff in order to produce the final version of the Report.

In response to a comment received during the initial public comment period, the Department changed the listing category for one estuarine/marine assessment unit from Category 3 to 5-A. A second comment period was opened to allow for public review of this change. For details of the second comment period see the below (pages 15-23).

REPORT POSTING ON THE DEPARTMENT'S WEBSITE:

On April 10, 2013 the Department posted the draft 2012 Integrated Report as two digital files in the Adobe® Portable Document Format (PDF) on the public comments section of the Department's web page: www.maine.gov/dep/comment/. Hardcopies of the draft report are made available to the public on request.

MAILING TO THE AGENCY RULEMAKING SUBSCRIPTION SERVICE LIST AND OTHER INTERESTED PARTIES:

The Department offers a subscription service that provides notification of both rulemaking changes and rule adoption for all department rules. Subscribers to this service include both individual citizens and representatives of organizations that wish to be contacted when the DEP releases rulemaking information. On April 26, 2013 the Department e-mailed approximately 100 notices to people and entities on the Agency Rulemaking Subscription Service List, including all other natural resource agencies within state government.

The text of that notice follows and is italicized in order to differentiate it from other text contained in this Report.

Opportunity for Comment

Draft 2012 Integrated Water Quality Monitoring and Assessment Report

The Maine Department of Environmental Protection has prepared the draft "2012 Integrated Water Quality Monitoring and Assessment Report" for submission to the U.S. Environmental Protection Agency as required of Sections 303(d) and 305(b) of the Clean Water Act, and in fulfillment of the reporting requirements of 38 M.R.S.A. Section 464.3.A of the State of Maine's Water Classification Program. This report is available for public comment until 5:00 PM, May 10, 2013. Reviewers of the document should pay particular attention to the listing methods required by the USEPA for surface water assessments for this report. These methods are described in Chapter 4 of the document. Specific waterbody attainment and impairment assignments can be found in the Appendices.

Comments become part of the public record and are published in the final version of the Report. All comments should be sent to:

By email: IRcomments.DEP@maine.gov
By fax: 207-287-7826

Susanne Meidel
Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

http://www.maine.gov/dep/comment/comment.html?id=517066

Also, during the week of April 10, approximately 130 interested parties (e.g. towns, non-governmental organizations, tribes) received a comparable notice. The text of that notice follows and is italicized in order to differentiate it from other text contained in this Report.

Maine's DRAFT 2012 Integrated Water Quality Monitoring and Assessment Report

Available for Public Comment until May 10, 2013

The Department of Environmental Protection has prepared a draft 2012 Integrated Water Quality Monitoring and Assessment Report for submission to the U.S. Environmental Protection Agency as required of Sections 305(b) and 303(d) of the Clean Water Act, and in fulfillment of the reporting requirements of 38 M.R.S.A. Section 464.3.A of the State of Maine's Water Classification Program.

This report is available for public comment until May 10, 2013. Reviewers of the document should pay particular attention to the categories and listing methods required by the USEPA for the surface water assessments in this report. These methods are described in Chapter 4. Specific surface waterbody attainment and impairment assignments can be found in the Appendices (a separate file). The appendices are broken into four waterbody types: rivers/streams, lakes, wetlands and estuarine/marine waters. Categories 1-3 are for waters that are not impaired, categories 4 and 5 are for water segments that are impaired for one or more uses.

The draft documents (2 pdf files) can be found on the Department's website at: www.maine.gov/dep/comment/

We encourage you to review the document and provide comment on this year's report. Comments become part of the public record and are published in the final version of the Report. Comments should be sent to:

Email: IRcomments.DEP@maine.gov
Fax: 207-287-7826

Contact:
Susanne Meidel
Maine Department of Environmental Protection
State House #17
Augusta, ME 04333
Susanne.K.Meidel@maine.gov

LEGAL NOTICE:

During the week of April 10, 2013 the Department prepared a legal notice that ran in four daily newspapers located around the state. Those newspapers (and approximate current weekday circulations) were as follows: The Bangor Daily News (45,000), The Kennebec Journal (11,000), The Lewiston Sun Journal (29,000), and The Portland Press Herald (47,000). The text of that legal notice follows and is italicized in order to differentiate it from other text contained in this Report.

Legal Notice

Maine Department of Environmental Protection

Notice of Public Comment Opportunity for the Draft "2012 Integrated Water Quality Monitoring and Assessment Report"

The Department of Environmental Protection has prepared the draft "2012 Integrated Water Quality Monitoring and Assessment Report" for submission to the U.S. Environmental Protection Agency as required of Sections 303(d) and 305(b) of the Clean Water Act, and in fulfillment of the reporting requirements of 38 M.R.S.A. Section 464.3.A of the State of Maine's Water Classification Program. This report is available for public comment until 5:00 PM, May 10, 2013. Reviewers of the document should pay particular attention to the listing methods required by the USEPA for surface water assessments for this report. These methods are described in Chapter 4 of the document. Specific waterbody attainment and impairment assignments can be found in the Appendices.

The report (2 pdf files) may be found on the Department's website at:
www.maine.gov/dep/comment/

Comments become part of the public record and are published in the final version of the Report. All comments should be sent to:
By email: IRcomments.DEP@maine.gov
By fax: 207-287-7826

Susanne Meidel
Maine Department of Environmental Protection
State House #17
Augusta, ME 04333

SECOND PUBLIC COMMENT PERIOD

In response to a comment received during the initial public comment period (April 10 to May 10, 2013), the Department changed the listing category for one estuarine/marine assessment unit from Category 3 to 5-A. A second comment period (January 30 to February 14, 2014) was opened to allow for public review of this change. The comment period was announced via two e-mails, the first to the Department's Rulemaking Subscription Service List (approximately 100 recipients) and the second to other interested parties (approximately 130 recipients; e.g. towns, non-governmental organizations, tribes). The text of those e-mails follows and is italicized in order to differentiate it from other text contained in this Report.

Dear Interested Party,
In accordance with Sections 303(d) and 305(b) of the U.S. Clean Water Act, the Maine Department of Environmental Protection (MDEP) prepared the DRAFT 2012 Integrated Water Quality Monitoring and Assessment Report. The Report was available for public comment from April 10 to May 10, 2013.

In response to a comment that was received during the public comment period MDEP has moved one marine assessment unit [Waterbody ID 812-3, Portsmouth Harbor (south and west of Gerrish Island)] from Category 3 to Category 5-A. The changes from the Draft 2012 Integrated Report are summarized in the attached document. At this time, MDEP is soliciting public comment solely on this one category change. The public comment period on all other aspects of the Draft 2012 Integrated Report closed on May 10, 2013 and a section with MDEP's responses to comments received by that date will be added to the Final 2012 Report. MDEP will not respond to further comments on any portion of the 2012 Report aside from the category change for assessment unit 812-3. Comments are due by February 14, 2014.

Sincerely,
Susanne Meidel

Water Quality Standards Coordinator
ME Department of Environmental Protection
Augusta, ME 04333
Phone: 207 / 441-3612

The text of the attachment that accompanied the e-mails announcing the second public comment period follows and is italicized in order to differentiate it from other text contained in this Report.

Public Comment Opportunity for a Change between Maine's 2012 DRAFT and FINAL Integrated Monitoring and Assessment Report

The Maine Department of Environmental Protection (MDEP) prepared the "2012 DRAFT Integrated Water Quality Monitoring and Assessment Report" (IR) for public comment as required of Sections 303(d) and 305(b) of the Clean Water Act, and in fulfillment of the reporting requirements of 38 M.R.S.A. Section 464.3.A of the State of Maine's Water Classification Program. The DRAFT report can be viewed here: http://www.maine.gov/dep/water/monitoring/305b/. The report was available for public comment from April 10 to May 10, 2013. During this period, MDEP received a comment regarding the listing category for one estuarine/marine assessment unit (AU). In response to that comment, MDEP has changed the listing category for the AU in question from Category 3 (Waters with Insufficient Data or Information to Determine if Designated Uses are Attained) to Category 5-A [Waters Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)]. MDEP is now offering stakeholders an opportunity to comment on this change. The details of the listing change and the edits that were made to the DRAFT IR are shown in the following pages.

By way of two e-mails sent to different MDEP distribution lists, and this file included as an attachment, we invite interested parties to review the changes shown below and provide comment by ***5:00 PM on February 14, 2014****. The comments will become part of the public record and be published in the final version of the Report. Please note that the public comment period on all other aspects of the 2012 DRAFT IR closed on May 10, 2013 and that comments received during that period as well as MDEP responses will be included in the final IR. At this time, MDEP is not inviting additional comments on any other sections of the 2012 DRAFT IR aside from the changes shown below.*

Comments should be sent to:

Email: IRcomments.DEP@maine.gov
Fax: 207-287-7826

Contact:
Susanne Meidel
Maine Department of Environmental Protection
State House #17
Augusta, ME 04333
Susanne.K.Meidel@maine.gov

Change in Listing Category for Estuarine/Marine Assessment Unit 'Portsmouth Harbor (south and west of Gerrish Island)'

Background

In the 2010 Integrated Monitoring and Assessment Report (IR), Maine DEP (MDEP) listed the estuarine portion of the Piscataqua River as a single assessment unit (AU), 'Piscataqua R. Estuary, Kittery, Eliot, So. Berwick', Waterbody ID 812-1. The AU was listed in Category 3 based on survey information obtained from the New Hampshire Department of Environmental Services (NHDES) which indicated a loss of eelgrass in Maine waters. Based on a field assessment and NHDES data review, MDEP split the AU into two units for the 2012 DRAFT IR, and placed the upper segment 'Piscataqua R. Estuary (Eliot, Kittery)', Waterbody ID 812-2, into Category 5-A for a Marine Life Use Support impairment with a cause of 'Nutrient/Eutrophication Biological Indicators'. For the lower segment, 'Portsmouth Harbor (south and west of Gerrish Island)' ('Portsmouth Harbor' for short), Waterbody ID 812-3, MDEP acknowledged that eelgrass had declined but in the absence of causal data indicating an impairment MDEP elected not to list this AU in Category 5-A but instead placed it in Category 3.

During the public comment period (4/10 – 5/10/13) for the 2012 DRAFT IR, MDEP received a comment questioning the appropriateness of the Category 3 Portsmouth Harbor listing. The commenter cited the 2006 EPA IR guidance which specified that "[I]f a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. These segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment.". As MDEP has acknowledged, eelgrass has declined in the AU in question. In response to this comment, and based on additional data review, we are now moving the AU to Category 5-A. The following section provides information on the changes that were made to the 2012 DRAFT IR for this category change.

List of changes made in 2012 DRAFT IR for Portsmouth Harbor listing change[1]

The largest change in text was made in Chapter 4, Surface Water Monitoring & Assessments, in the subsection on Estuaries/Coastal Waters and specifically within the Summary of Statewide Status (p. 69-71 in 2012 DRAFT IR). This summary provides information on the waterbodies found in categories 1 through 5 in the 2012 report. The following two paragraphs show the changes MDEP has made as a result of moving Portsmouth Harbor from Category 3 to 5-A.

Category 3: *The 2012 assessment removes 5.06 square miles of the Penobscot River segment previously listed for lobster tomalley consumption (see Category 2 above). Note that the 2010 report incorrectly listed this segment as 0.4 square miles, when the segment size is now correctly calculated at 5.09 square miles. The 2012 Category 3 listings are also amended based on the Category 5 listing~~subdivision~~ of the 2010 Piscataqua River estuary (Kittery, Eliot, South Berwick) segment 812-1. ~~into Portsmouth Harbor south and west of Gerrish Island (Waterbody ID 812-3) and Piscataqua River estuary including Eliot and Kittery (Waterbody ID 812-2; see also Category 5 below). The continued Category 3 listing of the 2.16 square mile segment of the Maine portion of Portsmouth Harbor indicates an acknowledgement of eelgrass areal coverage loss in excess of 20% from 1996 to 2011, as documented by New Hampshire~~*

[1] Note that only items that were changed are shown here.

~~Department of Environmental Services aerial photography and groundtruthing surveys. This segment does not accompany the Piscataqua River estuary segment in Category 5 due to insufficient causal data to indicate whether or not the marine life use is impaired based on loss of eelgrass.~~

Category 5: *The 2012 assessment assigns an additional ~~1.91~~4.07 square miles to the Category 5-A listings based on ~~a~~ Marine Life Use Support impairments within the Piscataqua River estuary (Eliot, Kittery) (1.91 square miles) and Portsmouth Harbor (south and west of Gerrish Island) (2.16 square miles). Both~~This~~ segments ~~of the estuary was~~were listed in Category 3 in 2010 as part of one larger segment (Waterbody ID 812-1: Piscataqua R. Estuary, Kittery, Eliot, So. Berwick). The Piscataqua River Estuary and Portsmouth Harbor areas were ~~and has been~~ moved to Category 5 for this reporting cycle as a result of additional available data and observations that indicate impairment based on a greater than 20% areal cover loss of eelgrass from 1996 to ~~2011~~ 2010, as documented by New Hampshire Department of Environmental Services aerial photography and groundtruthing surveys~~(see also Category 2)~~. Sufficient evidence exists for th~~is~~e Piscataqua River Estuary segment to attribute ~~include~~ an impairment cause of nutrient/eutrophication biological indicators; however, the 'cause unknown' designation for the Portsmouth Harbor segment acknowledges that insufficient data exist to determine whether or not the marine life use is impaired due to pollutants.*

Concomitant changes were also made in Chapter 4, Surface Water Monitoring & Assessments, in the subsection on Estuaries/Coastal Waters and specifically within the section on nutrients/eutrophication biological indicator causes (p. 73-74 in 2012 DRAFT IR).

- *Eelgrass within the Piscataqua River segment has declined from 299.1 acres to 6.8 acres (98% loss) from 1996 to 2010, and that sufficient data exist to assign a Category 5 listing for Marine Life Use Support impairment with cause of nutrient/eutrophication biological indicators.*
- *The Portsmouth Harbor segment west of Gerrish Island has also demonstrated considerable eelgrass loss, with a 49% decrease in acreage from 1996 to 2010 and a 62% decrease during the same time period when adjusted for decline in both areal coverage and plant density. While the DEP acknowledges the loss of eelgrass within this area and therefore the Category 5 listing, a 'cause unknown' designation ~~a Category 3 listing~~ has been assigned until further data collection (planned for summer 2014) and analyses can be completed to investigate potential ~~causes~~ reasons for population decline.*

The change in category for the AU in question also necessitated an update in a number of summary tables; please see Appendix 1 for details on those items.

In terms of changes to the IR Appendices, the following two pages show estuarine and marine Categories 3 and 5-A lists after the Portsmouth Harbor AU was moved.

~~*Note: Bold text indicates waters that were moved into Category 3 during this reporting cycle*~~

Category 3: Estuarine and Marine Waters with Insufficient Data or Information to Determine if Designated Uses are Attained

Waterbody ID	*DMR Area*	*Segment Description*	*Segment Size (acres)*	*Segment Size (sq. miles)*	*Segment Class*	*Last Year Sampled*	*Projected Sample Date*	*Comments*
824-2	*4-A*	*Perkins Cove (Bald Head to mouth of Kennebunk River estuary)*	*13*	*0.02*	*SB*	*No stations or surveys*		*Many boats – no data. Initially closed to shellfish harvest due to OBDs.*
~~***812-3***~~	~~***1***~~	~~***Portsmouth Harbor (south and west of Gerrish Island)***~~	~~***1,380***~~	~~***2.16***~~	~~***SB***~~	~~***2010***~~	~~***2016***~~	~~***Eelgrass loss documented in NH and Maine waters; assessment of potential ME Marine Life Use impairment incomplete due to lack of causal data.***~~
802-26	*18-D*	*Quahog Bay (southeast of Pole Island)*	*590*	*0.92*	*SB*	*2011*	*2012*	*Possible Dissolved Oxygen non-attainment. Closed to shellfish harvest due to OBDs.*
722-10	*29-B*	*Matinicus Island & Ragged Island*	*2,203*	*3.44*	*SB*	*No stations or surveys*	*Far off the Maine coast - logistical problems*	
702-3	*60*	*Little River (Perry)*	*29*	*0.05*	*SB*	*2011*	*2012*	*Non-point source pollution.*
		Total =	*2,835~~4,215~~*	*4.43~~6.59~~*				

Note: Bold text indicates waters that were moved into Category 3 during this reporting cycle

Category 5-A: Estuarine and Marine Waters Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

Waterbody ID	Segment Description	Segment (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Impaired Use	Cause	Source	TMDL Priority	Comments
812-2	***Piscataqua R. Estuary (Eliot, Kittery)***	***1,221***	***1.91***	***SB/SC***	***2010***	***Marine Life Use Support***	***Nutrient/ Eutrophication Biological Indicators***	***Source unknown***	***L***	***Eelgrass areal extent and density decreases documented since 1996 by NH DES and ME DMR.***
812-3	***Portsmouth Harbor (south and west of Gerrish Island)***	***1,380***	***2.16***	***SB***	***2010***	***Marine Life Use Support***	***Cause Unknown***	***Source unknown***	***L***	***Eelgrass loss documented in NH and Maine waters; assignment of impairment cause not possible until further data collection (summer 2014) and analysis.***
811-9	*Mousam R. Estuary (DMR Area 6)*	*192*	*0.30*	*SB*	*2010*	*Marine Life Use Support*	*Dissolved Oxygen*	*Municipal point source, Nonpoint source, Sediment Oxygen Demand*	*2016*	*Includes 54.7 acre DMR closure; also listed in Category 4A for elevated fecals. Further data collection required.*
811-8	*Saco R. Estuary*	*576*	*0.90*	*SC*	*1998*	*Marine Life Use Support*	*Toxicity, Copper*	*Municipal point source, CSOs*	*L*	*Also listed in Category 4A for elevated fecals. Further data collection required.*
804-7	*Fore R. Estuary*	*768*	*1.20*	*SC*	*2009*	*Marine Life Use Support*	*Marine life, Toxics*	*Municipal point source, CSOs, Stormwater, Hazardous waste sites, Nonpoint*	*M*	*Also listed in Category 4A for elevated fecals. Further data collection required.*
802-25	*Royal R. Estuary*	*174*	*0.27*	*SB*	*2010*	*Marine Life Use Support*	*Dissolved Oxygen*	*Municipal point source, Stormwater, Nonpoint Source, Sediment Oxygen Demand*	*2016*	*Also listed in Category 4A for elevated fecals. Pending wasteload allocation study. Further data collection required.*
	Total =	*4,311~~2,931~~*	*6.74~~4.58~~*							

Appendix 1

Change in Listing Category for Estuarine/Marine Assessment Unit 'Portsmouth Harbor (south and west of Gerrish Island)'

The change in category for the estuarine assessment unit 'Portsmouth Harbor (south and west of Gerrish Island)', Waterbody ID 812-3, from Category 3 to Category 5-A necessitated an update in the following tables. Note that only items that were changed, or that are closely related to the change in question, are shown below.

- *Table 2-1, Summary of Changes to Surface Water Assessment Categories – 2010 to 2012 (p. 10-11 in 2012 DRAFT IR)*

Marine Waters (Acres)						
1,821,434 = Total Acres Assessed in 2010						
1,840,147 = Total Acres Assessed in 2012						
	2010 Acres in Category	**% of Total 2010 Assessed Acres**	**2012 Acres in Category**	**% of Total 2012 Assessed Acres**	**% Change '10 - '12**	**Change in Acres '10 - '12**
Category 1	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Category 2 [3]	*1,718,509*	*94.35*	*1,721,748*	*93.~~55~~56*	*-0.~~80~~79* [4]	*3,239*
Category 3	*3,979*	*0.22*	*~~4,215~~2,835*	*~~0.24~~0.15*	*~~0.02~~-0.07*	*~~236~~-1,144*
Category 4 [5]	*98,380*	*5.41*	*111,253* [6]	*6.05*	*0.64*	*12,873* [6]
Category 5	*1,709*	*0.09*	*~~2,931~~4,311*	*~~0.16~~0.23*	*~~0.07~~0.14*	*~~1,222~~2,602+* [7]
Marine Waters (Square Miles)						
2,846 = Total Square Miles Assessed in 2010						
2,876 = Total Square Miles Assessed in 2012						
	2010 Square Miles in Category	**% of Total 2010 Assessed Square Miles**	**2012 Square Miles in Category**	**% of Total 2012 Assessed Square Miles**	**% Change '10 - '12**	**Change in Square Miles '10 - '12**
Category 1	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Category 2 [3]	*2685.17*	*94.35*	*2,690*	*93.~~55~~56*	*-0.~~80~~79* [4]	*4.83*
Category 3	*6.22*	*0.22*	*~~6.59~~4.43*	*~~0.24~~0.15*	*~~0.02~~-0.07*	*~~0.37~~-1.79*
Category 4 [5]	*153.72+* [6]	*5.41*	*174* [6]	*6.05*	*0.64*	*20.28* [6]
Category 5	*2.67*	*0.09*	*~~4.58~~6.74*	*~~0.16~~0.23*	*~~0.07~~0.14*	*~~1.91~~4.07+* [7]

[4] *While the area of Category 2 waters increased slightly in 2012, the larger increase in area for Category 4 and 5 waters caused the percent of the total 2012 assessed area accounted for by Category 2 waters to decrease slightly.*

[5] *2010 numbers only reflect Category 4-A listings; 2012 numbers are for Category 4-A, 4-B-1 and 4-C.*

[6] *No listing changes occurred to Category 4. Difference in 2010 and 2012 acreage due to 1) 2012 inclusion of segment acres for Waterbody ID 812, and 2) corrected calculation of segment area for Waterbody ID 722-25B.*

[7] *Variable additional miles due to Combined Sewer Overflow waters*

Appendix 1

- *Table 4-5, Summary of State Waters Attaining and Not Attaining Standards (p. 44)*

Waterbody Type	**Total Assessed for Attaining of WQ Standards – Assessed for Designated Uses**	**Total with Insufficient Data for Assessment – Not Assessed for Any Designated Uses (Category 3)**	**Total Attaining All WQ Standards - Supporting All Designated Uses (Category 1)**	**Total Attaining At Least One Standard – Supporting at Least One Use, But Not All Standards Assessed (Category 2)**	**Total Not Attaining One or More WQ Standards – Not Supporting One or More Uses – But Not Needing a TMDL (Category 4)**	**Total Not Attaining One or More WQ Standards – Not Supporting One or More Uses – and TMDL is Needed (Category 5)**
Estuarine/Marine Square Miles	*2,876*	*~~4~~7*	*0.0*	*2,690*	*174*	*~~5~~7* [6]
Estuarine/Marine (Acres)	*1,840,147*	*~~4,215~~2,835*	*0.0*	*1,721,748*	*111,253*	*~~2,931~~4,311* [5]

- *Table 4-9, Individual Designated Use Support Summary for Maine Estuarine and Marine Water (p. 46)*

CWA Goals	**Designated Use**	**Size Fully Supporting – Attaining WQ Standards (square miles)**	**Size Not Supporting – Not Attaining WQ Standards (square miles)**	**Size Not Attainable – UAA Performed (square miles)**
Protect & Enhance Ecosystems	*Marine Life*	*2,~~838~~836*	*~~8~~10*	*0*

- *Table 4-14 Total Sizes of Category 4 and 5 Impaired Maine Estuarine and Marine Waters by Listing Cause/Stressor Type (p. 48)*

Cause/Stressor Type	**Size Impaired (square miles)**
Unknown	**2**

- *Table 4-19 Total Sizes of Category 4 and 5 Impaired Maine Estuarine and Marine Waters by Source Category (p. 50)*

Source Category (examples)	**Size Impaired (square miles)**
Unknown	*~~2~~4*

Appendix 1

- *Table 8-4 New Estuarine/Marine Waters Listings (p. 134)*

Waterbody ID	Segment Description	Cause	Category			Comments
			2010	2012	Other 2012	
812-2	Piscataqua R. Estuary (Eliot, Kittery)	Nutrient/Eutrophication Biological Indicators	3 [1]	5-A	none	New listing for Marine Life Use impairment based on eelgrass areal extent and density decreases documented since 1996.
812-3 (DMR Area 1)	Portsmouth Harbor (south and west of Gerrish Island)	~~N/A~~Cause Unknown	3 [1]	~~3~~5-A	none	New listing for ~~potential~~ Marine Life Use impairment based on eelgrass areal extent and density decreases documented since 1996.~~documented eelgrass loss.~~

[1] Waterbody ID was 812-1 in 2010 report.

- *Table 8-16 Estuarine/Marine Current TMDL Project Update (p. 193)*

Waterbody ID	Segment Description	Cause	Project Status	TMDL Submittal Target Date/Priority
812-2	Piscataqua R. Estuary (Eliot, Kittery)	Nutrient/ Eutrophication Biological Indicators	TMDL dictated by NH licensing and ME nitrogen criteria processes.	L
812-3	Portsmouth Harbor (south and west of Gerrish Island)	Cause Unknown	TMDL contingent on identification of impairment cause(s); data collection planned for summer 2014	L

Summary of Public Comments and Responses

The Department received a number of comments during the first official public comment period (April 10 to May 10, 2013) and one comment during the second official public comment period (January 30 to February 14, 2014) and wishes to thank all persons who provided input. DEP received substantive comments from the parties listed below and those comments are either quoted or paraphrased and presented in italic typeface. A DEP response follows each comment and summarizes any actions taken by the Department in response to the comment. If the text does not indicate that any changes were made to the Integrated Report, then none were made. The single comment received during the second comment period is focused on the issue of water quality impairment in Portsmouth Harbor in the Piscataqua River (see Great Bay Estuary Impairments, page 32). The Department also received a number of minor comments regarding e.g. typos, unclear language or small errors or omissions. These items have all been addressed in the final version of the report.

Data Time Frame of the Report

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP:

Should 2011 and 2012 data be used to supplement the 2009 and 2010 data that were used for the majority of the assessments/decisions/actions? Should certain narrative portions of the report be updated to reflect recent events?

MDEP Response:

Since the 2002 report, the MDEP has used a system where public data solicitation and DEP assessments are based on data from the second and third year prior to a report year (e.g. 2009 and 2010 data for 2012 report). This system was instituted for purposes of timely report preparation. In an effort to enable timely reporting for the 2014 cycle, DEP has attempted to retain the existing data time frame with few exceptions. (Note that select narrative portions of the report do reference events that occurred in 2011 or 2012 but not 2013 and that one segment was moved from Category 4-A to 4-B based on 2012 permits.)

Listing for Androscoggin versus Penobscot River Segments

Paraphrased comments from:

- Scott Reed, Rumford Paper Company
- William Taylor, Pierce Atwood LLP
- Ken Gallant, Verso Paper Corporation

Why are certain Penobscot River segments where enforceable controls are in place listed in 'Category 4-B: Rivers and Streams Impaired by Pollutants – Pollution Control Requirements Reasonably Expected to Result in Attainment' but one Androscoggin River segment where similar controls are in place is listed in Category 4-A defined as 'a TMDL is complete but insufficient data exists to determine that attainment has been *achieved'? Both rivers should be treated in a consistent manner and be listed in Category 4-B.*

MDEP Response:

The Penobscot River segments in question were moved from Category 5-A in the 2010 Integrated Report to Category 4-B in the 2012 draft report based on new wasteload allocations (WLAs) and permits with new phosphorus limits issued in May 2011. These delistings were based on water quality survey data from 1997, 2001, and 2007, as explained in the DEP's WLA modeling report, and re-issuance of the relevant permits occurred early enough in the 2012 report preparation to allow incorporation of the changes. The Androscoggin River segment in question (ME0104000208_424R_01, Androscoggin R, Main stem, upstream of the Gulf Island Dam) was listed in the 2012 draft report in Category 4-A, already delisted from Category 5-A in 2006 due to a 2005 TMDL and a 2010 TMDL modification. MPDES permits establishing effluent limits for the mills were issued in 2012, i.e. considerably beyond the time frame covered by the 2012 Integrated Report, and were thus initially not used for the 2012 report. However, DEP has now moved this listing to Category 4-B based on the 2012 permits.

Androscoggin River Gulf Island Pond Impairments

Paraphrased comments from:

- Scott Reed, Rumford Paper Company
- Ken Gallant, Verso Paper Corporation

The Androscoggin River Gulf Island Pond (GIP) segment is still listed as impaired for algae blooms, BOD, phosphorus and TSS. According to the DEP's 2010 Gulf Island Pond Monitoring Program Report "'No algal blooms were observed in 2010, and based on monitoring data obtained annually since 2004, the Department finds that water quality in GIP is suitable for the designated use of recreation in and on the water." This segment should no longer be listed as impaired for these causes.

MDEP Response:

DEP is moving this listing to Category 4-B in the current cycle and will re-evaluate it in the 2014 reporting cycle based on available data. Note that the 2010 GIP Monitoring Program Report was not officially released until 2012 and therefore the data were not used for the 2012 Integrated Report.

ANDROSCOGGIN RIVER GULF ISLAND POND DO IMPAIRMENT

Paraphrased comments from:

- Scott Reed, Rumford Paper Company

In the first paragraph on page 74, the last two sentences should be revised as follows: "… Consequently, the water quality has been improved. While water quality still does not meet dissolved oxygen standards due to sediment oxygen demand from historic discharges and non-point sources, the new permits and certification in conjunction with expected reductions in non-point source loadings are expected to result in attainment within the permit period."

MDEP Response:

Non-point sources are not considered to be a significant contributor to non-attainment of dissolved oxygen criteria. As stated in the Gulf Island Pond TMDL there are limited opportunities for non-point source controls within this watershed that would be significant enough to make a difference in phosphorus loading during the summer season when non-attainment conditions occur in the pond. Hence control of non-point source pollution is not a feasible solution to address the non-attainment of DO criteria attributable to sediment oxygen demand.

CATEGORY FOR DIOXIN LISTINGS (2 COMMENTS)

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Is 4-B the correct category for waters affected by dioxin if no discharge is present?

MDEP Response:

The 1997 'Dioxin law' at 38 MRSA §420(2)(I) prohibited discharge of dioxin from bleach kraft pulp mills after December 31, 2002. Evidence of a discharge was that concentrations of 2, 3, 7, 8-tetrachlorodibenzo-p-furan and 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin were above nominal detection limits in bleach plant effluent and that levels of dioxin, as defined in section 420-B, subsection 1-A, paragraph A detected in fish tissue sampled below the mill's wastewater outfall are higher than levels in fish tissue sampled at an upstream reference site not affected by the mill's discharge or on the basis of a comparable surrogate procedure acceptable to the commissioner (above/below or A/B test). The Department required the mills to pass the A/B test for two consecutive years. The Department determined that the pulp and paper mills passed the A/B test and were no longer discharging measurable levels dioxins in the Androscoggin River and Kennebec River by 2004 and in the Penobscot River by 2005. Nevertheless, a residual amount of dioxin remains in some rivers from historical discharges, elevated enough to warrant Fish Consumption Advisories. The existence of Fish Consumption Advisories constitutes non-attainment of the designated use of 'fishing' in the Water Quality Standards for these rivers. Monitoring demonstrates that concentrations in fish are declining and in time it is expected that concentrations will be low enough to no longer require the Fish Consumption advisories. Therefore, these waters are appropriately listed in Category

4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment.

Paraphrased comment from:

- Scott Reed, Rumford Paper Company

Under Listing Causes, Stressors and Sources of Impairment, the section 'Causes (Table 4-10)' identifies that the greatest number of impaired miles is due to toxic contamination, including legacy pollutants such as DDT, dioxin and PCBs. River miles impaired by PCBs are listed in Category 5-D 'Legacy Pollutants' while river miles impaired by dioxins are listed in Category 4-B, but should be changed to Category 5-D.

Also in the same section is the following sentence: "While absolute elimination of the production of dioxin from the pulp and paper bleaching process has probably not been accomplished, measureable differences above and below sources of dioxin are no longer detectable." Since there are no longer any measureable differences above and below mills, the first part of the sentence should be deleted.

MDEP response:

Polychlorinated biphenyls (PCBs) were widely used as dielectric and coolant fluids, for example in transformers, capacitors, and electric motors all over the United States. PCB emissions, followed by long-range transport and atmospheric deposition, is thought to be a significant source of PCBs to waters of the US. Due to PCBs' environmental toxicity and classification as a persistent organic pollutant, PCB production was banned by the United States Congress in 1979. Consequently, concentrations in the environment have declined to some extent since then, but residuals remain a legacy of historical emissions. Concentrations of PCBs in some Maine rivers exceed or contribute to an exceedance of the Maine Center for Disease Control and Prevention's (Me-CDC) Fish Tissue Action Level (FTAL), resulting in a Fish Consumption Advisory. Specific Maine sources of PCBs to fish in the state's rivers are not well known or controlled and thus these rivers are listed in Category 5-D: Rivers and Stream Impaired by Legacy Pollutants. To the contrary, sources of significant amounts of dioxins in fish from Maine rivers were relatively well known to be discharges from certain industrial facilities. Institution of controls has resulted in elimination of the discharge of measurable levels of dioxins, yet residuals persist due to historical discharges to an extent that the Fish Consumption Advisories remain. Consequently the affected river reaches are listed in Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment.

Given that the Department has found that there is no measureable discharge of dioxin from bleached kraft pulp mills in Maine, the phrase '*While absolute elimination of the production of dioxin from the pulp and paper bleaching process has probably not been accomplished,'* has been deleted.

DIOXIN IMPAIRMENT IN PENOBSCOT RIVER

Comment from:

- Dennis McComb, Lincoln Paper and Tissue, LLC

The segment of the Penobscot River from Cambolassee Stream to the Piscataquis River is listed in Category 4-B for dioxin. Given the existing dioxin monitoring results in fish tissue for dioxin as defined in state statute, 38 MRSA§ 420-B1-A, it is our understanding that the levels of dioxin did not exceed the FTAL. A separate listing for PCBs may be warranted but PCBs are not dioxin.

MDEP Response:

Concentrations of dioxin alone in fish from the Penobscot River in the reach from Cambolasse Stream to the Piscataquis River are below the Maine Center for Disease Control and Prevention's (Me-CDC) Fish Tissue Action Level (FTAL) for dioxin-like compounds, which include dioxins and dioxin-like coplanar PCBs. However, when combining concentrations of dioxins with concentrations of dioxin-like coplanar PCBs, the FTAL for dioxin-like compounds is exceeded. Because both dioxins and PCBs contribute to this exceedance, the segment in question is listed in Category 4-B for dioxins, for which local sources have been identified and controlled, and in Category 5-D for PCBs, which are considered to be primarily a legacy of unknown, regional or national historical sources.

MERCURY VERSUS DIOXIN/PCB IMPAIRMENT

Paraphrased comments from:

- Scott Reed, Rumford Paper Company
- William Taylor, Pierce Atwood LLP
- Kenneth Gallant, Verso Paper Corporation

Under Main Stem of Major Rivers it is noted that the primary impairment on larger rivers is non-attainment of the fish consumption use due to legacy PCBs and dioxin in fish tissue. Why is there is no mention of mercury in fish tissue even though there is a state-wide fish consumption advisory for it?

MDEP Response:

The primary impairment issue for large rivers is legacy dioxins and PCBs because they result in fish consumption advisories more stringent than the statewide mercury advisory for most of the freshwater fish consumed. To indicate the existence of a mercury impairment, we have however inserted a footnote in the paragraph in question.

Mercury versus Dioxin/PCB Advisory

Comment from:

- William Taylor, Pierce Atwood LLP

Essentially, the dioxin & coplanar PCB concentrations are dropping toward, or are at, background, while mercury remains elevated. Therefore, the state-wide mercury advisory is, in most or all cases, protective of dioxin and coplanar PCB exposure. This fact is alluded to in the advisory shown on page 135 of the draft document, but it could be made more clear in the text.

MDEP response:

The Maine Department of Human Services Guidelines about Eating Freshwater Fish was carefully worded to convey the desired message and needs to be read in its entirety. The statewide mercury advisory is protective of dioxin and coplanar PCB exposure only for "**Pregnant and nursing women, women who may get pregnant, and children under age 8**" who eat freshwater fish that are not brook trout and landlocked salmon. For this population who eat trout and salmon and for "**All other adults and children older than 8**", dioxin and coplanar PCB exposure is not protected by the statewide mercury advisory, but in fact requires the river specific advisories, which are more restrictive.

Dioxin versus PCB in Fish Tissue Action Level

Paraphrased comment:

- William Taylor, Pierce Atwood LLP
- Dennis McComb, Lincoln Paper and Tissue, LLC

It appears that dioxin-like coplanar PCBs are added to dioxins; please clarify if dioxins included PCBs in 2009 and 2010.

MDEP Response:

Dioxins refer to dioxins only, and PCBs refer to PCBs only. When coplanar PCBs are measured they are explicitly described as such. The 2009 PCB data were for total PCBs; no dioxins were measured in 2009.

Consent Agreement on Penobscot River

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

The Penobscot River section of 'Main Stems of Major Rivers' incorrectly references 'upstream mills' that were involved in the Administrative Consent Agreement when only one mill was involved. Also, since subsequent specific permit limitations for nutrients are the key factor expected to ensure continued aquatic life attainment, the reference to the Consent Agreement is outdated and unnecessary.

MDEP Response:

Information on the Consent Agreement was included to provide historical context and has therefore been retained. The reference to 'upstream mills' was indeed incorrect and has been updated to read 'one upstream mill'.

DISSOLVED OXYGEN DATA ON PENOBSCOT RIVER

Paraphrased comment from:

- Dennis McComb, Lincoln Paper and Tissue, LLC

Has analysis of 2012 dissolved oxygen (DO) data for two critical reaches of the Penobscot River been finalized? If DO criteria were attained in 2011 and 2012, the segments should not be assumed to be in non-attainment.

MDEP Response:

The final data report has not been released and therefore the analysis results are still in preliminary form. To conclusively establish that DO criteria are attained, data indicating such attainment and/or other indicators of attainment must be measured for more than two years. If the segments in question show continued DO criteria attainment, DEP will initiate a delisting for this cause in a future reporting cycle.

THE NEED TO SWIFTLY ADOPT MAINE'S NUTRIENT RULE

Paraphrased comment from:

- Ivy Frignoca, Conservation Law Foundation

A review of the appendix containing the rivers and streams listed in Categories 3 through 5 reveals that a large percentage of segments has impairments related to nutrient loading. This review mandates the conclusion that nutrient loading is a major cause of water pollution in Maine. We request an update in the Integrated Report on the status of the freshwater nutrient criteria being developed by DEP and the impact they will have on permits and the cleanup of nutrient-impaired segments.

MDEP Response:

There has been no change in the status of Chapter 583: *Nutrient Criteria for Surface Waters* since the release of the DRAFT Integrated Report. For the current status of the nutrient criteria please visit the following website: http://www.maine.gov/dep/water/nutrient-criteria/index.html.

MCCAIN FOODS MEPDES PERMIT

Paraphrased comment from:

- Ivy Frignoca, Conservation Law Foundation

CLF requests that the comments section for the Category 3 Aroostook River segment (ME0101000413_148R, Main stem between confluence with Presque Isle Stream and 3 miles upstream of Caribou water supply intake) be revised to reflect the status of the *nutrient rule and the pending MEPDES permit for McCain Foods and detail a timeline for implementation of both.*

MDEP Response:

DEP is actively working on data analysis that will form the basis for the MEPDES permit renewal for McCain Foods. Information on the status of the nutrient rule is provided in the report in Chapter 4, section 'Data Interpretation', as well as the website provided above; this information is not repeated in comments to individual assessment units listed in the appendices for the sake of brevity and to avoid redundancy.

TOXIC IMPACTS TO MARINE WATERS

Comment from:

- Scott Reed, Rumford Paper Company

Page 90 Toxics- Delete the sentence that states, "Industrial point sources have been "the largest contributing source category for dioxin".

- William Taylor, Pierce Atwood LLP

There is a general description of toxic impacts to marine waters on page 90. The general description is confusing because it is not clear which toxics are actually impairing marine waters. Is it PCBs, dioxins or a combination thereof? The statement is made that industrial point sources have been "the largest contributing source category for dioxin" and "account for most of the shellfish consumption listed waters." DEP supplies no evidence to support these statements. In fact, DEP acknowledges later in the same paragraph that pulp and paper mills are no longer discharging measurable amounts of dioxin. It is not clear what other industrial loads are contributing to dioxin levels in marine waters and whether there are levels of dioxin, as defined under state law, that exceed FTALs in marine waters. Is an "elevated" level of dioxin the same as a level above the FTAL?

MDEP Response:

There has been a lobster tomalley consumption advisory for all marine waters in place since 1994 due to dioxins and PCBs. Data from 1993-1996 show that dioxins were highest in lobsters captured in estuaries of rivers with bleached kraft pulp mills, consistent with freshwater fish data, while PCBs are higher along the Southern Maine coast than Downeast. More recent data from 2010 confirm that dioxin levels remain higher in lobsters from the same estuaries (see page 99). Regarding the statement noted by the commenters, we have amended the sentence to read "Industrial point sources have **historically** been the largest contributing source category for dioxin." 'Elevated' means higher than expected in natural background, which may or may not exceed the FTAL.

Great Bay Estuary Impairments

Paraphrased comment from:

- Ivy Frignoca, Conservation Law Foundation

CLF strongly supports Maine DEP's listing of the Piscataqua River Estuary segment (ID 812-2) under Category 5 for Marine Life Use Support impairment with a cause of nutrient/eutrophication biological indicators. With respect to the Portsmouth Harbor segment (ID 812-3) of the estuary, however, CLF disagrees with Maine DEP's Category 3 designation; instead, this segment should be listed in Category 5 due to the documented loss of eelgrass cover and therefore loss of critical habitat. This segment must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment.

MDEP Response:

As MDEP has acknowledged, eelgrass has declined in the segment in question. In response to this comment, and based on additional data review, MDEP has moved the segment to Category 5-A.

Paraphrased comment received during second official public comment period from:

- Ivy Frignoca, Conservation Law Foundation
- Thomas Irwin, Conservation Law Foundation

For the reasons set forth in our comments of May 10, 2013, CLF strongly supports Maine DEP's recently announced change to its DRAFT report. We commend Maine DEP for making this change and fully support its incorporation into the FINAL 2012 Integrated Monitoring and Assessment Report.

Overboard Discharge removals

Paraphrased comment from:

- William Johnson, Maine Department of Environmental Protection, Division of Water Quality Management

The Category 2 listings for licensed Overboard Discharge (OBD) septic systems in marine and estuarine waters should be updated to reflect OBDs that have been removed.

MDEP Response:

The Department updated OBD comments in Category 2 for Estuarine and Marine Waters based on commenter-provided removal dates extending through the end of the assessment period. The Department subsequently solicited from the Maine Department of Marine Resources (DMR) updates to the "Reason for DMR Closure" column for those Segment Descriptions where OBD status had been updated since the draft 2012 report was distributed for public comments. Based on the DMR response, the Department revised the "Reason for DMR Closure" descriptions for status and/or closure reason. As of the end of the 2012 report assessment period, marine OBDs had been removed in 22 segments as compared to information presented within the 2010 report. These 22 OBD removals corresponded with the opening of five DMR Areas for shellfish harvest. For the next listing cycle, the Department intends to have revised assessment units for marine and estuarine waters, and will align these units with DMR closure areas as much as possible. At that time, the Department will collaborate with the DMR to reevaluate proper listing status for those shellfish harvest areas that remain closed due to total coliform bacteria or specified indicator organisms.

CENTER FOR BIOLOGICAL DIVERSITY INPUT

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Was the Center for Biological Diversity provided a copy of the draft report prior to other members of the public?

MDEP Response:

The Center for Biological Diversity (CBD) was not provided a copy of the draft 2012 report prior to other members of the public. The CBD listing request, dated December 22, 2011, was submitted to the DEP during the 2012 Integrated Report data solicitation period, not the public comment period, to enable the DEP to consider the information and references therein when preparing the 2012 303(d) list for marine waters. The CBD letter can be made available by the DEP upon request.

MARINE WATERS IN TABLE 2-1

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

In Table 2-1, under Category 2, Marine Waters, the percent change between 2010 and 2012 is noted as minus 0.80. Yet the change in acreage is an increase of 3,239. Should the percent change be plus 0.80? This question applies for both Category 2 (acreage and square miles) calculations.

MDEP Response:

The negative value is correct. While the area of Category 2 waters increased slightly in 2012 (by ~0.2 %), the areas of Category 4 and 5 waters increased more substantially (by 13.1 and 71.5 %, respectively). As a result, those two categories make up a larger percentage of the total assessed waters in 2012 (6.21 % combined) compared to 2010 (5.5 %) causing the Category 2 percentage to decline somewhat (from 94.35 % in 2010 to 93.55 % in 2012), in spite of a small increase in area. We have added an explanatory footnote (#4) to the -0.80 % values in Table 2-1.

RESIDUAL DESIGNATION AUTHORITY TO SUPPLEMENT THE IC TMDL

Paraphrased comment from:

- Ivy Frignoca, Conservation Law Foundation

CLF supports DEP's use of the IC Method but advocates – as it did in its comments to the Draft IC-TMDL - that DEP also exercise Residual Designation Authority (RDA) where appropriate to reduce the impacts of urban runoff. . . . To the extent that RDA authority can be used to minimize runoff from some of the point sources identified like storm drains or to define a category of sites that could be subject to a general permit, similar to the approach utilized for Long Creek but on a smaller scale, DEP should exercise RDA and move the stream segment to Category 4B to regulate the improvement of water quality.

MDEP Response:

The 2012 Integrated Report lists the streams that were included in the Department's approved Impervious Cover TMDL. With the TMDL for these impaired waters completed, the focus will next shift to implementation, which in many cases will necessitate the preparation of a watershed management plan to develop more specific actions to implement the targets identified in the TMDL (or to adjust them). Use of Residual Designation Authority would be one of several tools that could then be used to implement the plan. However, implementation measures are beyond the scope of what is included in the IR, so no changes have been made to it based on this comment.

IMPERVIOUS COVER TMDL AND PUBLIC REVIEW PROCESS

Paraphrased comments from:

- John Branscom, MTA (Maine Turnpike Authority)
- Tamara Lee Pinard, Interlocal Stormwater Working Group

During the stakeholder involvement period that was part of the process to develop the IC TMDL, many communities questioned why their streams were being included in the IC TMDL. DEP staff responded that the time to provide comment on 303(d) listing would be during the public comment period of the 2012 Integrated Water Quality Report (Report). However, notifications regarding the public comment period for the 2012 DRAFT IR did not reach all parties interested in providing comments (specifically MTA and stakeholders affected by the IC TMDL) in a timely fashion. We request a 30-day extension of the comment period.

MDEP Response:

DEP publicized the 30-day public comment period in a variety of ways as detailed in the report. Specifically, an e-mail regarding the public comment period was e-mailed to the Executive Director of the MTA as well as officials from all cities/towns (except for one) that form part of ISWG on April 10. DEP provided sufficient time for public comment and cannot extend (re-open) the public comment period.

IC TMDL AUTHORITY

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Regarding the percent impervious cover TMDL that affected 30 impaired segments, does the state of Maine or EPA have the authority to develop and approve TMDLs that are based on a non-pollutant such as impervious cover?

MDEP Response:

This question is outside the scope of the Integrated Report. The report merely lists the waters that were included in the EPA-approved TMDL and as a result moved from one report category to another report category.

DELISTING PROCESS

Paraphrased comments from:

- John Branscom, Maine Turnpike Authority
- Tamara Lee Pinard, Interlocal Stormwater Working Group

Please provide clarification on:

1) *the delisting process (Category 5-A to 4-A) for assessment units (AUs) that are included in a TMDL;*
2) *how additional assessment units (AUs) will be added to the approved Impervious Cover (IC) TMDL; and*
3) *when and how the public would be notified of delistings (Category 5-A to 4-A) due to TMDL approval.*

MDEP Response:

1) Assessment units that are included in a TMDL report are moved from Category 5-A to 4-A following EPA-approval of that report (see page 62 below, last bullet under the header ‘Delisting from an Impaired to an Unimpaired Category’).
2) For additional AUs that will be added to the approved IC TMDL, DEP will go through the routine process of developing a TMDL report, i.e. draft a TMDL document (in this case prepare the same type of stream-specific appendix that was provided in the original IC TMDL document for each stream), meet with stakeholders, provide a public comment period, amend the document as appropriate based on any input received, and submit the document to EPA for approval.
3) Once EPA has approved a TMDL, the relevant waterbody will be moved from Category 5-A to 4-A and this delisting action will be reflected in the next Integrated Report. Typically the DEP TMDL writer will notify the stakeholders who have been part of the public review process when a TMDL has been approved. All approved TMDLs and supporting information can be found on DEP’s website at http://www.maine.gov/dep/water/monitoring/tmdl/tmdl2.html .

Statewide NPS TMDL

Paraphrased comment from:

- John Branscom, MTA (Maine Turnpike Authority)

Please provide an explanation of the proposed statewide NPS TMDL in the forthcoming response to comments.

MDEP Response:

The purpose of the TMDL, which is still in the development phase, is to address non-urbanized streams that do not attain water quality criteria due to nutrient enrichment. This TMDL uses the same approach as previously approved TMDLs for Dudley Brook and Prestile Stream, which can be found on the DEP website at http://www.maine.gov/dep/water/monitoring/tmdl/tmdl2.html. Further details on the forthcoming TMDL will be provided during the period of public comment and engagement.

Use of Data Older than 5 Years

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Does the Department use data older than 5 years for attainment/non-attainment decisions? Is the use of such data consistent with the use of such data for other DEP permitting and licensing decisions?

MDEP Response:

MDEP uses the latest available data to make (non-)attainment decisions in all categories; if necessary, that may include data older than 5 years. Usage of older data is explained on pages 58-62. The approach used for making (non-)attainment decisions for purposes of the Integrated Report is independent of that used for licensing/permitting decisions and hence does not need to be the same.

BOD Listings

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

On what basis are waters listed for BOD impairment?

MDEP Response:

Waters are listed for biochemical oxygen demand (BOD) when that indicator provides supporting information as one cause of dissolved oxygen impairment. The BOD test is used for determining the relative oxygen requirements of municipal and industrial wastewaters. Application of the test to organic waste discharges allows calculation of the effect of the discharges on the dissolved oxygen concentration of the receiving water. In addition, BOD may also be used as an input parameter in water quality models whose use is explained under 'Dissolved Oxygen' on page 66, below.

Class AA and A Biological Expectations

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

The description of the biological monitoring of rivers and streams notes that Class AA and Class A waters have the same aquatic life criteria and biological expectations. The aquatic life criteria listed under Class AA and Class A are not the same because Class A has a specific numeric criterion for dissolved oxygen whereas Class AA has a narrative criterion.

MDEP response:

For Class AA (MRSA 38, section 465.1.B.), aquatic life and dissolved oxygen (DO) both 'shall be as naturally occurs'. For Class A (MRSA 38, section 465.2.A. and 465.2.B.), aquatic life and DO are treated separately: as in Class AA, aquatic life 'shall be as naturally occurs' but, in contrast to Class AA, there are specific criteria for DO in Class A. Since the text questioned by the commenter only addresses aquatic life criteria, which are the same in both classes, no changes were made to the text.

Narrative Aquatic Life Criteria and Chapter 579

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Under Aquatic Life Monitoring, Biological Monitoring of Rivers and Streams, it is noted that a Department biologist determined attainment of narrative aquatic life criteria using expert judgment to evaluate structure and function of the stream algal and wetland macroinvertebrate communities. It is also noted that Chapter 579 will be amended to include models following standard public review protocols after they have been adequately tested. Should attainment determinations and categorizations for stream algal and macroinvertebrate communities not be deferred until after public review and proper adoption of amendments to Chapter 579?

MDEP response:

Regarding determination of aquatic life criteria for stream algae and wetland macroinvertebrates, we further clarify that for the 2012 report department biologists have made expert judgment determinations based on interpretation of statutory narrative criteria already contained in the Water Classification Program and not based on Chapter 579 rules. Expert judgment determinations are informed by biological data and metrics, taxa tolerance values and other autecological information, including statistical modeling. DEP biologists evaluate biological monitoring data to identify detrimental changes in community structure and function compared with natural systems. The text of the section in question (pages 84-85, below) has been updated to reflect this clarification.

Biological Condition Gradient

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Please provide a citation to a Maine water quality standard which directs that biological conditions be at a specific tier on the biological condition gradient as suggested in the section 'Water Classification Program'.

MDEP Response:

The language provided in the section in question was misleading - the Biological Condition Gradient (BCG) is not included in Maine's water quality standards. We have updated the text to remove the reference to the BCG (page 75, below).

Periodic Review of Water Quality Classification System and Related Standards

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Has the Department conducted a triennial review per Maine statute since 2009?

MDEP Response:

In keeping with Maine's statutory requirement to review the water quality classification system and related standards from time to time, but at least once every three years, one waterbody (lower Kennebec River) was reclassified in 2011 and ambient water quality criteria (human health criteria for inorganic arsenic, acrolein and phenol; aquatic life criteria for acrolein, diazanon, nonylphenol) as included in Chapter 584, Surface Water Quality Criteria for Toxic Pollutants were revised or expanded in 2012. Public hearings were held for both items. For added clarification of the statute, we have updated the report language in question (page 76, below); we also noted the revisions made in 2011 and 2012 in the report.

Replacement of the HUC System with the WBD System

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

It is noted that approximately half of the HUCs (Hydrologic Unit Codes) used in the 2012 draft report were altered or eliminated. Why were only half, and not all, HUCs converted?

MDEP Response:

For informational purposes, DEP noted in the 2012 Integrated Report that, because of the USGS' (U.S. Geologic Survey) conversion from HUC to WBD (Watershed Boundary Dataset), a mismatch now exists between some HUCs used in the draft IR and current WBDs (former HUCs). Since DEP has no obligation to change its AU coding system for listing purposes from the established HUC system to the new USGS WBD, none of the HUCs used in the assessment unit coding in the 2012 draft report were altered. The text in the report has been updated and clarified (pages 5 and 58, below; footnote to first HUC map of appendices).

SANDY RIVER AND LOWER ANDROSCOGGIN RIVER

Paraphrased comment from:

- Scott Reed, Rumford Paper Company

Under Mainstem of Major Rivers, what are the 'other issues' on the Sandy River and lower Androscoggin River and the 'variety of reasons' cited for re-scheduling monitoring?

MDEP Response:

Other issues include a relocation of the Farmington POTW outfall and proposed upgrade of the lower Androscoggin River. The reasons include high river flows in 2009 and scheduling conflicts which prevented monitoring on the lower Androscoggin River and Sandy River.

MERCURY METHOD

Paraphrased comment from:

- William Taylor, Pierce Atwood LLP

Is the new Direct Mercury Analyzer method mentioned under the 2010 Surface Water Ambient Toxics monitoring program for lake fish samples an EPA approved test method?

MDEP Response:

Yes, the method is EPA-approved, it is EPA method 7473, Mercury in Solids and Solutions by Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry. The report was updated to include that information.

CHAPTER 3 BACKGROUND

STATE ATLAS AND WATER QUALITY STANDARDS

Contact: Vicki Schmidt, DEP BLWQ, Division of Environmental Assessment (DEA)
Tel: (207) 485-1482 email: vicki.l.schmidt@maine.gov

The State of Maine has a total surface area of over 35,000 square miles, the most in New England; with terrestrial land occupying almost 31,000 square miles and the larger surface waters occupying nearly 4,500 square miles. With a population of approximately 1.3 million people, Maine also is the least densely populated state in New England. The majority of Maine's population is concentrated in the southern and coastal portions of the State, and along both sides of Interstate 95 south of Bangor. Due to these geographical characteristics, regional population densities vary considerably from the state's average population density.

Maine's 5,780 lakes and ponds that are tracked in the ADB cover 986,952 acres, an area that is larger than the State of Rhode Island. There are over 7,000 perennial brooks, streams and rivers in Maine, ranging in length from less than two miles to nearly 200 miles, with an estimated total length of 53,456 miles.

Since 2009 Maine has been developing hydrography and GIS related water programs in compliment with the National Hydrography Dataset (NHD). NHD has significantly increased our accuracy for measuring and categorizing our coastline, rivers, streams, lakes and ponds. In addition, access to modern and updated high resolution aerial photography has also increased Maine's ability to better determine land use and both human and natural changes to our state's terrestrial conditions.

New to our 2012 State Atlas & Water Quality Standards information are statistical results from the 2007 Census of Agriculture (United States Department of Agriculture). This survey reports a total of 2,105 square miles of land in agricultural production. This is approximately 6.8% of the total land area of the State of Maine. Of these 2,105 square miles, 32.3% are in croplands, 49.4% in forested wood and pastureland, 11.2% in pasture land, and 7.10% in buildings, roads, and wasteland. In addition, surveys of organic agriculture in Maine show a 20% increase in organic production; from 39,140 acres in 2007 to 48,948 acres in 2008 (http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx?StateFIPS=23&StateName=Maine).

Table 3-1 The 2012 Integrated Report State of Maine Atlas

Population or Natural Resource Category	Value Reported for 2012 [1]	Percent	Value Reported in 2010 [2]
State Population 2010 National Census Data	**1,328,361**	**100.0%**	**1,321,505**
Rural 552, 638 Urban 775,723			
Total State Area (square miles) [3]	**35,236.4**	**100.0%**	**35,236.4**
Total Fields (square miles) [3]	**1,546.5**	**4.4%**	**1,546.5**
Blueberry Fields	100.9	0.3%	100.9
Grassland / Herbaceous	57.9	0.2%	57.9

Pastureland / Hayland	644.8	1.8%	644.8
Cultivated Crops	742.9	2.1%	742.9
Total Land in Agricultural Production (square miles) [4]	2,105		Not reported
Farmland in conservation wetland or reserve programs	51,268		Not reported
Organic Certified crops, pasture, & rangeland	48,984		Not reported
Total Forest (square miles) [3]	**24,666.9**	**70.0%**	**24,666.9**
Recent Clearcut	163.6	0.5%	163.6
Regenerating Forest (Post 1995)	720.3	2.0%	720.3
Light Partial Cut (Post 1995)	2,285.1	6.5%	2,285.1
Heavy Partial Cut (Post 1995)	1,199.9	3.4%	1,199.9
Deciduous Forest	4,745.5	13.5%	4,745.5
Mixed Forest	8,899.4	25.3%	8,899.4
Evergreen Forest	6,653.0	18.9%	6,653.0
Total Scrub-Shrub (square miles) [3]	**1,186.4**	**3.4%**	**1,186.4**
Total Wetlands (square miles) [3]	**2,376.9**	**6.7%**	**2,376.9**
Wetlands	816.1	2.3%	816.1
Forested Wetland	1,560.8	4.4%	1,560.8
Total Open Water Surface Area (square miles) [3]	**4,210.7**	**11.9%**	**4,210.7**
Total Saltwater Surface Area (square miles)	not reported	n/a	not reported
Total Unconsolidated Earth-Material Shorelines (square miles) [3]	**225.3**	**0.6%**	**225.3**
Total Developed Lands and Paved Ways (square miles) [3]	**972.0**	**2.8%**	**972.0**
Developed - Open Space	175.1	0.5%	175.1
Developed - Low Intensity	169.1	0.5%	169.1
Developed - Med Intensity	95.4	0.3%	95.4
Developed - High Intensity	98.5	0.3%	98.5
Road / Runway	433.9	1.2%	433.9
Total Alpine / Tundra (square miles) [3]	**10.3**	**0.0%**	**10.3**
Total Bare Ground (square miles) [3]	**41.5**	**0.1%**	**41.5**
Total Miles of Coastline (including tidal rivers & shorelines of islands) [5]	**2,756.6**	**100%**	**2,756.6**
Total Miles of Border Coast, Lakes & Rivers Shared with CN and NH [6]	**338.9**	**100%**	**338.9**
Maine – Canadian Border (coastal water miles out to the "3 mile" limit)	39.4	12%	39.4
Maine – Canadian Border (lake miles)	33.0	10%	33.0
Maine – Canadian Border (river miles)	206.2	61%	206.2
Maine – Canadian Border (total water miles) [6]	**278.6**	**82%**	**278.6**
Maine – Canadian Border (total land and water miles)	*608.7*	*N/A*	*608.7*
Maine – New Hampshire Border (coastal water miles out to the "3 mile" limit)	17.3	5%	17.3
Maine – New Hampshire Border (lake miles)	17.7	5%	17.7
Maine – New Hampshire Border (river miles)	25.4	7%	25.4
Maine – New Hampshire Border (total water miles) [6]	**60.3**	**18%**	**60.3**
Maine – New Hampshire Border (total land and water miles)	*188.8*	*N/A*	*188.8*
Total Miles of Rivers and Streams in Maine [5]	**54,995**	**100%**	**53,455.8**
Miles of perennial streams (subset)	30,894	56%	29,907
Miles of intermittent [non-perennial] streams (subset)	16,375	30%	15,615
Miles of rivers (subset)	7726	14%	7933.8

Miles of Rivers and Streams by Water Class [6]					**Miles**	**Percent**	**Miles**
Water Class	*Streams*	*(% of Stream Miles)*	*Rivers*	*(% of River Miles)*	*Class Totals*	*n/a*	*Class Totals*
Class AA	1,345	3.6%	1,093	20%	2,439	5.5%	2,518
Class A	17,403	45%	2,192	40%	19,594	44.6%	19,627
Class B	19,612	51%	1,728	32%	21,339	48.6%	22,038
Class C	138	0.4%	419	8%	558	1.3%	621
Totals	*38,498*	*100%*	*5,432*	*100%*	***43,930***	***100%***	***44,804***

Number & Area of Lakes, Ponds and Reservoirs (each line is a subset of the line above)	**Number Square Miles Acres**	**Percent**	**Number Square Miles Acres**
Total Lake, Pond & Reservoir Features in Maine DEP's GIS Datalayer [5]	**32,257** **1,603 mi^2** **1,025,949 ac**	**100%** **100%** **100%**	**33,119** **1,563 mi^2** **1,000,320 ac**
Lakes, Ponds & Reservoirs assigned a Midas Number in DEP's GIS [6]	6,186 1,544 mi^2 988,508 ac	19% 96% 96%	5,780 1,542 mi^2 986,880 ac
Lakes, Ponds & Reservoirs assigned a Midas Number tracked in ADB [7]	5780 1,542 mi^2 986,952 ac	18% 96% 96%	5780 1,542 mi^2 986,952 ac
Significant Publicly Owned Lakes, Ponds & Reservoirs	2,314 1,477 mi^2 945,506 ac	7% 92% 92%	2,314 1,477 mi^2 945,506 ac
Total Area of Near Shore Waters and Tidal Rivers (square miles and acres) [7]	**2,846.1**	**1,821,473.9**	**2,846.1**
Total Area of Bays, Estuaries and Harbors	2,717.3	1,739,051.0	2,717.3
Total Area of Tidal Rivers	128.8	82,422.9	128.8
Total Area of Near Shore Waters and Tidal Rivers by Water Class [6]	**Square Miles**	**Acres**	**Square Miles**
SA	227	145,421	211.0
SB	2590	1,657,455	2,606.3
SC	28.8	18,417	28.8
Total Area of Wetlands [8]	**5,196**	**3,325,418**	**5,196**
Total Area of Saltwater Wetlands [8]	**381.3**	**244,095**	**381.3**
Estuarine	271.9	174,046	271.9
Marine	109.4	70,049	109.4
Total Area of Freshwater Wetlands [8]	**4,814.6**	**3,081,323**	**4,814.6**
Lacustrine	1,486.6	951,408	1,486.6
Palustrine	3,172.6	2,030,484	3,172.6
Riverine	155.4	99,430	155.4
Total Area of Mapped Sand and Gravel Aquifers [6]	**1,281.0**	**794,624.0**	**1,281.0**

1 These figures were the most current that were available to the DEP in 2012.

2. These figures were the most current that were available to the DEP in early 2010.

3. Derived from the 2004 MeLCD (Maine LandCover Dataset) that has a 25 square meter (5m X 5m) spa ial resolu ion.

4. United States Department of Agriculture http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx?StateFIPS=23&StateName=Maine

5. Derived from the National Hydrography Dataset (Source: U.S. Geological Survey (USGS) and the U.S. Environmental Protection Agency (USEPA) 24K High Resolution NHD, 2007. http://nhd.usgs.gov/index.html.

6. Derived from MDEP's GIS hydrography, geology and state boundary datasets (Source: Digitized 1:24,000 USGS 7.5" Quadrangles and Digital Raster Graphics). Significant Lakes are defined as publicly owned, have bathymetric/morphometric surveys, vulnerability modeling was performed or some trophic data has been gathered.

7. Only Lakes, Ponds and Reservoirs with a MIDAS number are tracked in the ADB.

8. Derived from the U.S Fish and Wildlife Service National Wetland Inventory (NWI) dataset – updated 5/22/2009.

Water Quality Standards Program

Contact: Susanne K. Meidel, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 441-3612 email: Susanne.K.Meidel@maine.gov

Related Website: www.maine.gov/dep/water/monitoring/classification/index.htm

The water quality of Maine is described in terms of physical, chemical and biological characteristics associated with the state's water classification program. As established in Maine statute (38 MRSA Sections 464-470), the classification program consists of designated uses (e.g. drinking water supply, recreation in and on the water, habitat for fish and other aquatic life), criteria (e.g. bacteria, dissolved oxygen and biological criteria), and an anti-degradation statement (e.g. natural, free flowing) that specify levels of water quality necessary to maintain the designated uses. All State waters have a classification assignment (Lakes: GPA. Rivers and streams: AA, A, B, C. Marine and estuarine: SA, SB, SC). Wetlands are classified the same as associated surface waters, i.e. wetlands that are part of great ponds or natural lakes and ponds less than 10 acres in size are GPA waters; all freshwater wetlands not classified as GPA waters are class AA, A, B or C under Sections 467 and 468 according to the watershed in which they occur. Coastal wetlands are classified SA, SB or SC according to the provisions of Section 469 (Classification of Estuarine and Marine Waters). Groundwater is classified GW-A or GW-B according to provisions of Section 465-B.

The classification program is reviewed every three years by the Department and the Board of Environmental Protection (BEP). The Department and the Board conducted a water classification review process in 2009 with the result that the Maine State Legislature raised the water quality classifications (goals) for 16 rivers and streams and one marine waterbody. The BEP also recommended, and the Legislature approved, that changes be made to clarify the classification of six other waterbody segments, and that a Use Attainability Analysis be conducted on one stream.

Highlights for Point Source Pollution Control Programs

Contact: Brian Kavanah, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-7700 email: Brian.W.Kavanah@maine.gov

Related Website: www.maine.gov/dep/water/wd/index.html

Maine uses multiple approaches to ensure that point source discharges of wastewater receive adequate treatment prior to their release to waters of the State including: licensing, compliance inspections coupled with technical assistance in operations and maintenance, and enforcement where necessary. A number of financial assistance programs support new facility construction, elimination of discharges, as well as upgrades or additions to existing facilities. Highlights for 2009 - 2010 for these programs are summarized below or referenced by links to other documents.

Technical Assistance / Pollution Prevention Program

Contact: Sterling Pierce, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-4868 email: Sterling.Pierce@maine.gov

Related Website: http://www.maine.gov/dep/water/wwtreatment/

Department staff participate in both industrial and municipal based technical assistance and pollution prevention projects.

Highlights for 2009-2010

Technical Assistance was provided to the operators of over forty (40) POTWs and industrial direct dischargers by staff of the compliance & technical assistance section of the Division of Water Quality Management. Technical assistance focused on improving compliance with MEPDES permit requirements and maximizing the efficiency of treatment. In addition to direct assistance at facilities, staff from the compliance and technical assistance section provided more than 150 hours of formal classroom training to more than 350 wastewater operators throughout the state. Staff of the section continued to oversee the electronic DMR system, which helps assure that effluent compliance data is reported in an accurate and timely manner to the Department and EPA.

Construction of Wastewater Treatment Facilities

Contact: John True, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-7808 email: John.N.True@Maine.gov

Related Website: http://www.maine.gov/dep/water/grants/srfparag.html

Clean Water State Revolving Fund (CWSRF) and Maine Construction Grants Programs: CWSRF program monies are used to provide low-interest loans (2% below market rates) to communities and sanitary districts to upgrade wastewater treatment facilities and to fund NPS low interest loan programs for the repair/replacement of residential septic systems and the purchase of environmentally friendly silviculture equipment. The program depends on a yearly Federal Capitalization Grant which must be matched with 20% State funds. State construction grants help fund wastewater projects in communities where user charges are too high to borrow money.

Between January 1, 2009 and December 31, 2011, the Maine DEP Construction Grants Program provided grants to 3 projects and the CWSRF funded 49 projects, some with assistance from the United States Department of Agriculture (USDA) Rural Development program grants/loans and Community Development Block Grant (CDBG) grant money. These projects included; new wastewater treatment facilities and upgrades, additions, and modifications to them; sewer system improvements; abatement of combined sewer overflows; refinancing of existing wastewater loans; and the purchase of silviculture equipment; for a total cost of approximately $612,178 in State grants and $91,630,294 in CWSRF loans. $19,792,629 of the CWSRF loan amount was in the form of loan principal forgiveness.

MAINE COMBINED SEWER OVERFLOW PROGRAM

Contact: David Breau, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-7766 email: david.p.breau@maine.gov

Related Website: http://www.maine.gov/dep/water/cso/index.html

Thirty-two Maine communities are served by combined sewer systems, which convey a combination of sanitary and storm water flows to wastewater treatment facilities. During dry weather, all of the sewage in a combined system is conveyed to the treatment plant for adequate treatment. However, during rainstorms or snow-melt periods, storm water mixes with the sanitary sewage, causing flows that exceed the capacity of the sewer system. This results in combined sewer overflows (CSOs), which vary extensively in pollutant types, concentrations and loads, as well as in volume of overflow and severity of impact to the receiving water bodies. Maine has established an aggressive program, coordinated with EPA's CSO program, to assist communities in evaluating the design, condition, activity, and effects of combined sewer systems and overflows.

Highlights for 2009 - 2010

One Maine CSO community, Rockland, completed its CSO abatement project program since the last Integrated Report and no longer has permitted CSOs.

Table 3-2 CSO Program Summary Statistics

Parameter	End of Report Year 2008	End of Report Year 2010	Increase/(Decrease)
Number of CSO Communities	35	32	(3) or (8.5%)
Number of CSO Discharge Points	177	164	(13) or (7%)
Total of Annual Discharge Days for Communities	792	606	(186) or (23.5%)
Total Annual Volume of CSOs (Billion Gallons)	2.4	2.0	(0.4) or (16.7%)
Yearly Precipitation (Inches)	57	50	(7) or (12.3%)
Million Gallons Discharged per Inch of Yearly Precipitation (MG/Inch)	42	40	(2) or (4.8%)

SMALL COMMUNITY FACILITIES PROGRAM

Contact: Tim MacMillan, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-7765 email: Tim.A.Macmillan@maine.gov

Related Website: http://www.maine.gov/dep/water/grants/scgpara2.html

From its inception in 1982, the Small Community Grant Program (SCGP) has disbursed $26.0 million dollars in grant monies and is estimated to have cumulatively eliminated the discharge of over 1.3 million gallons of untreated wastewater every day.

Although state bond issues usually fund this grant program, in the past it has also received some funding directly from state appropriations. These funds have been used to assist municipalities with the construction of individual or cluster-type wastewater treatment systems that were designed to eliminate heavily polluted discharges from either already malfunctioning systems or non-existing system ("straight pipes"). This amount of funding has resulted in the construction of new wastewater treatment facilities in over 300 communities throughout the state. The total estimated value of the facilities built with Small Community Grants is approximately $31.3 million dollars.

Currently, requests for assistance outweigh available funding. Between 2010 and 2011, we disbursed grants totaling approximately $0.7 million dollars to 61 communities to replace 96 systems as detailed below.

Highlights 2010 - 2011

2010: 40 systems were replaced removing 10,800 gallons of untreated discharges. 2011: 52 systems were replaced removing 14,040 gallons of untreated discharges.

Table 3-3 provides a summary of information about the program on a year-by-year basis.

Table 3-3 Yearly Summary of SCGP Activities

Year-by-Year Summary				
Year	**Grant Amount Disbursed**	**Total Facility Value**	**Systems Installed**	**Wastewater Treated (Gal/Day)***
1998	$1,145,088	$1,379,624	187	50,490
1999	$769,086	$926,610	122	32,940
2000	$1,370,528	$1,651,238	251	67,770
2001	$1,142,009	$1,375,914	167	45,090
2002	$1,354,130	$1,631,482	208	56,160
2003	$1,086,265	$1,308,753	183	49,410
2004	$795,327	$958,225	136	36,720
2005	$399,078	$480,817	64	17,280
2006	$587,517	$707,852	72	19,440
2007	$547,262	$637,039	66	17,820
2008	$293,961	$356,577	36	9,720
2009	$583,333	$718,440	61	16,470
2010	$321,913	$350,702	40	10,800
2011	$376,206	$531,140	52	14,040
Totals:	**$25,975,157**	**$31,331,828**	**4,930**	**1,331,100**

Please refer to page 32 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further discussion of the Small Community Grant Program and yearly summaries for years 1982-1997.
http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

LICENSING OF WASTEWATER DISCHARGES

Contact: Gregg Wood, DEP BLWQ, Division of Water Quality Management

Tel: (207) 287-7693 email: Gregg.Wood@maine.gov

Related Website: http://www.maine.gov/dep/water/wd/index.html

The Division of Water Quality Management is responsible for the licensing and re-licensing of all surface wastewater discharges, whether industrial, commercial, municipal or residential. In Maine, the vast majority of wastewater discharge sources have previously been licensed. Therefore, the licensing program is focused largely upon renewal of existing licenses, rather than development of new licenses (Table 3-4).

Please refer to pages 32-33 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further discussion of Water Discharge Licensing Program. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Table 3-4 Permitting/licensing by the Division of Water Quality Management

Year	2009	2010
Permit Renewals	100 (32 POTW's + 68 non-POTW's)	58 (35 POTW's + 23 non-POTW's)
>2,000 gpd[1] OBD renewals as MEPDES permits	20	8
New permits	11	6
Minor Revisions/Modifications	36	22
<2,000 gpd[1] OBDs	457	451
Total permitting actions	**624**	**545**

[1] Gallons per day

OVERBOARD DISCHARGE GRANT PROGRAM

Contact: Tim MacMillan, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-7765 email: Tim.A.Macmillan@maine.gov

As of December 31, 2011 Maine has 1,252 licensed overboard discharges (OBDs). OBDs are discharges of wastewater from individual homeowners or businesses to surface waters (typically marine waters) where existing lots are unsuitable for subsurface disposal and no municipal system is available. OBDs typically lead to closures of shellfish growing and harvesting areas.

In 1989 an OBD Removal Grant Program was established. The priorities of the grant program are to eliminate discharges that either cause the closure of shell fishing areas or that create a public nuisance. Since the beginning of the program, approximately seven million dollars have been spent to remove 582 systems. The total acreage opened to shellfish harvesting since the start of the OBD Grant Program is over 18,000 acres. According to the DMR, opening and fully utilizing this much shellfish harvesting area has the potential to generate an annual harvest with a retail value of over $4.4 million dollars.

Highlights 2010 - 2011

A total of 82 OBD systems were removed in 2010 - 2011. The Maine Department of Marine Resources indicates that 141 acres of shellfish habitat attributable to the OBD Grant Program may be re-opened to shellfish harvesting in 2010 - 2011.

Please refer to pages 33-34 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further discussion of Water Discharge Licensing Program. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Compliance Evaluation

Contact: Sterling Pierce, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-4868 email: Sterling.Pierce@maine.gov

Related Website: http://www.maine.gov/dep/water/wd/municipal_industrial/index.html

The Department uses a three-part program to evaluate the compliance of wastewater treatment facilities. The compliance evaluation program involves on-site inspections of wastewater treatment facilities, occasional sampling of their effluent quality on a selective basis, and monthly evaluation of the licensees' self-monitoring reports. Discharge licenses also require immediate reporting of any major malfunctions, bypasses or exceedances of license limits to DEP inspectors.

Highlight for 2009 – 2010

During this two-year time period the compliance inspectors from the compliance and technical assistance unit conducted 1027 inspections at facilities located across the State. These inspections are conducted to verify that the treatment plant is operating in accordance with all of the requirements of their Maine Pollutant Discharge Elimination System (MEPDES) permit. Inspectors evaluate such aspects as laboratory analyses, data quality control, process control, operations and maintenance, collection systems operations & maintenance, and overall plant maintenance. These inspections provide oversight evaluation of the license holders' compliance with the license, but routinely uncover areas where training, assistance, or equipment upgrades could resolve an issue. DEP compliance inspectors provide assistance as appropriate and can also direct the license holder to other forms of technical assistance provided by other DEP staff, other wastewater related agencies, or from private consulting firms. All of these efforts in concert, combined with the efforts of the treatment plant management and operations staff, serve to preserve and protect the water quality of State of Maine's waterways.

Enforcement of Water Quality Laws

Contact: Brian Kavanah, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 287-7700 email: brian.w.kavanah@maine.gov

Related Website: http://www.maine.gov/dep/enforcement/

The general philosophy of the DEP, BLWQ is to gain compliance and resolve problems at the least formal level that is appropriate, and to maximize the spirit of cooperation between the DEP and the regulated community. By fostering voluntary compliance with Maine's water pollution control laws, the overall effectiveness of the enforcement program is maximized and unnecessary litigation is avoided. Formal enforcement actions are fact-dependent, but generally become necessary when violations of environmental laws are severe enough to warrant action regardless of the remediation effort, or when the violator is not responsive in preventing violations or refuses to cooperate with the DEP.

Highlights for 2009 - 2010

A total of 14 water discharge enforcement formal cases were settled in 2009 and 2010. The penalties collected provide a deterrent to violation of water quality laws and recover any economic benefit that may have been gained. Additionally, the enforcement actions also specified a variety of corrective actions that will improve water quality such as: upgrades to wastewater treatment facilities, elimination of discharges, and Supplemental Environmental Projects.

EXTENT OF NONPOINT SOURCES OF POLLUTANTS AND PROGRAM RECOMMENDATIONS

The Maine NPS Water Pollution Control Program

Contact: Norm Marcotte, DEP BLWQ, Division of Watershed Management (DWM)

Tel: (207) 215-6277 email: norm.g.marcotte@maine.gov

Related Website: http://www.maine.gov/dep/land/watershed/nps/index.html

Maine's Nonpoint Source Water Pollution Management Program (38 M.R.S.A. §410-I) helps restore and protect water resources from NPS pollution. The basic objective of the NPS program is to promote the use of state agency-defined "best management practice guidelines" (BMPs) to prevent water pollution. The overall goals of the program are:

- Clean Water. Prevent, control, or abate water pollution caused by nonpoint sources so that beneficial uses of water resources are maintained or restored and waters meet or exceed their classification standards.
- Using Best Management Practices. BMPs are widely used in all Maine's watersheds to minimize polluted runoff. Maine BMP guidance manuals can be found at http://www.maine.gov/dep/land/erosion/escbmps/index.html
- Locally Supported Watershed Stewardship. Local community awareness results in commitment to maintaining or improving the condition of local water resources through citizen action. Watershed stewardship meets community needs and maintains beneficial uses of local water resources.
- Compliance with Applicable Laws. Regulated activities comply with existing State and Federal laws and rules that relate to control of nonpoint source water pollution.

DEP administers the NPS Program in coordination with EPA, federal, state and local governmental agencies, and non-governmental organizations. Seven State agencies share responsibility for coordinating and implementing NPS programs: the Departments of Agriculture, Food and Rural Resources; Conservation, Forest Service; Transportation; Economic and Community Development; Health and Human Services, Division of Environmental Health; Marine Resources, and the State Planning Office.

Highlights

Locally-led restoration work over 13 years treated numerous erosion sites and reduced polluted runoff in the watershed of Highland Lake, a 623 acre lake in Falmouth and Windham. Water clarity has gradually stabilized and the lake now meets water quality standards, prompting Maine DEP to remove the lake from the CWA Section 303(d) impaired waters list in 2010. The restoration of Highland Lake and stories of other significant improvements to Maine lakes are highlighted on the EPA's "Section 319 Nonpoint Source Program Success Stories" website www.epa.gov/owow/nps/Success319.

During 2009 – 2010, 39 NPS Watershed Projects that were funded through the NPS Grants Program in previous years were successfully brought to completion. These NPS projects helped local communities identify water pollution sources in watersheds and take action to restore or protect clean water. DEP provided technical assistance and granted $1,959,924 of Federal Clean Water Act funds for these projects. Grantees, partners, and landowners contributed matching funds or services valued at $1,903,777.

More information on these watershed projects and the NPS program in general can be found in the NPS Management Program Annual Reports for 2009 and 2010. Both reports are available at:

http://www.maine.gov/dep/water/grants/319-documents/reports/

Marine Nonpoint Source Priority Watersheds

Contact: Angela Brewer, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 592-2352 e-mail: angela.d.brewer@maine.gov

The Department designates priority non-point source watersheds as part of the 319 program, and may award grants based on 1) priority marine waters as established by the Maine Watershed Management Committee in 1998 (listed in Table 3-5), 2) designated Atlantic salmon watershed rivers (Table 3-6), and 3) those marine waters that have approved TMDLs (Total Maximum Daily Load) or are scheduled for TMDLs (Table 8-16). Listed waterbodies have both significant value from a regional or statewide perspective as well as water quality that is either impaired or threatened due to nonpoint source pollution from land use activities in the watershed.

Table 3-5 lists the marine priority waters and key water quality impairments or threats that have been identified. Three general impairment categories are listed as well as the relevant listing category for this reporting cycle. Note that the Department has identified waterbodies where nutrient levels (specifically nitrogen) are generally high relative to similar reference waterbodies, and where indicators of nutrient enrichment have been observed due to nonpoint source pollution. In this reporting cycle, for the first time, the Department is listing a marine waterbody for nutrient-caused impairments with source unknown (see also Chapter 4).

Table 3-5 Priority marine waters with impaired or threatened water quality due to nonpoint source pollution.

Marine Water	Water Quality Impairment or Threat (If Applicable, Listing Category)		
	Dissolved Oxygen	Toxics	Nutrients
Piscataqua River estuary	X (4-A)		X (5-A)
Spruce Creek	X		
York River estuary	X		
Ogunquit River estuary	X (4-B-1)		
Webhannet River estuary	X		
Mousam River estuary	X (5-A)		
Fore River		X (5-A)	X
Royal River estuary	X (5-A)		
Maquoit Bay			X
New Meadows River estuary	X (4-C)		
Weskeag River	X		
Rockland Harbor		X	

Table 3-6 lists watershed rivers where critical habitat for Atlantic salmon has been identified based on the National Oceanic and Atmospheric Administration's Federal Register final rule (74 FR pages 29300-29341).

Table 3-6 Atlantic Salmon Watershed Rivers

Dennys River	Cove Brook
East Machias River	Penobscot River
Machias River	Ducktrap River
Narraguagus River	Sheepscot River
Pleasant River	Kennebec-Androscoggin Watershed

Watershed Management for Stormwater Programs

Contact: Don Witherill, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-9751 email: donald.t.witherill@maine.gov

Related Website: http://www.maine.gov/dep/land/stormwater/index.html

Stormwater Standards for Development and Construction

Stormwater Law Maine manages stormwater through administration of the Stormwater Management Law. Rules were last revised in 2006. Revisions were drafted in 2010, but were put on hold due to changes in leadership. For more information about the Maine Stormwater Management Law and Rules, go to the stormwater program website: http://www.maine.gov/dep/land/stormwater/index.html.

Stormwater Standards for Post-Construction

Long Creek watershed. On October 28, 2009, the EPA issued a final residual designation determination for the Long Creek watershed in the municipalities of South Portland, Portland, Westbrook, and Scarborough. The designation requires that stormwater discharges from impervious areas equal to or greater than one acre in the Long Creek watershed be authorized by a permit under the federal Clean Water Act because those discharges contribute to a violation of water quality standards in Long Creek. The Department issued a general permit for stormwater discharges in the Long Creek watershed on November 6, 2009. To obtain coverage under the general permit, a discharger must participate in the implementation of the Long Creek Watershed Management Plan (approved by DEP and EPA in 2009). Participation entails signing a contract with the Long Creek Watershed Management District. The contract requires an annual payment to the district based on the amount of impervious area that is contributing a discharge of stormwater to Long Creek. The payments are being utilized to carry out restoration activities described in the watershed management plan. Landowner participation in the general permit exceeds 95%. Several landowners have opted to apply for individual permits and several have not yet obtained permit coverage and are subject to enforcement action, which is on-going. A technical committee has been organized by the district to monitor progress on the implementation of the plan, including monitoring of water quality in Long Creek.

Stormwater Standards for Municipal Separate Storm Sewer Systems (MS4s) and Industrial Stormwater Discharges

Maine DEP reissued its MS4 general permit in July 2008 for 28 municipalities and 10 non-municipal entities which include state or federal facilities, Maine DOT, and Maine Turnpike Authority within the Urbanized Area as determined by the 2000 census (Table 3-7). This reissuance regulates two additional non-municipal MS4s in the Greater Bangor Area, and has increased requirements for Urban Impaired Stream Watersheds.

Table 3-7 Maine's regulated MS4's

MS4 Municipalities by geographic cluster
Kittery; Eliot; South Berwick; Berwick
Biddeford; Saco; Old Orchard Beach; Scarborough; Cape Elizabeth; South Portland; Portland; Westbrook; Gorham; Windham; Falmouth; Cumberland; Yarmouth; Freeport
Auburn; Lewiston; Sabattus
Hampden; Brewer; Bangor; Veazie; Orono; Old Town; Milford
Non-traditional or "nested" MS4's
Transportation: Maine Department of Transportation; Maine Turnpike Authority
State or Federal Entities: Portsmouth Naval Ship Yard (Kittery); Southern Maine Community College (S. Portland); University of Southern Maine (Gorham Campus); Eastern Maine Community College

(Bangor); Dorothea Dix Psychiatric Center (Bangor); Bangor Air National Guard (Bangor); University College of Bangor (Bangor); University of Maine (Orono)

Industrial Stormwater Discharges

Maine DEP issued its latest multi-sector general permit for industrial stormwater discharges in April 2011. Maine's general permit largely mirrors the previous EPA general permit with respect to requirements for Stormwater Pollution Prevention Plans at the site of regulated activities. As of December 2012, approximately 690 facilities had filed for multisector permit coverage, and another 486 had certified that they have "no exposure" of pollutants to stormwater.

Land Use and Growth Management

Contact: Dawn Hallowell, DEP BLWQ, Division of Land Resource Regulation (DLRR)

Tel: (207) 557-2624 email: dawn.hallowell@maine.gov

Related Websites: Site Law http://www.maine.gov/dep/land/sitelaw/index.html

NRPA: http://www.maine.gov/dep/land/nrpa/index.html

Shoreland Zoning Act: http://www.maine.gov/dep/land/slz/index.html

It has long been recognized that land use practices have direct impacts on water quality. The State of Maine has several programs in place to regulate land use activities that have potentially adverse environmental effects. The Site Location of Development Law (Site Law) requires developers of large projects to obtain permits from the Department of Environmental Protection before beginning construction. Under the Natural Resources Protection Act (NRPA), a permit from the DEP is required for any activity in, on or adjacent to a protected natural resource, including rivers, streams, brooks, great ponds, coastal wetlands, freshwater wetlands, sand dunes and fragile mountain areas. The Mandatory Shoreland Zoning Act requires towns to control building sites, land uses, and placement of structures within their shoreland areas in order to protect water quality, habitat and fishing industries, and to conserve shore cover, public access, natural beauty and open space. Also important to environmental protection is the Growth Management Act, which was enacted in 1988. The foundations for this program are based on comprehensive planning and greater cooperation between state and local governments.

Please refer to page 41 of the 2006 Integrated Water Quality Monitoring and Assessment Report for other information on the Shoreland Zoning Act, Site Location of Development Law, and the Natural Resources Protection Act. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Education and Outreach

Contact: Jessamine Logan, DEP OC, Director of Communications

Tel: (207) 287-5842 email: Jessamine.Logan@maine.gov

Related Website: http://www.maine.gov/dep

Maine DEP understands that engaging and empowering the public in natural resources stewardship through effective education and outreach efforts will only further our own mission of environmental protection. The Department has a responsibility to create and maintain public understanding and support for departmental objectives, programs, and regulatory requirements and best practices. To accomplish this, the Department works to help to foster and encourage greater stewardship through education and outreach initiatives strategically directed at a variety of audiences. In late 2011, all Department outreach and education staff were moved into a centralized Office of Communications & Educations, which has resulted in improved, coordinated and cross-media communications.

Target Audiences

Youth and Teachers- DEP sponsors and organizes Water Festivals for up to 700 students and their teachers in the southern part of the state each year and every other year in northern Maine. The events provide a day of fun and interactive learning about clean water, wetland ecosystems and the importance of stewarding Maine's most rapidly renewable resource and are connected to more comprehensive classroom learning units. Department staff also educate Maine students on environmental issues through other forums as requested and as available, including Envirothon, Bug Mania and Earth Science Day (both with about 2,000 students); and judging various state science fairs. In addition DEP funds up to six watershed grants per year to students and their teachers who partner with local organizations to protect a local water resource.

General Public- The DEP divides the public into categories based on the message of the campaign: homeowners for yard care practices, businesses for pollution prevention practices, etc. For example, the MS4 (Municipal Separate Storm Sewer System) communities are conducting pilot projects to encourage targeted BMPS (i.e., yard care in some communities and roof runoff infiltration in others) in targeted neighborhoods with evaluation as part of their permits. Evaluation of those projects will be conducted in the coming year and available in September of 2013.

As part of the ThinkBlue Maine Partnership, DEP supported a media buy in 2011 to air Ducky II, a TV ad encouraging people to reduce their use of lawn care products, particularly fertilizer. The ad won a Service Industry Advertising Award Bronze Medal in 2012. Assessment of the ad in two different surveys found that the ad effectively conveyed the message to the target audience. In a community survey, over 50 percent polled indicated they had heard of efforts by local organizations to reduce pollution from stormwater runoff, versus 15 percent in 2008. Meanwhile, 27 percent of respondents said they were very likely to take action to reduce the amount of lawn fertilizers, pesticides and herbicides that they use, and 28 percent of respondents said they already have done this.

LakeSmart is another example of reaching out to a subsection of the public. This educational program designates lakeshore proprieties as LakeSmart if its owners have incorporated voluntary lake-friendly living practices that protect and improve invaluable inland water resources and the native species, recreation, property values, businesses and communities that rely on their health. In the decade since the program was introduced, DEP has deemed nearly 500 properties as LakeSmart on 33 lakes. In 2012, DEP began transferring the program to the nonprofit Maine Congress of Lake Associations, which counts among its members dozens of lake associations each with their own robust networks. It is the vision of DEP and COLA that this move will give the LakeSmart program access to broader funding opportunities and will grow as COLA and its member lake associations have both the capacity and the credibility to deliver this program on the local level. The Department looks forward to seeing how COLA expands and makes more effective this important educational offering given their expertise, excitement and engagement that already has been awarded tens of thousands of dollars in grant funding support.

In January 2008, the Maine Legislature passed a law requiring all retailers post a sign discouraging the use of phosphorus lawn products unless reseeding or starting a new lawn. The law has decreased the use of phosphorus containing fertilizer and increased the use of phosphorus free fertilizer. Each spring, the Department sends a reminder letter to retailers and distributors thanking them for their commitment to upholding this law and protecting water quality, as well as two complimentary signs for display.

In late 2011, DEP launched a redesigned website that has been lauded as a model in the State for its accessibility and usability. Information on the transparent site is organized consistently and by function – like permitting or assistance – and media – like air, water and waste management – to ensure the general public can easily find what they are looking for despite not necessarily knowing the Department's internal structure. The site also puts the answers to frequently asked questions on its homepage, as well as an "I am a…" feature, which helps different target audiences – like shorefront property owners, students or municipal officials – quickly locate educational and regulatory information of relevance. The Department also launched its Twitter feed at www.twitter.com/maine_DEP in 2011 as another way in which to educate the public and has already gained more than 1,000 followers.

Contractors, Municipal Officials, and Other Targeted Groups- Through the Nonpoint Source Training Center within the Department's Office of Communications & Education, DEP reaches out to contractors, landscapers, foresters and code enforcement officers to bring technical assistance, certification and new training. Maine law requires that starting January 1, 2013 contractors doing excavation in the Shoreland Zone must be certified in erosion control and in response to that, the number of certified contractors has more than doubled in the past two years to more than 1,700 and hundreds more have participated in the training without becoming certified. In the 15 years the program has been in place, only two certified individuals have ever been involved in an enforcement action because of violation of Maine's erosion and sediment control law. Two certified individuals have also won the "Contractor of the Year" award from the International Erosion Control Association. DEP staff also train wastewater treatment plant operators, planning boards, realtors, CEO code enforcement and other audiences.

Assessment

Thanks to increased use of press releases, our website, social media and other existing and emerging communication tools, DEP is reaching more Mainers each year. The effectiveness of the Department's education and outreach efforts continue to be enhanced as better tools to monitor impressions and measure effectiveness are developed and allow us to hone meaningful messages to target each audience with. In some cases, correlating the impact of our education to water quality is difficult, but in others, like the fact that our certified contractors have so few compliance issues, we have evidence that supports our past approaches and guides future ones.

THE ENVIRONMENTAL IMPACT AND ECONOMIC & SOCIAL COSTS/BENEFITS OF EFFECTIVE WATER QUALITY PROGRAMS

Contact: Marianne DuBois, DEP BLWQ, Division of Watershed Management (DWM)

Tel: (207) 485-1402 email: marianne.s.dubois@maine.gov

Assessment of the many costs and benefits associated with water quality changes is a difficult task. While it is usually possible to determine that an improvement in water quality has been gained and to qualitatively describe the benefits, often there is no easy way to directly assign a dollar figure to the changes and quantify this information in terms of the monetary value of benefits to human health or the environment.

The economic tools that would be useful in helping to estimate the costs and benefits of improvement in water quality have not yet been fully developed. As future environmental problems grow in complexity and cost, and as public budgets tighten, demonstrating the benefits of water-quality related programs will be necessary to maintain support for continued investment in the improvement of water resources. Continued development of sophisticated economic tools for measuring the benefits of environmental projects and methods is essential.

The following sections contain brief summaries of selected water quality programs.

Nonpoint Source Management

Contact: Norm Marcotte, DEP BLWQ, Division of Watershed Management (DWM)

Tel: (207) 215-6277 email: norm.g.marcotte@maine.gov

Related Website: http://www.maine.gov/dep/water/grants/319.html

Table 3-8 summarizes costs for NPS pollution programs involving Federal grants under Section 319 of the Clean Water Act and to non-federal matching funds. Table 3-8 is a summary of Section 319(h) Clean Water Act Grant Awards to Maine DEP for Federal Fiscal Years (FFY) 2003 to 2010.

Table 3-8 Section 319(h) Clean Water Act Grant Awards to Maine

Grant Year (FFY)	Federal 319 Award	Base	Incremental	Non-Federal Match	Total
2003	$2,740,732	$1,572,554	$1,168,178	$1,827,155	$4,567,887
2004	$2,670,204	$1,502,081	$1,168,123	$1,780,890	$4,451,094
2005	$2,318,844	$1,151,519	$1,167,325	$1,546,669	$3,856,513
2006	$2,303,829	$1,136,597	$1,167,232	$1,545,896	$3,849,725
2007	$2,256,543	$1,077,063	$1,167,066	$1,504,362	$3,760,905
2008	$2,247,537	$1,082,056	$1,165,481	$1,934,529	$4,182,066
2009	$2,244,129	$1,084,415	$1,159,714	$1,496,086	$3,740,315
2010	$2,247,620	$1,089,500	$1,158,120	$1,499,163	$3,746,783

Pollution Prevention Initiatives

Contact: George MacDonald, Director, DEP BRWM, Sustainability Division

Tel: (207) 287-2812 email: George.MacDonald@maine.gov

Related Website: http://www.maine.gov/dep/assistance/index.html

The Office of Assistance's pollution prevention initiatives and methods are based on the practical notion that it is far more protective of the environment (in addition to being far more cost-effective) to eliminate or reduce pollution at its source rather than to clean up pollution that has already been released into an ecosystem. The Office of Assistance staff works with businesses and also provides input to DEP programs that provide BMPs for minimizing pollution sources such as stormwater runoff. The Office of Assistance engages in a proactive approach that utilizes the common ideals of increased efficiency, conservation of resources, reduced waste and costs, etc. to identify those points in a process that generate pollution. Once identified, staff shares with the regulated community many approaches such as forming good habits, purchasing environmentally preferable products, and implementing new technologies to analyze, focus on, and help to improve those portions of a process that prevent pollution. The Office of Assistance uses some or all of these tools to reduce or eliminate sources of pollution.

Please refer to pages 45-48 of the 2006 Integrated Water Quality Monitoring and Assessment Report for information on costs/benefits of the Pollution Prevention Program.
http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

CHAPTER 4 SURFACE WATER MONITORING & ASSESSMENTS

ASSESSMENT METHODOLOGY

Contact: Susanne Meidel, DEP BLWQ, Division of Environmental Assessment (DEA)
Tel: (207) 441-3612 email: Susanne.K.Meidel@maine.gov

Listing Methodology for the 2012 305b / 303d Integrated Report List

Determination of water quality attainment is based on a waterbody meeting all standards including the criteria established for its assigned classification (38 MRSA Section 465, 465-A, 465-B). Waters are listed in Appendices II-V by Assessment Unit (HUC) and/or waterbody segment in one of five categories of attainment (see category descriptions below). For the 2012 report, water quality attainment decisions were primarily based on monitoring data collected in 2009 and 2010 although more recent data was consulted where appropriate.

All freshwaters in Maine are subject to a statewide fish consumption advisory due to "Impairment caused by atmospheric deposition of mercury". On December 20, 2007 US EPA approved a Regional Mercury Total Maximum Daily Load (TMDL) that moved all Maine freshwaters into Category 4-A ("TMDL is completed"). Other category listings are established independently from the statewide mercury advisory listing, thus all waters are listed in Category 4-A for mercury and in at least one other category. All marine waters are listed by narrative in Category 5-D "Legacy Pollutants" as well as in one other category (see Marine explanation below[†]). Each listing in Appendices II-V provides the Assessment Unit (Rivers and Streams and Wetlands) or HUC (Lakes) or Waterbody ID (Estuarine and Marine waters), Name, Size, Classification, Monitored Date, and depending on assessment determination, information on impairment, notes on previous listings, or other information. Note that the United States Geological Survey has replaced the HUC system with the WBD (Watershed Boundary Dataset) system. Because of this conversion, a mismatch now exists between some HUCs used in the draft IR and current WBDs (former HUCs). DEP did not update the HUC part of any AU ID to conform to the new WBD system and is retaining the term 'HUC' to indicate continued usage of the older system.

LISTING CATEGORIES (1-5)

Category 1:

Attaining all designated uses and water quality standards, and no use is threatened.

Highest level of attainment, waters in the assessment unit attains all applicable standards. Assessment is based on combined evaluation of the following information.

[†] All estuarine and marine waters in Maine have an advisory for the consumption of shellfish (lobster tomalley) due to the presence of PCBs and dioxins presumed to be from atmospheric deposition or historical sources. The advisory is based on probability data that shellfish (lobster tomalley) inhabiting estuarine or marine waters may exceed the advisory action level for these substances. This Integrated Water Quality Monitoring and Assessment Report does not consider this statewide advisory in establishing other category listings.

1. Current data (collected within five years) indicates attainment, with no trend toward expected non-attainment within the listing period.

2. Old data (greater than five years) indicates attainment and no change in any associated conditions.

3. Water quality models predict attainment under current loading, with no projected change in loading that would predict non-attainment.

4. Qualitative data or information from professional sources indicating attainment of standards and showing no identifiable sources (e.g. detectable points of entry of either licensed or unlicensed wastes) of pollution, low impact land use (e.g. intact riparian buffers, >90% forested watershed, little impervious surface), watershed within state or federal reserve land, park, wilderness area or similar conservation protection, essentially unaltered habitat, and absence of other potential stressors.

5. Determination that the direct drainage area has a human population of <0.1 per square mile according to U.S. Census data obtained in 2000 and watershed conditions as described in item 4, above. For lakes, determinations are based on census data at the town level and consider all towns in the direct drainage of larger (referred to in previous Integrated Reports as "significant") lakes. Populations for the remaining lakes (generally less than ten acres) are determined for the town listed as the point-of-record for the water according to the Department of Inland Fisheries and Wildlife Lake Index database.

Category 2:

Attains some of the designated uses; no use is threatened; and insufficient data or no data and information is available to determine if the remaining uses are attained or threatened (with presumption that all uses are attained).

Assessment is based on combined evaluation of the following information.

1. Current data (collected within five years) for some standards indicating attainment, with no trend toward expected non-attainment within the listing period, or an inadequate density of data to evaluate a trend.

2. Old data (greater than five years) for some standards indicating attainment, and no change in associated conditions.

3. Water quality models that predict attainment under current loading for some standards, with no projected change in loading that would predict non-attainment.

4. (For lakes) Probabilistic-based monitoring that indicates a high expectation of use attainment for certain classes of waters based on random monitoring of that class of waters.

5. Insufficient data for some standards, but qualitative data/information from professional sources indicate a low likelihood of impairment from any potential sources (e.g. high dilution, intermittent/seasonal effects, low intensity land use).

Category 3:

Insufficient data and information to determine if designated uses are attained (with presumption that one or more uses may be impaired).

Assessment is based on combined evaluation of the following information. Monitoring schedules are assigned to these waters.

1. Insufficient or conflicting data that does not confirm either attainment or non-attainment of designated uses.

2. Qualitative data or information from professional sources showing the potential presence of stressors that may cause impairment of one or more uses; however, no quantitative water quality information confirms the presence of impairment-causing stressors.

3. Old data, with:

   a. low reliability, no repeat measurements (e.g. one-time synoptic data),

   b. a change of conditions without subsequent re-measurement; or

   c. no evidence of human causes or sources of pollution to account for observed water quality condition (natural conditions that do not attain water quality standards are allowed by 38 M.R.S.A. Section 464.4.C).

4. (For lakes) Current data indicates a return to (or a trend towards) attainment standards over the past few years but requires confirmation; or conversely, that trophic or dissolved oxygen profile evaluation suggests deteriorating conditions requiring further study and verification. (Since lakes respond over a longer period of time and can be highly influenced by weather attributes, it is appropriate to recommend additional monitoring before attainment is determined.)

Category 4:

Impaired or threatened for one or more designated uses, but does not require development of a TMDL.

A water body is listed in Category 4 when impairment is not caused by a pollutant; or, if impairment is caused by a pollutant, but where a Total Maximum Daily Load (TMDL) has already been completed, or where other enforceable controls are in place. An impaired waterbody will be listed in Category 5 if both a pollutant and a non-pollutant are involved that would independently cause an impaired or threatened condition. Waters are listed in one of the following Category 4 sub-lists when:

1. Current or old data for a standard indicates either impaired use, or a trend toward expected non-attainment within the listing period, but also where enforceable management changes are expected to correct the condition,

2. Water quality models that predicted impaired use under loading for some standard, also predict attainment when required controls are in place, or,

3. Quantitative or qualitative data/information from professional sources indicates that the cause of impaired use is not from a pollutant(s) (e.g. habitat modification).

4-A: TMDL is completed. A TMDL is complete but insufficient new data exists to determine that attainment has been achieved.

> **Note 1:** As of the 2008 cycle, Category 4-A includes all freshwaters in Maine that were listed in previous cycles in a narrative Category 5-C "Impairment caused by atmospheric deposition of mercury" based on the Statewide fish consumption advisory due to mercury. On December 20, 2007 the US EPA approved a Regional Mercury TMDL for the Northeast.
>
> **Note 2:** See also the section titled "Summary of Statewide River and Stream Attainment Status" below for comments about the 2012 US EPA approval of a statewide Maine % Impervious Cover TMDL.

4-B: Other pollution control requirements are reasonably expected to result in attainment of standards in the near future. Waterbodies where enforceable controls have a reasonable expectation of attaining standards, but where no new data are available to determine that attainment has been achieved. (Enforceable controls may include: new wastewater discharge licenses issued without preparation of a TMDL, other regulatory orders, contracts for nonpoint source implementation projects, regulatory orders or contracts for hazardous waste remediation projects).

4-C: Impairment is not caused by a pollutant. Waters impaired by habitat modification (e.g., a dam) that is a result of human activity.

> **Note**: Natural conditions that do not attain water quality standards and criteria are allowed by 38 M.R.S.A. Section 464.4.C. Waters that show impairment due to natural phenomena are listed in Categories 1 through 3.

Category 5:

Waters impaired or threatened for one or more designated uses by a pollutant(s) and a TMDL is required.

Waters are listed in one of the Category 5 sub-lists when:

1. Current data (collected within five years) for a standard either indicates impaired use, or a trend toward expected impairment within the listing period, and where quantitative or qualitative data/information from professional sources indicates that the cause of impaired use is from a pollutant(s),

2. Water quality models predict impaired use under current loading for a standard, and where quantitative or qualitative data/information from professional sources indicates that the cause of impaired use is from a pollutant(s), or,

3. Those waters have been previously listed on the State's 303(d) list of impaired waters, based on current or old data that indicated the involvement of a pollutant(s), and where there has been no change in management or conditions that would indicate attainment of use.

5-A: Impairment caused by pollutants (other than those listed in 5-B through 5-D). A Total Maximum Daily Load is required and will be conducted by the State of Maine. TMDL schedules are assigned based on the value of a particular water (considering size, public use, proximity to population centers, and level of public interest for water quality improvement), the nature of the impairment and the source(s) of the problem, available information to complete the TMDL, and availability of staff and contractual resources to acquire information and complete the TMDL study. Projected schedules for TMDL completion are included in Chapter 8 (Tables 8-13 to 8-16) as well as in the Appendices.

5-B: Impairment is caused solely by bacteria contamination. A TMDL is required. Certain waters impaired only by bacteria contamination may be high priority resources, such as shellfish areas, but a low priority for TMDL development if other actions are already in progress that will correct the problem in advance of TMDL development (e.g. better compliance). Certain small streams that are impaired solely by bacteria contamination but where recreation (swimming) is impractical because of their small size are listed in 5-B. A projected schedule of TMDL completion is included where applicable. Waterbodies impaired only by Combined Sewer Overflows, where current CSO Master Plans (Long-Term Control Plan) are in place, will be monitored to demonstrate that water quality standards are attained and that provisions are in place for both funding and compliance timetables.

5-C: Impairment caused by atmospheric deposition of mercury and a regional scale TMDL is required. Due to EPA approval of a regional scale TMDL for the control of mercury all of Maine's Category 5-C waters were administratively moved to Category 4-A in the 2008 cycle.

5-D: Impairment caused by a "legacy" pollutant. This sub-category includes:

1. waters impaired only by PCBs, dioxins, DDT, or other substances already banned from production or use. It includes waters impaired by contaminated sediments where there is no additional extrinsic load occurring. This is a low priority for TMDL development since there is no controllable load.

2. coastal waters that have a consumption advisory for the tomalley (hepatopancreas organ) of lobsters due to the presence of persistent bioaccumulating toxics found in that organ. This is a low priority for TMDL development since there is no identifiable and controllable load.

DELISTING FROM AN IMPAIRED TO AN UNIMPAIRED CATEGORY.

Because there are a number of listing options available in the integrated list, some waterbodies may be removed from the previous "impaired waters" list, i.e., 303(d) list,, however, only under certain circumstances. The State must provide new information, to EPA's satisfaction, as a basis for not listing specific waters that had been previously included on a 303(d) list. Acceptable reasons for not listing previously listed waters as provided in 40 CFR 130.7(b) may include situations where:

- The assessment and interpretation of more recent, more accurate or paleolimnological data demonstrates that the applicable water quality standard(s) is being met (list in Category 1, 2).
- The results of more refined water quality modeling demonstrate that the applicable water quality standard(s) is being met (list in Category 1 or 2).
- It can be demonstrated that errors or insufficiencies in the original data and information led to the water being incorrectly listed (list in Category 1 or 2).
- It can be documented that there are changes in the conditions or criteria that originally caused the water to be impaired and therefore originally led to the listing. For example, new control equipment has been installed, a discharge has been eliminated, or new criteria adopted (list in Category 1, 2, or 4-B).
- The State has demonstrated pursuant to 40 CFR 130.7(b)(1)(ii), that there are effluent limitations required by State or local authority, which are more stringent than technology-based effluent limitations, required by the Clean Water Act, and that these more stringent effluent limitations will result in the attainment of water quality standards for the pollutant causing the impairment within a reasonable time (list in Category 4-B).
- The State has demonstrated pursuant to 40 CFR 130.7(b)(1)(iii), that there are other pollution control requirements required by State, local, or federal authority that will result in attainment of water quality standards for a specific pollutant(s) within a reasonable time (list in Category 4-B).
- The State included on a previous Section 303(d) list some Water Quality Limited Segments beyond those that are required by EPA regulations, e.g., waters where there is no pollutant associated with the impairment (list in Category 4-C).
- A TMDL has been approved or established by EPA since the last 303(d) list (list in Category 4-A).

Chapter 8 Tables 8-5 to 8-8 present waters that have been delisted from Maine's 2010 impaired waters (303d) list. For waters that were delisted for reasons other than TMDL approval, delisting information is presented in Chapter 8 in the section New Delistings.

ASSESSMENT CRITERIA

Tables 4-1 through 4-3 provide the designated use categories and the criteria (with references) used to assess a water's attainment of the use. A determination of non-attainment is only made when there is documented, quality assured, evidence (e.g. monitoring data) indicating that one or more criteria are not attained. Such data are also weighed against evidence that there are plausible human-caused factors that may contribute to the violation of criteria (38 MRSA Section 464.4.C).

A special case is made for wetlands assessments with respect to documented evidence of impairment. For Category 3-5 wetlands that are located in a river/stream or lake/pond (e.g. a wetland that occurs in a slow-flowing section of a stream), any impairments, for example to the fish consumption use, that are listed for the related river/stream or lake/pond assessment unit (AU) are also assigned to the wetland AU even if no wetland-specific data for such an impairment exist. For Category 3-5 wetlands that are not located in a river/stream or lake/pond, DEP biologists will decide on a case-by-case basis whether any other impairments should be carried over or not.

Table 4-1 Maine Designated Uses and Criteria for Rivers and Streams

Rivers and Streams[1]

Designated Use	Criteria for Attainment
Drinking water supply after disinfection / treatment	• Ambient Water Quality Criteria (Maine DEP Chapter 530) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A) • Maine CDC's Maximum Exposure Guidelines (MEGs)
Aquatic life use support[2]	• Biomonitoring - lotic benthic macroinvertebrates: numeric biocriteria (Maine DEP Rule Chapter 579) • Biomonitoring - lotic algae: narrative aquatic life use criteria and (38 MRSA Section 465) and expert judgment evaluation of structure and function of the resident biological community • Biomonitoring - wetland macroinvertebrates: narrative aquatic life use criteria (38 MRSA Section 465) and expert judgment evaluation of structure and function of the resident biological community • Habitat suitability (38 MRSA Section 464.13, 465.1-4) • Dissolved oxygen (38 MRSA Section 464.13, 465.1-4) • Ambient Water Quality Criteria (Maine DEP Chapter 530.5) • Support of indigenous species • Wetted habitat (Maine DEP Chapter 581) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Fishing/Fish Consumption	• Support of indigenous fish species • Absence of fish consumption advisory (instituted by Maine CDC) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Recreation in and on the water[2]	• *E. coli* bacteria (38 MRSA Section 465, geometric mean) • Water color (38 MRSA Section 414-C) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Navigation, hydropower, agriculture / industrial supply	• General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)

[1] Fringing wetlands are listed in Appendix IV, Maine Wetlands Assessments
[2] DEP is revising draft nutrient criteria for fresh surface waters (Draft Chapter 583) that relate to existing aquatic life and recreational designated uses. For more information, please visit the following website: http://www.maine.gov/dep/water/nutrient-criteria/

Table 4-2 Maine Designated Uses and Criteria for Lakes and Ponds

Lakes and Ponds[1]

Designated Use	Criteria for Attainment
Drinking water supply after disinfection / treatment	• Ambient Water Quality Criteria (Maine DEP Rule Chapter 530.5) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Aquatic life use support[2]	• Trophic state (38 MRSA Section 465-A, DEP Chapter 581) • Ambient Water Quality Criteria (Maine DEP Chapter 530.5) • Aquatic life (38 MRSA Section 465-A, 464.9) • Biomonitoring (wetland habitats) - wetland macroinvertebrates: narrative aquatic life use criteria (38 MRSA §465) and expert judgment evaluation of structure and function of the resident biological community • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A) • Hydropower GPA impoundments (38 MRSA Section 464.9)
Fishing	• Support of indigenous fish species • No fish consumption advisory (instituted by Maine CDC) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Recreation in and on the water[2]	• *E. coli* bacteria (38 MRSA Section 465-A, geometric mean) • Trophic state (38 MRSA Section 465-A, DEP Rule Chapter 581) • General provisions: floating/settleable solids, pH, radioactive substances, (38 MRSA Section 464.4.A)
Navigation, hydropower, agriculture / industrial supply	• General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)

[1] Fringing wetlands are listed in Appendix IV, Maine Wetlands Assessments

[2] DEP is revising draft nutrient criteria for fresh surface waters (Draft Chapter 583) that relate to existing aquatic life and recreational designated uses. For more information, please visit the following website: http://www.maine.gov/dep/water/nutrient-criteria/

Table 4-3 Maine Designated Uses and Criteria for Estuarine and Marine Waters

Estuarine and Marine Waters

Designated Use	Criteria for Attainment
Marine life use support	• Ambient Water Quality Criteria (Maine DEP Chapter 530.5) • Dissolved oxygen (38 MRSA Section 465-B) • Narrative biological standards (38 MRSA Section 465-B) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Shellfish propagation and harvest[1]	• National Shellfish Sanitation Program (as assessed by DMR) • No shellfish consumption advisory (instituted by Maine CDC) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Aquaculture	• General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Fishing	• Support of indigenous fish species • No fish consumption advisory (instituted by Maine CDC) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Recreation in and on the water	• Enterococcus bacteria (38 MRSA Section 465-B, geometric mean) • General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)
Navigation, hydropower, industrial supply	• General provisions: floating/settleable solids, pH, radioactive substances (38 MRSA Section 464.4.A)

[1] Applies to estuarine/marine waters with high enough salinity to naturally support shellfish propagation and harvest

Data Interpretation

It is not common to have complete and consistent water quality data; therefore, some interpretation of data is required in making a final assessment. Data from unique events such as a spill, an accident, a short-duration license exceedance, or a drought or flood are not used in an assessment determination. The following general principles for each criteria type are used in making an assessment:

Biological Criteria: River, stream, and wetland benthic macroinvertebrate and algal samples are collected in accordance with the Biomonitoring Program Quality Assurance Project Plan. Stream macroinvertebrate assessments are based on a statistical model that predicts attainment of tiered aquatic life uses (Classes AA/A, Class B, and Class C). The stream macroinvertebrate model is described in Maine DEP Rule Chapter 579: *Classification Attainment Evaluation Using Biological Criteria for Rivers and Streams*. For streams and rivers, aquatic life criteria are deemed to be attained when the applicable biocriterion is met with probability greater than 0.60. Final determination of attainment may in some cases be made by professional judgment, applied in accordance with the procedures described in Maine DEP Chapter 579.

The Biological Monitoring Program recently completed an algal bioassessment model applicable to wadeable streams and rivers with rocky substrates. The Program also recently completed a provisional macroinvertebrate bioassessment model for freshwater emergent and aquatic bed wetlands, including fringing wetlands associated with rivers, streams, lakes and ponds. The stream algal model and wetland macroinvertebrate models have not yet been implemented. For the 2012 Integrated Report, Department biologists used expert judgment to evaluate structure and function of the stream algal and wetland macroinvertebrate communities to assess attainment of narrative aquatic life criteria (38 MRSA §465). Chapter 579 will be amended to include the stream algal and wetland macroinvertebrate models, following standard public review protocols, after they have been adequately tested. Ambient water quality criteria, whole effluent toxicity (WET) testing, and other biological sampling are also used to determine if other components of the biological community, such as fish, meet the aquatic life uses.

Lake Trophic State: Assessment is based on measures of transparency, chlorophyll a, total phosphorus and color (Table 4-4). When lakes lack this information, a trophic determination made by DIF&W is used, if available. Their determination is more subjective and generally applies to the lake system as a whole including adjacent wetlands and fisheries productivity. Trophic determination is tracked by source (DEP or DIF&W) in the assessment database.

Table 4-4 Lake Trophic State Parameters and Guidelines

Numerical Guidelines for Evaluation of Trophic Status in Maine *			
(Note: Dystrophy is not often evaluated as a trophic category separately from categories below.)			
	Trophic Status		
Parameter[1]	**Oligotrophic**	**Mesotrophic**[2]	**Eutrophic**
SDT[3]	> 8 meters	4-8 meters	< 4 meters
CHL a	< 1.5 ppb	1.5 – 7 ppb	> 7 ppb
Total Phosphorus[3]	< 4.5 ppb	4.5 – 20 ppb	>20 ppb
TSI[3,4]	0-25	25-60	>60 and/or repeated algal blooms

[1] SDT, CHL a, and Total Phosphorus based on long-term means.
[2] No chronic nuisance algal blooms.
[3] If color is > 30 Standard Platinum Units (SPU) or not known, chlorophyll a concentration (CHL a), dissolved oxygen and best professional judgment used to assign trophic category.
[4] TSI = Trophic State Indices are calculated when adequate data exists and color is at or below 30 SPU.
* This table is a duplicated Lakes Section of this Chapter for convenience.

Support of Indigenous Species: Assessment based on the known absence of a species that previously was documented as indigenous to a waterbody in historical records collected by state or federal agencies or through published scientific literature; or based on non-attainment of water quality criteria or absence of critical habitat necessary to support indigenous species.

Dissolved Oxygen: Assessment of dissolved oxygen is based on the results of repeated measurements, collected over time. Single excursions of the criterion or excursions within the range of sampling or instrument error (as established in a Quality Assurance Project Plan) may not be used in every case unless there is corroborating evidence of reasonable potential for impairment of a use. Factors to be taken into account when considering corroborating evidence include, but are not limited to: time of data collection; in-stream characteristics; site characteristics (e.g. land use, gradient, canopy cover); water temperature; extent of excursion; algal community; measurement method. Assessment may also be based on the use of water quality models (e.g. QUAL2E) based on present or expected loadings. New legislation provides that dissolved oxygen in the deeper waters of a riverine impoundment may not be used for measurement of water quality attainment.

Ambient Water Quality Criteria: Assessment is based on measured exceedance of Statewide Water Quality Criteria (or Site-specific criteria where they may exist), or reasonable potential to exceed the criteria following EPA's Principle of Independent Applicability and Technical support document. Single excursions of the criterion or excursions within the range of sampling or instrument error (as established in a Quality Assurance Project Plan) may not be used in every case unless there is corroborating evidence of reasonable potential for impairment of a use. Factors to be taken into account when considering corroborating evidence include, but are not limited to: in-stream characteristics; land use; extent of excursion; analysis method; hardness; pH, temperature or dissolved organic carbon. Assessment may also be based on the use of water quality models (e.g. dilution models) based on present or expected loadings.

Nutrient/Eutrophication Biological Indicators: Excessive nutrient enrichment (eutrophication) can cause negative environmental impacts to surface waters, such as algal blooms, low dissolved oxygen concentrations, fish kills, excessive growths of filamentous algae or bacteria, generation of cyanotoxins, and alteration of community structure. In 2012, the Department prepared a new draft of Chapter 583: *Nutrient Criteria for Surface Waters* in preparation for a rulemaking process. The U.S.

Environmental Protection Agency indicated their support of the new version of the draft rule. Chapter 583 focused on freshwater systems and described how the Department would use total phosphorus (TP) concentrations and environmental response indicator measurements in a decision framework to determine attainment of designated uses (e.g., recreation, aquatic life support). The proposed rule also described how the Department would use the attainment determinations for the establishment of nutrient discharge limits in National Pollutant Discharge Elimination System permits.

Chapter 583 will eventually include nutrient criteria for marine waters, which will include thresholds for total nitrogen (TN) as well as environmental response indicators to determine attainment of designated uses in estuarine and coastal waters. Marine nitrogen criteria are currently under development. For more information on both freshwater and marine nutrient criteria, please visit the following website: http://www.maine.gov/dep/water/nutrient-criteria/index.html

Non-numeric listing criteria for this cause of Aquatic Life Use (ALU) impairment consist of documentation of abnormal biological findings that indicate nutrient enrichment in rivers and streams as well as marine and estuarine waters. Excess nutrients impair ALU through alteration of habitat, creation of diurnal dissolved oxygen sags caused by excessive plant and algae growth, abundant epiphytic growth resulting in decreased light availability to submerged vegetation, and alteration of benthic macroinvertebrate assemblage structure.

Bacteria: Assessment is based on repeated measurements (generally at least six) to establish an annual geometric mean. Single sample measures are highly variable and not a reliable indicator of impairment or attainment, but the instantaneous criterion provides a benchmark for use in interpreting of Maine's water quality standards. Impairment decisions are made using diagnostic procedures that determine the probability of a human or domestic animal source of bacteria; bacteria of wildlife origin do not violate Maine's standards (38 M.R.S.A Section 465, 465-A, 465-B).

Water Color: Assessment based on repeated measurements of discharge performance data (pulp and paper discharges only).

General Provisions: pH based on repeated measurements (between 6.0 and 8.5 for freshwaters; 7.0 and 8.5 for marine waters), however, certain naturally occurring waterbody types (e.g. bogs, aquifer lakes, high elevation lakes) or events may naturally have low pH and affect downstream waters. Use impairment from solids is subjectively determined. Radioactivity in surface water is not presently monitored.

INTEGRATED REPORT LISTS OF CATEGORIES 1 THROUGH 5

Table 4-5 presents a summary of state waters (rivers/streams, lakes/ponds, wetlands, and estuarine/marine waters) which are attaining, or not attaining, standards. Tables 4-6 through 4-19 present three different types of information for those same types of state waters; the three types are: 1) Individual designated use support summary (4-6 through 4-9); 2) Total size of Category 4 and 5 impaired waters by listing cause/stressor type (4-10 through 4-14); 3) Total size of Category 4 and 5 impaired waters by source category (4-15 through 4-10).

Table 4-5 Summary of State Waters Attaining and Not Attaining Standards

Waterbody Type	Total Assessed for Attaining of WQ Standards – Assessed for Designated Uses	Total with Insufficient Data for Assessment – Not Assessed for Any Designated Uses (Category 3)	Total Attaining All WQ Standards - Supporting All Designated Uses (Category 1)	Total Attaining At Least One Standard – Supporting at Least One Use, But Not All Standards Assessed (Category 2)	Total Not Attaining One or More WQ Standards – Not Supporting One or More Uses – But Not Needing a TMDL (Category 4)	Total Not Attaining One or More WQ Standards – Not Supporting One or More Uses – and TMDL is Needed (Category 5)
River & Stream Miles[1]	31,298	383	4,338	25,371	273 [2]	932
Number of Lakes/Ponds	5,780 [3]	0	2,857	2,894 [3]	27	2
Lake & Pond Acres	986,952 [3]	0	295,443	606,945 [3]	75,915	8,649
Freshwater Wetland Stations	122	14	0	96	8	4
Freshwater Wetland Acres[4]	1240 [5]	841	0	size undeter-mined	57	342
Estuarine/Marine Square Miles	2,876	4	0.0	2,690	174	7 [6]
Estuarine/Marine (Acres)	1,840,147	2,835	0.0	1,721,748	111,253	4,311 [6]
Tidal Wetland Acres	N/A [6]	N/A [6]	N/A [6]	N/A [6]	N/A [6]	N/A [6]

1 River and Stream mile summaries for each reporting category were generated by the Maine Assessment Database (ADB) and may be somewhat different from river and stream miles reported in Table 2-1.

2 These figures do not include those waters listed under Category 4-A for atmospheric deposition of mercury.

3 Includes 6 Category 2 lakes (22 acres) on coastal islands, all 6 lakes are not assigned to mainland HUCs.

4 Wetland acreage summaries for each reporting category were generated by the Maine Assessment Database (ADB).

5 For Category 1 and Category 3 through 5 only.

6 All estuarine and marine waters capable of naturally supporting lobster propagation are affected by a shellfish (lobster tomalley) consumption advisory due to the presence of PCBs and dioxins. These Category 5 totals do not include coastal waters under the statewide consumption advisory.

6 "N/A" means "Not Assessed".

Table 4-6 Individual Designated Use Support Summary for Maine Rivers and Streams

USE	Total Size (Miles[1])	Size Assessed (Miles[1])	Size Fully Supporting (Miles[1])	Size Fully Supporting and Threatened (Miles[1])	Size Not Supporting (Miles[1])	Size with Insufficient Info (Miles[1])
Agricultural Supply	31,298	30,352	30,352	0	0	945
Drinking Water Supply After Disinfection	20,089	4,400	4,400	0	0	15,688
Drinking Water Supply After Treatment	11,128	1,160	1,156	0	3	9,956
Fish and Other Aquatic Life	31,221	30,619	29,912	0	707	599
Fish Consumption [2]	31,298	5,535	4,902	0	633	26,744
Fishing	31,219	5,553	5,545	0	8	25,648
Hydroelectric Power Generation	21,002	1,769	1,769	0	0	19,217
Industrial Process and Cooling Water Supply	21,002	1,769	1,769	0	0	19,217
Navigation	31,219	5,557	5,552	0	5	25,642
Primary Contact Recreation	31,219	5,537	5,343	0	193	25,462
Secondary Contact Recreation	31,219	5,534	5,359	0	175	25,464

[1] River and stream mile summaries were generated by the Maine Assessment Database (ADB).
[2] All freshwaters are listed for a fish consumption advisory due to mercury (Category 4A-EPA approved Regional Mercury TMDL). The Fish Consumption listing is for additional consumption advisories beyond that caused by mercury (these waters also have a mercury advisory).

Table 4-7 Individual Designated Use Support Summary for Maine Lakes

CWA Goals	Designated Use	Size Fully Supporting – Attaining WQ Standards (Acres)	Size Not Supporting – Not Attaining WQ Standards (Acres)	Size Not Attainable – UAA Performed
Protect & Enhance Ecosystems	Aquatic Life Support	893,228*	84,564	9,160**
Protect & Enhance Public Health	Fish Consumption (Hg)	0	986,952	0
	Swimming	962,887	24,065	0
	Secondary Contact	986,952	0	0
	Drinking Water Source Water	986,952	0	0
Social & Economic	Agricultural	986,952	0	0
	Industrial	986,952	0	0
	Cultural or Ceremonial	986,952	0	0
	State Defined: 1. Hydropower & Navigation	986,952	0	0

*Includes Fully Supporting (Cat. 1:295,443 acres) and Insufficient Information but assumed to be Fully Supporting (Cat. 2: 596,474 acres) less UAA acreage.
**Includes acreages of Ragged (2,712 acres) and Seboomook (6,448 acres) Lakes

Table 4-8 Individual Designated Use Support Summary for Maine Wetlands

USE	Total Size (Acres[1])	Size Assessed (Acres[1])	Size Fully Supporting (Acres[1])	Size Fully Supporting and Threatened (Acres[1])	Size Not Supporting (Acres[1])	Size with Insufficient Info (Acres[1])
Drinking Water Supply After Disinfection	772	0	0	0	0	772
Drinking Water Supply After Treatment	863	274	274	0	0	589
Fish and Other Aquatic Life	1635	669	395	0	274	966
Fish Consumption [2]	1,635	393	56	0	337	1,242
Fishing	1,635	274	274	0	0	1,361
Hydroelectric Power Generation	1,628	274	274	0	0	1,354
Industrial Process and Cooling Water Supply	1,628	274	274	0	0	1,354
Navigation	1,635	274	274	0	0	1,361
Primary Contact Recreation	1,635	274	268	0	6	1,361
Secondary Contact Recreation	1,635	274	268	0	6	1,361
Agricultural Supply	1,635	669	669	0	0	966

[1] Wetland acreage summaries were generated by the Maine Assessment Database (ADB).
[2] All freshwaters are listed for a fish consumption advisory due to mercury (Category 4A-EPA approved Regional Mercury TMDL). The fish consumption (other) listing is for additional consumption advisories beyond than that caused by mercury (these waters also have a mercury advisory).

Table 4-9 Individual Designated Use Support Summary for Maine Estuarine and Marine Waters

CWA Goals	Designated Use	Size Fully Supporting – Attaining WQ Standards (square miles)	Size Not Supporting – Not Attaining WQ Standards (square miles)	Size Not Attainable – UAA Performed (square miles)
Protect & Enhance Ecosystems	Marine Life	2,836	10	0
Protect & Enhance Public Health	Fish Consumption[1]	0	2,846	0
	Shellfish Consumption[2] (excluding lobster tomalley)	2,578	268	0
	Shellfish Consumption[3] (lobster tomalley)	0	2,846	0
	Swimming (primary and secondary contact)	2,846	0	0
Social & Economic	Aquaculture	2,846	0	0
	Navigation	2,846	0	0
	Industrial supply water	2,846	0	0
	Hydropower	2,846	0	0

[1] Based on a statewide fish/shellfish consumption advisory (striped bass and bluefish advisory)
[2] Does not include statewide advisories for PCBs or dioxin in lobster tomalley. Size not supporting based on total square miles of shellfish harvest bacterial closures (proh bited, restricted and conditionally restricted) set by Maine Department of Marine Resources and active as of 4/1/2011.
[3] Based on a statewide consumption advisory for lobster tomalley for waters naturally capable of supporting lobster

Table 4-10 Total Sizes of Category 4 and 5 Impaired Maine Rivers and Streams by Listing Cause/Stressor Type

Cause/Stressor Type	Size Impaired (miles[1])
Pathogens (E. coli)	**175**
NPS + CSO-sources	(variable miles)
Aquatic Life Criteria	**408**
(integrated effects including biocriteria, habitat and nutrient biological indicators)	
Oxygen depletion	**475**
Dissolved oxygen	464
BOD	21
Altered flow regime	**31**
Fish passage barrier	4.5
Nutrients	**243**
Nutrient/eutrophication, biological indicators	184
Toxic inorganics (metals)	**26**
Toxic organics	**422**
Dioxin	371
Polychlorinated biphenyls	418
Pesticides	**217**
DDT	214
pH/Acidity/Caustic conditions	**1**
Sedimentation	**15**
Harmful algae blooms	**8**

[1] River and stream mile summaries were generated by the Maine Assessment Database (ADB).

Table 4-11 Total Sizes of Category 4 and 5 Impaired Maine Lakes by Listing Cause/Stressor Type (Total acreage)

Cause/Stressor Type	Size Impaired (acres)
Habitat Assessment (Lakes)	48,964
Methylmercury	986,952
Oxygen, Dissolved	634
Phosphorus (Total)	36,234
Secchi Disk Transparency	35,600
Turbidity	7,865

Table 4-12 Total Sizes of Category 4 and 5 Impaired Maine Lakes by Listing Cause/Stressor Type (by Category)

Listing Category	Cause/Stressor Type	Size Impaired (acres)	Number Impaired
4A	Methylmercury	986,952	5780
	Oxygen, Dissolved	634	1
	Phosphorus (Total)	27,585	23
	Secchi disk transparency	26,951	22
4C	Habitat Assessment (Lakes)	48,964	5
	Turbidity	7,865	1
5A	Secchi disk transparency	8,649	2
	Phosphorus (Total)	8,649	2

Table 4-13 Total Sizes of Category 4 and 5 Impaired Maine Wetlands by Listing Cause/Stressor Type

Cause/Stressor Type	Size Impaired (acres[1])
Benthic-Macroinvertebrate Bioassessments	273.5
Benzene	212
DDT	125
Dioxin (including 2,3,7,8-TCDD)	212
Polychlorinated biphenyls	212

[1] Wetland acreage summaries were generated by the Maine Assessment Database (ADB).

Table 4-14 Total Sizes of Category 4 and 5 Impaired Maine Estuarine and Marine Waters by Listing Cause/Stressor Type

Cause/Stressor Type	Size Impaired (square miles)
Bacteria	**159**
Bacteria (CSOs only)	Variable
Dissolved Oxygen	**6**
Sediment Oxygen Demand	<1
Marine Life	1
Nutrients/Eutrophication Biological Indicators	2
Toxics	**2,846**
Metals-copper	<1
PAHs	0
PCBs	2,846
Dioxins	2,846
Unknown	2

Table 4-15 Total Sizes of Category 4 and 5 Impaired Maine Rivers and Streams by Source Category

The format of this table was updated compared to 2010; it is now presented in keeping with the ADB.

Source Category	Size Impaired (miles[1])
Industrial Point Source Discharge	403
Source Unknown	398
Non-Point Source	396
Agriculture	358
Municipal Point Source Discharges	164
Unspecified Urban Stormwater	92
Dam or Impoundment	58
Impervious Surface/Parking Lot Runoff	54
Post-development Erosion and Sedimentation	53
Habitat Modification - other than Hydromodification	51
Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)	40
RCRA Hazardous Waste Sites	38
Inappropriate Waste Disposal	26
Upstream Source	26
Flow Alterations from Water Diversions	26
Aquaculture (Permitted)	22
Airports	19
Wet Weather Discharges (Non-Point Source)	15

Source Category	Size Impaired (miles[1])
Sources Outside State Jurisdiction or Borders	9
Livestock (Grazing or Feeding Operations)	9
Landfills	9
Impacts from Abandoned Mine Lands (Inactive)	3
Illegal Dumps or Other Inappropriate Waste Disposal	3
Mine Tailings	1
Impacts from Hydrostructure Flow Regulation/modification	1

[1] River and stream mile summaries were generated by the Maine Assessment Database (ADB).

Table 4-16 Total Sizes of Category 4 and 5 Impaired Maine Lakes by Source Category

Source Category	Size Impaired (acres)
Atmospheric Deposition – Toxics	986,952
Crop Production (Crop Land or Dry Land)	6,889
Flow Alterations from Water Diversions	30
Impacts from Hydrostructure Flow Regulation/modification	48,964
Industrial Land Treatment	1,820
Internal Nutrient Recycling	11,900
Landfills	29
Livestock (Grazing or Feeding Operations)	5,093
Municipal Point Source Discharge	4288
Natural Sources	9,683
Non-irrigated Crop Production	10,532
Residential Districts	13,358
Rural (Residential Areas)	21,903
Unspecified Unpaved Road or Trail	11,535
Unspecified Urban Stormwater	11,535

Table 4-17 Total Sizes of Category 4 and 5 Impaired Maine Lakes by Source Category (by Listing Category)

Listing Category	Source Category	Size Impaired (acres)	Number of Lakes
4A	Atmospheric Deposition - Toxics	986,952	5780
	Crop Production (Crop Land or Dry Land)	6,940	6
	Flow Alterations from Water Diversions	30	1
	Industrial Land Treatment	1,820	2
	Internal Nutrient Recycling	11,490	7
	Landfills	29	1
	Livestock (Grazing or Feeding Operations)	5,018	4
	Municipal Point Source Discharges	4288	1
	Natural Sources	1,869	2
	Non-irrigated Crop Production	10,532	5
	Residential Districts	5,119	3
	Rural (Residential Areas)	21,954	16
	Unspecified Unpaved Road or Trail	3,296	2
	Unspecified Urban Stormwater	3,296	2
4C	Impacts from Hydrostructure Flow Regulation/modification	48,964	5
	Natural Sources	7,865	1

Listing Category	Source Category	Size Impaired (acres)	Number of Lakes
5A	Crop Production (Cropland or Dryland)	410	1
	Internal Nutrient Cycling	410	1
	Natural	410	1
	Residential Districts	8,239	1
	Rural (Residential Areas)	410	1
	Unspecified Unpaved Road or Trail	8,239	1
	Unspecified Urban Stormwater	8,239	1

Table 4-18 Total Sizes of Category 4 and 5 Impaired Maine Wetlands by Source Category

Source Category	Size Impaired (acres[1])
CERCLA NPL (Superfund) Sites	212
Industrial Point Source Discharge	212
RCRA Hazardous Waste Sites	212
Agriculture	125
Agriculture	125
Unspecified Urban Stormwater	54
Non-Point Source	35
Habitat Modification - other than Hydromodification	33
Impervious Surface/Parking Lot Runoff	9
Illegal Dumps or Other Inappropriate Waste Disposal	6
Inappropriate Waste Disposal	6

[1] Wetland acreage summaries were generated by the Maine Assessment Database (ADB).

Table 4-19 Total Sizes of Category 4 and 5 Impaired Maine Estuarine and Marine Waters by Source Category

Source Category (examples)	Size Impaired (square miles)
Combined Sewer Overflows	Variable
Legacy Pollutants	2,846
Municipal Point Sources / Overboard Discharge	163
Nonpoint Source	154
Urban Runoff/Storm Sewers	52
Unknown	4
Partial Impoundment	<1
Sediment Oxygen Demand	<1

RIVERS / STREAMS

Water Classification Program

Contact: Susanne K. Meidel, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 441-3612 email: Susanne.K.Meidel@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/classification/index.html

Maine has four water quality classes of rivers and streams: AA, A, B, and C (38 M.R.S.A., Chapter 3, Section 465). Each classification assigns designated uses and water quality criteria (narrative and numeric), and may place specific restrictions on certain activities (Table 4-1 and 4-20) such that the goal conditions of each class may be achieved or maintained. Definitions of terms used in the classification are provided in 38 M.R.S.A. Section 466.

Class AA waters are managed for their outstanding natural ecological, recreational, social, and scenic qualities. Direct discharge of pollutants is allowed but highly restricted. Dams and other significant human disturbances are prohibited.

Class A waters are managed for high quality with limited human disturbance allowed. Direct discharges are allowed but highly restricted. Physical and chemical characteristics should be similar to natural conditions.

Class B waters are general-purpose waters and are managed to attain good physical, chemical and biological water quality. Well-treated discharges with ample dilution are allowed.

Class C waters are managed to attain at least the swimmable-fishable goals of the federal Clean Water Act, including protection of spawning for indigenous fish species. Aquatic life standards require maintenance of the structure and function of the biological community.

Table 4-20 Maine Water Quality Criteria for Classification of Fresh Surface Waters (38 MRSA §465)

	Dissolved Oxygen Numeric Criteria	Bacteria (*E. coli*) Numeric Criteria	Habitat Narrative Criteria	Aquatic Life (Biological) Narrative Criteria
Class AA	as naturally occurs	as naturally occurs	Free flowing and natural	Direct discharge of pollutants is allowed but highly restricted; ***as naturally occurs*** **
Class A	7 ppm; 75% saturation	as naturally occurs	Natural	Direct discharges are allowed but highly restricted; ***as naturally occurs*** **
Class B	7 ppm; 75% saturation	64/100 ml (g.m.*) or 236/100 ml (inst.*)	Unimpaired	Discharges ***shall not cause adverse impact*** to aquatic life in that the receiving waters shall be of sufficient quality to ***support all aquatic species indigenous to the receiving water without detrimental changes to the resident biological community.*** **

	Dissolved Oxygen Numeric Criteria	Bacteria (*E. coli*) Numeric Criteria	Habitat Narrative Criteria	Aquatic Life (Biological) Narrative Criteria
Class C	5 ppm; 60% saturation 6.5 ppm (monthly average) at 22° and 24°F	126/100 ml (g.m.*) or 236/100 ml (inst.*)	Habitat for fish and other aquatic life	Discharges ***may cause some changes*** to aquatic life, provided that the receiving waters shall be of sufficient quality to ***support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community***. **

* "g.m." means geometric mean and "inst." means instantaneous level

** Numeric criteria in Chapter 579, Classification Attainment Evaluation Using Biological Criteria for Rivers and Streams

Maine law requires that once every three years, the Department review the classification system and related standards and make recommendations to the Board of Environmental Protection for any needed changes in the water quality classifications assigned to specific waterbodies. A major review of water quality standards and classifications was completed in 2009. The Department conducted statewide workshops and direct mail and telephone outreach to obtain public input and to solicit proposals for consideration to change the management classification assigned to specific waterbodies. The Board held hearings that resulted in recommendations to the Maine State Legislature for the upgrade of part or all of 16 rivers and streams and one marine waterbody. The Board recommended and the Legislature also approved changes to statutory language to clarify the classifications of 6 other waterbodies, and to conduct a Use Attainability Analysis on 1 impaired stream to determine its highest attainable goal condition. The current distribution of waters assigned to these four water quality classes is summarized in Table 4-21:

Table 4-21 Percent Distribution of River/Stream Water Classes

Class	Percent of Major* Mainstem River Miles	Percent of Total River and Stream Miles
AA	27.5 %	5.6 %
A	22.3 %	43.8 %
B	29.6 %	49.2 %
C	20.6 %	1.4 %

* Major mainstem rivers are rivers that have a watershed of >500 square miles.

In 2011, the classification of 1 waterbody was changed and in 2012, ambient water quality criteria (human health criteria for inorganic arsenic, acrolein and phenol; aquatic life criteria for acrolein, diazanon, nonylphenol) as included in Chapter 584, Surface Water Quality Criteria for Toxic Pollutants were revised or expanded.

Summary of Statewide River and Stream Attainment Status

Contact: Susanne K. Meidel, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 441-3612 email: Susanne.K.Meidel@maine.gov

The Integrated Assessment Water Quality Report to Congress requires the assignment of each Assessment Unit (AU) into one of five categories (Section 4-1, Assessment Methodology). A water is determined to be impaired if one or more of the uses assigned by its classification is not attained, as determined by the criteria assigned to that water class. An overall use attainment summary is provided in Tables 4-6 and 4-22. The 2012 use attainment assessment reports on AUs amounting to 31,298 miles of rivers and streams that are tracked in the Assessment Database (ADB). Information on the status of individual AUs may be found in Listings on Individual Waters, Appendix II, Categories 1-5. A spatial representation of many AUs can be viewed using this Google Earth Project (note that the project is under construction):
www.maine.gov/dep/gis/datamaps/lawb_integrated_report/lawb_integrated_report.kmz

Assessment units (AUs) can be listed for different impairments in different Categories (3-5). For example, an AU may be in Category 4-A for a contact recreation impairment due to the 2009 Statewide Bacteria TMDL; simultaneously, it may be in Category 5-D for legacy pollutants. The mileage totals shown in Table 4-22 are for 'single category' reporting, meaning each AU is only counted once, namely in the highest category it is in. For the example above, the AU would only be counted under Category 5.

Table 4-22 Summary of Changes to Surface Water Assessment Categories – 2010 to 2012*

Rivers and Streams						
31,215= Total Miles Assessed in 2010						
31,298=Total Miles Assessed in 2012						
	2010 Miles in Category**	% of Total 2010 Assessed Miles	2012 Miles in Category***	% of Total 2012 Assessed Miles	% Change '10-'12	Change in Miles '10 - '12
Category 1	4,338	13.9	4,338	13.9	0	0
Category 2	25,394	81.4	25,371	81.1	-0.3	-23
Category 3	314	1.0	383	1.2	0.2	69
Category 4	446	1.4	273	0.9	-0.6	-173
Category 5	719	2.3	933	3.0	0.7	214

* This table is a partial duplicate of Table 2-1 in Chapter 2; it appears twice for convenience
** Single-Category Reporting miles, as generated by final 2010 cycle Maine ADB
*** Single-Category Reporting miles as generated by 2012 cycle Maine ADB

Category 1 (*Appendix II Category 1*). The 2010 assessment assigned 4,338 miles (14%) of rivers and streams to Category 1 (fully attaining all uses other than statewide mercury advisory as explained in Category 5C below). The Department has determined through monitoring and evaluation that large areas of the state should be included in this category where there is significant protection afforded by either state or private conservation efforts. Maine is fortunate to have entire sub-watersheds where there is little to no human habitation, few roads and only minimal disturbance (typically well managed forestry operations that are well buffered to protect water quality) or significant conservation ownership.

Category 2 (*Appendix II Category 2*). The 2012 assessment assigned 25,371 miles (81%) of rivers and streams to Category 2 (fully attaining all uses other than statewide mercury advisory as explained in Category 5-C below). Two waterbodies totaling 3.34 miles were delisted from Category 4-A to Category 2 due to new data showing attainment of contact recreation criteria. The mapping of a number of assessment units in this category, and resulting adjustment in unit length, caused a slight decrease in total mileage in this category compared to 2010.

Category 3 (*Appendix II Category 3*). The 2012 assessment assigned 383 miles (1%) of rivers and streams to Category 3 (insufficient information to determine attainment). Most of these segments have been assigned to Category 3 because of inconclusive or conflicting monitoring data. Ten new segments totaling 160 miles were added to Category 3 in 2012 because an initial evaluation of potential non-attainment requires re-sampling to confirm. One of the 10 segments (96 miles) is also in Category 5-D, bringing the total number of miles added in 2012 to Category 3 only to 64. The remaining 5 miles that were added to Category 3 in 2012 are a result of mapping corrections.

Category 4 *(Appendix II Category 4*). Category 4 impaired waters do not require the development of a Total Maximum Daily Load (TMDL). The 2012 assessment assigned 273 miles (1%) of rivers and streams to Category 4. As explained below, increases in mileage from 2010 to 2012 are primarily attributable to the approval of a Statewide TMDL while decreases in mileage are primarily attributable to the correction in the ADB of the single-listing Category for several waterbodies. Waters in Category 4 are placed into one of three subcategories:

- 4-A for waters that already have a TMDL that has been approved by EPA
  - Segments totaling 147 miles are listed in this subcategory.
  - 30 new segments totaling 72 miles have been added to Category 4-A as compared to the 2010 cycle. All of these waterbodies have aquatic life use impairments (for one or more of the following causes: DO, benthic macroinvertebrates, algae/periphyton and habitat) and have been moved from Category 5-A to Category 4-A for these impairments due to their inclusion in the Maine Statewide % Impervious Cover TMDL, approved by US EPA in September 2012. Three of these segments totaling 13 miles are also listed in Category 5-A or 5-D and their mileages are thus not included in the Category 4-A single listing numbers shown in Table 4-22, bringing the total number of miles added in 2012 to Category 4-A only due to TMDL approval to 59.
  - For 3 segments that were already in Category 4-A, a new aquatic life use impairment [for Periphyton (Aufwuchs) Indicator Bioassessments] was added that is expected to be addressed by the existing TMDL. Two of these 3 segments were already in Category 4-A, i.e. these new listings did not affect the total mileage in this category. One segment is also in Category 5-D and thus not included in the Category 4-A mileage.
- 4-B for waters where there is an enforceable mechanism in place to bring the water into attainment (e.g. new or renewed wastewater discharge license; court order, etc.)
  - Segments totaling 94 miles are listed in this subcategory.
  - 5 segments totaling 94 miles have been moved into Category 4-B due to the development of enforceable mechanisms to bring the waters into attainment. Of these segments, only 1 (14 miles) is solely listed in Category 4-B, i.e. only 14 miles were added to the Category 4 mileage total due to new permits.

  - A number of segments were inadvertently placed in Category 4-B instead of 5-D in the ADB in 2010, resulting in a significant overestimate (by ~240 miles) of the mileage in this category.
- 4-C for waters where there is no pollutant involved in the impairment problem
  - Segments totaling 31 miles are listed in this subcategory.
  - No new segments were added to 4-C in 2012

Category 5 (*Appendix II Category 5*)**.** Impaired waters that require the development of a Total Maximum Daily Load (TMDL) determination. The 2012 assessment assigned 933 miles (3%) of rivers and streams to Category 5 (impaired for one or more uses as well as statewide mercury advisory as explained in Category 5-C below). As explained below, increases in mileage from 2010 to 2012 are primarily attributable to the correction in the ADB of the single-listing Category for several waterbodies while decreases in mileage are primarily attributable to the approval of a Statewide TMDL while. Waters in Category 4 are placed into one of four subcategories:

- 5-A for waters impaired by pollutants; a priority for TMDL development
  - 30 segments totaling 72 miles have been moved from Category 5-A to Category 4-A due to their inclusion in the Maine Statewide % Impervious Cover TMDL, approved by US EPA in September 2012. Two of these segments totaling 8 miles continue to be also listed in Category 5-A and their mileages are thus retained in this Category, bringing the total number of miles removed from this Category in 2012 due to TMDL approval to 64.
  - 5 segments totaling 94 miles have been moved from Category 5-A to Category 4-B due to the development of enforceable mechanisms to bring the waters into attainment. Of these segments, only 1 (14 miles) has no other Category 5 listing, i.e. only 14 miles were removed from Category 5-A total due to new permits.
  - 5 new segments totaling 116 miles were added to Category 5-A in 2012 due to new monitoring data showing impairments.
  - 2 new segments totaling 18 miles have been moved from Category 5-A to Category 5-D.
- 5-B for waters impaired by bacteria contamination only
  - 2 new segments have been added to Category 5-B in 2012 totaling 9.2 miles.
- 5-C for waters impaired by atmospheric deposition of mercury (Inactive Category due to EPA approved Regional Mercury TMDL)
  - All freshwaters in Maine have an advisory for the consumption of fish due to the presence of mercury presumed to be from atmospheric deposition. A Regional Mercury TMDL was approved by US EPA making these waters Category 4-A.
  - This Integrated Water Quality Monitoring and Assessment Report does not consider this statewide advisory in establishing other category listings.
  - The advisory is based on probability data that a stream, river, or lake may contain some fish that exceed the advisory action level (Maine uses a lower action level of 0.2 mg/kg (edible portion) than that established by the USEPA). Any freshwater may contain both contaminated and uncontaminated fish depending on size, age, and species occurrence in that water. The advisory applies to all freshwaters because it may be impossible for someone eating a fish to be able to tell where the fish originated and whether or not it has a high level of mercury.
- 5-D for waters impaired by the residuals of “legacy” activities
  - 2 new segments totaling 18 miles have been moved from Category 5-A to Category 5-D.
  - A number of segments was inadvertently placed in Category 4-B instead of 5-D in the ADB in 2010, resulting in a significant underestimate (by ~240 miles) of the mileage in this category.

Number of Segments that have been Delisted

Due to EPA approval of the Statewide % Impervious Cover TMDL, the aquatic life use impairments (due to one or more of the following causes: DO, benthic macroinvertebrates, algae/periphyton and habitat) of 30 river and stream segments have been removed from Category 5-A and placed in Category 4-A for 2012. Two waters have been delisted to Category 2 due to newer data showing water quality standards attainment. The aquatic life use impairments [due to DO and nutrient/eutrophication biological indicators) of 5 river and stream segments have been removed from Category 5-A and placed in Category 4-B. See Table 8-5 in Chapter 8 for a complete listing of all 2012 delistings.

As with any assessment of this kind, the identification of impaired waters or delisted waters cannot be considered complete but rather is a reflection of the findings at a particular point in time, relative to the level of monitoring effort expended by the agency and other cooperating contributors.

Listing Causes, Stressors and Sources of Impairment

Cause and stressor information for rivers and streams is provided in Table 4-10. Sources of impairment are provided in Table 4-15. Maine DEP uses the EPA Assessment Database (ADB) to track changes in water quality for Maine rivers, streams, lakes and wetlands. The ADB is enabling increasingly accurate and consistent tracking of causes, stressors and sources as the database is populated and updated from cycle to cycle.

Causes (Table 4-10): The greatest number of impaired miles (636) is due to toxic contamination, including legacy pollutants such as DDT, dioxin and PCBs. For most mainstem river segments that are affected by pulp and paper mill discharges, dioxins have been listed in Category 4-B since 2004. Measureable differences above and below sources of dioxin are no longer detectable. However, those same segments are listed in Category 5-D for legacy sources of PCB contamination found in fish tissue.

Non-attainment of aquatic life criteria, as determined by observations of biological effects, accounts for 408 miles of impairment. Most of these miles were assessed via benthic macroinvertebrate biocriteria although in 2012 the number of segments also assessed via the algae/periphyton community increased substantially from 7 to 28 segments (8 in Category 3, 12 in Category 4-A, 8 in Category 5-A. Oxygen depletion accounts for 464 miles. Other notable causes include nutrients (243 miles) and pathogens (175 miles).

Sources (Table 4-15): Atmospheric deposition of mercury affects all waters of the State and is the largest single source of pollution. Industrial point source discharges, unknown sources and non-point sources (NPS) are of almost equal importance, each affecting approximately 400 river miles. General agricultural NPS sources affect 358 miles.

It is important to understand that miles attributed to causes and sources in Tables 4-10 and 4-15 may be listed more than once if a waterbody is subjected to several different types of disturbance.

Main Stems of Major Rivers

Most of the mainstem rivers are in good condition and are attaining their classification, which is mostly Class B or C[2]. Significant segments of the St. John, Allagash, East and West Branches of the Penobscot, St. Croix, and Kennebec Rivers are Class AA and A. The primary impairment issue on the larger rivers is non-attainment of the Fish Consumption use, with segments of the Androscoggin, Kennebec, Penobscot, Salmon Falls and Sebasticook Rivers listed in either Category 4 or Category 5. Tissue monitoring studies have found legacy PCB and dioxin contamination in mainstem rivers. Needed monitoring for other issues has had to be re-scheduled for some mainstem river segments (e.g., Sandy River, lower Androscoggin River) due to a variety of reasons.

Two Class C segments of the Penobscot River (West Branch Penobscot River between Millinocket Stream and East Branch Penobscot River; mainstem Penobscot River to the confluence with the Mattawamkeag River) were moved directly from Category 2 to Category 4-B in the 2010 reporting cycle for aquatic life use impairments. Analysis of 2007 monitoring data during that reporting cycle documented non-attainment of dissolved oxygen criteria and problems with nutrient/eutrophication biological indicators. The Board of Environmental Protection issued an Administrative Consent Agreement on January 17, 2008 requiring reductions in phosphorus loading from one upstream mill thus establishing enforceable controls for these segments and enabling the delisting to Category 4-B.

In addition to the existing two Category 5-A listings for dissolved oxygen and nutrient/ eutrophication biological indicators on the mainstem of the Penobscot River between the Mattawamkeag River and the Piscataquis River, three segments between the Piscataquis River and Reeds Brook (where water quality classification changes from Class B to marine Class SC) were placed into Category 5-A for the same impairments in the 2010 reporting cycle. In May of 2011, new MEPDES permits incorporating phosphorus discharge limits for all mills on the freshwater portion of the river were issued, putting in place water quality protection based on actual waste load allocations. As a result of this permitting action, the five mainstem segments are being moved to Category 4-B in the current reporting cycle. The Department is presently conducting ongoing ambient monitoring along all segments covered by the permit to assess the effectiveness of the new discharge limits. 2011 was the first year that monitoring was conducted; no non-attainment was measured.

Data submitted by the Houlton Band of Maliseet Indians (HBMI) Water Resources program documented high algal growth and large diurnal swings in dissolved oxygen on the Meduxnekeag River mainstem below Houlton. Downstream portions of the river (below the confluence with the South Branch Meduxnekeag River) are currently in Category 4A due to US EPA approval of a TMDL in 2001 to address elevated phosphorus. The river upstream of the South Branch has been listed in Category 3 since the 2010 reporting cycle and data collection activities are ongoing. According to the 2010 water quality data report from the HBMI general trends for dissolved oxygen and total phosphorus along the mainstem of the Meduxnekeag River followed patterns similar to past years.

One of Maine's Combined Sewer Overflow (CSO) communities (Rockland) has completed its CSO abatement projects and no longer has permitted CSOs. CSOs

[2] Note that all freshwaters in Maine are subject to a statewide fish consumption advisory due to "Impairment caused by atmospheric deposition of mercury" (see page 58, above).

continue to occur on segments of other major rivers. In 2009, the Department completed a statewide bacteria TMDL that establishes a restoration and management plan for all sources of bacteria, including CSOs.

In 2010 an addendum to the 2005 Final Androscoggin River TMDL (Gulf Island Pond and Livermore Falls Impoundment), and modifications to the Water Quality Certification of the Gulf Island Deer Rips Hydro project and MEPDES permits for two pulp and paper companies, have resulted in revised discharge limits of BOD, TSS, and phosphorus and improved oxygenation of Gulf Island Pond in the Androscoggin River. Consequently, the water quality has been improved. While water quality still does not meet Standards due to sediment oxygen demand from historic discharges, new permits and certification issued in late 2012 are expected to result in attainment within the permit period. Due to this permitting action, this segment was moved to Category 4-B in the current reporting cycle.

In 2009, the Lower Androscoggin River (Lisbon Falls to Brunswick) was proposed for upgrade from Class C to Class B. The Board of Environmental Protection declined to recommend the upgrade, as did the Maine State Legislature. However, a Resolve was passed by the Legislature directing the Department to accelerate monitoring and modeling on this segment in the interest of reviewing this proposal in the future. A water quality field survey was completed in the summer of 2010. A water quality model was developed and predicted that the Class B criterion could not be met under critical water quality conditions. The Maine State Legislature's Joint Committee for Natural Resources and the Environment recommended that the bill ought not to pass. Also concerning the lower Androscoggin River, the mainstem segment between the Pejepscot Dam and the Brunswick Dam, is listed in Category 4C (Impaired by non-pollutant). Information provided to the Department from the Department of Marine Resources indicates the segment fails to support an indigenous species of fish, the American shad, as required by statute. The dam at Brunswick and the fish passage device repeatedly fail to allow passage of a sufficient number of shad to establish a sustainable population in the river above the dam. This facility is a FERC licensed facility with a requirement for fish passage as part of a State-adopted restoration plan for this species.

On the lower Presumpscot River a 1998 TMDL submittal noted that both the water quality model and a 1993 field survey indicate that minor non-attainment of class B dissolved oxygen (DO) criteria (0.2 to 0.3 ppm under criteria) occurs in the upper Presumpscot River at the Little Falls, Mallison Falls, and Saccarappa dam impoundments. It was concluded that the large amount of effort required for implementing a TMDL in these reaches was not warranted. It was recommended that additional data collection in the early morning hours (before 8 AM) occur and if non-attainment continued, a TMDL should be implemented for non-point sources.

This non-attainment was addressed in the 2007 Water Quality Certification (WQC) for the five dams of the "Presumpscot River Hydro Projects" owned and operated by S. D. Warren. A recommendation was made for increased spillage from the Dundee and Gambo dams, as well as monitoring requirements when water temperatures in the Gambo impoundment exceeded 22ºC before 8 AM. If the increased spillage does not maintain class B standards for DO, S. D. Warren is required to implement other measures.

S.D. Warren has submitted annual reports indicating few excursions for each of the years 2008 through 2011. From these data it is evident that non-attainment is associated with low flow discharges from Sebago Lake through the Eel Weir dam. On

August 31, 2011 the Department approved the application for Water Quality Certification under section 401 of the Clean Water Act of Eel Weir Hydro Project, in which S. D. Warren proposes to increase minimum flows from 270 cfs to 408 cfs from June 1 to September 30 in order to maintain DO levels in the Presumpscot River. That WQC is currently under appeal to the Maine Superior Court regarding flow regulations impacts on lake levels and fish passage.

Toxics

Dioxin Monitoring Program

Contact: Barry Mower, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-0291 email: Barry.F.Mower@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/toxics/

- The Dioxin Monitoring Program was incorporated into the Surface Water Ambient Toxics (SWAT) monitoring program in 2007. Please refer to the most recent SWAT report for latest information on this subject.

Surface Water Ambient Toxics (SWAT) Monitoring Program

Contact: Barry Mower, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-0291 email: Barry.F.Mower@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/toxics/swat/

Please refer to the website for annual reports on this subject. Below are the executive summaries for 2009 and 2010.

2009:

- Thirty-nine stations were assessed for the condition of the benthic macroinvertebrate community. Twenty-nine of the thirty-nine stations attained the aquatic life standards of their assigned class.
- Samples of fish from the Androscoggin, Kennebec, Penobscot, Salmon Falls, St. Croix, and Sebasticook rivers generally exceeded the MCDC's fish tissue action levels (FTAL) for PCBs, used for setting fish consumption advisories, at most stations.
- There are fish consumption advisories for several Aroostook County rivers and streams issued by the MCDC because of residuals of DDT used decades ago. Samples of trout from eight of ten Aroostook County rivers and streams sampled in 2009 significantly exceeded MCDC's FTAL used for setting the advisories.
- Validation of use of a new method of mercury analysis with the University of Maine shows promise of quicker and less expensive monitoring of fish tissue mercury levels, which will allow collection of more data for use in review of Maine's Statewide Fish Consumption Advisory for mercury.

2010:

- Forty-two stations were assessed for the condition of the benthic macroinvertebrate community. Twenty-seven stations attained the aquatic life standards of their assigned class.
- Dioxin concentrations measured in fish from the West Branch of the Sebasticook River were lower than when last measured, but still exceed MCDC's Fish Tissue Action Level (FTAL). The dioxin concentrations in fish from the St. Croix River above Woodland are below the FTAL; dioxin-like coplanar PCBs were not measured in 2010, but in previous years the addition of the PCBs resulted in an exceedance of the FTAL.
- Fish captured from the Androscoggin River, Penobscot River below Millinocket, Presumpscot River in Gorham and Westbrook, and Sebasticook River at Newport and Burnham exceeded MCDC's FTAL for dioxins.
- A study of the Little Androscoggin River below the wastewater discharge from South Paris found no evidence of toxicity of the sediments to bottom dwelling organisms or of the river water to fish species, despite repeated exceedances of the copper limit in their discharge permit.
- A project funded at the University of Maine developed a new non-lethal method of detecting exposure of fish to organic contaminants using fish scales.

Aquatic Life Monitoring

Biological Monitoring of Rivers and Streams

Contact: Leon Tsomides, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-4787 email: Leon.Tsomides@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/biomonitoring/index.html

The Biological Monitoring Program assesses the health of rivers, streams, and wetlands by evaluating the composition of the resident biological communities. In the 1980s, the Maine Legislature passed the Water Classification Law and made an initial assignment of each river and stream reach in the state to one of four established classes (AA, A, B, and C Table 4-17). Subsequent Water Quality Reclassification initiatives since 1986 have reassigned waterbodies to more appropriate (usually higher quality) management classifications Class AA and Class A have the same aquatic life criteria and biological expectations ("as naturally occurs"). Data collected in accordance with Maine's biocriteria protocol are analyzed to predict the likelihood of a waterbody attaining the aquatic life criteria of its assigned class (i.e. AA/A, B, and C). In 2003, MDEP adopted numeric biocriteria in rule Ch. 579 (for rivers and streams) which describes the process used to make aquatic life decisions using the benthic macroinvertebrate community. MDEP recently completed biological assessment methods for benthic algal communities of wadeable streams and rivers with rocky substrates. MDEP also monitors wetland macroinvertebrate and algal communities, and has developed provisional biological criteria for wetland macroinvertebrates. MDEP developed statistical models (linear discriminant functions) to predict aquatic life use attainment based on stream algal and wetland macroinvertebrate community data. The models for stream algae and wetland macroinvertebrates have not yet been implemented. For the 2012 Integrated Report, Department biologists determined attainment of the narrative aquatic life criteria already contained in the Water

Classification Program (38 MRSA §465) by using expert judgment to evaluate the structure and function of the stream algal (Appendix II) and wetland macroinvertebrate (Appendix IV) communities. Chapter 579 will be amended to include the stream algal and wetland macroinvertebrate models, following standard public review protocols, after they have been adequately tested. More detailed information on wetland monitoring and assessment is described in Chapter 5. Biomonitoring station locations and associated biological and physical data can be found at http://www.maine.gov/dep/water/monitoring/biomonitoring/data.htm.

Reports of Fish Kills

Contact: Barry Mower, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-0291 email: Barry.F.Mower@maine.gov

The Department of Environmental Protection documents all pollution-caused fish kills. For the 2009-10 reporting period, there were no documented fish kills due to pollution effects.

Achieving Comprehensive Assessment of All Streams: Probability-based Design Monitoring

Contact: Leon Tsomides, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-4787 email: Leon.Tsomides@maine.gov

- Please refer to the 2006 report for information about streams. There have been no changes since the 2006 report.
- Biological Monitoring Program staff participated in the design and planning for the National Wetland Condition Assessment (NWCA), and coordinated sampling efforts in Maine during the summer of 2011. Additional information about the NWCA is found in Chapter 5 of this report. Biomonitoring staff previously participated in planning for national surveys of wadeable streams and large rivers.

Lakes / Ponds

Contact: Linda Bacon, DEP BLWQ, Division of Environmental Assessment (DEA), Lake Assessment Section

Tel: (207) 441-0462 email: Linda.C.Bacon@maine.gov

Related Website: www.maine.gov/dep/water/lakes/index.html

This section of the 2012 Integrated Report provides an update to information contained in the 2006, 2008 & 2010 Integrated Reports, links to which can be found at: http://www.maine.gov/dep/water/monitoring/305b

Information included in the 2006 report (pages 75-91) includes:

Physical Extent of lakes
Statutory Classification of lakes
Attainment of Classification

Attainment Evaluation Criteria for each Designated Use
How Attainment Status relates to Listing Categories
Past use of Probability-based Designs
Summary of Listing Category changes for 2006
Criteria Used to Change Listing Status
An overview of Maine's Invasive Aquatic Plant program
Economic Contribution of Lakes to Maine.

Additional topics required under Section 314 addressed in the 2006 report include:

Maine's definition of Significant Lakes
Trophic Status of Significant Publicly Owned Lakes
Lake Rehabilitation Techniques
Acid Effects on Lakes
Toxics in Maine lakes
Trend Analyses and Climate Considerations.

A number of tables reappear in this report at the request of EPA Region I staff.

Monitoring of Maine lakes continues to include reliance on a strong volunteer-based program, the Maine Volunteer Lake Monitoring Program (www.mainevolunteerlakemonitors.org) as well as both targeted and probability based monitoring performed by state staff. The Lake Assessment Section participated in a US EPA Region I probability-based lake monitoring effort in 2006 as well as the National Lake Assessment (NLA) effort in 2007. The results of the NLA survey help to put the overall condition of Maine lakes in perspective nationally and add additional data on the lakes visited by the EPA-State teams. The NLA reinforced the conclusions that our lightly developed watersheds continue to support lakes in full attainment of most designated uses.

ATTAINMENT OF CLASSIFICATION

The state designated a subset of the total population of lakes as 'Significant Lakes' as requested by EPA under Section 314 in the early 1990s. Table 4-23 summarizes numbers and acreages for all lakes having an identification number as well as the subset of Significant Lakes.

Table 4-23 "All" and "Significant" Lake Category Information

Maine Lake Population Summary		
	Number	**Acres**
All Lakes	5,780 (100%)	986,952 (100%)
Significant Lakes	2,313 (40%)	958,977 (97%)

Designated uses actively assessed to determine classification attainment status are: Aquatic Life Support, Fish Consumption, Recreation In/On, and Drinking Water Supply (after disinfection/treatment). Table 4-24 summarizes how lake attainment status relates to specific Listing Categories used in the 2012 report.

Table 4-24 Summary of Listing Categories and Subcategories used in the 2012 Assessment of Maine lakes.

Listing Category	Category Summary
1	Attaining all standards
2	Attaining some standards; assumed to attain others
3	Attaining some standards; Insufficient / no data / info to determine if standard(s) are met for use that may be impaired
4a	TMDL complete (includes Regional Hg Deposition TMDL)
4b	Expected to meet standards
4c	Not impaired by a pollutant
5a	TMDL needed

Brief summaries of lakes by Listing Category follow. Lake specific changes are included in Chapter 8 as well as in the Appendix.

Category 1: Lake waters attaining all designated uses and water quality standards, and no use is threatened.

For the purposes of this assessment, lakes having no population in their direct watersheds have been listed in 'Category 1, Attaining all standards', with the exception of four lakes which are listed in category 4c, in non-attainment of the Aquatic Life Use (habitat) due to non-pollutant (hydrologic modification). The number of lakes listed in Category 1 is 2,857, totaling 295,443 acres. Waters are summarized by the 10-digit HUC (Hydrologic Unit Code) within which they are located (Appendix III, Category 1). No lakes have moved in or out of this Listing Category since the 2008 reporting cycle.

Category 2: Lake waters attaining some of the designated use(s), no use is threatened, and insufficient data or no data and information is available to determine if the remaining uses are attained or threatened (with presumption that all uses are attained).

The Department is highly confident that these waters attain the following designated uses: drinking water (after disinfection / treatment), recreation in/on the water, fishing (excluding fish consumption), and as habitat for fish and other aquatic life. Category 2 contains 2,894 lakes or 606,945 lake acres. Waters are summarized by the 10-digit HUC within which they are located (Appendix III, Category 2). Four lakes (709 acres were moved from Categories 4a and 5a into this category because additional data or information indicates that they are in attainment of some designated uses and presumed to be in attainment of the others.

Category 3: Lake waters with insufficient data and information to determine if designated uses are attained (with presumption that one or more uses may be impaired).

Currently there are no lakes in Category 3. The one that in 2010 had been listed in Category 3 has been moved to Category 5a. This lake (Cochnewagon Pond) has a deteriorating trophic state and is no longer in attainment of 'aquatic life' and 'primary contact' criteria. This lake was treated with alum nearly 25 years ago which improved water quality for about one decade; data collected over the last 17 years suggest that the lake has slowly returned to its former trophic state. A sediment core has been obtained to determine the historic trophic state so the Department can better establish a trophic target.

Category 4: Lake waters that are impaired or threatened for one or more designated uses, but do not require development of a TMDL.

There are currently 27 lakes covering 75,915 acres listed in Category 4. These lakes fall into two subcategories: waters on which TMDLs have been completed (4A) and waters with impairments not caused by a pollutant (4C). Category 4A contains 22 lakes totaling 26,951 acres. Two lakes are now in attainment of their classification and have been moved to Category 2 since 2010.

Five lakes (48,964 acres) continue to be listed in Category 4C, lake water impairment not caused by a pollutant. All of these lakes are in non-attainment of aquatic life (habitat) standards due to hydromodification (drawdown).

Note: For the 2008, 2010 and 2012 reporting cycles, the 4A category includes all freshwaters in Maine that were listed in previous cycles in a narrative Category 5-C "Impairment caused by atmospheric deposition of mercury" due to the Statewide fish consumption advisory due to mercury. On December 20, 2007 US EPA approved a Regional Mercury TMDL.

Category 5: Lake waters that are impaired or threatened for one or more designated uses by a pollutant(s), TMDL development is required.

Three sub categories have been designated under Category 5; however lakes have been listed in only one.

Category 5A includes 2 lakes (8,649 acres) which are designated as 'Significant' (lakes impaired by pollutants, and require a TMDL to be conducted by the State of Maine). This total reflects the movement of 2 lakes (544 acres) to Category 2 and addition of 1 lake from Category 3 (410 acres). Appendix III, Category 5A indicates target dates for TMDL completions. Table 4-25 summarizes individual use support for the lakes in Category 5A.

Table 4-25 Individual Use Support Summary for Lake (acres) in Category 5a (TMDL Needed)

Designated Use	Non-Attainment	Attainment
Drinking Water Supply (after disinfection/treatment)	0	8,649
Aquatic Life use Support	8,649	0
Fishing (other than fish consumption covered in Cat. 4a)	0	8,649
Recreation In / On	8,649	0
Navigation, Hydropower, Agriculture & Industrial Supply	0	8,649

Causes (or Stressors) resulting in non-attainment and Sources are summarized for all impaired waters in Tables 4-11 and 4-16 and Tables 4-12 and 4-17 provide Causes / Sources organized by Listing Category.

For more information on Lake TMDL projects:

Contact: Dave Halliwell, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 287-3901 email: David.Halliwell@maine.gov
Related Website: www.maine.gov/dep/water/monitoring/tmdl

VARIOUS TABLES AND ADDITIONAL UPDATES REGARDING MAINE LAKES

Section 314 requires a summary of trophic classification for Maine's 'Significant' lakes. This summary is compiled using the numerical criteria in Table 4-4. Table 4-26 summarizes the trophic distribution of Maine Lakes.

Table 4-26 Trophic Status of Maine Lakes

Trophic Category	Significant Lakes		All Lakes	
	Number	Acres	Number	Acres
Assessed	1,743	927,330	1,923	929,966
Dystrophic	2	34	2	34
Eutrophic	593	150,955	670	151,477
Mesotrophic	1,024	664,852	1,127	667,087
Oligotrophic	125	111,500	129	111,547
Unknown	569	31,636	3,852	56,807

Table 4-27 summarizes techniques used to rehabilitate lakes.

Table 4-27 Lake Rehabilitation Technique Summary (Section 319 Projects)

Rehabilitation Technique
Watershed Treatments
BMPs associated with Public & Private Road Management
BMPs associated with Shoreline Erosion Control / Bank Stabilization
Other Lake Protection/Restoration Techniques
Public Information/Education Program/Activities
Fish Removal Pilot Project

Section 314 also requires reporting Acid Effects on lakes. Maine is fortunate to be located a considerable distance from many sources of atmospheric deposition that result in acidification of surface waters. Some smaller headwater and seepage lakes having naturally low pH are likely slightly more acidic due to such atmospheric inputs but not to levels that have conclusively altered the biota or caused Maine to consider mitigation activities. Recovery from acidic deposition is apparent in lakes in the northeast, including sensitive populations. Regionally, it is estimated that approximately half of the lakes determined to be acidic in the 1980s are now non-acidic (pH > 5). In Maine's high elevation lakes, only four of the 12 lakes acidic in the 1980s were acidic in 2009. An important change in aquatic chemistry coincident with decreased acidic deposition is increased concentrations of dissolved organic carbon (DOC) in recovering surface waters across the northern hemisphere. This result has led to a shift in the source of acidity from inorganic sources (acid rain), to natural (DOC) sources. Tables 4-28 and 4-29 in the 2010 report estimated numbers and acreages of acidic lakes and sources of acidity (acid deposition and natural sources).

These tables have not been included in this report because the estimates are no longer reliable and departmental sampling priorities have not included revisiting all of the originally sampled waters.

Surface Water Ambient Toxics (SWAT) Monitoring Program

Contact: Barry Mower, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-0291 email: Barry.F.Mower@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/toxics/swat/

Please refer to the website for annual reports on this subject. Below are the executive summaries for 2009 and 2010.

2009:

- Total PCBs in fish from Androscoggin Lake in Wayne were higher than when last measured in 2000-2001 and exceed the Maine Center for Disease Control and Prevention's (MCDC) Fish Tissue Action Level. Data have been sent to the MCDC for further analysis.

2010:

- Fish from 45 lakes were sampled and analyzed for mercury concentrations by a new quicker less expensive, EPA-approved method using the Direct Mercury Analyzer 80 at the Sawyer Environmental Research and Chemistry Lab at the University of Maine in Orono. The results compared favorably with those from a subset of 22 lakes analyzed by a commercial lab using a more conventional method. There was no trend for fish from 26 lakes comparing 2010 results with those from the 1990s. The data were sent to the Maine Center for Disease Control and Prevention (MCDC) for use in reviewing the statewide Fish Consumption advisory.

Invasive Aquatic Plants

Contact: John McPhedran, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-9863 e-mail: John.McPhedran@maine.gov or Milfoil@maine.gov

Related Website: www.maine.gov/dep/water/invasives/index.html

The Department's formal program to prevent spread and control existing infestations of invasive aquatic plants was in its ninth and tenth years of existence in 2009 and 2010, respectively.

The Lake and River Protection Sticker, the funding mechanism for the Department's work on invasive aquatic species, was merged in 2008 (for Maine-registered boats only) with the freshwater watercraft registration to reduce administrative costs. The Maine watercraft registration (as of 2008) is now a two-piece sticker with one portion representing the $10 dedicated to invasive species work. Additional funding to the Department as a result of the merger increased grants to lake groups conducting invasive plant prevention and control projects. Any boater with an out-of-state registration is still required to purchase the stand-alone $20 Lake and River Protection sticker to affix next to their out-of-state registration before launching on freshwater.

As of March 2011, 33 inland bodies of water were known to be infested with invasive aquatic plants. Variable water milfoil (*Myriophyllum heterophyllum*), found in 27 water bodies, is the most prevalent invasive aquatic plant. Eurasian water milfoil (*Myriophyllum spicatum*), hydrilla (*Hydrilla verticillata*), and curly-leaf pondweed (*Potamogeton crispus*) are each in two water bodies. One of the curly-leaf pondweed waters also hosts the invasive European naiad (*Najas minor*), the only state water known to have two invasive aquatic plants.

During 2009 and 2010 the Department focused significant resources on two infestations highlighted in the 2010 report, Eurasian water milfoil in Salmon Lake (Belgrade) and hydrilla in Damariscotta Lake (Jefferson). Response to each infestation has included installation of plant fragment screens to prevent further spread, frequent surveys for new plants, removal of plants by hand with divers, deployment of benthic barriers to smother plants, and application of systemic herbicide.

Diver surveys of the infested area in Salmon Lake during 2010 (and 2011) reveal no re-emergence of Eurasian water milfoil. This is an encouraging finding, to be sure, but true eradication of the plant is still unlikely.

In Damariscotta Lake, some hydrilla still grows in the area of initial infestation found in 2009, but in 2011 a separate infestation was discovered in a primary tributary to the lake, approximately four miles north of the initial site. The Damariscotta Lake Watershed Association (DLWA) and the Department collaborated on response to the new infestation site including plant removal and use of benthic barriers. Management of this infestation, like all others in the state, will require partnerships between the Department and groups such as DLWA. The initial Damariscotta infestation was discovered by a volunteer trained through Maine Volunteer Lake Monitoring Program's Invasive Plant Patrol Program which is funded by revenues from the Lake and River Protection Sticker, required on all motorized watercraft launched on Maine inland water.

One piece of upbeat infestation news is the removal of one lake, 382-acre Middle Range Pond in Poland, from the list of known infestations in Maine. The Range Pond Association (RPA) diligently surveyed for and removed variable milfoil plants since the plant was first found in 2001. The Department and RPA surveyed the previously-infested area in 2011 and found no variable milfoil, the third consecutive year in which surveys failed to detect the plant. As a result, the Department removed Middle Range Pond when the annual documented infestation list was developed in March 2012.

In 2010, volunteers and paid inspectors conducted 72,428 courtesy boat inspections, surpassing the previous record high of 57,552 in 2009. Inspectors recorded at least 281 "saves" in 2010, instances where an inspector found and removed a confirmed invasive aquatic plant from a boat before entering or after leaving the water. Maine's statewide Courtesy Boat Inspection Program is managed by Lakes Environmental Association (LEA), a regional watershed protection organization based in Bridgton, under a contract with the Department. Training of boat Inspectors is done jointly by LEA and the statewide Maine Congress of Lake Associations.

The Department offers annual grants to local groups coordinating boat inspection programs and removing invasive aquatic plants from lakes and ponds. The source of funding for these grants is revenue from the Lake and River Protection Sticker. The grant program is administered by LEA through the aforementioned contract. Cash and in-kind match from local lake groups and municipalities exceeds the amount granted by the Department.

The Department worked with the Maine Milfoil Initiative (MMI), a project spearheaded by a consortium of lakes groups and housed at St. Joseph's College in Standish, Maine. After significant effort on the part of the lake groups, MMI formally began in 2009 and received federal funds in 2010 to conduct research on and assist lake groups in the control of variable water milfoil.

The diatom *Didymosphenia geminata* (didymo) still has not been documented in Maine as of December 2012. The Department and Maine Department of Inland Fisheries and Wildlife continue to coordinate on researching the risk of spread posed by felt waders and informing anglers how to reduce the risk of spreading the invasive diatom.

ESTUARIES / COASTAL WATERS

Contact: Angela Brewer, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 592-2352 e-mail: Angela.D.Brewer@maine.gov

Related Website: http://www.maine.gov/dep/water/coastal/index.html

Background

Maine has three classes for the management of estuarine and marine waters: SA, SB, and SC. Classification assignments are based on the minimum level of quality intended for each waterbody. SA waters are outstanding natural resources that receive minimal human impact, and are managed for the highest water quality of the three classes. No direct discharges of pollutants, including those from finfish aquaculture, are allowed in SA waters. SB waters are general purpose waters that are managed to attain good quality water. Well-treated discharges of pollutants with ample dilution are allowed. SC waters are managed for the lowest water quality, but must be fishable and swimmable and maintain the structure and function of the biological community. Well-treated discharges of pollutants are allowed in SC waters. Each class is managed for designated uses and each has dissolved oxygen, bacteria and aquatic life standards (see Table 4-28 below).

Table 4-28 Maine's Estuarine and Marine Waters Classification Standards

Class	Designated Uses	Dissolved Oxygen	Bacteria	Aquatic Life
SA	Recreation in and on the water Fishing Aquaculture (excludes finfish) Propagation and harvesting shellfish Navigation Habitat for fish and estuarine and marine life	As naturally occurs	As naturally occurs	As naturally occurs
SB	Recreation in and on the water Fishing Aquaculture Propagation and harvesting shellfish Industrial process and cooling water supply Hydroelectric power generation	Not less than 85% of saturation	Enterococcus of human and domestic animal origin not higher than geometric mean of 8/100ml or instantaneous level of 54/100ml from 5/15 to 9/30	Support all indigenous estuarine and marine species Discharge not to cause

Class	Designated Uses	Dissolved Oxygen	Bacteria	Aquatic Life
	Navigation Habitat for fish and estuarine and marine life		May not exceed National Shellfish Sanitation Program criteria for shellfish harvesting	closure of shellfish beds
SC	Recreation in and on the water Fishing Aquaculture Propagation and restricted shellfish harvesting Industrial process and cooling water supply Hydroelectric power generation Navigation Habitat for fish and estuarine and marine life	Not less than 70% of saturation	Enterococcus of human and domestic animal origin not higher than geometric mean of 14/100ml or instantaneous level of 94/100ml from 5/15 to 9/30 May not exceed National Shellfish Sanitation Program criteria for restricted shellfish harvesting	Maintain structure and function of the resident biological community Support all indigenous fish species

Maine law requires that once every three years, the Department review the classification system and related standards and make recommendations to the Board of Environmental Protection for any needed changes in the water quality classifications assigned to specific waterbodies. A major review of water quality standards and classifications was completed in 2009. The Department conducted statewide workshops and direct mail and telephone outreach to obtain public input and to solicit proposals for consideration to change the management classification assigned to specific waterbodies. The Board held hearings that resulted in recommendations to the Maine State Legislature for the upgrade, from Class SB to Class SA, of one marine waterbody (The Basin in Phippsburg). The current distribution of waters assigned to three marine water quality classes is summarized in Table 4-29:

Table 4-29 Area and Percentage of Estuarine and Marine Waters in Each Classification

Class	Square Miles	Percentage
SA	218	7.66 %
SB	2,599	91.32 %
SC	29	1.02 %
Total	2,846	100.00 %

This chapter provides an assessment of the degree to which water quality supports the designated uses defined by the State of Maine statutes for the protection of aquatic life. Designated uses in this chapter and in Chapter 7 (Public Health – Related Assessments) are divided into two broad use categories: protection of human health and protection of aquatic life. The protection of these uses will result in the protection of other uses (e.g. navigation, industrial process and cooling supply). Applicable monitoring results and attainment assessments are summarized within each of these two categories in this chapter as well as in Chapter 7.

Summary of Statewide Status

This Integrated Assessment report requires the assignment of each assessment unit, by Department Waterbody ID and/or Department of Marine Resources (DMR) Area, into one of five categories (see Methodology). Specific segments of waterbodies are determined to be impaired if they do not, or are suspected to not, attain one or more of the uses assigned by their classification based on criteria for that classification. In the next two years, the Department will engage with DMR in revising the way that marine water quality and biological data are reported, including the development of assessment units (similar to what is used in the ADB for freshwaters) and digitization of units and listing segments for mapping. It is anticipated that new assessment units will be used in the 2014 reporting cycle and will make assessment and reporting more consistent and easier to track.

An overall use attainment summary for 2012 is provided below and in Table 4-5.

Category 1: The 2012 assessment assigns no estuarine or marine waters to Category 1 because there were no waterbody segments that were monitored adequately to determine that all standards were being met.

Category 2: The 2012 assessment assigns an additional 5.06 square miles of estuarine and marine waters to Category 2 (fully attaining*). The Category 2 listing change is due to the delisting of a segment of the Penobscot River estuary (Reeds Brook to Marsh River) from Category 3. This segment was delisted from a Category 5 to Category 3 in 2010 due to reasonable doubt as to the presence of harvestable lobster within the upper estuary of the Penobscot River. This reasonable doubt was again supported in 2012 based on personal communications with DMR staff indicating that habitat and water quality characteristics in this segment are not favorable for lobster growth, and confirming that the DMR Lobster Management Zone does not extend as far upstream as the Marsh River outlet to the Penobscot River. For these two reasons, there is a low likelihood for tomalley consumption from lobster within this segment. Further updates to this section in terms of segment descriptions and sizes, DMR closure reasons, and notes will be updated for the 2014 reporting cycle once new assessment units have been assigned.

Category 3: The 2012 assessment removes 5.06 square miles of the Penobscot River segment previously listed for lobster tomalley consumption (see Category 2 above). Note that the 2010 report incorrectly listed this segment as 0.4 square miles, when the segment size is now correctly calculated at 5.09 square miles. The 2012 Category 3 listings are also amended based on the Category 5 listing of the 2010 Piscataqua River estuary (Kittery, Eliot, South Berwick) segment 812-1.

Category 4: Category 4-A waterbody segments carried over from the 2010 report include the Piscataqua River estuary (dissolved oxygen impairment) and all marine segments listed for fecal contamination as covered by the 2009 Statewide Bacteria TMDL. Those Category 4-A waters that were formerly listed as Category 5-B-2 for bacteria due to Combined Sewer Overflows (CSOs) are listed separately. Eliminated from this CSO-affected list is the Rockland segment with Waterbody ID 722-40 based on the removal of a municipal discharge point at the Town Landing in the Fall of 2010. Due to this modification by the Wastewater Treatment Facility, Rockland is no longer considered a CSO community. Note that Enforcement Control dates and causes have been updated for all wastewater treatment facility's listings.

Categories 4-B-1 and 4-C remain unchanged for estuarine and marine waters. Further updates to this section in terms of segment descriptions and sizes will be updated for the 2014 reporting cycle once new assessment units have been assigned.

Category 5: The 2012 assessment assigns an additional 4.07 square miles to the Category 5-A listings based on Marine Life Use Support impairments within the Piscataqua River estuary (Eliot, Kittery) (1.91 square miles) and Portsmouth Harbor (south and west of Gerrish Island) (2.16 square miles). Both segments were listed in Category 3 in 2010 as part of one larger segment (Waterbody ID 812-1: Piscataqua R. Estuary, Kittery, Eliot, So. Berwick). The Piscataqua River Estuary and Portsmouth Harbor areas were moved to Category 5 for this reporting cycle as a result of additional available data and observations that indicate impairment based on a greater than 20% areal cover loss of eelgrass from 1996 to 2010, as documented by New Hampshire Department of Environmental Services aerial photography and groundtruthing surveys. Sufficient evidence exists for the Piscataqua River Estuary segment to attribute an impairment cause of nutrient/eutrophication biological indicators; however, the 'cause unknown' designation for the Portsmouth Harbor segment acknowledges that insufficient data exist to determine whether or not the marine life use is impaired due to pollutants.

No waterbody segments are listed in Category 5-B for bacteria impairment since the approval of the 2009 Statewide Bacteria TMDL. For Category 5-D, this report does not list specific waterbody segments covered by the statewide lobster tomalley consumption advisory that is in place for all Maine estuarine and marine waters capable of supporting lobster due to presence of PCBs and dioxins. Category 5-D remains unchanged at 2,846 square miles for the 2012 report. The advisory is based on probability data that shellfish (lobster tomalley) inhabiting estuarine or marine waters may exceed the advisory action level for these substances.

As with any assessment of this kind, the identification of impaired waters cannot be considered complete but rather is a reflection of the findings (to date) relative to the level of effort expended by the agency and other cooperating contributors.

Causes and Sources of Impairment in Categories 4 and 5

Cause and stress type information is provided in Table 4-14, while information on sources of impairment is provided in Table 4-19. Causes include impairments due to elevated bacterial counts (fecal contamination with *Enterococcus* as the indicator organism), low dissolved oxygen, elevated nutrients and/or biological indicators of eutrophication, or elevated toxics concentrations. These causes are presented below in greater detail.

Bacteria

The intent of the Maine Statewide Bacteria Total Maximum Daily Load (TMDL) was to "support action to reduce public health risk from waterborne disease-causing organisms." Non-pathogenic bacteria, including Enterococci in the marine environment, are used as indicator organisms for fecal pathogens in water. Waterborne pathogens (bacteria, viruses, etc.) enter surface waters from a variety of sources, including human sewage and the feces of warm-blooded wildlife. These pathogens can pose a risk to human health due to gastrointestinal illness through different exposure routes, including contact with and ingestion of recreational waters, ingestion of drinking water, and consumption of filter-feeding shellfish (clams, mussels, etc.). Additionally, the TMDL was intended to identify waterbody segments that were not meeting attainment of the designated uses of swimming and shellfishing based on associated water quality criteria.

Improved management of bacterial sources of impairment that cause shellfish closures will result from implementation of the approved 2009 Statewide Bacteria TMDL. For the 2012 reporting cycle, bacterial contamination was the listed cause of impairment for approximately 159 square miles of estuarine waters (excluding those listed based on Combined Sewer Overflows (CSOs). Bacterial contamination is currently monitored by the Department in selected urban streams, the Maine Healthy Beaches program on swimming beaches and occasionally in tidal waters influencing bacterial loads to recreational areas, and the Department of Marine Resources (DMR) to determine appropriate shellfish harvest closures (see also Chapter 7). All monitoring programs as well aid in the identification of fecal contamination from point and non-point sources as possible through local knowledge, Department permits, and applied techniques such as Microbial Source Tracking.

DISSOLVED OXYGEN

Eight waterbody segments are listed as impaired (six in Categories 4-A, 4-B-1 and 4-C, and two in Category 5-A) due to lack of attainment of state dissolved oxygen standards. The reasons for non-attainment are varied and include loadings from point and non-point sources in waterbody segments with insufficient flow, factors such as benthic respiration (sediment oxygen demand), and restriction of water circulation caused by man-made structures.

- The estuarine portion of the lower Salmon Falls/upper Piscataqua River has a completed TMDL; however, implementation in ME and NH is incomplete. The NH Department of Environmental Services continues to monitor a station within the tidal portion of the Salmon Falls, and has high resolution sonde data that indicate dissolved oxygen values consistently below ME state criteria (<85% saturation) from mid-July through mid-October 2009 and mid-July through mid-September 2010. Note that some portion of the July through September 2010 data is not reliable given either a probe failure or suspect values.
- The estuarine portions of the Ogunquit River, Goosefare Brook, Medomak River and St. George River are not known to have been monitored for dissolved oxygen since the 2010 reporting cycle, so no additional information on attainment is available since relocation of municipal point sources.
- The upper New Meadows estuary and “Lake” do not meet dissolved oxygen standards due to the partial impoundment from the Old Route 1 (Bath Rd./State Rd.) causeway at the Brunswick-West Bath town line, and further restriction of flow from the causeway formed by the current Route 1. A modeling study (2007) and feasibility study (2006) have been conducted to better understand tidal restriction causes, determine solutions, and predict potential recovery, including dissolved oxygen impacts, with renewed tidal flow. There are currently no known plans to restore tidal flow upstream of the Old Route 1 causeway.
- The draft Royal River Waste Load Allocation Study recommended delisting the estuary for dissolved oxygen due to potential natural causes. The estuary will remain in Category 5 due to uncertainty of the low dissolved oxygen cause(s).

- The draft Mousam River Waste Load Allocation Study indicated that the majority of oxygen loss is due to benthic respiration and circulation factors and that the Kennebunk treatment facility has only a very marginal effect. Suggested upgrades to the facility including biological treatment improvements have been completed and minimum summer DO limits for effluent have been established. However, no further data collection within the receiving water has occurred since the upgrades.

Generally, data from various studies and volunteer monitoring programs show dissolved oxygen levels along the coast to be adequate to protect marine life. As presented in the Casco Bay Estuary Partnership's 2010 State of the Bay report, the Friends of Casco Bay have determined that approximately 90% of all dissolved oxygen data from Casco Bay (7,600+ measurements from 1993-2008) indicate values above 7.2 mg/L, with periodically lower values generally located in warmer estuarine waters such as Portland Harbor, Maquoit Bay, and the Royal, New Meadows, and Harraseeket Rivers. While some estuaries have dissolved oxygen levels that do not meet their classification criteria, the Department has concluded that some of these instances are a result of natural processes, such as in Harpswell Sound in the vicinity of the long-term water quality buoy owned by Bowdoin College and operated by the University of Maine.

NUTRIENTS/EUTROPHICATION BIOLOGICAL INDICATORS

In Maine between Kittery and Bar Harbor there is now evidence of nutrient enrichment. From Bar Harbor to Eastport, the principal source of nitrogen is from the Gulf of Maine, while the more developed areas of the Maine coastline along Penobscot Bay, Casco Bay and the southern bays through Kittery exhibit nitrogen predominantly from freshwater inflows, wastewater, and stormwater runoff, although groundwater nitrogen inputs may be more substantial in coastal areas with sandy soils. While nitrogen is consistently conveyed through water, atmospheric deposition can also provide a dominant nitrogen source in more rural areas of Maine.

Typical biological indicators of nutrient enrichment in Maine's marine waters include phytoplankton, macroalgae and eelgrass. While spring, summer and fall blooms of non-toxic phytoplankton (diatom and dinoflagellates) have been shown to coincide with water column nutrients, a 2010 report prepared for the Casco Bay Estuary Partnership concluded that based on 2006-2008 data, bloom intensity of the toxic red tide organism, *Alexandrium fundyense*, in Casco Bay did not correlate with anthropogenic, land-derived nutrient loading. Anthropogenic nitrogen has been shown to fuel growth of nuisance macroalgae, especially of the genus *Ulva* (formerly *Enteromorpha*). Proliferation of opportunistic macroalgae generally occurs when favorable temperature, irradiance and nutrient availability coincide. While nuisance macroalgal growth often occurs on protected shorelines with shallow slopes such as mudflats, excessive growth can also be observed along more exposed shorelines. Opportunistic macroalgal growth is a natural occurrence, although widespread blooms covering intertidal and shallow subtidal shorelines can smother organisms living in the sediment and result in production of toxic concentrations of hydrogen sulfide by bacteria. The DEP and Friends of Casco Bay are currently assessing the reliability of nuisance macroalgal blooms as indicators of nutrient pollution in Maine's estuaries.

The success of eelgrass populations is strongly influenced by light availability, which can be limited by the presence of epiphytic cover or when water column turbidity increases as a result of suspended organic material that feeds on excess nutrients.

The State of New Hampshire had listed the Piscataqua River Estuary (Lower Piscataqua River, NH Assessment Units NHEST600031001-02-01 and NHEST600031001-02-02) on its 2010 303(d) list for Aquatic Life impairment due to >20% loss of eelgrass. Since DEP's 2010 Category 3 listing of the estuarine portion of the Piscataqua River and Portsmouth Harbor, the DEP has more completely assessed available eelgrass areal coverage and density data from the NH Department of Environmental Services (NHDES) and completed field surveys to observe and groundtruth eelgrass distribution and perceived impacts on the Maine portion of the lower Piscataqua River and Portsmouth Harbor. Based on these assessments, the DEP has divided the Piscataqua River and Portsmouth Harbor into two assessment units (Waterbody IDs 812-2 and 812-3) bounded on the west by the state line. The assessment unit division was determined as a result of relative influences of the River and Gulf of Maine waters, land use and shoreline development, and exposure to point and non-point source discharges. For the 2012 reporting cycle, the DEP determined that:

- Eelgrass within the Piscataqua River segment has declined from 299.1 acres to 6.8 acres (98% loss) from 1996 to 2010, and that sufficient data exist to assign a Category 5 listing for Marine Life Use Support impairment with cause of nutrient/eutrophication biological indicators.
- The Portsmouth Harbor segment west of Gerrish Island has also demonstrated considerable eelgrass loss, with a 49% decrease in acreage from 1996 to 2010 and a 62% decrease during the same time period when adjusted for decline in both areal coverage and plant density. While the DEP acknowledges the loss of eelgrass within this area and therefore the Category 5 listing, a 'cause unknown' designation has been assigned until further data collection (planned for summer 2014) and analyses can be completed to investigate potential reasons for population decline.

Future evaluations of nutrient data and impacts will be facilitated by development of state nitrogen criteria for Maine's marine waters and more specifically for the Piscataqua River and Portsmouth Harbor, NHDES draft nitrogen criteria, and nutrient load reductions from licensed dischargers and non-point source contributors.

Toxics

The general category of toxics is by far the most widespread cause of impairment in marine waters in the State. The toxics subcategories of Polychlorinated Biphenyls (PCBs) and dioxins impaired all 2,846 square miles of marine waters that were assessed in 2012 due to the statewide lobster tomalley consumption advisory. Industrial point sources have historically been the largest contributing source category for dioxin. Some industrial loads that are treated through municipal point sources are additional sources although pretreatment is required in most cases. These industrial sources account for most of the shellfish (lobster tomalley) consumption listed waters where dioxins remain the primary contaminant. Due to changes in bleaching at the state's bleached kraft pulp and paper mills, as of 2005 the mills were found to be no longer discharging measurable amounts of dioxin. As a result, concentrations in fish are declining, although elevated levels remain in fish in some estuarine portions of rivers due to historical discharges.

The removal of combined sewer overflows over the past several years has improved environmental quality in some of Maine's harbors. However, many locations, for example Kittery, Portland, Boothbay Harbor, Rockland and Searsport, still have toxic pollution problems from past activities. These activities include papermaking, shipbuilding, energy production (e.g., gasworks), tanning, and metal working. Toxics derived from these industries include dioxin, pesticides such as DDT, metals, and PCBs. Landfills were also often located on the coast (e.g., Eastern Promenade in Portland) and continue to be sources of toxic pollutants. More recent elevations in toxic pollution, especially from Polycyclic Aromatic Hydrocarbons (PAHs) and metals (e.g., lead, copper, zinc), are related to increases in urban development and boat related activities. Direct untreated discharges through combined sewer overflows still deliver toxic pollutants and bacteria to Maine's coastal waters during and after storms. Some toxic pollutants (e.g., PAHs, mercury) are deposited from the air.

Surface Water Ambient Toxics (SWAT) Monitoring Program

Contact: Barry Mower, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-0291 email: Barry.F.Mower@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/toxics/swat/index.htm

Please refer to the website for annual reports on this subject.

Maine's Surface Water Ambient Toxics (SWAT) monitoring program was established in 1993 (38 MRSA §420-B) to determine the nature, scope and severity of toxic contamination in the surface waters and fisheries of the State. The authorizing statute states that the program: 1) must comprehensively monitor the lakes, rivers and streams and marine and estuarine waters of the State on an ongoing basis, 2) must incorporate testing for suspected toxic contamination in biological tissue and sediment, 3) may include testing of the water column, 4) must include biomonitoring and the monitoring of the health of individual organisms that may serve as indicators of toxic contamination, and 5) must collect data sufficient to support assessment of the risks to human and ecological health posed by the direct and indirect discharge of toxic contaminants. The marine portion of the SWAT program has utilized blue mussel, softshell clam, and American lobster tissue as indicators of toxic contamination likely to affect human and ecological health.

In 2009, blue mussel tissue from 16 sites along the Maine coast was analyzed for contaminants including metals, mercury, PAHs, PCBs, and pesticides. Lead in mussel tissue exceeded National Status and Trends (NS&T) Musselwatch 85th percentile concentrations at five sites and mercury at 12 sites. PAHs exceeded national 85th percentile concentrations at two sites. One additional site in the Sheepscot River showed elevated concentrations of PAHs when alkylated PAHs were included in the analysis. PCB concentrations at two of eight sites exceeded the Gulf of Maine 85th percentile concentration, though no sites exceeded the national 85th percentile concentration. Organochlorinated pesticide concentrations in mussel tissue were generally low at Maine sites compared to national data. New sampling for organophosphate, triazine, pyrethroid, and organonitrogen pesticides revealed very low concentrations in mussels (non-detects) at all stations sampled.

In 2010, blue mussel tissue from three and softshell clam tissue from one coastal Maine sites were analyzed for contaminants including metals, mercury, PAHs, PCBs, and organochlorinated pesticides. Additionally, American lobster hepatopancreas and muscle tissues from 19 sites were analyzed for PAHs, coplanar PCBs, and dioxins and furans. Lead in mussel tissue exceeded the national 85th percentile concentration at two sites, both of which as well as clam tissue from one site exceeded the Maine Center for Disease Control's (MCDC) fish tissue action level (FTAL) for lead in finfish. Mercury in mussel tissue exceeded the national 85th percentile concentration at all three sites. PAHs in mussel and clam tissues did not exceed the national 85th percentile and were not considered to be elevated. PCB concentrations in mussel tissue at one site exceeded the MCDC cancer FTAL, while clam tissue PCBs were below the MCDC cancer FTAL. Organochlorinated pesticide concentrations in mussel and clam tissue were low at Maine sites compared to national data, and pesticide levels were safely below MCDC FTAL values. Dioxin, furan, and coplanar PCB concentrations remain very high in lobster hepatopancreas (also known as tomalley), indicating the need to continue the MCDC advisory against consumption of lobster hepatopancreas. Concentrations of these contaminants in lobster muscle tissue remain very low in comparison to tomalley and to the MCDC FTAL, indicating lobster meat is still safe to eat.

Gulfwatch Contaminants Monitoring Program

Contact: Jim Stahlnecker, DEP BLWQ, Division of Environmental Assessment

Tel: (207) 215-6954 email: James.Stahlnecker@maine.gov

Related Website: http://www.gulfofmaine.org/gulfwatch/

In addition to the Surface Water Ambient Toxics (SWAT) program, the DEP participates in the Gulfwatch Contaminants Monitoring Program, a part of the Gulf of Maine Council on the Marine Environment. In addition to the Maine coastline, monitoring occurs across Massachusetts, New Hampshire, New Brunswick and Nova Scotia, and utilizes the blue mussel, *Mytilus edulis*, as an indicator for habitat exposure to contaminants. Mussel tissue samples are analyzed for heavy metals, mercury, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCBs) congeners, and organochlorinated pesticides. Contaminant accumulation in mussel tissue represents the biologically available proportion that is not always apparent from measurement of contaminants in other environmental matrices such as water, sediment, and suspended particles. Gulfwatch has sampled over 50 sites across the Gulf of Maine since 1991, including 13 regularly sampled sites on the Maine coast. Annual reporting includes analysis of spatial and temporal trends and identifies potential outliers in order to provide investigators and other interested persons with contemporary information concerning water quality in the Gulf of Maine, as reflected by uptake into resident shellfish.

In 2009, blue mussel tissue was sampled from eight sites along the coast of Maine, and revealed mean or composite values in excess of the National Status and Trends (NS&T) Musselwatch 85th percentile concentrations for lead (3 sites) and mercury (5 sites). No PAH, PCB or pesticide concentrations from any Maine site were higher than the NS&T 85th percentile, although the second and third highest values for total PAHs in the Gulf of Maine were from the Portland Harbor and Boothbay Harbor sites, and were determined to be primarily of pyrogenic origin. The third highest total PCB value from the Gulf of Maine was from Portland Harbor. The full data report can be viewed at http://www.gulfofmaine.org/gulfwatch/data/files.php. A data report from 2010 samples collected from six sites along the Maine coast is not yet available.

BioDiversity Research Institute

Contact: Wing Goodale, BioDiversity Research Institute, Deputy Director

Tel: (207) 839-7600 email: wing_goodale@briloon.org

Related Website: http://www.briloon.org/

In 2009, the BioDiversity Research Institute expanded upon the 2007 and 2008 broad-based contaminant study on Maine birds funded in part by the Department's SWAT program, by measuring both historical and emerging chemicals. Out of the 23 species studied in the first two years, osprey (*Pandion haliaetus*) foraging in Casco Bay were selected for additional study in 2009 because they act as bioindicators of the marine habitat. The compounds analyzed in ten eggs collected in Casco Bay in 2009 and 7 eggs collected in 2007 were mercury (results pending), polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), perfluorinated compounds (PFCs), organochlorine pesticides (OCs), decabromodiphenyl ether (Deca-BDE) and perfluorooctane sulfonate (PFOS). Preliminary findings are:

- PCBs, PBDEs, PFCs, and OCs were detected in all samples.
- Deca-BDE was found in ten out of 12 eggs in Casco Bay, indicating that deca is bioaccumulating in wildlife.
- PFOS level on Flag Island had the highest level detected in Maine wildlife - 75% of the eggs had PFOS levels above effects thresholds established for chickens.
- Levels of PBDEs and PFCs tended to be higher in Casco Bay than mid-coast Maine.
- The osprey samples did not show a specific spatial pattern, suggesting that within the marine ecosystem, contaminant levels may be dictated by point sources, watershed characteristics, and/or food web dynamics.
- Like the 2007 and 2008 results, PCB, PBDE, PFC, and OC levels are positively correlated, indicating that birds with high levels of one compound tend to have higher levels of the others. PBDEs and PCBs have one of the strongest relationships.

The full report can be obtained at: http://www.briloon.org/contaminants/.

Ocean acidification

Ocean acidification (OA) is a topic of mounting concern worldwide as a consequence of rising atmospheric CO_2. For the 2008 and 2010 Integrated Report and again for this 2012 report, the Center for Biological Diversity (CBD, San Francisco, CA) has requested that coastal states list their coastal waters as threatened or impaired, in Category 5, due to information that has been gathered indicating marine ecosystems may already be experiencing declines in ocean pH. As one of the conditions of a settlement agreement with the CBD, the USEPA issued a memorandum on November 15, 2010, describing how states can move forward, where OA information exists, to address OA during the 2012 listing cycle using the current 303(d) Integrated Reporting framework. At the same time, this memorandum acknowledged that in the case of OA, information is largely absent or limited at this point in time to support the listing of

waters for OA in many states. The following EPA webpage includes a copy of the signed memorandum, "Integrated Reporting and Listing Decisions Related to Ocean Acidification":http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/oa_memo_nov2010.cfm.
The Maine Department of Environmental Protection (DEP) acknowledges that OA and its effects on pH and marine life have been documented in other areas of the world's estuarine and coastal waters and may be of concern in Maine's marine waters. While the DEP has not established a monitoring program specifically targeted at identifying OA and its effects on water quality criteria and designated uses, the DEP has been and continues to be in contact with environmental organizations and universities whose researchers are conducting focused studies on pH and effects on shellfisheries within Maine jurisdictional waters.

Maine's DEP reviewed the articles submitted by CBD and determined that none of them provided sufficient information demonstrating that Maine's marine waters are failing to attain (or will not be in attainment by the next listing cycle) Maine's water quality standards, including those for protection of pH, marine life use, and antidegradation. Waters are listed in Category 5 as threatened when there is an expectation that impairment of a designated use is anticipated in the next listing cycle. Maine marine waters are not expected to show impairment of water quality criteria (pH) or relevant designated uses (marine life use support) in that timeframe. Nevertheless, Maine agrees that OA may be a significant concern in the future.

Water quality and designated uses

Pursuant to the General Provisions of the Maine Revised Statutes (38 MRSA §464), the Department may not issue a water discharge license if "Discharge of pollutants to any water of the State that violates sections 465, 465-A and 465-B, except as provided in section 451;…causes the "pH" of estuarine and marine waters to fall outside of the 7.0 to 8.5 range". The DEP regularly monitors marine waters for multiple water quality parameters, including pH, in the vicinity of permitted discharges based on established DEP priorities for assessing receiving waterbodies for attainment of water quality criteria. The monitoring conducted by the DEP is most often intended to characterize ambient conditions. Monitoring efforts conducted to date by the DEP do not indicate failure to attain pH criteria in marine waters because data values fall within the allowable pH range.

The CBD 2011 letter also indicates that Maine must list marine waters as threatened and impaired based on aquatic life threats and impairments caused by OA. The referenced designated use of aquatic life can be addressed by the Maine Revised Statute that states that classified marine waters "…must be of such quality that they are suitable for the designated uses of recreation in and on the water, fishing, aquaculture, propagation and harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other estuarine and marine life. The habitat must be characterized as unimpaired." (38 MRSA §465-B).

Impacts of OA on marine life and habitat would be most likely manifested by acidic sediments and bottom waters, and reduced success of shellfish recruitment and shell formation. As the regulatory agency of commercially-harvested species, shellfish and relevant habitat are mostly monitored by the Maine Department of Marine Resources

(DMR), but also by municipal shellfish wardens and as part of pilot and laboratory studies being coordinated by the Casco Bay Estuary Partnership and St. Joseph's College, respectively. No supporting data were submitted to the DEP as part of the 303(d) assessment process, and therefore, were not readily available for preparation of the 303(d) list. Further, studies referenced in the CBD letter generally pertain to 1) trends in global carbon emissions, 2) oceanic impacts (pH, carbonate chemistry, calcification in pelagic organisms) of elevated atmospheric CO_2, or 3) lowered pH, salinity and temperature interactions and extrapolated impacts on shellfish of varying species and life stages. None of these references directly relate to the condition of Maine's waters due to the global location, spatial scale of comparison and/or the applicability of laboratory experimental results. As such, no demonstrated impairments to pH, marine life or habitat have been documented based on the contents of the CBD letter to support a threatened or impaired listing.

More specifically, the CBD letter states that coastal estuaries and temperate nearshore ecosystems are especially susceptible to changes in pH, and that calcifying organisms in particular are already threatened in Maine's coastal waters by OA. Casco Bay was identified by the CBD as being especially vulnerable to OA. Of all articles submitted by the CBD, Waldbusser et al. (2010) was flagged as having potential information relevant to Maine's marine waters; however, it was determined that the article's contents were insufficient to make a listing determination (see "State Assessment" below).

Summary of Waldbusser et al. (2010):

Waldbusser et al. (2010) assessed linear regressions of Chesapeake Bay water temperature, salinity, and pH data, grouped into mesohaline and polyhaline sites, from April-September of 1985-2008. Shell calcification rates were then measured on cultured eastern oysters in a factorial experiment with differing temperature, salinity and pH treatments to determine Total Alkalinity (TA) change over time as a measure of calcification rate. From historical data analyses, the authors observed a significant seasonal decline in average daytime pH within polyhaline (>18 ppt) surface waters, but not in mesohaline (5-18 ppt) surface waters. From the laboratory experiment, significant interactions of pH with salinity or temperature were determined, and calcification rates decreased steadily with decreasing pH under the lower salinity (16 ppt) and lower temperature (20℃) treatments (Waldb usser et al. 2010). Waldbusser et al. (2010) state that "the importance of pH versus saturation state versus pCO_2 on calcification will likely vary with species, life stage, mode of calcification, and the degree of departure from what are currently poorly quantified thresholds to changes in carbonate variables."

State Assessment:

Physical conditions in the Chesapeake Bay differ from those in Maine marine waters. In the Maine intertidal and shallow subtidal environment, shellfish are subject to wider swings in temperature and salinity based on exposure to solar radiation and the relative influences of freshwater inputs from rivers and streams, surface conveyance and groundwater flow, and more saline water from flood tides and eddies from offshore currents. The lowered calcification rates of eastern oyster shells measured in the laboratory by Waldbusser et al. (2010) as a result of lower pH, polyhaline and higher water temperature conditions, do not provide sufficient cause and effect for shellfish impacts of OA in Maine's marine waters.

Antidegradation

Maine's antidegradation policy states that "Existing in-stream water uses and the level of water quality necessary to protect those existing uses must be maintained and protected." (38 MRSA §464). Based on CBD's letter, it is not clear which waters are the focus of the antidegradation concerns and therefore existing uses and necessary water quality cannot be appropriately assessed. Further, the CBD letter does not indicate which components of the antidegradation policy are not in compliance with Maine's water quality standards. Nevertheless, the water quality data the DEP has in its possession do not suggest that existing uses in Maine's marine waters are not being met.

CHAPTER 5 WETLANDS

Contact: Jeanne DiFranco, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 699-8345 email: Jeanne.L.DiFranco@maine.gov

Related Websites: www.maine.gov/dep/water/wetlands/ and http://www.maine.gov/dep/water/monitoring/biomonitoring/index.html

BACKGROUND

Federal Regulation

EPA Contact: Beth Alafat, EPA Region I, Office of Ecosystem Protection

Tel: (617) email: alafat.beth@epa.gov

Related Website: (EPA) http://water.epa.gov/type/wetlands/

ACE Contact: Ruth Ladd, ACE New England Region, Regulatory Division

Tel: (978) 318-8818 email: ruth.m.ladd@usace.army.mil

Related Website: (ACE) http://el.erdc.usace.army.mil/wetlands/ and

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx

Lead Agencies: EPA Region I and the U.S. Army Corps of Engineers (ACE) – Maine Project Office

The Clean Water Act provides for wetland protection and regulation through a number of federal programs, most of which are administered by EPA. The Section 404 regulatory program is jointly administered by EPA and the U.S. Army Corps of Engineers. Key elements of the federal wetland protection framework are described in more detail in the Chapter 5 of Maine's 2006 Water Quality Assessment.

Wetlands Regulatory Program in Maine's Organized Towns

Contact: Mark Bergeron, DEP BLWQ, Division of Land Resource Regulation (DLRR)

Tel: (207) 215-4397 email: Mark.Bergeron@maine.gov

Related Website: (NRPA) http://www.maine.gov/dep/land/nrpa/

Maine DEP regulates wetland alterations in the organized townships under the Natural Resources Protection Act 38 M.R.S.A., Section 480-A et seq. (NRPA) and Chapter 310 Wetlands and Waterbodies Protection Rules. Additional information on the DEP wetlands regulatory program is available at the above web site.

Natural Resources Regulatory Update

A number of changes were made to the Natural Resources Protection Act (NRPA) that may affect how wetlands are regulated. Under maintenance dredging, an applicant may submit with his or her application an update of an earlier analysis of alternatives if it was completed within the last 10 years, and a permit for maintenance dredging may be renewed with a permit by rule if the proposed area was dredged within the last 10 years and the amount of material dredged does not exceed the amount in the individual permit. The existing maintenance and repair of structures exemption in NRPA was separated in a new section on the maintenance, repair and replacement of a stream crossing. A permit is not required for the repair, maintenance or replacement of an existing crossing and related construction activities provided certain conditions are met, including using open-bottom culvert or embedding closed culverts into the stream substrate, adding riprap on side slopes or culvert ends, and removing debris and blockages within the crossing structure and at its inlet and outlet. The storage of lobster traps and related fishing equipment on a pier was added as an exemption in NRPA.

For vernal pools, a landowner will not be subject to regulation if the vernal pool is not on the property or under the control of the landowner. If only a portion of the vernal pool is on the property of the landowner and a landowner does not have permission to access the abutting property, only that portion of the vernal pool that is on the landowner's property may be counted for purposes of determining significance. A Department determination that a vernal pool is not significant remains valid regardless of timeframe. Additionally, an artificial vernal pool created in connection with a compensation project is exempt.

The Maine Legislature directed the Department to include provisions for activities within high or moderate value Inland Wading Bird and Waterfowl habitat to be eligible for Permit by Rule. These changes were enacted in 2012.

Wetlands Regulatory Program in Unorganized Territories

Contact: Marcia Spencer-Famous, Senior Planner, DAFC, Land Use Planning Commission

Tel: (207) 287-4933 email: Marcia.Spencer-Famous@maine.gov

The Maine Land Use Planning Commission (LUPC) uses a land use planning approach to regulate wetlands in unorganized portions of the State, in accordance with the provisions of Title 12, Sections 681-689 (Use Regulation) and Chapter 10 of LURC rules (Land Use Districts and Standards). Details about LUPC's wetlands regulatory program may be found in Chapter 5 of Maine's 2006 Water Quality Assessment, or by contacting Marcia Spencer-Famous.

DEVELOPMENT OF WETLAND WATER QUALITY STANDARDS

Contact: Jeanne DiFranco, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 699-8345 email: Jeanne.L.DiFranco@maine.gov

Related Websites: (EPA)

(Wetland Water Quality) www.epa.gov/owow/wetlands/regs/quality.html

(General Water Quality Standards) www.epa.gov/ost/standards/

Maine's Water Classification Program:

In Maine, wetlands are included in the definition of "Waters of the State" contained in the Protection and Improvement of Waters Act, 38 M.R.S.A. Section 361-A, and are further defined as either "fresh surface waters" or "estuarine and marine waters". As waters of the State, wetlands are subject to all pertinent provisions of the Maine Water Classification Program statute (38 M.R.S.A. Section 464 et al.) including designated uses, narrative biological criteria and the State's anti-degradation policy. Wetlands that are part of great ponds or natural lakes and ponds less than 10 acres in size are considered GPA waters. All freshwater wetlands not classified as GPA waters are classified under Sections 467 and 468 (Classification of Major River Basins and

Classification of Minor Drainages) according to the drainage basin in which they occur and the classification of associated water bodies. Where not otherwise specified, wetlands assume the default classifications listed for tributaries, since virtually all wetlands in the State drain to other water bodies via surface and/or ground water. Coastal wetlands are classified according to the provisions of 38 M.R.S.A. Section 469 (Classification of Estuarine and Marine Waters).

Narrative Aquatic Life Use Criteria:

The following is a summary of pertinent narrative aquatic life criteria:

Class GPA waters, including wetlands associated with great ponds and natural ponds and lakes less than 10 acres in size:

> Habitat for fish and aquatic life must be characterized as natural. Must have stable or decreasing trophic state, subject to natural fluctuations, and be free of culturally induced algal blooms which impair use and enjoyment.

Fresh surface waters not classified GPA, including wetlands associated with rivers and streams:

> Class AA: Habitat for fish and aquatic life must be characterized as free-flowing and natural. Aquatic life shall be as naturally occurs.
>
> Class A: Habitat for fish and aquatic life must be characterized as natural. Aquatic life shall be as naturally occurs.
>
> Class B: Habitat for fish and aquatic life must be characterized as unimpaired. Must support all indigenous aquatic species without detrimental changes in the resident biological community.
>
> Class C: Some changes to aquatic life allowed. Must support all indigenous fish species. Structure and function of the resident biological community must be maintained.

Wetland Numeric Biocriteria Development

The DEP Biological Monitoring Program assesses the condition of rivers, streams and freshwater wetlands by evaluating resident aquatic macroinvertebrate and algal communities. River and stream biomonitoring data have been used for many years to inform a variety of resource management activities and regulatory programs, supported by the development of numeric biological criteria based on sound statistical modeling. In recent years, requests to the Biomonitoring Program for assessments of wetland water quality and ecological condition have significantly increased. In response, DEP biologists have developed a draft linear discriminant model (LDM) to assess freshwater wetland macroinvertebrate communities by predicting attainment of tiered aquatic life use criteria described in Maine's water quality standards. Sites included in the LDM are typically lacustrine and riverine fringe wetlands having emergent and/or aquatic bed vegetation. DEP also developed macroinvertebrate inference models for selected environmental stressors, individual taxa tolerance values, and a community level invertebrate tolerance index.

Although Maine has narrative biological criteria for all surface waters including wetlands, DEP biologists rely on expert judgment to interpret the criteria for wetlands. When implemented, the LDM will serve as the basis for wetland-specific numeric criteria, and will greatly enhance the ability of the Biomonitoring Program to provide data users with consistent, standardized assessments of wetland condition and impacts from human activities. Numeric biological criteria will help DEP to fully integrate wetlands into its water quality monitoring and assessment program and fulfill federal requirements for wetland monitoring, assessment and water quality standards under the Clean Water Act.

To date, DEP has focused on biocriteria development for wetland macroinvertebrates, and needs to build assessment capability for additional biological assemblages. The use of multiple biological indicators including macroinvertebrates, algae and plant communities will provide important tools to supplement current assessment methods. These additional tools will enable DEP to evaluate impacts from a wider array of environmental stressors, and will allow the Biomonitoring Program to conduct monitoring and assessment on more types of wetlands. The Biomonitoring program has a substantial amount of existing wetland algae data which will be analyzed over the next two years to develop biological metrics so these data may be used to assess wetland condition. DEP also plans to explore options to incorporate vegetative indicators into its wetland monitoring and assessment program. This may include application of the Floristic Quality Assessment Index developed through the New England Biological Assessment of Wetlands Workgroup (NEBAWWG).

INTEGRITY OF WETLAND RESOURCES

Contact: Jeanne DiFranco, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 699-8345 email: Jeanne.L.DiFranco@maine.gov

Related Website:
http://www.maine.gov/dep/water/monitoring/biomonitoring/index.html

Wetland Biological Monitoring and Assessment

Wetland biological monitoring and assessment are performed by DEP's Biological Monitoring Program in the Division of Environmental Assessment. Wetland biomonitoring is coordinated with the State's river and stream biomonitoring program using a 5-year rotating basin schedule. DEP conducts sampling for aquatic macroinvertebrates, epiphytic algae and phytoplankton. Associated physical and chemical data are obtained through field measurements and analysis of water samples. Habitat descriptions, Cowardin classification, hydrogeomorphic setting, substrate, and dominant plant species/community type are also documented. In addition, the DEP Biomonitoring Program uses a Human Disturbance Score as part of a rapid assessment of environmental stressors. This information is used to characterize relative levels of human disturbance, identify sources and causes of degradation, and verify that candidate reference wetlands are actually minimally-disturbed. Currently, annual monitoring is focused primarily on emergent and aquatic bed wetland habitat, including freshwater lacustrine and riverine fringe wetlands. Additional wetland types may be monitored in the future as resources allow.

Wetland Monitoring and Assessment Activities for 2010 and 2011

In 2010, DEP conducted biological monitoring and assessment of 25 wetland sites, focusing on southern Maine basins including the Presumpscot and Saco River watersheds. DEP also conducted wetland monitoring in Baxter State Park as part of an initiative to obtain baseline condition assessments of the park's aquatic resources. Biological monitoring in 2011 was focused in the Penobscot River basin and included 19 wetland sites.

The DEP Biological Monitoring Program also participated in EPA's National Wetland Condition Assessment (NWCA) during the summer of 2011. The NWCA is a probability-based survey designed to produce regional and national estimates of wetland ecological integrity and rank common environmental stressors causing wetland degradation. DEP served as Maine's coordinating agency for the NWCA, and partnered with the Wells National Estuarine Research Reserve and the Maine Natural Areas Program to intensively sample 14 sites across the State. DEP biologists were actively involved in development and review of the NWCA study design and field protocols, and will continue to provide input during the data analysis and assessment phase of the project through participation in EPA's National Wetlands Monitoring and Assessment Work Group. Additional information about the NWCA may be found at http://water.epa.gov/type/wetlands/assessment/survey/index.cfm.

Summary of Wetland Aquatic Life Use Attainment

Aquatic life use attainment decisions for wetlands included in the 2012 Integrated Report are based on expert judgment of DEP biologists using statutory narrative aquatic life use criteria described above as guidance. DEP biologists examined macroinvertebrate data for each wetland site sampled to evaluate structure and function of the resident biological community, and assigned an attained water quality class by consensus. For Category 3-5 wetlands that are located in a river/stream or lake/pond (e.g. a wetland that occurs in a slow-flowing section of a stream), any impairments, for example to the fish consumption use, that are listed for the related river/stream or lake/pond assessment unit (AU) are also assigned to the wetland AU. For Category 3-5 wetlands that are not located in a river/stream or lake/pond, DEP biologists will decide on a case-by-case basis whether any other impairments should be carried over or not.

EPA requires that each assessment unit is placed into one of five categories (Section 4-1, Assessment Methodology). A summary of wetland attainment status follows, and also appears in Table 4-5. Information on the status of individual wetland assessment units may be found in Appendix IV: Maine Wetlands Assessment.

Category 1: Wetlands attaining all designated uses and water quality standards, and no use is threatened. No wetland segments are assigned to Category 1 since present assessment only addresses attainment of aquatic life use. Other designated uses were not evaluated and the DEP is still considering appropriate criteria and methods.

Category 2: Wetlands attaining some of the designated use(s), no use is threatened, and insufficient data or no data and information is available to determine if the remaining uses are attained or threatened (with presumption that all uses are attained). DEP determined with high confidence that these waters attain their assigned aquatic life use based on aquatic macroinvertebrates. In addition, a review of other available data including physical/chemical attributes, field-based stressor information and spatial data do not indicate potential causes of impairment. Category 2 contains 78 wetland assessment units.

Category 3: Wetlands with insufficient data and information to determine if designated uses are attained (with presumption that one or more uses may be impaired). There are 11 wetland assessment units totaling 966 acres listed in Category 3. Wetlands assigned to this category have conflicting or insufficient available data to determine attainment status with relative certainty. For the sites listed, there is significant evidence of human stressors, with the presumed likelihood they are causing impairment of one or more uses. One of the assessment units listed in Category 3 (125 acres) is also listed in Category 5D for legacy DDT sources.

Category 4: Wetlands impaired or threatened for one or more designated uses, but do not require development of a TMDL. Five wetland assessment units totaling 51 acres are listed in Category 4A for aquatic life uses (TMDL Completed). All of these are covered under the statewide % Impervious Cover TMDL. Two additional wetland assessment units totaling 218 acres are listed in category 4B (Expected to Attain Standards). These sites do not currently attain their aquatic life uses based on an evaluation of the aquatic life standards ascribed to their assigned classification (38 MRSA §465), but pollution control requirements are expected to result in attainment once implemented. One of these 4B wetland assessment units (212 acres) is located downstream of a former Superfund site and is also listed in Category 4B for benzene and in Category 5D for legacy PCBs and dioxin. The other 4B wetland assessment unit (6 acres) has court-ordered controls in place.

Category 5: Wetlands that are impaired or threatened for one or more designated uses by a pollutant(s), TMDL development is required. Two wetland assessment units totaling 4.5 acres are listed in Category 5A (TMDL Required). These sites do not currently attain aquatic life uses based on an evaluation of the aquatic life standards ascribed to their assigned classification (38 MRSA §465), and there are no pollution control requirements in place that are expected to result in attainment. Two additional wetland assessment units totaling 337 acres are listed in Category 5D (Impaired by Legacy Pollutants). Of these, one assessment unit (212 acres) is listed for both dioxin and PCBs, and is also listed in category 4B for wetland benthic macroinvertebrate bioassessments and benzene. The other 5D assessment unit (125 acres) is listed for DDT, and is also listed in Category 3 for wetland benthic macroinvertebrate bioassessments.

EXTENT OF WETLAND RESOURCES

Wetland Loss Tracking in Maine's Organized Towns

Contact: Mike Mullen, DEP BLWQ, Division of Land Resource Regulation (DLRR)
Tel: (207) 446-1611 email: Mike.Mullen@maine.gov

Maine DEP tracks permitted wetland losses and mitigation in the organized townships through an application tracking system. When applications for any wetland alterations are logged in, the amount of fill or area to be altered is also entered by wetland type and geographical location. This system enables the Department to monitor and report on annual wetland losses. Wetland mitigation and DEP permitted impacts for 2010 and 2011 are summarized in Tables 5-1 and 5-2 below.

Table 5-2 Wetland Mitigation Totals in the Organized Townships

Source: Maine DEP Wetland Loss Tracking System

Area of Mitigation (Acres) – 2010 (1/1/2010-12/31/2010)						
Wetland Type	**In Lieu Fee***	**Creation**	**Enhancement**	**Preservation**	**Restoration**	**Total**
Forested	X	0	0	21.2	5.45	**26.65**
Other/Mixed	X, X	0	11.64	844.74	0	**856.38**
Emergent		0	0	2.0	2.18	**4.18**
Scrub-shrub		0	0	4.0	0.83	**4.83**
Vernal Pool		0	0	0	0	**0**
Open water		0	0	0	0	**0**
Riverine		0	0	0	0	**0**
Wet Meadow		0	0	0	0	**0**
Upland		0	0	0	0	**0**
Intertidal (vegetated)		0	0	0	0	**0**
Intertidal (other)	X, X	0	0	0	0	**0**
Intertidal (mudflat)		0	0	0.02	0	**0.02**
Subtidal (other)		0	0	0	0	**0**
Total		**0**	**11.64**	**871.96**	**8.46**	**892.06**

*An "X" in this column indicates that an in lieu fee (ILF) payment was received for an impact to that type of wetland. Each "X" indicates a separate ILF payment. For example, in 2010 there was one ILF payment for forested wetland impact.

Table 5-1 (continued). Wetland Mitigation Totals in the Organized Townships.

Area of Mitigation (Acres) – 2011 (1/1/2011-12/31/2011)						
Wetland Type	**In Lieu Fee***	**Creation**	**Enhancement**	**Preservation**	**Restoration**	**Total**
Forested	X,X,X, X	0	0	68.34	0.20	**68.54**
Other/Mixed	X,X	0	0	16.78	0	**16.78**
Emergent	X	0	0	11.82	0	**11.82**
Scrub-shrub		0	3.65	10.98	0	**14.63**
Vernal pool	X	0	0	0	0	**0**
Open water		0	0	0	0	**0**
Riverine		0	0	0	0	**0**
Wet Meadow	X	0	0	0	0	**0**
Upland		0	0	24.9	0	**24.9**
Intertidal (other)		0	0	0	0	**0**
Subtidal (other)		0	0	0	0	**0**
Total	**9**	**0**	**3.65**	**132.82**	**0.2**	**136.67**

*An "X" in this column indicates that an in lieu fee (ILF) payment was received for an impact to that type of wetland. Each "X" indicates a separate ILF payment. For example, in 2011 there were four ILF payments for forested wetland impact.

Table 5-2 Permitted Wetland Impact Totals in the Organized Townships

Source: Maine DEP Wetland Loss Tracking System

Area Impacted (Acres) – 2010 (1/1/2010-12/31/2010)										
Wetland Type	**Cranberry permit**		**Full NRPA permit**		**Tier I**		**Tier II**		**Total**	
	Filled	Altered	Filled	Altered	Filled	Altered	Filled	Altered	**Filled**	**Altered**
Emergent	0	0	0.23	0.01	0.02	0.00	0.96	0.00	**1.21**	**0.01**
Forested	0	0	6.11	6.05	6.11	2.97	0.76	1.91	**12.98**	**10.93**
Great Pond	X	X	0.00	0.02	X	X	X	X	**0.00**	**0.02**
Intertidal (mudflat)	X	X	0.41	0.35	X	X	X	X	**0.41**	**0.35**
Intertidal (other)	X	X	0.39	1.14	X	X	X	X	**0.39**	**1.14**
Intertidal (vegetated)	X	X	0.08	0.02	X	X	X	X	**0.08**	**0.02**
Open Water	0	0	0.00	4.4	0.00	0.00	0.00	0.00	**0.00**	**4.40**
Other/Mixed	0	0	88.77	39.83	3.00	3.56	2.35	1.03	**94.12**	**44.42**
Peatland	0	0	0.00	0.00	0.00	0.00			**0.00**	**0.00**
Riverine	X	X	0.32	0.02	X	X	X	X	**0.32**	**0.02**
Scrub-shrub	0	0	0.22	0.58	2.20	0.19	0.00	0.00	**2.42**	**0.77**
Subtidal (aquatic bed)	X	X	0.00	0.00	X	X	X	X	**0.00**	**0.00**
Subtidal (other)	X	X	0.01	0.00	X	X	X	X	**0.01**	**0.00**
Wet Meadow	0	0	0.00	0.00	1.61	0.25	0.00	0.00	**1.61**	**0.25**
Upland	0	0	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	**0.00**
Total	**0**	**0**	**96.54**	**52.42**	**12.94**	**6.97**	**4.07**	**2.94**	**113.6**	**62.33**

X = Tier review not available for projects located in these resources

Table 5-2 (continued). Permitted Wetland Impacts in the Organized Townships.

Area Impacted (Acres) – 2011 (1/1/2011-12/31/2011)										
Wetland Type	**Cranberry permit**		**Full NRPA permit**		**Tier I**		**Tier II**		**Total**	
	Filled	Altered	Filled	Altered	Filled	Altered	Filled	Altered	**Filled**	**Altered**
Emergent	0	0	0.04	0.11	0.15	0.13	0.32	0.00	**0.51**	**0.24**
Forested	0	0	0.60	5.33	4.57	0.77	2.07	0.09	**7.24**	**6.19**
Great Pond	X	X	0.04	0.49	X	X	X	X	**0.04**	**0.49**
Intertidal (mudflat)	X	X	0.04	0.25	X	X	X	X	**0.04**	**0.25**
Intertidal (other)	X	X	0.22	0.92	X	X	X	X	**0.22**	**0.92**
Intertidal (vegetated)	X	X	0.00	0.19	X	X	X	X	**0.00**	**0.19**
Open Water	0	0	0.05	0.00	X	X	X	X	**0.05**	**0.00**
Other/Mixed	0	0	1.91	0.10	1.53	0.15	0.00	0.00	**3.44**	**0.25**
Peatland	0	0	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	**0.00**
Riverine	X	X	0.06	6.07	X	X	X	X	**0.06**	**6.07**
Scrub-shrub	0	0	0.30	0.84	0.60	0.36	0.62	0.00	**1.52**	**1.2**
Subtidal (aquatic bed)	X	X	0.00	0.00	X	X	X	X	**0.00**	**0.00**
Subtidal (other)	X	X	0.43	0.34	X	X	X	X	**0.43**	**0.34**
Wet Meadow	0	0	2.06	0.00	0.66	0.07	0.00	0.00	**2.72**	**0.07**
Upland	0	0	0.01	0.00	0.00	0.00	0.00	0.00	**0.01**	**0.00**
Total	**0**	**0**	**5.76**	**14.64**	**7.51**	**1.48**	**3.01**	**0.09**	**16.28**	**16.21**

X = Tier review not available for projects located in these resources

CHAPTER 6 GROUNDWATER MONITORING & ASSESSMENTS

Contact: Marianne DuBois, DEP BLWQ, Division of Watershed Management (DWM)

Tel: (207) 485-1402 email: marianne.s.dubois@maine.gov

Related Website: http://www.maine.gov/dep/water/groundwater/index.html

OVERVIEW

Maine's groundwater may be threatened by contamination, particularly in unforested areas, which comprise approximately 11% of the State. Important sources of groundwater contamination in Maine include disposal activities such as landfills and septic systems, leaking storage facilities, agriculture, and sites contaminated with spilled hazardous materials or by previously unregulated activities.

Generally, the groundwater supply in Maine is adequate. The total withdrawal of groundwater by all water users is less than one percent of the annual groundwater recharge each year. The remaining annual groundwater recharge is lost through evapotranspiration or discharges to ponds, lakes, rivers, and streams. Seasonal variations in water tables can lead to local ground water shortages. The Maine Drought Task Force (convened by the Maine Emergency Management Agency) publishes information on Maine groundwater and surface water levels at the following website: http://www.state.me.us/rfac/

Groundwater is withdrawn from three basic types of aquifers in Maine: unconsolidated glaciofluvial deposits (stratified drift or sand and gravel aquifers), till, and fractured bedrock. The stratified drift deposits are the most favorable for development of large-volume water supply wells, but these deposits are limited in size and distribution (less than about 10% of the state). Discontinuous bedrock aquifers underlie the entire state and are used for domestic, commercial, industrial, and agricultural purposes, and for small public supplies such as schools, restaurants, and summer camps. Wells in till do not generally yield large quantities of water and are most often used for individual domestic water supplies.

Background

The protection of Maine groundwater is an issue of concern at all levels of government. Serious groundwater pollution problems that have occurred throughout the State and elsewhere have heightened the need for protecting groundwater supplies. A few municipalities and regional planning agencies have conducted groundwater quality assessment studies, but programs for comprehensive assessment of the quality of groundwater resources are needed. Maine's groundwater protection programs emphasize three areas of effort:

1. State interagency coordination of groundwater programs;
2. Assessment of groundwater protection problems, including enhancement of the Environmental and Geographic Analysis Database (EGAD); and
3. Statutory changes and building upon implemented state groundwater protection programs to increase groundwater protection and risk reduction.

Please refer to page 124 of the 2006 Integrated Water Quality Monitoring and Assessment Report for a table of State groundwater protection programs (Table 6-1). http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

ASSESSMENT OF GROUNDWATER QUALITY

In Maine, groundwater is classified by its suitability for drinking water purposes. Under the Maine Water Classification Program, groundwater is classified as either potable (GW-A) or unpotable (GW-B). Water is unpotable when the concentrations of chemical compounds detected exceed either the Maximum Contaminant Levels (MCL) or the Maximum Exposure Guidelines (MEG) as defined in the Rules Relating to Drinking Water administered by the Maine Department of Health and Human Services (DHHS). Although there are many localities where groundwater is unpotable and highly contaminated, no groundwater is currently classified GW-B. The state is not currently attempting to designate non-attainment areas.

Aquifer Risk Assessment

Contact: John Hopeck, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-4463 email: john.t.hopeck@maine.gov

The state is actively assessing ways to use existing groundwater data and spatial data to evaluate relative risk to existing and potential water supplies. The cumulative impact of residential, commercial, and industrial development on 300 of the significant sand and gravel aquifers mapped by the Maine Geological Survey is being evaluated through the Aquifer Quantitative Use Assessment, or AQUA, Index. Non-point source risks due to population and travel corridors are treated as a function of the area of impervious surface in the aquifer polygon; road density is also used as a surrogate for population density and a range of associated possible non-point discharges. The remaining acreage was divided by a factor based on the presence and relative risk of petroleum tanks (underground/aboveground storage tanks (USTs or ASTs)), former tank locations (i.e. possible legacy of contamination) and potential or actual sources of contamination to groundwater (as derived from Environmental Geographic Analysis Database (EGAD) Site Data). The sum of these values is divided by the total acreage of the aquifer to give the dimensionless AQUA index, which can also be expressed as a percent. An AQUA index of 1 or 100% means no impact. In general, larger overall acreage in combination with remoteness or other limits on development results in a higher AQUA index. This index may be used to assess the relative risk to future or present municipal, private, or commercial drinking water uses and to identify those aquifers most at risk from commercial/industrial development or residential pressures.

Overall, 77 high yield aquifer locations (26%) are non-impacted (4,881 acres or 16% of total acres), 145 (48%) are less than 50% impacted (8,540 acres or 29% of total acres), and 78 (26%) are more than 50% impacted (13,325 acres or 55% of total

acres (29,746). Of the non-impacted high yield sand and gravel aquifers, 18% have public water supply wells. Of the aquifers with AQUA values between 1.0 and 0.5, 28% have public water supply wells, while of those with AQUA values less than 0.5, 38% have public water supply wells.

Additional work on risk assessment includes analysis of the effect of road salt on residential well water quality in seventy-seven areas spatially distributed throughout Maine. This work confirms the dependence of chloride concentration on slope and distance from road indicated by previous Department studies, and includes additional factors in the analysis, such as slope direction, simplified hydrologic soil groupings, surficial geology, and bedrock geology. Chloride-concentration data were obtained from pre-construction well sampling conducted by Maine DOT from 2003 through 2008; the analysis removes outliers from this data set and develops a risk model using data from 968 wells. The set of all normalized data shows a distribution pattern of chloride concentrations with distance from the road centerline, with highest concentrations occurring on the downslope side but within 75 feet of the centerline of the road. Preliminary results suggest that the distribution of chloride concentrations with distance from the road centerline at any study site falls under an envelope curve that is a form of the normal distribution, with the parameters controlling the shape of the curve controlled by local variables, such as slope, fracture orientation, and dominant hydrologic soil groups. Work to test and refine this model is ongoing.

Aquifer Characterization Activities

Contact: Tom Weddle, DOC BGNA, Maine Geological Survey, Applied Geology Division Director, Hydrogeology Section

Tel: (207) 287-2801 email: thomas.k.weddle@maine.gov

Related Websites:

Aquifer Fact Sheet www.maine.gov/doc/nrimc/mgs/explore/water/facts/aquifer.htm

Aquifer Mapping: http://www.maine.gov/doc/nrimc/mgs/explore/water/facts/jun01.htm

The Maine Geological Survey (MGS) is at the "average characteristics" stage in characterizing the physical and chemical attributes of the State's stratified drift aquifers. While site specific data do exist for some aquifers (primarily in the vicinity of ground water resource evaluation projects and contamination sites), complete physical pictures of most aquifer systems do not exist. Hard data on the exact natural chemical processes controlling groundwater chemical evolution that occur along a flow path in sand and gravel aquifers are also lacking. MGS has some ambient water quality data but has not yet fully characterized any particular aquifer system.

MGS has begun preliminary examination of annual physical groundwater data from selected wells at DEP monitoring sites in both sand and gravel aquifers and in bedrock aquifers. This effort is to supplement data in the statewide groundwater monitoring system conducted by the US Geological Survey as part of its annual groundwater monitoring program.

Please refer to page 126 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further discussion of aquifer characterization activities. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

WATER RESOURCES PLANNING COMMITTEE

Contacts: Robert Marvinney, State Geologist, Maine Geological Survey

Tel: (207) 287-2804 email: robert.g.marvinney@maine.gov

Mark Margerum, Bureau of Land and Water Quality, MDEP

Tel: (207) 287-7842 email: mark.t.margerum@maine.gov

Related websites: http://maine.gov/doc/nrimc/mgs/explore/water/planning/index.htm

In 2007 the Maine Legislature enacted "An Act Concerning the Sustainable Use of and Planning for Water Resources" (P.L. 2007, Chapter 399). This law created the Water Resources Planning Committee, which is chaired by Robert Marvinney, Director of the Maine Geological Survey. This stakeholder group is charged with identifying, researching and addressing potential water use issues in watersheds statewide. With guidance from the Committee, the Maine Geological Survey completed work on the water resource investigations in the Freeport watersheds that host the public water supply wells for the Town of Freeport. New work has begun to improve groundwater and surface water information for the Branch Brook watershed, which includes the water supply for the towns of Kennebunk, Kennebunkport, and Wells in York County. The law also created a new licensing requirement for "Significant Groundwater Wells" under the Natural Resources Protection Act. Under this provision large groundwater withdrawals are now regulated by the DEP.

Significant Groundwater Wells

Contact: John Hopeck, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-4463 email: john.t.hopeck@maine.gov

Related Website:
http://www.maine.gov/dep/land/nrpa/significant_groundwater_wells/#intro

Although Maine has abundant groundwater when recharge and use are averaged over the state, certain large wells, and the density of smaller wells in certain areas, may have local adverse effects on protected resources and wells on nearby properties. Installation and operation of large groundwater extraction wells, with certain exceptions, is now regulated under the Natural Resources Protection Act. Applicants must demonstrate that the extraction of groundwater will not have an undue unreasonable effect on waters of the State, groundwater-related natural resources, and existing uses, including, but not limited to, public or private wells. Applicants must submit adequate background data, including stream flows and wetted perimeter and wetland water levels, pump test data and analysis, and a site-specific plan for monitoring groundwater elevation, precipitation, and other relevant hydrogeologic criteria. The Department must consider both the direct effects of the proposed withdrawal and its effects in combination with existing water withdrawals. Ongoing work by the Maine Geological Survey is evaluating whether or not the cumulative impacts of groundwater withdrawals by wells of all sizes in some larger watersheds may exceed the minimum amounts required to supply all existing uses, including both water supply and streamflow, in some watersheds.

Overview of Groundwater Contamination Sources

Most groundwater contamination in Maine originates from nonpoint source pollution rather than point source pollution. The following discussion focuses primarily on nonpoint contamination sources that appear to be responsible for most groundwater contamination in the State: agriculture, hazardous substance sites, spill sites, landfills, leaking underground storage tanks, septic systems, and shallow well injection.

Please refer to the 2006 report beginning on page 127 for additional background information on other sources of contamination, and for additional information on the sources listed above.

http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Petroleum Storage Tanks and Product Spills

Underground Tanks

Contact: Bruce Hunter, DEP BRWM, Division of Technical Services

Tel: (207) 287-7672 email: Bruce.E.Hunter@maine.gov

Related Websites:

General Information: www.maine.gov/dep/waste/ust/index.html

Rules for UST Facilities: www.maine.gov/sos/cec/rules/06/096/096c691.doc

Rules for Siting of Oil Storage Facilities:

www.maine.gov/sos/cec/rules/06/096/096c692.doc

Leaking Underground Tanks and Drinking Water Wells

The Leaking Underground Storage Tank (LUST) Remediation Priority List tracks clean-up sites and provides an objective scoring system to determine which sites receive scarce clean-up dollars. In general, the higher the score, the more quickly resources are allocated to clean up a site. Table 6-1 shows the number of sites placed on this Priority List and the change since the previous 305b report.

Table 6-1 Remediation Priority List Sites – Number of Sites as of December 2011

Total Number of Sites Since 1994	Number of Sites Closed	Number of Active Sites
2345	1834	510
Numerical Change and Percent Change from 2 years ago (previous 305b report)		
350 / 18% increase	303 / 20% increase	49/ 10.6% increase

The sites on the priority list are limited to those contaminated by petroleum products (as opposed to all hazardous chemicals and all hazardous wastes), but the sites are not limited to USTs. Many of the sites on the priority list are home heating oil tanks, which are typically aboveground storage tanks (ASTs). Table 6-2 shows the number of private water wells and public water supplies contaminated by petroleum products or threatened with contamination by petroleum products as of December 2011. Note that one active site can contaminate or threaten more than one well.

Table 6-2 Current (December 2011) Remediation Priority List Sites – Contamination Summary

Number of Contaminated Wells*	Number of Contaminated Public Water Supplies	Number of Threatened Wells*	Number of Threatened Public Water Supplies
187	3	561	10
Numerical Change and Percent Change from 2 years ago (previous 305b report)			
-26/ 12% decrease	0 / 0% change	-96 / 15% decrease	5 / 100% increase

* Does not include public water supplies.

On December 1, 2009 new petroleum cleanup guidelines went into effect based on the toxicity of petroleum fractions in addition to target compounds typically found in petroleum. The remediation approach is based on the analytical method that fractionates petroleum using two different tests pioneered by Massachusetts. The tests are: Volatile Petroleum Hydrocarbons (VPH) and Extractable Petroleum Hydrocarbons (EPH). These tests will replace GRO (Gasoline Range Organics) and DRO (Diesel Range Organics) that have been used by Maine for the past 20 years or more. The new guidelines are described in a document titled "Remediation Guidelines for Petroleum Contaminated Sites in Maine", November 20, 2009.

Legislative Changes

For several years the standards for underground storage tanks (UST) facilities were more stringent than those of aboveground storage tanks (AST) facilities. In 2010 the siting restrictions for new AST facilities became the same as those of UST facilities. New facilities must be over 300 feet from a private well, over 1000 feet from a public well, and cannot be over a mapped sand and gravel aquifer or in the mapped source water protection area of a public water supply.

As of January 1, 2011, the legal loophole was closed that had allowed underground piping systems attached to ASTs and installed before June of 1991 to operate without leak detection. So in addition to ASTs and USTs having the same siting criteria, the underground piping at both and ASTs and USTs must now meet the same requirements as well.

Above Ground Storage Tank Spill Information

Contact: David McCaskill, DEP BRWM, Division of Technical Services

Tel: (207) 287-7056 email: david.mccaskill@maine.gov

Related Website: http://www.maine.gov/dep/waste/abovegroundtanks/index.html

ASTs at Single Family Residences

Contact: Peter Moulton, DEP BRWM, Division of Technical Services

Tel: (207) 287-8161 email: peter.t.moulton@maine.gov

http://www.maine.gov/dep/waste/abovegroundtanks/replacement.html

Maine averages over one heating oil spill per day from ASTs at single family residences. One reason for this statistic is that ASTs are commonly used in Maine.

The 2000 U.S. Census figures show that approximately 78% of Maine households are heated with oil. The vast majority of these households have 275 gallon ASTs located either in the basement or outside the residence.

Oil or Hazardous Materials Spills

Contact: Lyle Hall, DEP BRWM, Division of Program Services

Tel: (207) 287-7499 lyle.s.hall@maine.gov

Related Websites: http://www.maine.gov/dep/rwm/hoss/

For users who would want to download raw data and then run statistics of their own:

http://www.maine.gov/dep/ftp/hoss/

The Department's Response Division responded to approximately 5,699 reports of oil or hazardous material events between January 2009 and December 2010. Of these 5,699 events, 1,109 do not have completed reports and, therefore, are not included in this report. An estimated 89% of these responses involved discharges of petroleum products to soil and/or groundwater. During this period, response services personnel discovered approximately 40 wells that had been contaminated from these spills. Due to further investigation and report completion, these figures are subject to change. Table 6-3 provides information on the 4,590 spills that had completed spill reports.

Table 6-3 Oil and Hazardous Material Reports - January 2009 through December 2010

Spill Location Type	Percent of Total Reports	Number of Reports	Number of Wells Impacted
Business	20.41%	937	3
Government	4.90%	225	0
Other	2.68%	123	0
Residential	30.20%	1,386	30
School	1.48%	68	0
Terminal	9.48%	435	7
Transportation System	20.74%	952	0
Utility	10.11%	464	0
Totals	**100%**	**4590**	**40**

Please refer to page 130 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on oil spill reporting in Maine. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

AGRICULTURE

Contact: Matthew Randall, Maine Department of Agriculture, Office of Agricultural Resource Development, Agricultural Compliance Program

Tel: (207) 287-7708 email: matthew.randall@maine.gov

Related Website: www.maine.gov/agriculture/narr/compliance.html

In 2002, the total estimated cropland in Maine was 536,839 acres. The agricultural community uses chemicals for pest control and weed eradication; in addition, many farmers apply chemical fertilizers and manure to their agricultural lands. These are all potential sources of ground water contamination. The major areas of chemical application include potato fields in Aroostook County, blueberry barrens in Hancock and Washington Counties, and apple orchards and forage cropland in Central Maine. Pesticides and nitrates are the main categories of agricultural groundwater contaminants.

Maine's Nutrient Management Law

Contact: Mark Hedrich, Nutrient Management Coordinator, Maine Department of Agriculture, Division of Agricultural Resource Development

Tel: (207) 287-7608 email: mark.hedrich@maine.gov

Related Website: http://www.maine.gov/agriculture/narr/nutrientmanagement.html

Impacts of the Law: Implementing nutrient management on farms can better protect ground and surface water. By applying manure and other nutrients only in the amounts needed for crop production and in a way that will consider nearby sensitive resources, fewer nutrients will leave the site and impact water quality. Studies of Maine farms where nutrient management practices have been implemented show that water quality within a watershed can be significantly improved. In order to further these goals, livestock operations permits have been issued to eighteen Maine farms meeting certain criteria during the past several years. Twenty-two nutrient management plans were developed for new operations, and 36 plans were updated in 2011. In addition, farm composting of on-farm and off-farm nutrients is expanding, with 22 compost management plans having been developed recently. The Department's Chapter 211 *Carcass Disposal Rules* have been updated and will be adopted early in 2012. For more information on Maine's Nutrient Management Law, follow the link above to the Nutrient Management Program webpage maintained by the Department of Agriculture.

Please refer to page 131 of the 2006 Integrated Water Quality Monitoring and Assessment Report for more information on the Maine Nutrient Management Program. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Pesticides

Contact: Mary E. Tomlinson, Board of Pesticides Control (BPC), Maine Department of Agriculture

Tel: (207) 287-7544 email: mary.e.tomlinson@maine.gov

Related Website: http://www.state.me.us/agriculture/pesticides/water/index.htm

Every five to seven years since 1994, the BPC has conducted a statewide pesticides and groundwater monitoring program to determine the impact of agricultural pesticide use on the quality of ground water. Randomly selected, private drinking water wells within ¼ mile down gradient of an agricultural crop are sampled. The results of past surveys have indicated that in wells in which pesticides have been detected, the concentrations of pesticides do not present a health threat to the citizens of Maine when compared to the health-based standards established by the USEPA and the Maine Centers for Disease Control. Efforts on the part of growers to use best management practices and the trend toward newer chemistry with lower application rates have had positive impacts on the quality of Maine's groundwater. Beginning in 2011, monitoring will focus on one crop per year, rather than multiple crops, with repeat sampling every five to seven years to allow for more wells to be sampled. Sampling for hexazinone will be incorporated into the blueberry rotation, the target crop for 2011.

Results for monitoring from 1994-2006 are summarized in Table 6-4, below:

Table 6-4 Hexazinone Monitoring - 1994 through 2006

Sampling Results	Spring 1994	Spring 1998	Spring 2002	Spring 2006
Total Number of Samples Collected	20	42	49	46
Number of Positive Detections	15	18	29	32
Percentage with Positive Detections	75%	42.8%	59.2%	69.6%
Mean Concentration*(ppb)	1.08	0.41	1.45	.98
Median Concentration (ppb)	0.31	ND	0.43	.34
Highest Reading (ppb)	5.97	2.15	11.41	8.43

*For statistical purposes only, mean concentration was calculated assuming that non detections (ND) were equal to half of the limit of quantification (LOQ). LOQ = 0.1 ppb for 2002 samples.

Please refer to pages 132-133 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on pesticides in groundwater. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

LANDFILLS

Contacts: Paula Clark, DEP BRWM, Division of Solid Waste Management

Tel: (207) 287-7718 email: paula.m.clark@maine.gov

and Ted Wolfe, DEP BRWM, Division of Remediation

Tel: (207) 287-8552 email: theodore.e.wolfe@maine.gov

Related Website: http://www.maine.gov/dep/waste/solidwaste/index.html

The Maine Department of Environmental Protection is directed by statute to regulate the location, establishment, construction, expansion and operation of all solid waste facilities in the state, including landfills.

Active Landfills

There are currently 41 active, licensed landfills in the state of Maine (Figure 6-1). The following link will take you to a current file of these active landfills: http://www.maine.gov/dep/waste/solidwaste/documents/landfillactive.xls

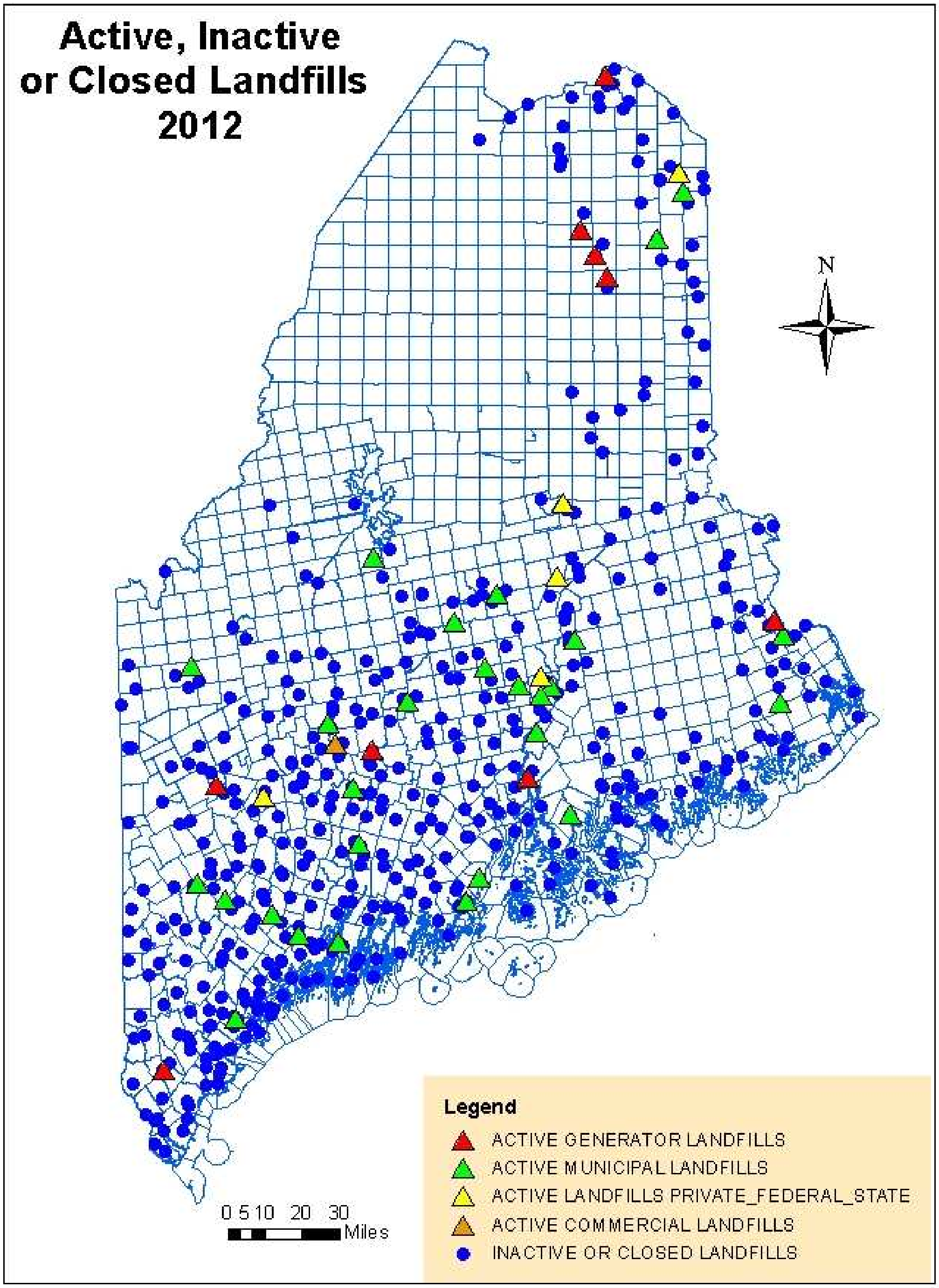
Inactive Landfills

Related Website: http://www.maine.gov/dep/waste/solidwaste/index.html

A total of 415 municipal landfills have been identified in the state. As of December 2010, 397 of these landfills have been closed and capped (Figure 6-1).

Please refer to pages 133-136 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on Maine landfills and residual land applications.
http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Figure 6-1 Active and Inactive Landfills in Maine



ROAD SALT AND SAND SALT PILES

Contacts: Erich Kluck, DEP BLWQ, Division of Water Quality Management (DWQM)
Tel: (207) 592-2068 email: erich.d.kluck@maine.gov
or Judy Gates, Director Environmental Office, Maine Department of Transportation,
Tel: (207) 624-3100 email: env.mainedot@maine.gov

Related Websites: Rules – Chapter 574 and Sand Salt Piles
http://www.maine.gov/dep/water/wd/sandsalt/index.html
DOT information on Plowing and Sanding and Sand/Salt Building Program
http://www.maine.gov/mdot/csd/mlrc/technical/winterplowsand/ and
http://www.maine.gov/mdot/csd/mlrc/technical/ssbp/

DEP is actively involved with siting of new sand-salt buildings and piles and continues to investigate contamination from sand-salt piles on a case-by-case basis. DEP's Sand-Salt Storage Area Rule (Chapter 574) prohibits siting of new sand-salt storage areas on significant sand and gravel aquifers, within source water protection areas of public water supplies and within 300 feet of a private domestic well. MDOT continues to handle complaints related to sand-salt piles that they operate, and roads they maintain.

Please refer to page 137 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on the program mentioned above. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

FEDERAL FACILITIES, SUPERFUND, BROWNFIELD, VOLUNTARY RESPONSE, AND OTHER HAZARDOUS SUBSTANCE SITES

Contact: David Wright, DEP BRWM, Division of Remediation
Tel: (207) 287-2651 email: david.w.wright@maine.gov
Related Websites: (Federal EPA Information) http://www.epa.gov/superfund/
(Maine DEP Information) http://www.maine.gov/dep/spills/programs/index.html

As of June 21, 2012, DEP had identified some 1338 hazardous substance sites in Maine (Table 6-5). 40% of which were still in the active stage. The Division of Remediation investigates and mitigates the risk posed to public health and the environment from these sites. The Department may undertake the investigation and clean-up themselves, or compel responsible parties to undertake the work, through either the state's uncontrolled sites program (for smaller sites) or with EPA via the federal CERCLA program (the federal Comprehensive Environmental Response and Comprehensive Liability Act, aka Superfund) or the Defense State Memorandum of Agreement (DSMOA) for military sites. Additionally, many sites are investigated and remediated under one of two voluntary programs: the Brownfields Program, which partially funds the work with federal dollars, and Maine's Voluntary Remedial Action Program (VRAP).

Please refer to pages 91-92 of the 2008 Integrated Water Quality Monitoring and Assessment Report for further information on the programs mentioned above. http://www.maine.gov/dep/water/monitoring/305b/index.htm

Table 6-5 Hazardous Waste Sites, Number and Status

Site Status	Program					
	Brownfields	**DSMOA**	**Superfund**	**Uncontrolled Sites**	**VRAP**	**Grand Total**
In Review	10	95	0	13	25	143
Investigation Stage	113	13	1	42	33	202
Remediation Stage	28	7	6	35	41	117
Operation & Maintenance	2	0	5	44	8	59
No Further Action	52	50	0	159	556	817
Grand Total	205	165	12	293	663	1338

Resource Conservation and Recovery Act (RCRA) Sites

Contact: Stacy Ladner, DEP BRWM, Division of Oil and Hazardous Waste Facilities Regulation (OHWFR)

Tel: (207) 287-2651 email: stacy.a.ladner@maine.gov

Related Website: http://www.maine.gov/dep/waste/hazardouswaste/index.html

The DEP currently lists approximately 104 sites with Hazardous Waste Licenses and 60 sites with interim licenses. Over 60 sites are under investigation for possible ground water or surface water contamination. Thirty-two of these sites have ground or surface waters that have been contaminated by discharges of hazardous substances. Nineteen of these 32 facilities have ongoing, active remediation.

Septic Systems

Contact: James A. Jacobsen, DHHS MCDC&P, Division of Environmental Health, Drinking Water Program, Subsurface Wastewater Unit

Tel: (207) 287-5695 email: james.jacobsen@maine.gov

Related Website: http://www.maine.gov/dhhs/mecdc/environmental-health/plumb/index.htm

The Department of Health and Human Services, Maine Center for Disease Control and Prevention, Division of Environmental Health, Drinking Water Program, Subsurface Wastewater Unit and its antecedents have regulated onsite sewage disposal since 1926. This responsibility rests with DHHS because the treatment and disposal of human sanitary waste has been historically considered a public health issue. The Subsurface Wastewater Unit within the Division of Environmental Health promulgates and administers the Subsurface Wastewater Disposal Rules. The

Program also maintains microfiche copies of all plumbing and subsurface wastewater permits that have been issued statewide from 1974 to 2004. During the period from January through December 2011 the Program processed approximately 9960 internal and external plumbing and subsurface wastewater permits. Changes to data entry procedures do not allow for reporting from January to December 2009.

Nitrates and Septic Systems

The Health and Environmental Testing Laboratory (HETL) database contains the results of water tests done on private wells. This database provides the largest sample of private well nitrate concentrations in the state. Assuming that the HETL database for nitrate-N represents Maine ground water quality, data from January 2009 to December 2010 indicate approximately 98% of wells sampled have concentrations below 5 mg/L, well below the 10 mg/L drinking water standard for nitrate-N (Table 6-6). This percentage has remained steady for the past few reporting cycles.

Table 6-6 Nitrate-N Frequency Distributions

Nitrate-N (mg/L)	HETL Database[1] (percent)	HETL Database[2] (percent)	HETL Database[3] (percent)	HETL Database[4] (percent)
0.00 to 2.50	91.9	93.7	93.9	94.5
2.51 to 5.00	5.6	4.5	4.2	3.8
5.01 to 7.50	2.0	1.1	1.2	1.3
7.51 to 10.00	0.5	0.5	0.4	0.4
Greater than 10.0	0.0	0.2	0.3	0.0
# of Analyses	**2,197**	**7,100**	**6,000**	**8711**

[1] HETL database for private well analyses between 1/1/04 and 5/31/05.
[2] HETL database for private well analyses between 1/1/06 and 5/31/07.
[3] HETL database for private well analyses between 1/1/08 and 5/31/09.
[4] HETL database for private well analyses between 1/5/09 and 12/31/10.

Bacteria

Private well testing for bacteria identifies a greater contamination potential from bacteria than from nitrate. In public and private drinking water supplies, coliform bacteria are used as the indicator of microbial contamination. The Primary Drinking Water Standard for total coliform bacteria is 0 colonies per 100 ml.

Table 6-7 shows that larger percentages of dug wells test positive for bacteria than drilled wells. This lends support to the belief that dug wells are more susceptible to bacterial contamination than drilled wells. Table 6-8 shows recent well testing data, however HETL no longer distinguishes between dug and drilled wells in its reporting.

Table 6-7 Wells testing positive for E. coli or total coliform

Well Type	HETL Database 1960-1990	HETL Database 1/04-5/05	HETL Database 6/06-8/06[1]
	% wells positive for total Coliform or E. Coli	% wells positive for total Coliform or E. Coli	% wells positive for total Coliform or E. Coli
Dug	52%	32%	35%
Drilled	24%	14%	16%

[1]Only Data available from HETL which distinguishes the well type was from this time period in 2006. HETL stopped collecting well type data after 2006.

Table 6-8 Wells testing positive for E. coli or total coliform 1/08-12/10

Test Type	HETL Database 1/1/08-5/31/09		HETL Database 1/5/09-12/31/10	
	Total number of tests	% wells positive	Total number of tests	% wells positive
Coliform	7715	25.7 %	10,856	33.0%
E. Coli	7694	2.3 %	10,856	3.5%

Please refer to pages 138-140 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on nitrates, bacteria, and septic systems in Maine. http://www.maine.gov/dep/water/monitoring/305b/index.htm

SHALLOW WELL INJECTION AND THE UNDERGROUND INJECTION CONTROL (UIC) PROGRAM

Contact: Erich Kluck, DEP BLWQ, Division of Water Quality Management (DWQM)

Tel: (207) 592-2068 email: erich.kluck@maine.gov

Related Websites:

UIC Program: http://www.maine.gov/dep/water/wd/uic/index.html

Rules: http://www.maine.gov/sos/cec/rules/06/096/096c543.doc

The underground discharge of pollutants by shallow well injection has been illegal in Maine since 1983 when the State adopted the Federal Underground Injection Control (UIC) regulations. The revised rule for UIC was adopted by the BEP in September 2006 and the Primacy package was sent to the US EPA in October of 2006. Table 6-9 lists information on numbers of inspections and registrations for the federal fiscal years 2008-2010.

Table 6-9 Underground Injection Control Program Information

Federal Fiscal Year	Wells Addressed	Wells Licensed	Non-UIC violations	Inspections and Follow-ups
FFY 2008	44	0	48	317
FFY2009	28	0	0	245
FFY 2010	26	5	20	295
Q 1, FFY 2011	0	0	0	0

OTHER PROGRAMS

Please refer to pages 142-144 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on programs which may monitor for affects to groundwater from the following activities.

http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Stormwater Infiltration

Contact: John Hopeck, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-4463 email: John.T.Hopeck@maine.gov

Use of infiltration as a stormwater management technique is common in many regions, but is practical in Maine only in the limited areas underlain by glacial sand and gravel deposits. These aquifers contain large volumes of easily extracted water, but are highly vulnerable to contamination. Groundwater monitoring at large commercial and industrial sites shows that the volume of pollutants discharged to these infiltration systems generally exceeds the treatment capacity of the soil and aquifer. Chloride is the most common pollutant, but data also indicate that changes in chemical conditions in the infiltration systems can release accumulated metals and other pollutants to the underlying aquifer over time. These data are consistent with findings in other states and in the European Union, and have been cited by EPA in a recent summary of stormwater recharge methods. Ongoing work on stormwater management rules is intended to encourage infiltration, where geologically feasible, from low-pollutant sources, while discouraging concentrated discharges to groundwater from large areas of connected impervious surface. Groundwater monitoring will continue at currently-monitored sites.

Metallic Mining

Contact: Mark Stebbins, DEP BLWQ, Division of Land Resource Regulation (DLRR)

Tel: (207) 822-6367 email: Mark.N.Stebbins@maine.gov

Related Website: http://www.maine.gov/dep/land/mining/index.html

Currently there is no metallic mineral exploration activity occurring in the State.

Gravel Pits

Contact: Mark Stebbins, DEP BLWQ, Division of Land Resource Regulation (DLRR)

Tel: (207) 822-6367 email: Mark.N.Stebbins@maine.gov

Related Website: http://www.maine.gov/dep/land/mining/index.html

The Maine DEP has licensed 779 mining sites (gravel pits & rock quarries). In 2008, the Legislature enacted the Wellhead Protection Law to protect drinking water wells from contamination by oil or hazardous substances. The law accomplishes this purpose by restricting the siting of facilities that, by their nature, pose an unacceptable risk to groundwater quality and therefore should be kept away, if at all possible, from drinking water supplies, including significant sand and gravel aquifers. During implementation of this law, the department became aware of a conflict between the law and the use of fuel storage tanks in gravel pits. Specifically, the rules prohibit the installation of an oil storage facility on a significant sand and gravel aquifer mapped by the Maine Geological Survey. Approximately 55 % (421) of DEP-licensed gravel pits are located on mapped sand and gravel aquifers.

In response to this conflict, the Legislature directed the Department through Public Law 2011, Chapter 26, to amend its Chapter 378 Variance Criteria for the Excavation of Rock, Borrow, Topsoil, Clay or Silt and the Performance Standards for the Storage of Petroleum Products, (06-096 CMR 378) to allow licensed mining operations to store a small amount of diesel fuel on mapped significant sand and gravel aquifers. Specifically, the proposed amendments would allow for up to 2 above ground diesel fuel tanks in a single location with an aggregate capacity not to exceed 1,100 gallons (doubled wall tanks, installed with all safety features, O&M procedures, etc.) without obtaining a variance as currently required under department rules.

Radioactive Waste Storage and Disposal Sites

Contact: Tom Hillman, DHHS Maine CDC, Division of Environmental Health, Radiation Control Program

Tel: (207) 287-8401 email: Tom.Hillman@maine.gov

Related Website:

http://www.maine.gov/dhhs/mecdc/environmental-health/rad/

Please refer to page 144 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information this program.

http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Summary of Ground Water Quality

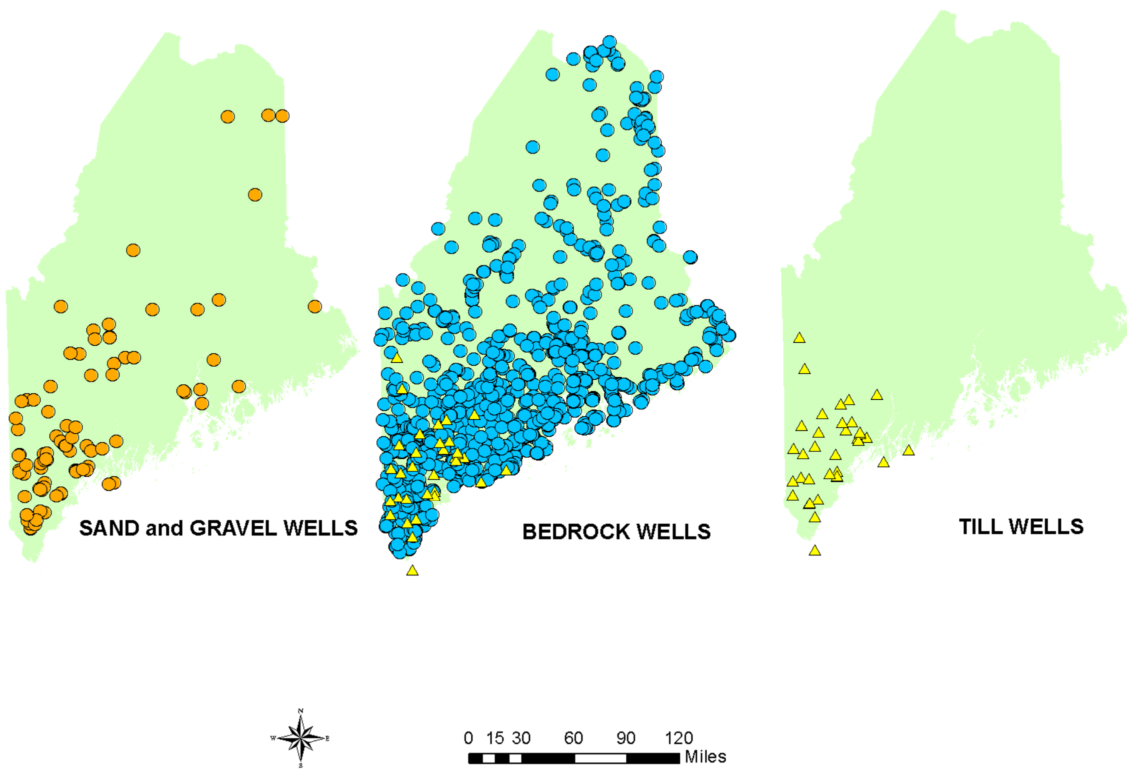


Figure 6-2 Distribution of Sole Source Public Water Supply Wells for the Ambient Water Quality Monitoring Network by Aquifer Type

Wells shown are those which were sampled.

For 2012 the ambient ground water quality monitoring network consists of 1191 public water supplies. Each of the selected public water supplies is provided by only one source of water: either a drilled well in bedrock; a dug well in glacial till; a drilled well, well point, or dug well in glacial outwash sand and gravel or recent sandy alluvium (Figure 6-2). Some of the wells are large community water supplies; some are non-transient, non-community water supplies. Analytical results for periodic, routine sampling of raw water were provided by the DWP. Not all the well samples were analyzed for the all the same chemical constituents every time they were obtained: frequency depends on the type of water supply and the population served. Nevertheless, the DEP believes that the selection represents ambient ground water quality in the three major geologic settings that provide ground water in Maine. Sand and gravel aquifers are often high yield water sources and are often found in developed areas, and are therefore vulnerable to contamination. Bedrock aquifers, though not usually hydrologically connected, underlie the whole state and are mostly used as private water supplies, as are glacial till aquifers. The locations of the wells used to indicate ambient water quality are shown in Figure 6-3 and a summary of the ambient water quality data is in Table 6-10. Figure 6-2 shows the distribution of these wells by aquifer type.

Figure 6-3 Ambient Water Quality Monitoring Network Well Location Map

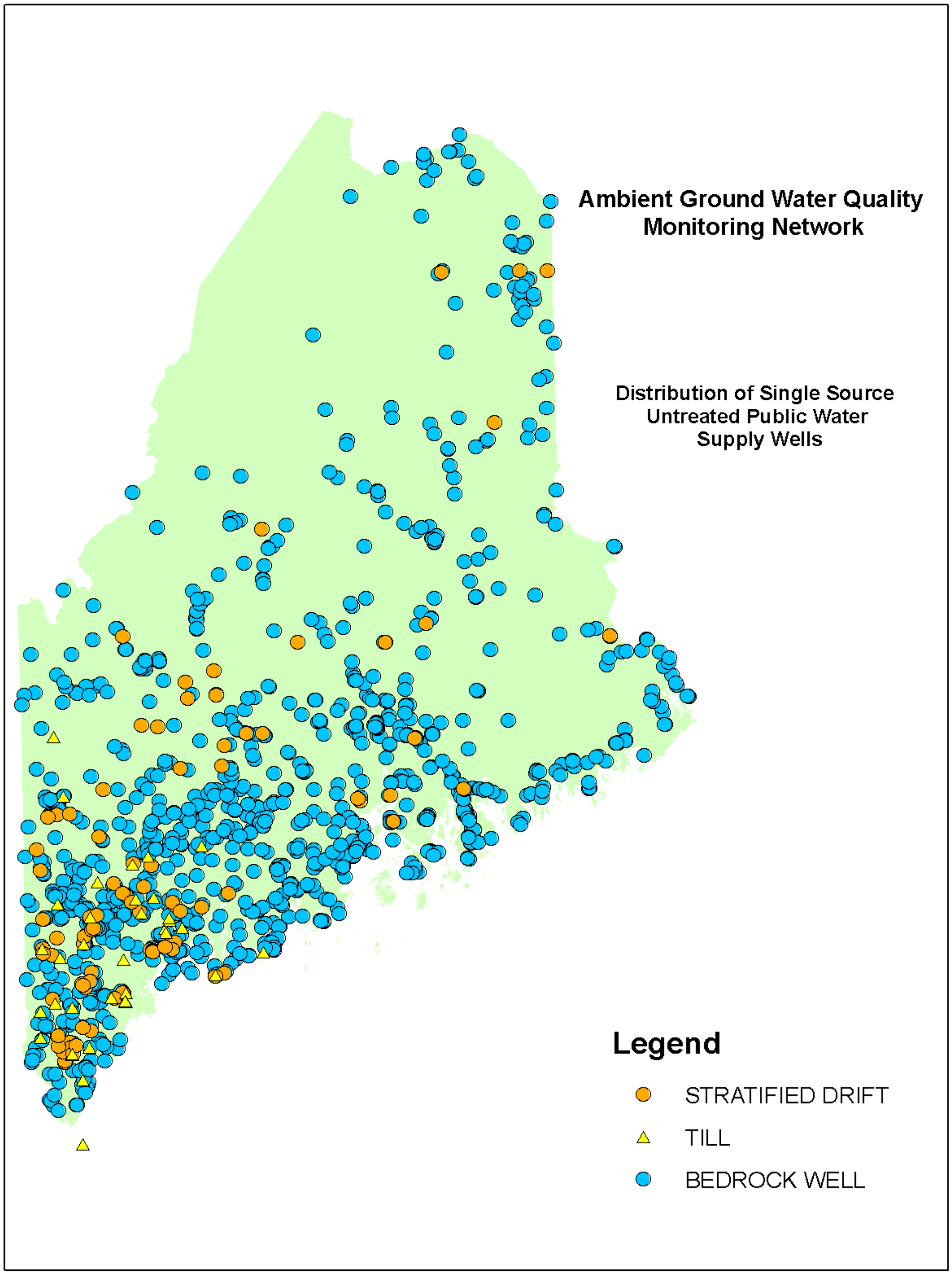


Table 6-10 Ambient Aquifer Monitoring Data*

Ambient Ground Water Quality Monitoring Well Data

Aquifer Description: Till **Data Reporting Period:** Jan. 2009-Dec. 2010
Statewide

Monitoring data type *	Total number of wells used in assessment	Parameter groups	No detections of parameters above MDLs or background levels	No detections of parameters above MDLs or background levels and nitrate concentrations range from background levels to ≤5 mg/l	Parameters are detected at concentrations exceeding the MDL, but are less than or equal to MCLs and/or nitrate ranges from >5 to ≤10 mg/l	>10m/l	Parameters are detected at concentrations exceeding MCL's
Ambient (raw) water quality data from public water supply wells	37 # of Tests: 400	VOC[1]	64	0	1	0	0
		SVOC[1]	11	0	0	0	0
		NO3[2]	186	60	0	0	2
		Other	32	0	32	0	12

Ambient Ground Water Quality Monitoring Well Data

Aquifer Description: Bedrock **Data Reporting Period:** Jan. 2009-Dec. 2010
Statewide

Monitoring data type *	Total number of wells used in assessment	Parameter groups	No detections of parameters above MDLs or background levels	No detections of parameters above MDLs or background levels and nitrate concentrations range from background levels to ≤5 mg/l	Parameters are detected at concentrations exceeding the MDL, but are less than or equal to MCLs and/or nitrate ranges from >5 to ≤10 mg/l	>10m/l	Parameters are detected at concentrations exceeding MCL's
Ambient (raw) water quality data from public water supply wells	1098 # of Tests: 48174	VOC	27210	0	114	0	1
		SVOC	3025	0	5	0	0
		NO3[1]	6862	960	14	0	1
		Other	4779	0	4912	0	291

Major uses of aquifers or hydrologic units: X Public water supply ___ Irrigation ___ Commercial ___ Mining ___ Baseflow
X Private water supply ___ Thermoelectric ___ Livestock ___ Industrial ___ Maintenance

Uses affected by water quality problems units: X Public water supply ___ Irrigation ___ Commercial ___ Mining ___ Baseflow
X Private water supply ___ Thermoelectric ___ Livestock ___ Industrial ___ Maintenance

* Data supplied by DHHS/BH/DHE/Drinking Water Program, analysis by DEP/BLWQ/DEA/Enviromental Geology Unit

1 VOC - Volatile Organic Compound; SVOC – Semi Volatile Organic Compound

2 Includes results from testing for parameters: Nitrate, Nitrate-Nitrite, and Nitrite

Table 6-10 Ambient Aquifer Monitoring Data, continued*

Ambient Ground Water Quality Monitoring Well Data

Aquifer Description: Stratified Drift **Statewide** **Data Reporting Period:** Jan. 2009-Dec. 2010

Monitoring data type *	Total number of wells used in assessment	Parameter groups	No detections of parameters above MDLs or background levels	No detections of parameters above MDLs or background levels and nitrate concentrations range from background levels to ≤5 mg/l	Parameters are detected at concentrations exceeding the MDL, but are less than or equal to MCLs and/or nitrate ranges from >5 to ≤10 mg/l	.10m/l	Parameters are detected at concentrations exceeding MCL's
Ambient (raw)	56	VOC[1]	3045	0	11	0	0
water quality		SVOC[1]	411	0	5	0	0
water supply	# of Tests:	NO3[\2]	216	239	4	0	0
wells	4978	Other	547	0	492	0	8

Major uses of aquifer or hydrologic unit: X Public water supply ___ Irrigation ___ Commercial ___ Mining ___ Baseflow X Private water supply ___ Thermoelectric __ Livestock ___ Industrial ___ Maintenance

Uses affected by water quality problems: X Public water supply ___ Irrigation ___ Commercial ___ Mining ___ Baseflow X Private water supply ___ Thermoelectric ___ Livestock ___ Industrial ___ Maintenance

[*] Data supplied by DHHS/BH/DHE/Drinking Water Program, analysis by DEP/BLWQ/DEA/Enviromental Geology Unit

[1] VOC - Volatile Organic Compound; SVOC – Semi Volatile Organic Compound

[2] Includes results from testing for parameters: Nitrate, Nitrate-Nitrite, and Nitrite

Groundwater Trends

New occurrences of ground water contamination are documented in Maine each year. Although discovery of existing contamination and consequent remediation is expected to continue, future reports of contamination are expected to decline as the State's ground water protection initiatives continue to be implemented, stressing contamination prevention.

Please refer to pages 149-153 of the 2006 Integrated Water Quality Monitoring and Assessment Report for further information on programs which may indicate ground water quality trends.

http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

CHAPTER 7 PUBLIC HEALTH – RELATED ASSESSMENTS

MAINE HEALTHY BEACHES PROGRAM

Contacts: Mark Margerum, Bureau of Land and Water Quality (Program Manager)
Tel: (207) 287-7842 email: Mark.T.Margerum@maine.gov

Keri Lindberg, University of Maine Cooperative Extension and Sea Grant (Program Coordinator)
Tel: (207) 832-0343 email: keri.lindberg@maine.edu

Caitlyn Whittle, EPA Region 1, BEACH Program Coordinator
Tel: (617) 918-1748 email: whittle.caitlyn@epa.gov

Related Websites: (Maine Specific) www.mainehealthybeaches.org
(Federal) www.epa.gov/ost/beaches

The Maine Healthy Beaches Program (MHB) monitors ocean beaches in order to provide protection of swimmer health. During the current reporting cycle, the DEP managed the program through a partnership with the University of Maine Cooperative Extension (UMaine Extension) and Sea Grant and numerous local beach managers and volunteers. All participating beaches, including State Parks, conduct routine monitoring of beach water quality from Memorial Day through Labor Day. When exceedances occur, resampling is conducted for those sites. In Maine, the monitoring of town owned beaches and providing public notification of beach status, is the jurisdiction of the municipality and participation in the MHB program is voluntary. Private beach owners are responsible for their own monitoring programs unless they choose to work with the local municipality and MHB. Private beaches owners may opt not to participate in any monitoring.

The U.S. Environmental Protection Agency (EPA) initiated the Beaches Environmental Assessment, Closure and Health (BEACH) Act of 2000 in response to the growing concern about public health risks posed by polluted coastal swimming beaches. MHB is a voluntary program and includes these components: water quality assessment and public notification of beach status, education and outreach, and working with communities and program partners to identify and remediate pollution sources through applied research and special studies.

The assessment program includes measurement of critical factors that affect the health of the beach environment as well as the health of people who visit them (for participating beaches only).

Table 7-1 Beaches Participating in Program

Beach Name	Managing Organization
Sand Beach	Acadia National Park
Hadley Point	Bar Harbor
Hulls Cove	Bar Harbor
Town Beach	Bar Harbor
Fortunes Rocks Beach	Biddeford
Gil Bouche Park/Biddeford Pool	Biddeford
Middle Beach (Biddeford)	Biddeford
Pemaquid Beach	Bristol
Laite Beach	Camden
Crescent Beach	Crescent Beach State Park
Kettle Cove Beach	Crescent Beach State Park
Ferry Beach (Saco)	Ferry Beach State Park
Winslow Park	Freeport
Higgins Beach	Higgins Beach Association
Hills Beach	Hills Beach Association
Goochs Beach	Kennebunk
Libby Cove Beach	Kennebunk
Middle Beach	Kennebunk
Mother's Beach	Kennebunk
Colony Beach	Kennebunkport
Goose Rocks	Kennebunkport
Crescent Beach (Kittery)	Kittery
Fort Foster	Kittery
Sea Point Beach	Kittery
Ducktrap River	Lincolnville
Lincolnville Beach Area	Lincolnville
Footbridge (Ogunquit)	Ogunquit
Little Beach	Ogunquit
Main (Ogunquit)	Ogunquit
Moody (Ogunquit)	Ogunquit
Riverside (Ogunquit)	Ogunquit
OOB - Central	Old Orchard Beach
OOB - North End	Old Orchard Beach
OOB - Ocean Park	Old Orchard Beach
Popham - Center Beach	Popham Beach State Park
Popham - East Beach	Popham Beach State Park
Popham - West Beach/Morse River	Popham Beach State Park
East End Beach	Portland
East Beach	Reid State Park
Half mile Beach	Reid State Park
Lagoon Beach	Reid State Park
Mile Beach	Reid State Park
Sandy Beach	Rockland
Goodies Beach	Rockport

Beach Name	Managing Organization
Bay View	Saco
Kinney Shores	Saco
Ferry Beach (Scarborough)	Scarborough
Pine Point	Scarborough
Scarborough Beach	Scarborough Beach State Park
Willard Beach	South Portland
Casino Square	Wells
Crescent Beach (Wells)	Wells
Drakes Isl. Beach	Wells
Wells Beach	Wells
Wells Harbor	Wells
Laudholm Beach	Wells National Estuarine Research Reserve
Cape Neddick Beach	York
Long Sands Beach	York
Short Sands Beach	York
York Harbor Beach	York

Swimming Beach Advisories and Closures

Under Clean Water Act (CWA) guidelines, the designated use of swimming beaches is for "Recreation in and on the Water." Beaches can have advisories or closures posted to warn of potential health risks; these actions are based on a risk analysis performed by the beach manager with assistance from MHB staff. The beaches listed in Tables 7-2 and 7-3 had advisories and/or closures for the number of days noted.

Beach advisories/closures are posted according to:

- Results obtained from bacteria water quality samples exceeding State and Federal standards.
- Conditions at monitoring site indicating the possible presence of disease-causing organisms.

These advisories/closures are recommendations to the public to avoid water contact activities at the beach until further analyses reveal safe conditions and/or conditions at monitoring site change.

For this 2012 Integrated Report, 2009 data show there were 237 advisory days and 13 closure days. In 2010 there were 196 advisory and 11 closure days at 29 beaches.

Table 7-2 2009 Beach Advisory and Closure Information

Town Name	Beach Name	Advisory Days	Closure Days	Total Days in 2009
Bar Harbor	Town Beach	10	0	10
Biddeford	Fortunes Rocks Beach	4	0	4
Biddeford	Hills Beach	2	0	2
Camden	Laite Beach	2	0	2
Cape Elizabeth	Crescent Beach	3	0	3
Georgetown	Mile Beach	2	0	2
Kennebunk	Goochs Beach	12	0	12
Kennebunk	Libby Cove Beach	8	0	8
Kennebunk	Middle Beach (Kennebunk)	8	0	8
Kennebunk	Mothers Beach	6	0	6
Kennebunkport	Colony Beach	7	0	7
Kennebunkport	Goose Rocks	11	0	11
Kittery	Fort Foster	13	0	13
Kittery	Sea Point Beach	9	0	9
Lincolnville	Ducktrap River	21	0	21
Ogunquit	Main (Ogunquit)	2	0	2
Ogunquit	Riverside (Ogunquit)	8	0	8
Old Orchard Beach	Oob - Central	2	0	2
Phippsburg	Popham - Center Beach	2	0	2
Phippsburg	Popham - East Beach	2	0	2
Phippsburg	Popham - West Beach-Morse River	4	0	4
Portland	East End Beach	11	13	24
Rockland	Sandy Beach	2	0	2
Rockport	Goodies Beach	23	0	23
Scarborough	Higgins Beach	4	0	4
Scarborough	Scarborough Beach	1	0	1
South Portland	Willard Beach	23	0	23
Wells	Casino Square	2	0	2
Wells	Crescent Beach (Wells)	2	0	2
Wells	Laudholm Beach	3	0	3
Wells	Wells Beach	2	0	2
Wells	Wells Harbor	2	0	2
York	Cape Neddick Beach	9	0	9
York	Long Sands Beach	5	0	5
York	Short Sands Beach	1	0	1
York	York Harbor Beach	9	0	9
Totals		**237**	**13**	**250**

Table 7-3 2010 Beach Advisory and Closure Information

Town Name	Beach Name	Advisory Days	Closure Days	Total Days in 2010
Bar Harbor	Hulls Cove	2	0	2
Bar Harbor	Town Beach	2	0	2
Biddeford	Hills Beach	2	0	2
Camden	Laite Beach	10	0	10
Cape Elizabeth	Kettle Cove Beach	2	0	2
Freeport	Winslow Park	3	0	3
Georgetown	Lagoon Beach	9	0	9
Kennebunk	Goochs Beach	9	0	9
Kennebunkport	Colony Beach	7	0	7
Kennebunkport	Goose Rocks	18	0	18
Kittery	Fort Foster	2	0	2
Kittery	Sea Point Beach	4	6	10
Lincolnville	Lincolnville Beach Area	8	0	8
Ogunquit	Little Beach	12	0	12
Ogunquit	Riverside (Ogunquit)	18	0	18
Old Orchard Beach	Oob - Ocean Park	1	0	1
Phippsburg	Popham - Center Beach	3	0	3
Phippsburg	Popham - East Beach	3	0	3
Phippsburg	Popham - West Beach-Morse River	9	0	9
Portland	East End Beach	6	5	11
Rockland	Sandy Beach	2	0	2
Rockport	Goodies Beach	25	0	25
Scarborough	Ferry Beach (Scarborough)	4	0	4
South Portland	Willard Beach	11	0	11
Wells	Casino Square	1	0	1
York	Cape Neddick Beach	3	0	3
York	Long Sands Beach	3	0	3
York	Short Sands Beach	14	0	14
York	York Harbor Beach	3	0	3
Totals		**196**	**11**	**207**

Shellfish Program Monitoring & Assessments

Shellfish Harvest Area Closures

Contact: Alison Sirois, Growing Area Program Manager, Department of Marine Resources, Public Health Division

Tel: (207) 215-4107 email: alison.sirois@maine.gov

Related Website:

http://www.maine.gov/dmr/rm/public_health/shellfishgrowingarea.htm

The Department of Marine Resources (DMR) assesses information on shellfish growing areas to ensure that shellfish harvested are safe for consumption. A goal of the Clean Water Act (CWA) is to have these areas meet their designated use of

"Propagation and Harvest of Shellfish." Shellfish areas are closed by DMR if the area is found to have elevated levels of bacteria or if the area is determined as threatened by potential sewage pollution problems (proximity of wastewater outfalls or intense storm runoff events). Water samples are collected and tested for fecal coliform bacteria at least six (6) times annually from each of the more than 2,000 established sampling sites that are located along the entire Maine coast. The shoreline survey includes a visual inspection of the shoreline to determine the location and magnitude of potential sewage pollution and toxic contamination problems.

For information on closures, call DMR's hot line 1-800-232-4733 or 207-624-7727 or visit the web at www.maine.gov/dmr/rm/public_health/closures/shellfishhotline.htm

Toxic Algae (Red Tide)

Contact: Darcie Couture, Biotoxin Program Manager, Department of Marine Resources, Public Health Division

Tel: (207) 350-6035 email: darcie.couture@maine.gov

Related Website: www.maine.gov/dmr/rm/public_health/redtide.htm

"Red Tide" is used to refer to rapid increases in numbers of microscopic marine algae that contain potentially lethal toxins. The toxin is transferred to humans by the ingestion of shellfish that have filtered the organisms into their systems. The toxin affects humans by paralyzing the central nervous system and, in high doses, may cause death.

DMR's Biotoxin Monitoring Program monitors levels of PSP (Paralytic Shellfish Poisoning or "Red Tide") and other marine biotoxins in the shellfish and waters of Maine. Shellfish samples are collected statewide between April and October and evaluated at the Biotoxin laboratories in West Boothbay Harbor and Lamoine. When toxin is found approaching quarantine levels, closures of shellfish harvest areas are implemented. Maine has historically had high levels of PSP during the warmer periods of the year. While red tide is a water quality issue, it is not a direct cause and effect relationship with human-caused pollutants. Closures, therefore, are not reported as violations of water quality standards.

For information on closures, call DMR's hot line 1-800-232-4733 or 207-624-7727 or visit the web at

www.maine.gov/dmr/rm/public_health/closures/shellfishhotline.htm

Ocean Fish and Shellfish Consumption Advisories

Contact Andrew Smith, DHHS Maine CDC, Environmental and Occupational Health Program

Tel: (207) 287-5189 email: Andy.E.Smith@maine.gov

Related Website: http://www.maine.gov/dhhs/mecdc/environmental-health/eohp/

Waters do not attain their "Clean Water Act-designated use for Fishing," whenever government agencies issue fish and/or shellfish consumption advisories. These advisories are designed to let citizens know that there may be an increased risk to their health if they choose to consume certain species of fish or shellfish. Since 1992, human health consumption advisories have been in place to warn the public against the consumption of lobster tomalley due to high levels of toxic contaminants. No evidence of elevated levels of these contaminants was found in lobster meat. The advisory was expanded to include bluefish and striped bass in 1996, also due to detection of elevated levels of toxic contaminants in their flesh. The advisory for striped bass and blue fish was substantially revised in June 2009 based on recent sampling data from Maine and other Atlantic coastal states. The entire Maine coast (for waters naturally capable of supporting lobster propagation and harvest) is only in partial support of its designated use for fishing due to these consumption advisories. Toxic contamination found in lobster tomalley is presumed to originate in Maine waters, which leads to their listing in Category 5-D for non-attainment due to legacy pollutants. Toxic contaminants found in migratory or pelagic finfish are presumed to have been acquired largely outside of Maine waters where the fish spend most of their lives. Thus, advisories for marine finfish are not listed as causes of non-attainment.

Advisory Overview

Current information, with a last revision date of June 3, 2009, on ocean fish and shellfish advisories as adapted from the Maine CDC is as follows:

WARNING About Eating Saltwater Fish and Lobster Tomalley

Warning: Chemicals in some Maine saltwater fish and lobster tomalley may harm people who eat them. Women who are or may become pregnant and children should carefully follow the Safe Eating Guidelines.

It's hard to believe fish that looks, smells, and tastes fine may not be safe to eat. But the truth is that some saltwater fish have mercury, PCBs and Dioxins in them.

All these chemicals settle into the ocean from the air. PCBs and Dioxins also flow into the ocean through our rivers. These chemicals then build up in fish.

Small amounts of mercury can damage a brain starting to form or grow. That's why babies in the womb, nursing babies, and young children are at most risk. Mercury can also harm older children and adults, but it takes larger amounts.

PCBs and Dioxins can cause cancer and other health problems if too much builds up in your body. Since some saltwater fish contain several chemicals, we ask that all consumers of the following saltwater species follow the safe eating guidelines.

Specific Ocean Fish Consumption Advisories

Safe Eating Guidelines

Striped Bass and Bluefish: Pregnant and nursing women, women who may get pregnant, nursing mothers and children under 8 years of age should not eat any striped bass or bluefish. All other individuals should eat no more than 4 meals per year.

Shark, Swordfish, King Mackerel, and Tilefish: Pregnant and nursing women, women who may get pregnant and children under 8 years of age are advised to not eat any swordfish or shark. All other individuals should eat no more than 2 meals per month.

Canned Tuna: Pregnant and nursing women, women who may get pregnant and children under 8 years of age should eat no more than 1 can of "white" tuna or 2 cans of "light" tuna per week.

All other ocean fish and shellfish, including canned fish and shellfish: Pregnant and nursing women, women who may get pregnant and children under 8 years of age should eat no more than 2 meals per week.

Lobster Meat and Tomalley Consumption Advisories

Lobster Meat: Consumption advisories do not exist for lobster meat.

Lobster Tomalley: Recommended to completely avoid consumption of lobster tomalley. While there is no known safety considerations when it comes to eating lobster meat, consumers are advised to refrain from eating the tomalley. The tomalley is the soft, green substance found in the body cavity of the lobster that functions as the liver and pancreas. Test results have shown that the tomalley can accumulate contaminants found in the environment.

For more information, including warnings on freshwater fish call (866) 292-3474 or visit the related web site at: http://www.maine.gov/dhhs/mecdc/environmental-health/eohp/

FRESHWATER FISH CONSUMPTION MONITORING, ASSESSMENTS AND ADVISORIES

Contact: Barry Mower, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-0291 email: Barry.F.Mower@maine.gov

Related Website: http://www.maine.gov/dep/water/monitoring/toxics/

In addition to marine fish and shellfish, DEP monitors freshwater fish in its Surface Waters Ambient Toxics (SWAT) monitoring program for contaminants that may present a risk for human consumption. The results are forwarded to the Maine Center for Disease Control and Prevention (MCDC, formerly Maine Bureau of Health) which is responsible for recommending the warnings on eating fish based on the presence of chemicals (MSRA 22 ß 1696 I). MCDC does so in the form of Fish Consumption Advisories, which can be seen with additional information at http://www.maine.gov/dhhs/eohp/fish/. There is a statewide Fish Consumption Advisory for all freshwaters because of mercury and additional advisories for specific waters because of other contaminants.

Mercury Statewide Fish Consumption Advisory

Based on monitoring of mercury concentrations in freshwater fish from all over Maine, MCDC issued a statewide advisory for all Maine lakes and ponds in 1994 and expanded it to include all freshwaters in 1997, and revised in 2000 as follows:

Pregnant and nursing women, women who may get pregnant, and children under age 8 SHOULD NOT EAT any freshwater fish from Maine's inland waters. Except, for brook trout and landlocked salmon, 1 meal per month is safe.

All other adults and children older than 8 CAN EAT 2 freshwater fish meals per month. For brook trout and landlocked salmon, the limit is 1 meal per week.

Dioxin

Dioxin levels in fish from Maine rivers continue to decline, approaching background at some locations but still exceeding background at others.

An evaluation of the need for fish consumption advisories due to the presence of dioxin-like compounds in fish requires a comparison to a health benchmark. The MCDC uses a health benchmark that is expressed as a toxicity-weighted concentration of dioxin-like compounds in fish tissue, referred to as a “Fish Tissue Action Level” or FTAL. For the present report, the MCDC compares the most recent data on contaminant levels to its current FTALc for dioxin-like compounds of 1.5 parts per trillion (ppt) for protection of cancer-related effects and a 0.4 parts per trillion FTALr for protection of noncancer reproductive related effects. The FTAL of 1.5 ppt for cancer related effects has been used by MCDC since 1990. The FTAL of 0.4 ppt for noncancer effects is based on the same toxicity data relied upon since 1990, but has been adjusted downward to account for the substantial background exposure we all get from the presence of these chemicals in most dietary foods.

There was no dioxin sampling in 2009 but there was limited sampling in 2010. In 2010, dioxin concentrations measured in fish from the West Branch of the Sebasticook River were lower than when last measured, but still exceed MCDC’s non-cancer reproductive Fish Tissue Action Level (FTALr). The dioxin concentrations in fish from the St. Croix River above Woodland are below the FTALr; dioxin-like coplanar PCBs were not measured in 2010, but in previous years the addition of the PCBs resulted in an exceedance of the FTALr. Fish captured from the Androscoggin River, Penobscot River below Millinocket, Presumpscot River in Gorham and Westbrook, and Sebasticook River at Newport and Burnham exceeded MCDC’s FTALr for dioxins in previous years.

River and Stream Specific Fish Consumption Advisories

The dominant causes for the following fish consumption advisories are identified as dioxin/furans/coplanar PCBs, total PCBs, and total DDTs (DDD + DDE + DDT). MCDC is currently reviewing all the fish contaminant data since 2003 and expects any revisions to the fish consumption advisories to be issued in 2012.

Current advisories are listed below.

Department of Health and Human Services Guidelines about Eating Freshwater Fish

Warning: **Mercury in Maine freshwater fish may harm the babies of pregnant and nursing mothers, and young children.**

SAFE EATING GUIDELINES

Pregnant and nursing women, women who may get pregnant, and children under age 8 SHOULD NOT EAT any freshwater fish from Maine's inland waters. Except, for brook trout and landlocked salmon, 1 meal per month is safe.

All other adults and children older than 8 CAN EAT 2 freshwater fish meals per month. For brook trout and landlocked salmon, the limit is 1 meal per week.
It's hard to believe that fish that looks, smells, and tastes fine may not be safe to eat. But the truth is that fish in Maine lakes, ponds, and rivers have mercury in them. Other states have this problem too. Mercury in the air settles into the waters. It then builds up in fish. For this reason, older fish have higher levels of mercury than younger fish. Fish (like pickerel and bass) that eat other fish have the highest mercury levels.

Small amounts of mercury can harm a brain starting to form or grow. That is why unborn and nursing babies and young children are most at risk. Too much mercury can affect behavior and learning. Mercury can harm older children and adults, but it takes larger amounts. It may cause numbness in hands and feet or changes in vision. The Safe Eating Guidelines identify limits to protect everyone.

Warning: Some Maine waters are polluted, requiring additional limits to eating fish.

Fish caught in some Maine waters have high levels of PCBs, Dioxins or DDT in them. These chemicals can cause cancer and other health effects. The Bureau of Health recommends <u>additional</u> fish consumption limits on the waters listed below. <u>Remember</u> to check the mercury guidelines. If the water you are fishing is listed below, check the mercury guideline above and follow the most limiting guidelines.

Androscoggin River Gilead to Merrymeeting Bay:--------------------------- 6-12 fish meals a year.
Dennys River Meddybemps Lake to Dead Stream:------------------------ 1-2 fish meals a month.
Green Pond, Chapman Pit, & Greenlaw Brook
(Limestone):---**Do not eat any fish from these waters**.
Little Madawaska River & tributaries
(Madawaska Dam to Grimes Mill Road):-----------------**Do not eat any fish from these waters**.
Kennebec River Augusta to the Chops:----------------**Do not eat any fish from these waters**.
Shawmut Dam in Fairfield to Augusta:--------- 5 trout meals a year, 1-2 bass meals a month.
Madison to Fairfield: --- 1-2 fish meals a month.
Meduxnekeag River: -- 2 fish meals a month.
North Branch Presque Isle River-- 2 fish meals a month.
Penobscot River below Lincoln:--- 1-2 fish meals a month
Prestile Stream:--- 1 fish meal a month.
Red Brook in Scarborough: -- 6 fish meals a year.
Salmon Falls River below Berwick: --- 6-12 fish meals a year.
Sebasticook River (East Branch, West Branch & Main Stem)
(Corinna/Hartland to Winslow):---2 fish meals a month.

Groundwater and Public Health Concerns

Public Health and Environmental Concerns

Contaminants found in groundwater have numerous adverse human health and environmental impacts. Public health concerns arise because some of the contaminants are individually linked to toxic effects ranging from allergic reactions and respiratory impairment to liver and kidney damage, and damage to the central nervous system. Additional public health concerns also arise because information is not available about the health impacts of many contaminants found in groundwater.

Due to uncertainties in the relationships between exposure to contaminants and impacts on human health, public health efforts are based on identifying the probabilities of impacts (i.e. risk assessment). Conducting a risk assessment for combinations of contaminants that are commonly found in groundwater is difficult because there are no generally accepted protocols for testing the effects of contaminant interactions. The primary route of exposure to contaminants is through ingestion of drinking water, although exposure is also possible through contact with skin and inhalation of vapors from groundwater sources (bathing, food preparation, industrial processes, etc.)

Because groundwater generally provides base flow to streams and rivers, environmental impacts include toxic effects on benthic invertebrates, fish, wildlife and aquatic vegetation. This also presents a public health concern if the surface waterbody is a source of food or recreation. In some areas of the State there are probably links between low-level, long-term groundwater quality degradation and the water quality of streams and brooks during low-flow conditions.

Drinking Water Programs and Groundwater Contaminant Assessments

Wellhead Protection Program

Contact: David Braley, DHHS Maine CDC, Division of Environmental Health, Drinking Water Program

Tel: (207) 287-5338 email: David.Braley@maine.gov

Related Websites:

http://www.maine.gov/dhhs/mecdc/environmental-health/water/financial-resources/financialresources.htm

or http://www.state.me.us/dhhs/eng/water/

The State of Maine Drinking Water Program (DWP), located in the Department of Health and Human Services, administers the Wellhead Protection Program (WHPP). The WHPP continues to be a voluntary program for Maine's public water suppliers, with all reduced or waived monitoring tied to approved protection programs. To be eligible for reduced or waived monitoring, a system must have an approved local Wellhead Protection Plan (WHPP) and have completed a waiver application.

SOURCE WATER ASSESSMENT AND PROTECTION PROGRAM

Contact: Andrews L. Tolman, DHHS Maine CDC, Division of Environmental Health, Drinking Water Program

Tel: (207) 287-2070 email: andrews.l.tolman@maine.gov

Related Websites: www.medwp.com and

http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/swp/sourcewaterprotection.htm

Water supply protection is the first line of defense in protecting public health. Protecting a water supply source has long been recognized as the cornerstone of providing safe drinking water. The most effective source protection method is to keep the area contributing water to the supply open and undeveloped. The Maine Drinking Water Program's (DWP) completed five year assessment of source protection for public water supplies identified rapid residential and commercial development in source protection areas as the most significant threat to water quality and quantity, and few water suppliers are prepared to deal with these risks.

Public Water Systems have a very limited suite of tools for source protection: they can purchase land, inspect existing activities, and ask local government to enact (and enforce) protective ordinances. Less than half of Maine's community water systems have effective source protection plans in place after more than fifteen years of encouragement and incentives. The Program continues to work to assess the risk to new sources and systems, and to encourage protection.

FINISHED WATERS

Contact: Andy Tolman, DHHS Maine CDC, Division of Environmental Health, Drinking Water Program

Tel: (207) 287-6191 email: andrews.l.tolman@maine.gov

Related Website: www.medwp.com

The Drinking Water Program (DWP) is the front line enforcement agent of the U.S. Environmental Protection Agency (EPA) for the rules and regulations set forth in the Safe Drinking Water Act (SDWA). The requirements of SDWA apply to the approximately 1900 public drinking water systems in Maine. There are 70 water systems that use surface water as their primary source and these all have water treatment systems and watershed protection programs. Of the approximately 1,800 ground water systems, 876 have some form of treatment on-line (and this number is likely to continue to rise) while the remaining systems have no treatment and serve raw water. Water testing on finished water is the primary means for assessing public water system compliance while verifying the quality of water that is reaching consumers.

Private Wells

Contact Andrew Smith, DHHS Maine CDC, Environmental and Occupational Health Program

Tel: (207) 287-5189 email: andy.e.smith@maine.gov

Related Website: http://www.maine.gov/dhhs/mecdc/environmental-health/eohp/wells/

The State of Maine has one of the highest per capita uses of domestic household wells for drinking water in the U.S. Based on data from Maine's 2003 Behavioral Risk Factors Surveillance Survey (BRFSS), 52 percent of the state's population relies on private domestic wells for their drinking water. Despite the fact that the majority of Maine residents obtain their drinking water from private household wells, the State does not have an environmental health services program focused specifically on meeting the needs of private well owners.

Please refer to pages 162-167 of the 2006 Integrated Water Quality Monitoring and Assessment Report for additional information on Maine's Wellhead Protection and Source Water Protection Programs, and Finished Water and Private Well information. http://www.maine.gov/dep/water/monitoring/305b/index.htm

Radon

Contact: Bob Stilwell, DHHS Maine CDC, Division of Environmental Health, Radiation Control Program

Tel: (207) 287-5698 (or 800-232-0842 in Maine) email: bob.stilwell@maine.gov

Related Website:
http://www.maine.gov/dhhs/mecdc/environmental-health/rad/radon/hp-radon.htm

Not all public health concerns that involve ground water are caused by pollution released from human activities. The presence of naturally occurring radioactive radon gas in ground water drawn from granite bedrock aquifers and overlying soils has long been recognized as a problem in Maine. Based on studies of miners and more recently on people living in homes with high radon concentrations, medical researchers have shown that high radon levels in air are associated with increased incidence of lung cancer. Radon in water supplies is a concern because radon is readily released into the air from water. Therefore the health concerns stems more from inhalation of the radon rather than drinking the water. A large number of Maine wells have radon concentrations that through normal household water use, release concentrations of radon into the air that are as high or higher than the concentrations associated with an increased incidence of lung cancer.

The average concentration of radon in public or private water supplies in Maine ranges from 5,000 to 10,000 picocuries/Liter (pCi/L). The Maine State Toxicologist set a maximum exposure guideline (MEG) for radon in water of 4,000 pCi/l, effective January 1 2007. For private wells with radon in water concentrations between 4,000 pCi/l and 10,000 pCi/l, the Toxicologist recommends investigation of the total radon risk in the structure from water and soil gas (air), then making a decision to reduce radon based on the amount of risk the occupants are willing to accept and the resources available for radon risk reduction. For private wells with radon concentrations of 10,000 pCi/l or higher in water, the guidance recommends reducing the radon in water concentration regardless of the radon in air concentration. The new radon in water MEG is also being used by the Drinking Water Program when evaluating new community water supplies and new non-transient, non-community water supplies.

ARSENIC

Contacts: Robert Marvinney, State Geologist, Maine Geological Survey

Tel: (207) 287-2804 email: robert.g.marvinney@maine.gov

or David Braley, DHHS, Maine CDC, Division of Environmental Health, Drinking Water Program

Tel: (207) 287-5338 email: David.Braley@maine.gov

Related Websites:

http://www.maine.gov/dhhs/mecdc/environmental-health/water/resources/arsenic.htm

and http://www.maine.gov/dhhs/mecdc/environmental-health/eohp/index.htm

Several types of cancer including skin and bladder cancer, along with other health problems have been linked to the occurrence of arsenic in drinking water. The current Maximum Contaminant Level (MCL) for arsenic is 10 ppb (parts per billion) in drinking water. A 2010 study by the U.S. Geological Survey, in cooperation with the Maine Center for Disease Control, reviewed nearly 14,000 well water analyses statewide, and determined that more than 25 percent of the wells sampled in 44 towns had arsenic concentrations in excess of 10 ppb. However, because these wells were self-selected by the homeowners for analysis, it is likely that the data are biased toward higher arsenic concentrations. It is likely that 10-15 percent of wells statewide have arsenic concentrations in excess of the MCL. Additional work by the Maine Geological Survey, Columbia University, and the U.S. Geological Survey on potential sources of arsenic in well water in central Maine strongly suggests that the local metamorphic bedrock is a significant source. However, potential anthropogenic sources cannot be ruled out in some areas.

CHAPTER 8 SUMMARY OF IMPAIRED WATERS

OVERVIEW

Chapter 8 was re-organized from the 2010 Integrated Report layout to facilitate readability. There are now four sets of tables and each table is presented for each waterbody type assessed by Maine (rivers/streams, lakes/ponds, wetlands, and estuarine/marine waters). The four sets are: 1) New Listings (Tables 8-1 to 8-4); 2) New Delistings (8-5 to 8-8); 3) Status of Delisted Category 5 Waters (8-9 to 8-12); and 4) TMDL Current Project Update (8-13 to 8-16). For each item listed below, also see the related record in Appendices II-V as additional information may be presented there.

NEW LISTINGS

Table 8-1 New Rivers/Streams Listings

This table provides a list of new impairments (Category 5 listings) as well new assessment units (AUs) that were added in other, non-impaired categories; the term 'listings' is therefore used in a general sense here. Note that several AU/cause combinations were listed as impaired (Category 5-A) for the first time in the 2012 reporting cycle but subsequently delisted to Category 4-A in the same cycle due to TMDL approval. See the 'Comments' column for more information. A '0' in column 'Category, 2010' indicates that the assessment unit was not listed in that year for that cause. Abbreviations used in column 'Category, Other 2012' in Table 8-1 are as follows: A/P, (Algae) Periphyton (Aufwuchs) Indicator Bioassessments; DO, Dissolved Oxygen; HA, Habitat Assessment (Streams); MI, Benthic-Macroinvertebrate Bioassessments (Streams); N/E, Nutrient/Eutrophication Biological Indicators; TN, Total Nitrogen; TP, Total Phosphorus; S/S, Sedimentation/Siltation.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0101000303_123R01	North Fork McLean Brook	St Agatha, tributary to Fish River	Benthic-Macroinvertebrate Bioassessments (Streams)	0	3	5-A (A/P)	New listing for potential Aquatic Life Use impairment based on 2009 biological monitoring data.
ME0101000303_123R01	North Fork McLean Brook	St Agatha, tributary to Fish River	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	5-A (MI)	

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0101000303_124R01	Dickey Brook	Tributary to Cross Lake/Fish River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (DO, N/E)	New listing for Aquatic Life Use impairment based on 2003 and 2009 biological monitoring data. Impairment covered under EPA approved TMDL for Cross Lake and Daigle Pond.
ME0101000304_128R01	Perley Brook (Fort Kent)	Includes South Perley Bk and North Br Perley Bk; trib to Fish R	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for potential Aquatic Life Use impairment based on 2004 and 2009 biological monitoring data.
ME0101000411_137R01	Salmon Brook (Washburn)	Tributary to Aroostook River	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for Aquatic Life Use based on 2009 biological monitoring data.
ME0101000412_140R02	Dudley Brook (Chapman)	Tributary to North Branch Presque Isle Stream	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	4-A (MI, TN, TP, S/S)	New listing for potential Aquatic Life Use impairment based on 2009 biological monitoring data.
ME0101000412_140R04	Hanson Brook- "Unnamed Stream (P.I. airport)" BioSta 743	Tributary to Presque Isle Stream, draining the airport	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	5-A (MI)	New listing for Aquatic Life Use impairment based on 2004 and 2009 biological monitoring data.
ME0101000412_140R05	Kennedy Brook (Presque Isle)	Tributary to Presque Isle Stream	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	none	New listing for Aquatic Life Use impairment based on 2004 and 2009 biological monitoring data.
ME0101000412_143R01	Everett Brook (Ft. Fairfield)	Tributary to Aroostook River	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	5-A (DO)	New listing for potential Aquatic Life Use impairment based on 2009 biological monitoring data.
ME0101000412_143R02	Merrit Brook	entering Aroostook R. from south, downstream of Presque Isle	Benthic-Macroinvertebrate Bioassessments (Streams)	3	5-A	5-A (A/P)	New listing for Aquatic Life Use impairment based on 2004 and 2009 biological monitoring data.
ME0101000412_143R02	Merrit Brook	entering Aroostook R. from south, downstream of Presque Isle	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	5-A (MI)	
ME0101000413_146R02	Coloney Brook	Fort Fairfield, tributary to Limestone Stream	Benthic-Macroinvertebrate Bioassessments (Streams)	0	5-A	5-A (A/P)	New listing for Aquatic Life Use impairment based on 2004 and 2009 biological monitoring data.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0101000413_146R02	Coloney Brook	Fort Fairfield, tributary to Limestone Stream	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	5-A (MI)	
ME0101000413_148R	Aroostook River	Main stem between confluence with Presque Isle Stream and 3 miles upstream of Caribou water supply intake	N/A	2	3	none	New listing for potential Aquatic Life Use impairment based observational data.
ME0101000413_148R01	Aroostook River (Caribou)	Main stem between 3 miles upstream of Caribou water supply intake and 100 yards downstream of intake	N/A	0	2	none	New Assessment Unit, created during Aroostook River resegmentation in accordance with water classification (38 MRSA Section 465).
ME0101000413_148R02	Aroostook River	Main stem between 100 yards downstream of Caribou water supply intake and international boundary	N/A	0	2	none	New Assessment Unit, created during Aroostook River resegmentation in accordance with water classification (38 MRSA Section 465).
ME0101000501_149R01	Prestile Stream above dam in Mars Hill	including L. Christina	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, DO, N/E) 5-D (DDT)	New listing for Aquatic Life Use impairment based on 2003, 2004 and 2009 biological monitoring data. Impairment covered under EPA approved TMDL for this AU.
ME0101000501_150R	Prestile Str and tributaries entering below dam in Mars Hill		Benthic-Macroinvertebrate Bioassessments (Streams)	0	3	3 (A/P) 5-D (DDT)	New listing for potential Aquatic Life Use impairment based on 2009 biological monitoring data.
ME0101000501_150R	Prestile Str and tributaries entering below dam in Mars Hill		Periphyton (Aufwuchs) Indicator Bioassessments	0	3	3 (MI) 5-D (DDT)	

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0101000501_150R02	Rocky Brook	Mars Hill, tributary to Prestile Stream	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for potential Aquatic Life Use impairment based on 2004 and 2009 biological monitoring data.
ME0102000510_224R04	Birch Stream (Bangor)	Tributary to Kenduskeag Stream	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI)	New listing for Aquatic Life Use impairment based on 2001, 2003 and 2006 biological monitoring data. Impairment covered under EPA approved TMDL (9/12/2007) for this AU.
ME0102000510_224R07	Crooked Brook, Corinth	Tributary to Kenduskeag Stream	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	none	New listing for Aquatic Life Use impairment based on 2001, 2006 and 2011 biological monitoring data.
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, HA)	New listing for Aquatic Life Use impairment based on 2001, 2006 and 2011 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0103000307_330R	W Branch of Sebasticook R	Main stem, below Rt. 23 bridge in Hartland	Polychlorinated biphenyls	5-A	5-D	5-A (dioxin)	No current sources of contamination, remaining PCBs are legacy pollutants - AU moved from Category 5-A to 5-D in 2012 cycle for this cause.
ME0103000312_333R03	Kennedy Brook (Augusta)	Tributary to Kennebec River	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	4-A (MI)	New listing for Aquatic Life Use impairment based on 2002 and 2007 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0103000312_333R04	Unnamed tributary to Bond Brook	Augusta	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, HA)	New listing for Aquatic Life Use impairment based on 2002 and 2007 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Comments
ME0104000210_418R03	Sabattus River between Sabattus and Androscoggin R	Sabattus River from limits of Lisbon urban area to Androscoggin R	Benthic-Macroinvertebrate Bioassessments (Streams)	0	5-A	5-A (DO, N/E)	Newly created AU (split out from ME0104000210_418R01), existing impairments carried over from original AU.
ME0104000210_418R03	Sabattus River between Sabattus and Androscoggin R	Sabattus River from limits of Lisbon urban area to Androscoggin R	Nutrient/Eutrophication Biological Indicators	0	5-A	5-A (MI, DO)	
ME0104000210_418R03	Sabattus River between Sabattus and Androscoggin R	Sabattus River from limits of Lisbon urban area to Androscoggin R	Oxygen, Dissolved	0	5-A	5-A (MI, N/E)	
ME0104000210_419R02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Tributary to Androscoggin River	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	4-A (MI, HA, DO)	New 5-A listing for Aquatic Life Use: biomonitoring station S-663 showed algae (periphyton) non-attainment in 2003 and 2004 and Class C in 2008. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0104000210_420R04	Unnamed tributary (Topsham 2) to Androscoggin R	Bio Sta 633 (Topsham-Dwnstrm of Rt. 24 crossing) 43.92470/69.95027	Benthic-Macroinvertebrate Bioassessments (Streams)	0	5-A	4-A (HA)	New listing for Aquatic Life Use impairment based on 2002 and 2008 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0105000305_528R02	West Branch Sheepscot River	Below Halls Corner, Rt 17/32	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	2 (DO) 3 (MI) 5-A (E. coli)	New listing for Aquatic Life Use impairment based on 2002-2003 and 2005-2011 biological monitoring data.
ME0106000103_607R04	Piscataqua River (Falmouth)]	Tributary to Presumpscot River	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for potential Aquatic Life Use impairment based on 2005 and 2010 biological monitoring data.
ME0106000103_607R13	Tannery Brook (Gorham)	Tributary to Little River in Gorham	Benthic-Macroinvertebrate Bioassessments (Streams)	0	3	none	New listing for potential Aquatic Life Use impairment based on 2010 biological monitoring data. (2010 Category 3 listing of this AU

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Comments
ME0106000103_607R13	Tannery Brook (Gorham)	Tributary to Little River in Gorham	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	did not specify cause.)
ME0106000104_611R02	Phillips Brook (Scarborough)		Oxygen, Dissolved	0	5-A	4-A (HA)	New listing for Aquatic Life Use impairment based on 2008 data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River		Oxygen, Dissolved	0	5-A	4-A (MI, A/P)	New listing for Aquatic Life Use impairment based on 2008 data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River		Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	4-A (MI, DO)	New listing for Aquatic Life Use impairment based on 2003 and 2004 data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River		Oxygen, Dissolved	0	5-A	4-A (MI, A/P)	New listing for Aquatic Life Use impairment based on 2008 data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River		Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	4-A (MI, DO)	New listing for Aquatic Life Use impairment based on 2003 and 2004 data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000105_610R01	Capisic Brook	Portland	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	4-A (MI, HA)	New listing for Aquatic Life Use impairment based on 2003 and 2004 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Comments
ME0106000105_610R07	Red Brook (Scarborough, S Portland)	Tributary to Long Creek	Polychlorinated biphenyls	5-A	5-D	4-A (HA)	No current sources of contamination, remaining PCBs are legacy pollutants - AU moved from Category 5-A to 5-D in 2012 cycle for this cause.
ME0106000105_610R10	Stroudwater River (Gorham)	Below South Branch Stroudwater River	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for potential Aquatic Life Use impairment based on 2005 and 2010 biological monitoring data.
ME0106000106_602R02	Mare Brook (Brunswick) and selected tributaries	AU includes tributaries downstream of airport runway	Benthic-Macroinvertebrate Bioassessments (Streams)	0	5-A	4-A (HA)	New listing for Aquatic Life Use impairment based on biological monitoring data from multiple years at multiple sites. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000106_602R03	Concord Gully (Freeport)	Tributary to Harraseeket River	Periphyton (Aufwuchs) Indicator Bioassessments	0	5-A	4-A (MI, DO, HA) 5-A (E. coli)	New listing for Aquatic Life Use impairment based on 2001 and 2010 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000106_612R01	Goosefare Brook above I-95	Goosefare Brook, Saco	Escherichia coli	0	5-B	none	New listing for Primary/Secondary Contact Recreation based on 2011 bacteria monitoring. Will be included in future update to statewide bacteria TMDL (approved 9/28/09).
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Benthic-Macroinvertebrate Bioassessments (Streams)	0	5-A	4-A (metals) 5-A (E. coli)	New listing for Aquatic Life Use based on biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Comments
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Escherichia coli	0	5-A	4-A (metals) 5-A (MI)	New listing for Primary/Secondary Contact Recreation based on 2011 bacteria monitoring. Will be included in future update to statewide bacteria TMDL (approved 9/28/09).
ME0106000211_616R07	Swan Pond Brook Trib, Biddeford	Dayton and Biddeford	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for potential Aquatic Life Use impairment based on 2005 and 2010 biological monitoring data.
ME0106000301_622R03	Duck Brook and tributaries	Arundel	Escherichia coli	0	5-B	none	New listing for Primary/Secondary Contact Recreation based on 2011 bacteria monitoring. Will be included in future update to statewide bacteria TMDL (approved 9/28/09).
ME0106000301_622R04	Kennebunk River (Arundel/Kennebunk)	Ward Brook to Kennebunk Landing	Periphyton (Aufwuchs) Indicator Bioassessments	0	3	none	New listing for potential Aquatic Life Use impairment based on 2004 and 2010 biological monitoring data.
ME0106000304_625R04	Goodall Brook	Upstream of Daylight Ave	Benthic-Macroinvertebrate Bioassessments (Streams)	3	4-A	none	New listing for Aquatic Life Use impairments based on 2004 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-5).
ME0106000304_625R04	Goodall Brook	Upstream of Daylight Ave	Habitat Assessment (Streams)	0	4-A	none	

Table 8-2 New Lakes/Ponds Listings

HUC		Lake Name	Lake ID	Impaired Use	Category		Other Listing Categories having Lakes within this HUC	Comments
					2010	2012		
ME	103000311	COCHNEWAGON P	3814	Aquatic Life; Primary Contact; trophic trend/internal recycling	3	5-A	2, 4a	New listing for Aquatic Life and Primary Contact Use impairments based on 2010 and 2011 monitoring data. Cochnewagon was treated with alum to control internal cycling of phosphorus nearly 30 years ago the effectiveness of which has worn off.

Table 8-3 New Wetlands Listings

This table provides a list of new impairments (Category 5 listings) as well new assessment units (AUs) that were added in other, non-impaired categories; the term 'listings' is therefore used in a general sense here. Note that one AU/cause combination (Dole Brook) was listed as impaired (Category 5-A) for the first time in the 2012 reporting cycle but subsequently delisted to Category 4-A in the same cycle due to TMDL approval. See the 'Comments' column for more information. A '0' in column 'Category, 2010' indicates that the assessment unit was not listed in that year for that cause. Abbreviations used in column 'Category, Other 2012' in Table 8-3 are as follows: MI, Benthic-Macroinvertebrate Bioassessments (Streams); PCBs, Polychlorinated biphenyls.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0106000105_609R01_W026	Dole Brook	Tributary to Presumpscot R, entering east of Rt. 302 in Portland, wetland stations W-025 and W-026	Benthic - Macroinvertebrate Bioassessments (Wetlands)	3	5-A	none	New listing for Aquatic Life Use impairment based on 2000 and 2010 biological monitoring data. Subsequently delisted to 4-A in this cycle due to TMDL approval (see Table 8-7).

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0101000501_149R_W200	Tributary wetlands to Prestile Stream above dam in Mars Hill	includes site W-200	Benthic - Macroinvertebrate Bioassessments (Wetlands)	0	3	none	New listing for potential Aquatic Life Use impairment based on 2009 biological monitoring data.
ME0101000501_149R01_W203	Prestile Stream wetlands above dam in Mars Hill	Outlet of Christina Reservoir to dam in Mars Hill, including sites W-203 and W-204	Benthic - Macroinvertebrate Bioassessments (Wetlands)	0	3	5-D (DDT)	New listing for potential Aquatic Life Use impairment based on 2009 biological monitoring data.
ME0101000501_149R01_W203	Prestile Stream wetlands above dam in Mars Hill	Outlet of Christina Reservoir to dam in Mars Hill, including sites W-203 and W-204	DDT	0	5-D	3 (MI)	New listing for fish consumption use impairment based on fish tissue monitoring data. This listing and its category was inferred from the related river AU.
ME0102000205_2036_W226	Widden Pond #2	Baxter State Park	N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2010 biological monitoring data.
ME0103000308_325R01_W080	East Branch Sebasticook River Wetland	Between Corundel Pond and Sebasticook Lake, wetland site W-080	Benzene	0	4-B	4-B (MI) 5-D (dioxin, PCBs)	New listings for fish consumption use impairment based on fish tissue monitoring data. These listings and their categories were inferred from the related river AU.
ME0103000308_325R01_W080	East Branch Sebasticook River Wetland	Between Corundel Pond and Sebasticook Lake, wetland site W-080	Dioxin (including 2,3,7,8-TCDD)	0	5-D	4-B (MI, benzene)	
ME0103000308_325R01_W080	East Branch Sebasticook River Wetland	Between Corundel Pond and Sebasticook Lake, wetland site W-080	Polychlorinated biphenyls	0	5-D	4-B (MI, benzene)	
ME0104000209_415R_W178	Bog Brook (Minot)		N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2008 biological monitoring data.
ME0106000101_606R_W013	Northwest River	Wetland complex tributary to Sebago Lake; includes wetland stations W-013 and W-131	N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2001 and 2005 biological monitoring data.
ME0106000102_603R_W002	Unnamed Tributary to Royal River	Wetland near Tufts/Weymouth Rd New Gloucester, wetland station W-002	N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2010 biological monitoring data.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Comments
				2010	2012	Other 2012	
ME0106000103_607R_W033	Morgan Meadow	Above dam, includes wetland stations W-033 and W-225	N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2000, 2001 and 2010 biological monitoring data.
ME0106000210_615R_W041	Lake Arrowhead		N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2010 biological monitoring data.
ME0106000301_3984_W217	Alewife Pond		N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2010 biological monitoring data.
ME0106000302_623R_W211	Carpenter Brook		N/A	0	2	none	New attainment listing for Aquatic Life Use based on 2009 biological monitoring data.
ME0106000302_628R01_02_W054	Unnamed Tributary to Mousam River	Wetland Station W-054	Benthic - Macroinvertebrate Bioassessments (Wetlands)	3	5-A	none	New listing for Aquatic Life Use impairment based on 2001 and 2010 biological monitoring data.
ME0106000302_628R01_W053	Number One Pond wetlands (Sanford)	Wetland station W-053	Benthic - Macroinvertebrate Bioassessments (Wetlands)	0	3	none	New listing for potential Aquatic Life Use impairment based on 2001 and 2010 biological monitoring data.

Table 8-4 New Estuarine/Marine Waters Listings

Waterbody ID	Segment Description	Cause	Category			Comments
			2010	2012	Other 2012	
812-2	Piscataqua R. Estuary (Eliot, Kittery)	Nutrient/Eutrophication Biological Indicators	3 [1]	5-A	none	New listing for Marine Life Use impairment based on eelgrass areal extent and density decreases documented since 1996.
812-3 (DMR Area 1)	Portsmouth Harbor (south and west of Gerrish Island)	Cause Unknown	3 [1]	5-A	none	New listing for Marine Life Use impairment based on eelgrass areal extent and density decreases documented since 1996.

[1] Waterbody ID was 812-1 in 2010 report.

NEW DELISTINGS

Tables 8-5 through 8-8 present specific *Causes* of impairment that have been removed from the list of Impaired Waters [the"303(d) List"] for the specified waterbody segments. Refer to the "Delisting" section on page 62, above, for an explanation of the delisting process. Segments may appear multiple times if multiple causes have been delisted. For each waterbody, the category change in 2012 for the noted Cause is presented as well as information on whether the waterbody is also listed in other categories. For assessment units that were delisted for reasons other than TMDL approval, delisting information is presented below.

Delisting of Aquatic Life Use Impairment in Category 5-A Water to Category 4-b

1) *Penobscot River*

Five segments on the freshwater portion on the mainstem of the Penobscot River between Mattawamkeag/Woodville and Hampden/Orrington were listed in the 2010 Integrated Report in Category 5-A for Aquatic Life Use Impairments due to Dissolved Oxygen (DO) and Nutrient/Eutrophication Biological Indicators (Table 1). The segments in question span a distance of 94.23 miles and are all classified as Class B.

Table 1 2010 Penobscot River Mainstem Segments in Category 5-A

Assessment Unit ID	**Segment Name**	**Location**	**Length** (miles)
ME0102000502_230R	Penobscot R-(Mattawamkeag to Cambolasse)	Main stem, from Mattawamkeag R to Cambolasse Str	14.05
ME0102000502_231R	Penobscot R	Main stem, from Cambolasse Str to Piscataquis R	19.08
ME0102000506_232R	Penobscot R	Main stem, from Piscataquis R to Orson Is	36.49
ME0102000509_233R_01	Penobscot R	Main stem, from Orson Is to Veazie Dam	14.51
ME0102000513_234R02	Penobscot	Main stem, Veazie Dam to Reeds Bk	10.1

For Class B waterbodies, Maine's Water Quality Standards (WQS; 38 MRSA, Chapter 3, §465 (3)(A) through (C)]) stipulate that '*The habitat must be characterized as unimpaired*', that '*The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas.*' and that '*Discharges to Class B waters may not cause adverse impact to aquatic life in* *that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community*.'.

In May 2011, MDEP completed the 'Penobscot River Phosphorus Wasteload Allocation' (WLA) report which covered the area from Millinocket to Medway (West Branch Penobscot River) and further down to Bangor/Brewer (mainstem Penobscot River). The WLA report identified a total of four industrial dischargers and six significant municipal dischargers that contribute phosphorus to these segments and in combination cause the observed aquatic life impairments. The report established phosphorus limits for the industrial dischargers and MDEP determined that these reduced loadings would be sufficient to eliminate eutrophic conditions along the entire freshwater portion of the river. Between March and May 2011, MDEP issued MEPDES (Maine Pollutant Discharge Elimination System) permits to all ten dischargers identified in the WLA report. It is expected that the phosphorus limits established in the permits to industrial dischargers will result in the elimination of the aquatic life use impairments by 2016. Monitoring data collected in 2011 showed DO attainment in two critical reaches of the river; preliminary analysis of 2012 data covering the majority of the river also indicate attainment of DO criteria. MDEP therefore proposes to delist the five Penobscot River segments specified in Table 1 (above) to Category 4-B in the 2012 reporting cycle.

Delisting of Primary Contact and/or Aquatic Life Use Impairment in Category 5-A Waters to Category 2

1) 'Sebasticook River' (Main stem, from Burnham bridge to Kennebec R, excluding site of former Halifax Impoundment, ME0103000309_332R). This assessment unit (AU) was previously described as "main stem, below confluence of E and W Branches (excluding the Halifax Impd)"; the updated name clarifies the location of this AU, which is a 22.0-mile segment of the river in Burnham, Unity/Clinton, Benton and Winslow. This AU and the adjacent upstream AU (Sebasticook R; Main stem, from E and W Branches to Burnham bridge, including Burnham impoundment'; ME0103000308_332R) were both listed in 2010 with their combined length of 30.83 miles; in 2012, the AUs are listed with their correct respective lengths of 22 and 8.83 miles.

   In Maine's 2010 Integrated Water Quality Monitoring and Assessment Report, this Class C AU (ME0103000309_332R) was listed as impaired (Category 5-A) for aquatic life use based on Nutrient/Eutrophication Biological Indicators and Dissolved Oxygen data. The AU was also listed for fish consumption use (Category 5-A for dioxin, 5-D for PCBs) and Primary/Secondary Contact Recreation use (Category 4-A for E. coli). In the 2012 reporting cycle, DEP proposes to delist the Nutrient/Eutrophication Biological Indicators cause of the aquatic life use impairment from Category 5-A to Category 2 due to attainment of Maine’s narrative criteria for aquatic life use, supported by biological assessments and measured improvements in water chemistry. Other listings for this AU will remain unchanged.

Maine's Class C water quality standards require that the water quality must be *"suitable...as habitat for fish and other aquatic life."* and that *“Discharges to Class C waters may cause some changes to aquatic life, except that the receiving waters must be of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community.”* [38 *MRSA, Chapter 3, §465 (4)(A) and (C)*]

The original listing of this AU was likely based on MDEP monitoring data from 1979 and 1981 which showed Total Phosphorus (TP) values ranging from 37 to 110 ug/L with a mean (based on 12 data points) of 78 ug/L (P. Mitnik data) during critical low flow conditions in the warmer parts of the growing season. The impairment was caused by historically poor (i.e., eutrophic) water quality conditions upstream in Sebasticook Lake (Newport) whose watershed is heavily farmed. Following treatment and/or cessation of municipal point source discharges, implementation of BMPs to control agricultural nonpoint sources of pollution, and 18 years of annual fall lake flushing (to remove TP), inlake phosphorus concentrations had been significantly reduced to levels ranging from 16 to 41 ug/L by 2000 (source: Sebasticook Lake TMDL). In 2001, EPA approved a phosphorus-based TMDL for the lake (TMDL # 2468, approval date 3/8/01) which proposed a number of BMPs and NPS controls for agriculture, residential areas, roadways and other land uses. During the past decade (2002-2011), water quality measures (Secchi disk transparencies, average TP, average Chlorophyll-a) in the lake have continued to show significant improvements.

As a result of this upstream improvement in water quality, conditions in the river below the lake have also improved. New MDEP monitoring data from 2007, 2009 and 2012 indicate markedly reduced nutrient levels between 31 and 39 ppb and no impairment of the algal community in the river. Based on Maine’s narrative water quality criteria for aquatic life use and the data explained above, MDEP therefore concludes that the Nutrient/Eutrophication Biological Indicators impairment in the AU in question no longer exists and should be removed from Category 5-A.

2) *Sabattus River between Sabattus P and Androscoggin R* (ME0104000210_418R01) is an 11.4-mile segment of the river in Sabattus and Lisbon. In Maine’s 2010 Integrated Water Quality Monitoring and Assessment Report, this assessment unit (AU) was listed as impaired (Category 5-A) for aquatic life use with causes Nutrient/Eutrophication Biological Indicators, Dissolved Oxygen and Benthic-Macroinvertebrates Bioassessments. A review of the listings and underlying data for the 2012 reporting cycle revealed that the macroinvertebrate listing was partially in error and MDEP therefore proposes to delist this cause of impairment in one of two portions of the historic stream segment. The review also revealed that the AU in question contained both a statutory Class B and a statutory Class C stretch [38 MRSA, Chapter 3, §467, 1.D. and 1.D.(3)]; this problem will be remedied in the 2012 IR by splitting the existing AU into two. Coincidentally, the splitting of the existing AU allows MDEP to rectify the erroneous macroinvertebrate listing.

Biological monitoring data collected at 3 locations in the upstream, Class C, stretch of the historic AU over the course of 10 years (total of 7 sampling events in 4 years) showed that the macroinvertebrate community attained Class C aquatic life criteria in all instances. Biological monitoring data collected at 4 locations in the downstream, Class B, stretch of the historic AU over the course of 18 years (total of 8 sampling events in 5 years) showed that the macroinvertebrate community did not attain Class B aquatic life criteria in 5 sampling events. The historic AU therefore incorrectly identified the upstream stretch as having an impaired macroinvertebrate community.

To remedy both problems (mixed statutory class and partially incorrect macroinvertebrate impairment), the historic AU is split into the following two new AUs in the 2012 IR:

a) ME0104000210_418R01 (upstream): historic AU is renamed to ‘Sabattus River between Sabattus P and Androscoggin R’ (location description ‘From Sabattus Pond to limits of Lisbon urban area’), 9.1 miles, Class C, Category 5-A for aquatic life use with Causes Nutrient/Eutrophication Biological Indicators and Dissolved Oxygen. The cause Benthic-Macroinvertebrate Bioassessments has been delisted in 2012 because macroinvertebrates attain class C criteria.

b) ME0104000210_418R03 (downstream): new AU, created in 2012, is named ‘Sabattus River between Sabattus P and Androscoggin R’ (location description ‘From limits of the Lisbon urban area to Androscoggin River’), 2.3 miles, Class B, Category 5-A for aquatic life use with causes Nutrient/Eutrophication Biological Indicators, Dissolved Oxygen and Benthic-Macroinvertebrates Bioassessments.

3) *Hermon Pond*, located in Penobscot County, was listed for non-attainment of two designated uses, Aquatic Life Support and Primary Contact, due to recurrent algal blooms. The surface area of the pond is approximately 440 acres, water flushes through the pond approximately 31 times per year, maximum depth is 17 feet and average depth 10 feet. The pond is considered to be both eutrophic and dystrophic (color average 73 Platinum-Cobalt Units). A significant portion of Hermon Pond’s direct watershed is comprised of wetlands; recent data acquired from an adjacent wetland suggests that the pond is in equilibrium with the wetlands. Results from a paleolimnological study indicate the existence of diatom indicator species representative of eutrophic trophic conditions prior to settlement that are very similar to conditions that currently exist. Thus Hermon Pond’s trophic state is considered stable and in attainment of its classification.

4) *Hammond Pond*, located in Penobscot County, was listed for non-attainment of two designated uses, Aquatic Life Support and Primary Contact due to recurrent algal blooms. The surface area of the pond is approximately 96 acres, water flushes through the pond approximately 186 times per year, maximum depth is 15 feet and average depth 10 feet. The pond is considered to be both eutrophic and dystrophic (color average 67 Platinum-Cobalt Units). A significant portion of Hammond Pond’s direct watershed is comprised of wetlands; recent data acquired from an adjacent wetland suggests that the pond is in equilibrium

with the wetlands. In addition, the high flushing rate indicates that water from upstream Hermon Pond dominates conditions in Hammond Pond. Results from a paleolimnological study on Hermon Pond indicate the existence of diatom indicator species representative of eutrophic trophic conditions prior to settlement that are very similar to conditions that currently exist. Thus downstream Hammond Pond's trophic state is considered stable and in attainment of its classification.

Listing of New Impairment Causes for Impaired Waters with Approved TMDLs (Category 4-A)

1) *Dickey Brook* (West Fork, East Fork and mainstem below the confluence of the two) in Fort Kent, Frenchville, St. Agatha and Cross Lake Township (ME0101000303_124R01) is a 19.5-mile Class B stream impaired for aquatic life use based on Nutrient/Eutrophication Biological Indicators and Dissolved Oxygen data. Dickey Brook was moved from Category 5A to 4A in the 2006 reporting cycle due to a TMDL approved in 2006 for Cross Lake and Daigle Pond for Total Phosphorus (TMDL # 30683, approval date 9/28/06). The TMDL was designed to address water quality stressors associated with non-point source (NPS) runoff (nutrients and sediment) from agricultural fields, forestry operations and developed land (roads, low density residential development, septic systems).

   In the 2012 listing cycle, DEP proposes to list an additional aquatic life use impairment cause for Dickey Brook due to impairments in the algal community (periphyton indicator bioassessments). [Maine's Class B water quality standards require that the water quality must be *"suitable...as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired."* Furthermore, *"Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community."* 38 MRSA, Chapter 3, §465(3)(A) and (C).]

   The primary stressors of the algal community in Dickey Brook are sediment and nutrients (Total Phosphorus), most likely attributable to runoff from agricultural fields. The TMDL identified sediment from erosion as a contributor to the impairments in the watershed and specified watershed management efforts, best management practices, and education/outreach actions as part of its Phosphorus Control Action Plan to curb this form of NPS pollution. It is therefore anticipated that the existing TMDL will address the recently identified impairments to the periphyton community.

2) *Prestile Stream above dam in Mars Hill* (ME0101000501_149R01) *Prestile Stream above dam in Mars Hill* (Including Christina Reservoir) in Easton, Presque Isle, Westfield and Mars Hill (ME0101000501_149R01) is a 15.78-mile Class A stream impaired for aquatic life use based on Benthic-Macroinvertebrate Bioassessments, Nutrient/Eutrophication Biological Indicators and Dissolved Oxygen data. This segment of Prestile Stream was moved from Category 5-A to 4-A in the 2010 reporting cycle due to a TMDL approved in 2010 for Total Phosphorus, Total Nitrogen and Sediment (TMDL # 38544-38546, approval date

5/10/12). The TMDL was designed to address water quality stressors associated with non-point source (NPS) runoff (nutrients and sediment), primarily from agricultural fields but also from forestry practices, recreational activities and other lesser sources.

In the 2012 listing cycle, DEP proposes to list an additional aquatic life use impairment cause for this segment of Prestile Stream due to impairments in the algal community (periphyton indicator bioassessments). [Maine's Class A water quality standards require that the water quality must be *"suitable...as habitat for fish and other aquatic life. The habitat must be characterized as natural."* 38 MRSA, Chapter 3, §465(2)(A).]

The primary stressors of the algal community in this segment of Prestile Stream are excess nutrients (Total Phosphorus), most likely attributable to runoff from agricultural fields; sediment was identified as a secondary stressor (T. Danielson, DEP, pers. comm.). The TMDL identified nutrients and sediment from soil erosion from agricultural fields as a contributor to the impairments in the watershed and specified watershed management efforts, best management practices, and education/outreach actions (targeting agricultural land owners and municipal officials) as part of its Recommendations to curb this form of NPS pollution. It is therefore anticipated that the existing TMDL will address the recently identified impairments to the periphyton community.

3) *Birch Stream* in Bangor (ME0102000510_224R04) is a 0.5-mile Class B stream impaired for aquatic life use based on benthic macroinvertebrate assessment. Birch Stream is already listed in Category 4-A due to a TMDL approved in 2007 for % Impervious Cover, Lead and Zinc (TMDL # 33160, approval date 9/12/07). The TMDL was designed to address water quality stressors associated with overall urban development and excessive stormwater runoff, and Birch Stream was subsequently moved from Category 5-A to 4-A in the 2008 listing cycle.

In the 2012 listing cycle, DEP proposes to list an additional aquatic life use impairment cause for Birch Stream due to impairments in the algal community (periphyton indicator bioassessments). [Maine's Class B water quality standards require that the water quality must be *"suitable...as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired."* Furthermore, *"Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community."* 38 MRSA, Chapter 3, §465(3)(A) and (C).]

The primary stressors of the algal community in Birch Stream are excess nutrients, high specific conductivity, and altered hydrology, most likely attributable to runoff from impervious surfaces (there are no wastewater treatment plant discharges in the watershed). Sources of stormwater in the watershed include Bangor International Airport, Maine Air National Guard, and the airport mall. Stormwater discharges are being regulated by ME DEP with its MS4 general permit, MSGPs for industries, through implementation of the watershed management plan, and with oversight from EPA. It is therefore anticipated that the planning, best management practices, and stream restoration actions associated with the existing TMDL's % IC WLA & LA will address impairments to the periphyton community as well as the benthic community.

Delisting of Primary Contact and/or Aquatic Life Use Impairment in Category 4-A water to Category 2

1) *Boynton Brook* in Bradley (AU ME0102000509_226R02) is a 3.06-mile Class A stream that is listed as impaired for Primary and Secondary Contact Recreation due to Escherichia coli contamination. This assessment unit (AU) was included in Maine's 2008 Integrated Water Quality Monitoring and Assessment Report in Category 5-B for bacteria-only impairment. Following approval of Maine's Statewide Bacteria TMDL on 9/28/09, Boynton Brook was moved to Category 4-A in the 2010 reporting cycle. For Class A waterbodies, Maine's Water Quality Standards [WQS; 38 MRSA, Chapter 3, §465 (2)(B)] stipulate that 'the bacteria content shall be as naturally occurs'. For assessment purposes, the numeric criteria of 29 MPN/100 ml for a geometric mean and 194 MPN/100 ml for instantaneous level (the Class GPA standards for E. coli) are used as surrogate metrics for Class A waterbodies[1]. For the purpose of determining WQS attainment with respect to Clean Water Act §303(d) listings, only the geometric mean criterion is used (see Chapter 4, section Data Interpretation).

   In 2007, Boynton Brook was included in a statewide bacteria study and results indicated an overall geometric mean of 343 MPN/100 ml; this result was based on a limited amount of data (one site, a total of five results collected over two months). In fact, the total number of samples did not comply with Maine DEP's standard practice of requiring a minimum sample size of six bacteria samples for calculation of a geometric mean used (see Chapter 4, section Data Interpretation). In 2010, MDEP conducted a more comprehensive investigation of the watershed (three sites, a total of fifteen results collected over four months). Results showed that the geometric mean for the entire watershed was low (20 MPN/100 ml) compared to the relevant surrogate criterion of 29 MPN/100 ml; furthermore, no samples exceeded the instantaneous level of 194 MPN/100 ml. MDEP therefore concludes that Boynton Brook attains water quality criteria for Primary and Secondary Contact Recreation and can be removed from the impaired streams list.

2) *Rock Brook*[2] in Camden (ME0105000220_522R02_01) is a 1.12-mile Class B stream that is listed as impaired for Primary and Secondary Contact Recreation due to *Escherichia coli* contamination. This assessment unit (AU) was included in Maine's 2008 Integrated Water Quality Monitoring and Assessment Report in Category 5-B for bacteria-only impairment. Following approval of Maine's Statewide Bacteria TMDL on 9/28/09, Rock Brook was moved to Category 4-A in the 2010 reporting cycle. For Class B waterbodies, Maine's Water Quality Standards [WQS; 38 MRSA, Chapter 3, §465 (4)(A) and (C)] stipulate that '*Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin … may not exceed a geometric mean of 64 per 100 milliliters or an instantaneous level of 236 per 100 milliliters*'. For the purpose of

[1] *Maine Statewide Bacteria TMDL*, August 2009 (report # DEPLW-1002), Table 3-1.
[2] Rock Brook is known as Unnamed Brook (Camden) in *Maine Statewide Bacteria TMDL,* August 2009

determining WQS attainment with respect to Clean Water Act §303(d) listings, only the geometric mean criterion is used (see Chapter 4, section Data Interpretation).

In 2007, Rock Brook was included in a statewide bacteria study and results indicated an overall geometric mean of 105 MPN/100 ml; this result was based on a limited amount of data (one site, a total of six results collected over two months). In 2010, MDEP conducted a more comprehensive investigation of the watershed (three sites, a total of sixteen results collected over three months). Results showed that the geometric mean for the entire watershed was very low (14 MPN/100 ml) compared to the relevant criterion of 64 MPN/100 ml. MDEP therefore concludes that Rock Brook attains water quality criteria for Primary and Secondary Contact Recreation and can be removed from the impaired streams list.

3) *Echo Lake*, located in Aroostook County, was listed for non-attainment of two designated uses, Aquatic Life Support and Primary Contact, due to recurrent algal blooms. The surface area of the lake is approximately 90 acres, water flushes through the lake approximately 4.5 times per year, maximum depth is 9 feet and average depth 5 feet. Echo Lake is considered a shallow productive system and supported algal blooms most years prior to 2001. Since 2001, data indicate that transparencies have not fallen below Maine's 2 meter bloom threshold for at least six years. A comparison of data collected over the past decade to the long term dataset suggests that the lake has improved considerably since data collection began and now attains GPA classification.

4) *Little Cobbosseecontee Lake*, located in Kennebec County, was listed for non-attainment of two designated uses, Aquatic Life Support and Primary Contact, due to recurrent algal blooms. The surface area of the lake is approximately 79 acres, water flushes through the lake approximately 4.6 times per year, maximum depth is 33 feet and average depth 17 feet. During the 1980s, Little Cobbosseecontee Lake supported algal blooms nearly every year. The lake has experienced only one bloom in each subsequent decade. The lake remains a stable, eutrophic water and data indicate that it is now attaining its GPA water classification.

Table 8-5 Rivers/Streams Delisted to Another Category

A '0' in column 'Category, 2010' indicates that the assessment unit (AU) was not listed in that year for that cause. These particular AU/cause combinations were initially listed as impaired (Category 5-A) in the 2012 reporting cycle but subsequently delisted to Category 4-A in the same cycle due to TMDL approval; see Table 8-1 for more information. Abbreviations used in column 'Category, Other 2012' in Table 8-5 are as follows: A/P, (Algae) Periphyton (Aufwuchs) Indicator Bioassessments; DO, Dissolved Oxygen; HA, Habitat Assessment (Streams); MI, Benthic-Macroinvertebrate Bioassessments (Streams); N/E, Nutrient/Eutrophication Biological Indicators; PCBs, Polychlorinated biphenyls.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
ME0102000502_230R	Penobscot R- (Mattawamkeag to Cambolasse)	Main stem, from Mattawamkeag R to Cambolasse Str	Nutrient/Eutrophication Biological Indicators	5-A	4-B	4-B (DO)	TMDL Alternative (4B)	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
ME0102000502_230R	Penobscot R- (Mattawamkeag to Cambolasse)	Main stem, from Mattawamkeag R to Cambolasse Str	Oxygen, Dissolved	5-A	4-B	4-B (N/E)	TMDL Alternative (4B)	
ME0102000502_231R	Penobscot R	Main stem, from Cambolasse Str to Piscataquis R	Nutrient/Eutrophication Biological Indicators	5-A	4-B	4-A (dioxin) 4-B (DO) 5-D (PCBs)	TMDL Alternative (4B)	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
ME0102000502_231R	Penobscot R	Main stem, from Cambolasse Str to Piscataquis R	Oxygen, Dissolved	5-A	4-B	4-A (dioxin) 4-B (N/E) 5-D (PCBs)	TMDL Alternative (4B)	
ME0102000506_232R	Penobscot R	Main stem, from Piscataquis R to Orson Is	Nutrient/Eutrophication Biological Indicators	5-A	4-B	4-A (dioxin) 4-B (DO) 5-D (PCBs)	TMDL Alternative (4B)	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
ME0102000506_232R	Penobscot R	Main stem, from Piscataquis R to Orson Is	Oxygen, Dissolved	5-A	4-B	4-A (dioxin) 4-B (N/E) 5-D (PCBs)	TMDL Alternative (4B)	
ME0102000509_226R 02	Boynton Brook	Bradley	Escherichia coli	4-A	2	none	Applicable WQS attained; reason for recovery unspecified	2010 monitoring data show attainment of bacteria standards.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Reason for Removal	Delisting Comment
ME0102000509_233R_01	Penobscot R	Main stem, from Orson Is to Veazie Dam	Nutrient/Eutrophication Biological Indicators	5-A	4-B	4-A (dioxin) 4-B (DO) 5-D (PCBs)	TMDL Alternative (4B)	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
ME0102000509_233R_01	Penobscot R	Main stem, from Orson Is to Veazie Dam	Oxygen, Dissolved	5-A	4-B	4-A (dioxin) 4-B (N/E) 5-D (PCBs)	TMDL Alternative (4B)	
ME0102000510_224R05	Capehart (Pushaw) Brook (Bangor)	Tributary to Kenduskeag Stream	Habitat Assessment (Streams)	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0102000510_224R06	Arctic Brook (near Valley Ave, Bangor)	Tributary to Kenduskeag Stream	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0102000510_224R06	Arctic Brook (near Valley Ave, Bangor)	Tributary to Kenduskeag Stream	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA, A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Habitat Assessment (Streams)	5-A	4-A	4-A (MI, A/P)		
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Periphyton (Aufwuchs) Indicator Bioassessments	5-A	4-A	4-A (MI, HA)		
ME0102000511_225R02	Sucker Brook (Hampden) (formerly 'Unnamed St.-Hampden')	Tributary to Penobscot R. entering from the west, in Hampden	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (DO)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Reason for Removal	Delisting Comment
ME0102000511_225R 02	Sucker Brook (Hampden) (formerly 'Unnamed St.-Hampden')	Tributary to Penobscot R. entering from the west, in Hampden	Oxygen, Dissolved	5-A	4-A	4-A (MI)		
ME0102000513_234R 02	Penobscot	Main stem, Veazie Dam to Reeds Bk	Nutrient/Eutrophication Biological Indicators	5-A	4-B	4-A (dioxin) 4-B (DO) 5-D (PCBs)	TMDL Alternative (4B)	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
ME0102000513_234R 02	Penobscot	Main stem, Veazie Dam to Reeds Bk	Oxygen, Dissolved	5-A	4-B	4-A (dioxin) 4-B (N/E) 5-D (PCBs)	TMDL Alternative (4B)	
ME0103000306_320R 03	Whitten Brook (Skowhegan)	Tributary to Kennebec River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (E. coli, HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0103000306_320R 03	Whitten Brook (Skowhegan)	Tributary to Kennebec River	Habitat Assessment (Streams)	5-A	4-A	4-A (E. coli, MI)		
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Nutrient/Eutrophication Biological Indicators	5-A	2	4-A (bacteria) 5-A (dioxin, DO) 5-D (PCBs)	Applicable WQS attained; due to restoration activities	10/2/12 Nutrient/Eutrophication Biological Indicators cause of Aquatic Life Use impairment delisted to Category 2 due to new data showing removal of cause of impairment.
ME0103000312_333R 02	Whitney Brook (Augusta)	Tributary to Kennebec River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (E. coli, A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0103000312_333R 02	Whitney Brook (Augusta)	Tributary to Kennebec River	Periphyton (Aufwuchs) Indicator Bioassessments	5-A	4-A	4-A (E. coli, MI)		

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
ME0103000312_333R 03	Kennedy Brook (Augusta)	Tributary to Kennebec River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0103000312_333R 03	Kennedy Brook (Augusta)	Tributary to Kennebec River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI)		
ME0103000312_333R 04	Unnamed tributary to Bond Brook	Augusta	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA, P/A)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0103000312_333R 04	Unnamed tributary to Bond Brook	Augusta	Habitat Assessment (Streams)	5-A	4-A	4-A (MI, A/P)		
ME0103000312_333R 04	Unnamed tributary to Bond Brook	Augusta	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, HA)		
ME0104000208_413R 04	Logan Brook, Auburn	Tributary to Androscoggin River	Habitat Assessment (Streams)	5-A	4-A	4-A (E. coli, DO)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0104000208_413R 04	Logan Brook, Auburn	Tributary to Androscoggin River	Oxygen, Dissolved	5-A	4-A	4-A (E. coli, HA)		
ME0104000210_418R 01	Sabattus River between Sabattus and Androscoggin R	From Sabattus Pond to limits of Lisbon urban area	Benthic-Macroinvertebrate Bioassessments (Streams)	5-A	2	5-A (DO, N/E	Applicable WQS attained; original basis for listing was incorrect	Original basis for listing incorrect; documented classification attainment at three biomonitoring stations on 2-3 occasions.
ME0104000210_419R 01	Unnamed Brook (Biomon Sta. 347-Lisbon Falls at Rt 196)	Tributary to Androscoggin River	Habitat Assessment (Streams)	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0104000210_419R 02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Tributary to Androscoggin River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (E. coli, HA, DO, A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Reason for Removal	Delisting Comment
ME0104000210_419R02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Tributary to Androscoggin River	Habitat Assessment (Streams)	5-A	4-A	4-A (E. coli, MI, DO, A/P)		
ME0104000210_419R02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Tributary to Androscoggin River	Oxygen, Dissolved	5-A	4-A	4-A (E. coli, MI, HA, A/P)		
ME0104000210_419R02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Tributary to Androscoggin River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (E. coli, MI, HA, DO)		
ME0104000210_420R01	Unnamed tributary (Brunswick 2) to Androscoggin R	Biomon Sta 641 (near River Rd. Brunswick) 43.91538/69.98089	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0104000210_420R01	Unnamed tributary (Brunswick 2) to Androscoggin R	Biomon Sta 641 (near River Rd. Brunswick) 43.91538/69.98089	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		
ME0104000210_420R02	Unnamed tributary (Brunswick 3) to Androscoggin R	Biomon Sta 642 (near Water St. Brunswick) 43.92167/69.95586	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0104000210_420R02	Unnamed tributary (Brunswick 3) to Androscoggin R	Biomon Sta 642 (near Water St. Brunswick) 43.92167/69.95586	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		
ME0104000210_420R03	Unnamed tributary (Brunswick 4) to Androscoggin R	Biomon Sta 643 (near Jordan Ave., Brunswick) 43.91077/69.94130	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0104000210_420R03	Unnamed tributary (Brunswick 4) to Androscoggin R	Biomon Sta 643 (near Jordan Ave., Brunswick) 43.91077/69.94130	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
ME0104000210_420R04	Unnamed tributary (Topsham 2) to Androscoggin R	Bio Sta 633 (Topsham-Dwnstrm of Rt. 24 crossing) 43.92470/69.95027	Benthic-Macroinvertebrate Bioassessments	0	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0104000210_420R04	Unnamed tributary (Topsham 2) to Androscoggin R	Bio Sta 633 (Topsham-Dwnstrm of Rt. 24 crossing) 43.92470/69.95027	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		
ME0104000210_420R05	Unnamed tributary (Topsham 4) to Androscoggin	BioSta 634; Drains Topsham Fair Mall	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0105000213_514R_01	Card Brook (Ellsworth)	Tributary to Union River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (E. coli, DO)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0105000213_514R_01	Card Brook (Ellsworth)	Tributary to Union River	Oxygen, Dissolved	5-A	4-A	4-A (E. coli, MI)		
ME0105000220_522R02_01	Rock Brook (formerly 'Unnamed Brook') (Camden)		Escherichia coli	4-A	2	none	Applicable WQS attained; reason for recovery unspecified	2010 monitoring data show attainment of bacteria standards.
ME0106000104_611R02	Phillips Brook (Scarborough)	Tributary to Dunstan River	Habitat Assessment (Streams)	5-A	4-A	4-A (DO)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000104_611R02	Phillips Brook (Scarborough)	Tributary to Dunstan River	Oxygen, Dissolved	0	4-A	4-A (HA)		
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River	Tributary to Fore River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (DO, A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River	Tributary to Fore River	Oxygen, Dissolved	0	4-A	4-A (MI, A/P)		

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Reason for Removal	Delisting Comment
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River	Tributary to Fore River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, DO)		
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River	Tributary to Fore River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (DO, A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River	Tributary to Fore River	Oxygen, Dissolved	0	4-A	4-A (MI, A/P)		
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River	Tributary to Fore River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, DO)		
ME0106000105_609R01	Dole Brook (formerly known as 'Unnamed Stream- Portland 3')	Tributary to Presumpscot R. entering east of Rt. 302 in Portland	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_610R01	Capisic Brook	Portland	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA, A/P)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_610R01	Capisic Brook	Portland	Habitat Assessment (Streams)	5-A	4-A	4-A (MI, A/P)		
ME0106000105_610R01	Capisic Brook	Portland	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, HA)		
ME0106000105_610R06	Kimball Brook	South Portland, tributary to Fore River/Casco Bay	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_610R06	Kimball Brook	South Portland, tributary to Fore River/Casco Bay	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		

ADB Assessment Unit ID	Segment Name	Location	Cause	Category 2010	Category 2012	Category Other 2012	Reason for Removal	Delisting Comment
ME0106000105_610R 07	Red Brook (Scarborough, S Portland)	Tributary to Long Creek	Habitat Assessment (Streams)	5-A	4-A	5-D (PCBs)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000106_602R 01	Frost Gully Brook	Freeport, tributary to Harrseeket River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (E. coli, HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000106_602R 01	Frost Gully Brook	Freeport, tributary to Harrseeket River	Habitat Assessment (Streams)	5-A	4-A	4-A (E. coli, MI)		
ME0106000106_602R 02	Mare Brook (Brunswick) and selected tributaries	AU includes tributaries downstream of airport runway	Benthic-Macroinvertebrate Bioassessments	0	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000106_602R 02	Mare Brook (Brunswick) and selected tributaries	AU includes tributaries downstream of airport runway	Habitat Assessment (Streams)	5-A	4-A	4-A (MI)		
ME0106000106_602R 03	Concord Gully (Freeport)	Tributary to Harraseeket River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (HA, DO, A/P) 5-A (E. coli)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000106_602R 03	Concord Gully (Freeport)	Tributary to Harraseeket River	Habitat Assessment (Streams)	5-A	4-A	4-A (MI, DO, A/P) 5-A (E. coli)		
ME0106000106_602R 03	Concord Gully (Freeport)	Tributary to Harraseeket River	Oxygen, Dissolved	5-A	4-A	4-A (MI, HA, A/P) 5-A (E. coli)		
ME0106000106_602R 03	Concord Gully (Freeport)	Tributary to Harraseeket River	Periphyton (Aufwuchs) Indicator Bioassessments	0	4-A	4-A (MI, HA, DO) 5-A (E. coli)		

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
ME0106000106_612R 01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Benthic-Macroinvertebrate Bioassessments	0	4-A	4-A (metals) 5-A (E. coli)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000211_616R 05	Thacher Bk (Biddeford)	Tributary to Saco River	Benthic-Macroinvertebrate Bioassessments	5-A	4-A	4-A (E. coli)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000304_625R 04	Goodall Brook (Sanford)	Upstream of Daylight Ave	Benthic-Macroinvertebrate Bioassessments	3	4-A	4-A (HA)	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000304_625R 04	Goodall Brook (Sanford)	Upstream of Daylight Ave	Habitat Assessment (Streams)	0	4-A	4-A (MI)		

Table 8-6 Lakes/Ponds Delisted to Another Category

HUC	Lake Name	Lake ID	Impaired Use	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
0103000511	Hermon Pond	2286	Aquatic Life, Primary Contact	5-A	2	none	Applicable WQS attained; original basis for listing was incorrect	Paleo evidence indicates naturally eutrophic; monitoring data from extensive wetlands in watershed suggest that the pond is in equilibrium with the wetlands.
0103000511	Hammond Pond	2294	Aquatic Life, Primary Contact	5-A	2	none	Applicable WQS attained; original basis for listing was incorrect	Paleo evidence indicates naturally eutrophic; monitoring data from extensive wetlands in watershed suggest that the pond is in equilibrium with the wetlands.

HUC	Lake Name	Lake ID	Impaired Use	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
0101000412	Echo L	1776	Aquatic Life, Primary Contact	4-A	2	none	Applicable WQS attained	Data obtained over last decade indicate improvement in water quality
0103000311	Little Cobbosseecontee	8065	Aquatic Life, Primary Contact	4-A	2	none	Applicable WQS attained	Data obtained over last decade indicate improvement in water quality

Table 8-7 Wetlands Delisted to Another Category

Note that Dole Brook was initially listed as impaired (Category 5-A) in the 2012 reporting cycle but subsequently delisted to Category 4-A in the same cycle due to TMDL approval; see Table 8-3 for more information.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
ME0106000105_607 R11_01_W127	Nasons Brook Wetland Complex, Portland	Wetland complex draining to Fore River including wetland station W-127	Benthic-Macroinvertebrate Bioassessments (Wetlands)	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_607 R11_02_W172	Nasons Brook Wetland Complex, Westbrook	Wetland complex draining to Fore River including wetland station W-172	Benthic-Macroinvertebrate Bioassessments (Wetlands)	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000105_609 R01_W026	Dole Brook wetlands	Tributary to Presumpscot R, entering east of Rt. 302 in Portland, wetland stations W025 and W026	Benthic-Macroinvertebrate Bioassessments (Wetlands)	3	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.

ADB Assessment Unit ID	Segment Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
ME0106000105_610 R01_W023	Capisic Pond wetland	Capisic Pond wetland stations W-023 and W-224	Benthic-Macroinvertebrate Bioassessments (Wetlands)	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.
ME0106000211_616 R05_W043	Thacher Brook (Biddeford) wetland	Wetland station W-043, upstream (south) of Rt 111, Biddeford	Benthic-Macroinvertebrate Bioassessments (Wetlands)	5-A	4-A	none	TMDL approved or established by EPA (4A)	9/27/12: Approval of Statewide % Impervious Cover TMDL.

Table 8-8 Estuarine/Marine Waters Delisted to Another Category

Waterbody ID	AU Name	Location	Cause	Category			Reason for Removal	Delisting Comment
				2010	2012	Other 2012		
722-25B DMR Area 35-B	Penobscot River Estuary (Reeds Brook to Marsh River)	Winterport, Reeds Bk to Marsh River	Fish consumption	3	2	4-A (bacteria)	Presence of lobster not likely	Initially included in coastwide 5-D shellfish consumption impairment due to lobster tomalley contamination. Determination was not specific to this location. 1992 survey and 2011 DMR personal communication suggests occurrence of harvestable lobster unlikely in this segment.

Status of Delisted Category 5 Waters

Table 8-9 Status of Delisted Category 5 Rivers/Streams

This table presents the listing history (2002–2012) of Category 5 assessment units (AUs) that were delisted over time. Bold font indicates AU/Cause combinations that changed Category during this cycle.

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'04-'08	'10 '12				ME0101000105_103R 01	Shields Branch of Big Black R	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0101000121_117R	St. John River at Madawaska	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02 '04	'06-'12				ME0101000303_124R 01	Dickey Brook	Nutrient/Eutrophication Biological Indicators	TMDL approved by EPA (4A) 9/28/2006	Submitted with Daigle Pond/Cross Pond TMDL in September 2006. EPA approved TMDL 9/28/06
'02 '04	'06-'12				ME0101000303_124R 01	Dickey Brook	Oxygen, Dissolved	TMDL approved by EPA (4A) 9/28/2006	
	'12				**ME0101000303_124R 01**	**Dickey Brook**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**TMDL approved by EPA (4A) 9/15/2006**	**5/23/12 New 5-A listing for Aquatic Life Use due to algae (periphyton) non-attainment (2003 and 2009, biomonitoring station 688); covered under existing TMDL, causes delisted to Category 4A**
'02 '04	'06-'12				ME0101000303_124R 02	Daigle Brook	Nutrient/Eutrophication Biological Indicators	TMDL approved by EPA (4A) 9/28/2006	Submitted with Daigle Pond/Cross Pond TMDL in September 2006. EPA approved TMDL 9/28/06
'02 '04	'06-'12				ME0101000303_124R 02	Daigle Brook	Oxygen, Dissolved	TMDL approved by EPA (4A) 9/28/2006	
'02		'04		'06-'12	ME0101000412_140R 01	No. Br. Presque Isle Stream between Mapleton and Presque Isle	Dissolved oxygen	State Determines water quality standard is being met (Category 2) 8/31/2006	Removal of Mapleton POTW complete. 2004 biomonitoring-showed attainment of Class A biocriteria and attains D.O. criteria at Station 11, 0.2 km downstream of Mapleton POTW

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
'04 -'08	'10 '12				ME0101000412_140R 02	Dudley Brook (Chapman)	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A)	EPA approved TMDL 4/26/2010 (for Tot. Phos; Tot. Nitr. And Sediments)
'02			'06- '12		ME0101000413_142R 01	Caribou Stream	Benthic-Macroinvertebrate Bioassessments (Streams)	Flaws in original listing (Category 3) 10/2006	Administrative error, conflicting data Biocriteria non-attainment is inconsistent; segment was 5A for nonattainment of biocriteria in 1994 only. Subsequent samples showed attainment; requires re-sampling
		'02- '12			ME0101000413_145R 01	Little Madawaska River	Polychlorinated biphenyls	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 3/15/2004	Haz waste remediation project is complete (Superfund)--expected to attain standards by 2010. Needs re-sampling to confirm
		'02- '12			ME0101000413_145R 02	Greenlaw Brook	Polychlorinated biphenyls	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 2002	9/6/12 Corrected name, was Greenlaw Stream. Haz waste remediation project (Superfund)--expected to attain standards
'04- '08				'10 '12	ME0101000413_146R 01	Webster Brook	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	Monitoring for Statewide bacteria TMDL indicates this water attains bacteria standards
'04- '08	'10 '12				ME0101000501_149R 01	Prestile Stream above dam in Mars Hill	Benthic-Macroinvertebrate Bioassessments (Streams)	EPA approval of TMDL 5/10/2010	EPA approval of TMDL (5/10/10), delisted to Category 4-A (invertebrates, nutrients and DO).
'04- '08	'10 '12				ME0101000501_149R 01	Prestile Stream above dam in Mars Hill	Nutrient/Eutrophication Biological Indicators	EPA approval of TMDL 5/10/2010	
'04- '08	'10 '12				ME0101000501_149R 01	Prestile Stream above dam in Mars Hill	Oxygen, dissolved	EPA approval of TMDL 5/10/2010	

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
	'12			'04- '10	**ME0101000501_149R 01**	**Prestile Stream above dam in Mars Hill**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**EPA approval of TMDL 5/10/2010**	**3/29/2012: New 4-A listing for aquatic life use due to algae (periphyton) non-attainment (2003, 2004 and 2009, biomonitoring stations 690 and 734) - impairment covered under approved TMDL.**
		(4C) '02 '04		'06- '12	ME0102000103_201R 02	West Branch of Penobscot R below Seboomook Lake	Benthic-Macroinvertebrate Bioassessments (Streams)	State Determines water quality standard is being met (Category 2)	UAA approved by EPA on April 5, 2005 (FERC# 2634, expiration date 11/31/2064). Meets applicable water quality standards.
		'10 '12		'02- '08	ME0102000109_205R 01	West Branch Penobscot R main stem, below confluence with Millinocket Str	Nutrient/Eutrophication Biological Indicators	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 1/17/08	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
		'10 '12		'02- '08	ME0102000109_205R 01	West Branch Penobscot R main stem, below confluence with Millinocket Str	Oxygen, dissolved	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 1/17/08	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
'02- '08	'10 '12				ME0102000110_205R 03	Millinocket Stream (Millinocket)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04- '08	'10 '12				ME0102000402_219R 02	Piscataquis River at Dover Foxcroft	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04- '08	'10 '12				ME0102000403_215R _02	Sebec River at Milo	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02- '06				'08- '12	ME0102000403_215R 01	Sebec River at Milo above confluence with Piscataquis R	Benthic-Macroinvertebrate Bioassessments (Streams)	Applicable WQS attained due to restoration activities	Previously listed in 5-A for biocriteria non-attainment based on 1985 data. This segment has been delisted: Resampling in 2006, at Biomonitoring Station 827, below the Milo Dam, shows attainment of Class A biocriteria.

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'04				'02 '06-'12	ME0102000502_220R_01	Mattanawcook Stream (Lincoln)	Escherichia coli	State determines water quality standard is being met (Category 2)	CSO has been removed. Data from multiple sampling events collected by the Penobscot Indian Nation during summer 2004 for Mattanawcook Stream confirm attainment of numeric criteria for dissolved oxygen and bacteria. Segment is also Category 3 listed for sediment contamination; possible fish consumption impairment. Needs sampling to confirm
'04				'02 '06-'12	ME0102000502_220R_01	Mattanawcook Stream (Lincoln)	Oxygen, dissolved	State determines water quality standard is being met (Category 2)	CSO has been removed. Data from multiple sampling events collected by the Penobscot Indian Nation during summer 2004 for Mattanawcook Stream confirms attainment of numeric criteria for dissolved oxygen and bacteria. Segment is also Category 3 listed for sediment contamination; possible fish consumption impairment.
'02 '04				'06-'12	ME0102000502_230R	Penobscot R- (Mattawamkeag to Cambolasse)	Benthic-Macroinvertebrate Bioassessments (Streams)	Flaws in original listing of this cause (Category 2)	Administrative error, no data to support impaired biocriteria assessment. Erroneously listed for benthic macroinvertebrates prior to 2002 cycle.
'02 - '10		**'12**			**ME0102000502_230R**	**Penobscot R- (Mattawamkeag to Cambolasse)**	**Nutrient/Eutrophication Biological Indicators**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) May 2011**	
'02 - '10		**'12**			**ME0102000502_230R**	**Penobscot R- (Mattawamkeag to Cambolasse)**	**Oxygen, Dissolved**		

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
'02 '04				'06- '12	ME0102000502_231R	Penobscot R, main stem, from Cambolasse Str to Piscataquis R	Benthic-Macroinvertebrate Bioassessments (Streams)	Flaws in original listing of this cause (Category 2) 12/6/2006	Administrative error, no data to support impaired biocriteria assessment. Erroneously listed for benthic macroinvertebrates prior to 2002 cycle; has attained applicable biocriteria in 1992, 1993, 1994 and 1995.
'02 '04		'06- '12			ME0102000502_231R	Penobscot R, main stem, from Cambolasse Str to Piscataquis R	Dioxin (including 2,3,7,8-TCDD)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 8/1/2006	Dioxin controls in place and monitoring confirms improvement. Dioxin data from 2003 and 2005 showed no difference in fish above and below Lincoln.
'02 - '10		**'12**			**ME0102000502_231R**	**Penobscot R, main stem, from Cambolasse Str to Piscataquis R**	**Nutrient/Eutrophication Biological Indicators**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) May 2011**	**2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.**
'02 - '10		**'12**			**ME0102000502_231R**	**Penobscot R, main stem, from Cambolasse Str to Piscataquis R**	**Oxygen, Dissolved**		
'04		'06- '12		'02	ME0102000503_221R 01	Cold Stream (Enfield) downstream of hatchery	Benthic-Macroinvertebrate Bioassessments (Streams)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 6/20/2006	9/4/12: hatchery permit renewed 12/7/11; macroinvertebrates met Class A biocriteria in 2006 and 2011 (station S-484).
'02- '08	'10 '12				ME0102000506_222R 01	Costigan Str (Costigan)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04		'06- '10			ME0102000506_232R	Penobscot R	Dioxin (including 2,3,7,8-TCDD)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 8/1/2006	Dioxin controls in place.

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'10		**'12**			**ME0102000506_232R**	**Penobscot R**	**Nutrient/Eutrophication Biological Indicators**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) May 2011**	**2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.**
'10		**12**			**ME0102000506_232R**	**Penobscot R**	**Oxygen, Dissolved**		
'02-'08	'10 '12				ME0102000509_226R01	Otter Stream, Milford	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	**'10**			**'12**	**ME0102000509_226R02**	**Boynton Brook**	**Escherichia coli**	**TMDL approved by EPA (4A) 9/28/2009**	**Delisted to Category 2 due to newer monitoring data showing attainment of bacteria standards.**
'04-'06		'08-'12			ME0102000509_233R_01	Penobscot R	Dioxin (including 2,3,7,8-TCDD)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 2006	Dioxin controls in place.
'10		**'12**			**ME0102000509_233R_01**	**Penobscot R**	**Nutrient/Eutrophication Biological Indicators**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) May 2011**	**2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.**
'10		**'12**			**ME0102000509_233R_01**	**Penobscot R**	**Oxygen, Dissolved**		
'02-'08	'10 '12				ME0102000509_233R_02	Penobscot River at Orono	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0102000509_233R_03	Penobscot River at Old Town-Milford	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0102000510_224R02	Kenduskeag Stream	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	
'02-'06	**'08-'12**				ME0102000510_224R04	Birch Stream (Bangor)	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved by EPA (4A) 9/12/07	EPA approved TMDL 9/12/2007

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
	'12				ME0102000510_224R04	Birch Stream (Bangor)	Periphyton (Aufwuchs) Indicator Bioassessments	TMDL approved by EPA (4A) 9/12/07	3/20/12 New 5A listing for Aquatic Life Use due to algae (periphyton) non-attainment (2001, 2003 and 2006, biomonitoring station 691); covered under existing TMDL, causes delisted to Category 4A
'02 -'10	'12				ME0102000510_224R05	Capehart (Pushaw) Brook (Bangor)	Habitat Assessment (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'02 -'10	'12				ME0102000510_224R06	Arctic Brook (near Valley Ave, Bangor)	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'06 -'10	'12				ME0102000510_224R06	Arctic Brook (near Valley Ave, Bangor)	Habitat Assessment (Streams)		
'06 -'10	'12				ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'02 -'10	'12				ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Habitat Assessment (Streams)		
	'12				ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Periphyton (Aufwuchs) Indicator Bioassessments		
'04 -'10	'12				ME0102000511_225R02	Sucker Brook (Hampden) (formerly 'Unnamed St.-Hampden')	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'06 -'10	'12				ME0102000511_225R02	Sucker Brook (Hampden) (formerly 'Unnamed St.-Hampden')	Oxygen, Dissolved		

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
		'10 '12		'02 -'08	ME0102000512_229R	Penobscot R main stem, above Mattawamkeag R.	Nutrient/Eutrophication Biological Indicators	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) May 2011	2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.
		'10 '12		'02 -'08	ME0102000512_229R	Penobscot R main stem, above Mattawamkeag R.	Oxygen, dissolved		
'02-'08	'10 '12				ME0102000513_234R	Penobscot River	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
		'02-'12			ME0102000513_234R 02	Penobscot	Dioxin (including 2,3,7,8-TCDD)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B)	Dioxin controls in place.
'10		**'12**			**ME0102000513_234R 02**	**Penobscot**	**Nutrient/Eutrophication Biological Indicators**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) May 2011**	**2011 permits providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.**
'10		**'12**			**ME0102000513_234R 02**	**Penobscot**	**Oxygen, dissolved**		
'02 '04		'06-'12			ME0103000304_313R 01	Mill Stream (Embden)	Benthic-Macroinvertebrate Bioassessments (Streams)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 6/20/2006	Hatchery permit issued 1/30/2006; exp. Date 1/30/2011; other pollution controls are in place, attainment expected by 2009;
'04		'06-'12		'02	ME0103000305_315R _02	Unnamed Stream trib to Sandy R (Avon-Dunham Hatchery)	Benthic-Macroinvertebrate Bioassessments (Streams)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 6/20/2006	Hatchery permit issued 10/18/2005; expiration date 10/18/10; hatchery is now closed; other pollution controls are in place, attainment expected by 2008;
'02-'08	'10 '12				ME0103000306_320R 02	Currier Brook	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0103000306_320R 03	Whitten Brook (Skowhegan)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
'06 -'10	**'12**				**ME0103000306_320R 03**	**Whitten Brook (Skowhegan)**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'04 -'10	**'12**				**ME0103000306_320R 03**	**Whitten Brook (Skowhegan)**	**Habitat Assessment (Streams)**		
'02-'08	'10 '12				ME0103000306_338R 02	Kennebec River at Skowhegan, CSO	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0103000306_339R 03	Kennebec River, near Fairfield	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	
		'02-'12			ME0103000308_325R 01	East Branch Sebasticook River Corundel Pd to Sebasticook L (Corinna)	Benthic-Macroinvertebrate Bioassessments (Streams)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 3/15/2004	Haz waste remediation project (Superfund). CSO removal. New wastewater permit, removal to land treatment in 2004. Segment attains aquatic life criteria (2003 data). Expected to attain by 2008.
		'02-'12			ME0103000308_325R 01	East Branch Sebasticook River, Corundel Pd to Sebasticook L (Corinna)	Benzene		
		'06-'12			ME0103000308_331R 01	Martin Stream (Dixmont)	Ammonia (Un-ionized)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 7/13/2006	CAFO permit issued 8/15/06; other pollution controls in place, expected to attain standards
		'06-'12			ME0103000308_331R 01	Martin Stream (Dixmont)	Benthic-Macroinvertebrate Bioassessments (Streams)		
'06-'08	'10 '12				ME0103000309_332R	Sebasticook River	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04 -'10				**'12**	**ME0103000309_332R**	**Sebasticook River**	**Nutrient/Eutrophication Biological Indicators**	**Applicable WQS attained; due to restoration activities**	**10/2/12 Nutrient/Eutrophication Biological Indicators cause of Aquatic Life Use impairment delisted to Category 2 due to new data showing removal of cause of impairment.**

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
		(4C) '02- '08		'10 '12	ME0103000309_332R 01	Sebasticook River (Halifax impoundment)	Benthic-Macroinvertebrate Bioassessments (Streams)	Applicable WQS attained due to restoration activities	Biomonitoring following removal of Halifax Dam confirms attainment of biocriteria
'02 '04	'06- '12				ME0103000310_322R 01	Fish Brook (Fairfield)	Benthic-Macroinvertebrate Bioassessments (Streams)	EPA approval of TMDL (Category 4A) 8/30/2005	EPA approved TMDL 8/30/2005
'02 '04	'06- '12				ME0103000310_322R 01	Fish Brook (Fairfield)	Oxygen, Dissolved	EPA approval of TMDL (Category 4A) 8/30/2005	EPA approved TMDL 8/30/2005
'02- '08	'10 '12				ME0103000312_333R 02	Whitney Brook (Augusta)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'10	**'12**				**ME0103000312_333R 02**	**Whitney Brook (Augusta)**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'10	**'12**				**ME0103000312_333R 02**	**Whitney Brook (Augusta)**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02 -'10	**'12**				**ME0103000312_333R 03**	**Kennedy Brook (Augusta)**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
	'12				**ME0103000312_333R 03**	**Kennedy Brook (Augusta)**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'06 -'10	**'12**				**ME0103000312_333R 04**	**Unnamed tributary to Bond Brook**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'04 -'10	**'12**				**ME0103000312_333R 04**	**Unnamed tributary to Bond Brook**	**Habitat Assessment (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
	'12				**ME0103000312_333R 04**	**Unnamed tributary to Bond Brook**	**Periphyton (Aufwuchs) Indicator Bioassessments**		
'06-'08	'10 '12				ME0103000312_339R 02	Kennebec River at Waterville, CSO	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0103000312_340R _02	Kennebec River at Augusta, including Riggs Brook- CSO	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0103000312_340R 03	Kennebec River at Hallowell- CSO	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0103000312_340R _04	Kennebec River at Gardiner-Randolph	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04	'06			'08-'12	ME0104000206_423R 01	Androscoggin R, main stem, Livermore impoundment	Benthic-Macroinvertebrate Bioassessments (Streams)	Applicable WQS attained due to restoration activities	EPA approved TMDL 7/18/2005 (TMDL #11594). Attained Class C biocriteria in 2003, and attained Class B biocriteria in 2004, 2005 and 2006. Benthic invertebrate and TSS causes delisted to 'WQS attainment'. Also 4B listed for dioxin and 5D listed for legacy PCB contamination
'04	'06			'08-'12	ME0104000206_423R 01	Androscoggin R, main stem, Livermore impoundment	Total Suspended Solids	Applicable WQS attained due to restoration activities	
		'02-'12			ME0104000206_423R 01	Androscoggin R, main stem, Livermore impoundment	Dioxin (including 2,3,7,8-TCDD)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 3/15/2004	Dioxin controls in place. Also 5D listed for legacy PCB contamination.
		'02-'12			ME0104000207_412R 02	House/Lively Brook	Nitrogen (Total)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 3/15/2004	Waste (manure) removal (Agric NPS) by Consent Order and Site Permit-expected to attain standards; needs additional monitoring to confirm attainment.
'04-'08	'10 '12				ME0104000208_413R 01	Jepson Brook (Lewiston)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
'02-'08	'10 '12				ME0104000208_413R03	Stetson Brook (Lewiston)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0104000208_413R04	Logan Brook, Auburn	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04 -'10	**'12**				**ME0104000208_413R04**	**Logan Brook, Auburn**	**Habitat Assessment (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02 -'10	**'12**				**ME0104000208_413R04**	**Logan Brook, Auburn**	**Oxygen, Dissolved**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02-'08	'10 '12				ME0104000208_413R07	Gully Brook (Auburn)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	
'04			'06-'12	'02	ME0104000208_413R08	Bobbin Mill Brook (Lake Auburn Outlet, Auburn)	Benthic-Macroinvertebrate Bioassessments (Streams)	Flaws in original listing (Category 3) 3/9/05	6/7/12: Conflicting biomonitoring results (at station S-357): macroinvertebrates attained only Class C in 1998 (likely due to natural conditions) but met Class B in 2003 and 2008; algae (periphyton) showed non-attainment in 2008. Resampling needed to confirm whether impairment exists.
		'02-'12			ME0104000208_424R_01	Androscoggin R, main stem, upstream of the Gulf Island Dam	Dioxin (including 2,3,7,8-TCDD)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 3/15/2004	Dioxin controls in place
'04	**'06 - '10**	**'12**			**ME0104000208_424R_01**	**Androscoggin R, main stem, upstream of the Gulf Island Dam**	**Algae blooms**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) December 2012**	**2012 permits are expected to correct existing aquatic life use impairments. Expected to attain in 2017.**
'04	**'06 - '10**	**'12**			**ME0104000208_424R_01**	**Androscoggin R, main stem, upstream of the Gulf Island Dam**	**BOD, Biochemical oxygen demand**	**Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) December 2012**	**2012 permits are expected to correct existing aquatic life use impairments. Expected to attain in 2017.**

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
'04	**'06 - '10**	**'12**			**ME0104000208_424R_01**	**Androscoggin R, main stem, upstream of the Gulf Island Dam**	**Oxygen, Dissolved**		
'04	**'06 - '10**	**'12**			**ME0104000208_424R_01**	**Androscoggin R, main stem, upstream of the Gulf Island Dam**	**Phosphorus**		
'04	**'06 - '10**	**'12**			**ME0104000208_424R_01**	**Androscoggin R, main stem, upstream of the Gulf Island Dam**	**Total suspended solids**		
'02- '08	'10 '12				ME0104000209_417R_02	Little Androscoggin River at Mechanic Falls	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04- '10				**'12**	**ME0104000210_418R 01**	**Sabattus River between Sabattus and Androscoggin R**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**Applicable WQS attained; original basis for listing was incorrect**	**Aquatic life use impairment was delisted to Category 2 due to classification attainment at 3 biomonitoring stations (S-359, S-629, S-630) on 2-3 occasions.**
'02- '08	'10 '12				ME0104000210_418R 02	No Name Brook (Lewiston)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02 -'10	**'12**				**ME0104000210_419R 01**	**Unnamed Brook (Biomon Sta. 347-Lisbon Falls at Rt 196)**	**Habitat Assessment (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'06- '08	'10 '12				ME0104000210_419R 02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'06 -'10	**'12**				**ME0104000210_419R 02**	**Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'02 -'10	'12				ME0104000210_419R 02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Habitat Assessment (Streams)		
'06 -'10	'12				ME0104000210_419R 02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Oxygen, Dissolved		
	'12				ME0104000210_419R 02	Hart Brook (Lewiston) A.K.A Dill Brook and including Goff Bk	Periphyton (Aufwuchs) Indicator Bioassessments		
'10	'12				ME0104000210_420R 01	Unnamed tributary (Brunswick 2) to Androscoggin R	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'04 -'10	'12				ME0104000210_420R 01	Unnamed tributary (Brunswick 2) to Androscoggin R	Habitat Assessment (Streams)		
'10	'12				ME0104000210_420R 02	Unnamed tributary (Brunswick 3) to Androscoggin R	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'04 -'10	'12				ME0104000210_420R 02	Unnamed tributary (Brunswick 3) to Androscoggin R	Habitat Assessment (Streams)		
'10	'12				ME0104000210_420R 03	Unnamed tributary (Brunswick 4) to Androscoggin R	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'04 -'10	'12				ME0104000210_420R 03	Unnamed tributary (Brunswick 4) to Androscoggin R	Habitat Assessment (Streams)		

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
	'12				ME0104000210_420R 04	Unnamed tributary (Topsham 2) to Androscoggin R	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'04 -'10	'12				ME0104000210_420R 04	Unnamed tributary (Topsham 2) to Androscoggin R	Habitat Assessment (Streams)		
'10	'12				ME0104000210_420R 05	Unnamed tributary (Topsham 4) to Androscoggin	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'06- '08	'10 '12				ME0104000210_425R _02	Androscoggin River, Lewiston-Auburn	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'08- '10	'10 '12				ME0105000108_505R 02	St. Croix R., Calais CSO	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
		'02- '12			ME0105000201_507R 01	Dennys River	Polychlorinated biphenyls	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 9/5/2006	Haz waste remediation project (Superfund)--expected to attain standards by 2010.
'08 -'10	'12				ME0105000213_514R _01	Card Brook (Ellsworth)	Benthic-Macroinvertebrate Bioassessments (Streams)	TMDL approved or established by EPA (4A) 9/27/12	Approval of Statewide % Impervious Cover TMDL.
'04 -'10	'12				ME0105000213_514R _01	Card Brook (Ellsworth)	Oxygen, Dissolved		
'02 '04	'06- '12				ME0105000217_520R 01	Carleton Stream (Blue Hill)	Benthic-Macroinvertebrate Bioassessments (Streams)	EPA approval of TMDL (Category 4A) 10/7/2004	EPA approved TMDL 10/7/2004
'02 '04	'06- '12				ME0105000217_520R 01	Carleton Stream (Blue Hill)	Iron		
'02- '08	'10 '12				ME0105000220_522R 01_01	Megunticook River (Camden)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
'02-'08	**'10 '12**				**ME0105000220_522R 02_01**	**Rock Brook (formerly 'Unnamed Brook') (Camden)**	**Escherichia coli**	**TMDL approved by EPA (4A) 9/28/2009**	**5/24/12 Delisted to Category 2 due to newer monitoring data showing attainment of bacteria standards. 7/28/2010 Stream name updated from 'Unnamed Brook' Camden to Rock Brook.**
'04-'08				'10 '12	ME0105000220_522R 03	Unnamed Brook (Rockport)	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	Monitoring for Statewide bacteria TMDL indicates this water attains bacteria standards
'02-'08	'10 '12				ME0105000220_522R 04	Unnamed Brook (Rockland)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	11/7/12: City of Rockland performed remedial sewer work in 2012 to address bacteria contamination; more work is likely needed in the future to successfully address the entire watershed.
'02-'08	'10 '12				ME0105000305_528R 01	Sheepscot River at Alna	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
10-'12					ME0105000305_528R 02	West Branch Sheepscot River	Escherichia coli		
'04 '06 '08				'10 '12	ME0105000305_528R 02	West Branch Sheepscot River	Oxygen, Dissolved	Applicable WQS attained;	TMDL analysis of additional monitoring data demonstrates that segment attains dissolved oxygen standards.
			'10 '12	'04 '06 '08	ME0105000305_528R 02	West Branch Sheepscot River	Benthic-Macroinvertebrate Bioassessments (Streams)	Insufficient information to determine if WQS attained	Category 3 due to inconsistent biocriteria attainment for benthic invertebrates and algae
'12			**'10**	**'04 '06 '08**	**ME0105000305_528R 02**	**West Branch Sheepscot River**	**Periphyton (Aufwuchs) Indicator Bioassessments**		
'02-'08	'10 '12				ME0105000305_528R 03	Dyer River below Rt 215	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'02 '04		'06- '12			ME0105000305_528R 08_02	Sheepscot River below Sheepscot L	Oxygen, Dissolved	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 6/20/2006	8/6/12: hatchery permit renewed 12/19/11, expiration date 12/19/2016. Expected to attain standards by 2016.
'02 '04		'06- '12			ME0106000101_605R 01	Mile Brook (Casco)	Benthic-Macroinvertebrate Bioassessments (Streams)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 6/20/2006	6/8/12: Hatchery permit re-issued 5/2/12, expiration date 5/1/17. Macroinvertebrates only attained Class C criteria in 2010. Facility upgrades occurred in the fall of 2011.
'02 '04				'06- '12	ME0106000102_603R 05	Royal River, segment below Collyer Bk	Drinking water-trichloroethylene	State Determines water quality standard is being met (Category 2) 8/31/2006	Per CERCLA hazardous waste site manager: June 2006 surface water monitoring determined that the trichloroethylene standards and all other water quality criteria are being met in the Royal River at sites down-gradient of the contaminated site.
'02- '08	'10 '12				ME0106000103_607R 03	Colley Wright Brook (Windham)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04- '08				'10 '12	ME0106000103_607R 04	Piscataqua River (Falmouth)	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	Monitoring for Statewide bacteria TMDL indicates this water attains bacteria standards
'02- '08	'10 '12				ME0106000103_607R 04	Piscataqua River (Falmouth)	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	
'02- '08	'10 '12				ME0106000103_607R 06	Hobbs Brook (Cumberland)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02- '08	'10 '12				ME0106000103_607R 07	Inkhorn Brook (Westbrook)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02- '08	'10 '12				ME0106000103_607R 08	Mosher Brook (Gorham)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02- '08	'10 '12				ME0106000103_607R 09	Otter Brook (Windham)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02- '08	'10 '12				ME0106000103_607R 11	Nason Brook (Gorham)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'06-'08	'10 '12				ME0106000103_607R12	Pleasant River (Windham)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
	'02 '04			'06-'12	ME0106000103_609R_01	Presumpscot R, main stem, below Sacarappa Dam	BOD, Biochemical oxygen demand	State Determines water quality standard is being met (Category 2) 8/31/2006	Sources removed, pulping operation closed and Smelt Hill Dam has been breached. Bioassessment (2005) shows attainment of Class C dissolved oxygen and biocriteria (Class B biocriteria just above Smelt Hill dam site).
	'02 '04			'06-'12	ME0106000103_609R_01	Presumpscot R, main stem, below Sacarappa Dam	Total Suspended Solids (TSS)		
'02-'08	'10 '12				ME0106000103_609R_02	Presumpscot River at Westbrook	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04-'10	**'12**				**ME0106000104_611R02**	**Phillips Brook (Scarborough)**	**Habitat Assessment (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
	'12				**ME0106000104_611R02**	**Phillips Brook (Scarborough)**	**Oxygen, Dissolved**		
'06-'10	**'12**				**ME0106000105_607R11_01**	**Nasons Brook (Portland), trib to Fore River**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
	'12				**ME0106000105_607R11_01**	**Nasons Brook (Portland), trib to Fore River**	**Oxygen, Dissolved**		
	'12				**ME0106000105_607R11_01**	**Nasons Brook (Portland), trib to Fore River**	**Periphyton (Aufwuchs) Indicator Bioassessments**		
'06-'10	**'12**				**ME0106000105_607R11_02**	**Nasons Brook (Westbrook), trib to Fore River**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
	'12				**ME0106000105_607R11_02**	**Nasons Brook (Westbrook), trib to Fore River**	**Oxygen, Dissolved**		

Category by Report Year									
5	**4A**	**4B**	**3**	**2**	**ADB Assessment Unit #**	**Water Name**	**Cause**	**Delisting Reason / Date**	**Comments**
	'12				**ME0106000105_607R 11_02**	**Nasons Brook (Westbrook), trib to Fore River**	**Periphyton (Aufwuchs) Indicator Bioassessments**		
'06 -'10	**'12**				**ME0106000105_609R 01**	**Dole Brook (formerly known as 'Unnamed Stream- Portland 3')**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'06 -'10	**'12**				**ME0106000105_610R 01**	**Capisic Brook**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02 -'10	**'12**				**ME0106000105_610R 01**	**Capisic Brook**	**Habitat Assessment (Streams)**		
	'12				**ME0106000105_610R 01**	**Capisic Brook**	**Periphyton (Aufwuchs) Indicator Bioassessments**		
'02-'08		'10 '12			ME0106000105_610R 03	Long Creek (South Portland)	Benthic-Macroinvertebrate Bioassessments (Streams)	Other enforceable controls are in place 6/9, 2010. Expected to attain: 2020	10/15/12: Watershed restoration process in third year now. Long Creek was moved to Category 4-B due to Stormwater General Permit, MEPDES MEG190000 (November 6, 2009).
'02-'08		'10 '12			ME0106000105_610R 03	Long Creek (South Portland)	Habitat Assessment (Streams)		
'02-'06	'08-'12				ME0106000105_610R 05	Trout Brook (So. Portland)	Benthic-Macroinvertebrate Bioassessments (Streams)	EPA approval of TMDL (Category 4A) 10/25/2007	EPA approved TMDL 10/25/2007 (under bundled urban stream project;)
'06 -'10	**'12**				**ME0106000105_610R 06**	**Kimball Brook**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'02 -'10	**'12**				**ME0106000105_610R 06**	**Kimball Brook**	**Habitat Assessment (Streams)**		
'02 -'10	**'12**				**ME0106000105_610R 07**	**Red Brook (Scarborough, S Portland)**	**Habitat Assessment (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02-'06	'08-'12				ME0106000105_610R 09	Barberry Cr	Benthic-Macroinvertebrate Bioassessments (Streams)	EPA approval of TMDL (Category 4A) 6/21/2007	EPA approved TMDL 6/21/2007 (under bundled urban stream project.)
'02-'06	'08-'12				ME0106000105_610R 09	Barberry Cr	Habitat Assessment (Streams)	EPA approval of TMDL (Category 4A) 6/21/2007	EPA approved TMDL 6/21/2007 (under bundled urban stream project.)
'02-'08	'10 '12				ME0106000106_602R 01	Frost Gully Brook	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	
'04 -'10	**'12**				**ME0106000106_602R 01**	**Frost Gully Brook**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'04 -'10	**'12**				**ME0106000106_602R 01**	**Frost Gully Brook**	**Habitat Assessment (Streams)**		
	'12				**ME0106000106_602R 02**	**Mare Brook (Brunswick) and selected tributaries**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02 -'10	**'12**				**ME0106000106_602R 02**	**Mare Brook (Brunswick) and selected tributaries**	**Habitat Assessment (Streams)**		
'10	**'12**				**ME0106000106_602R 03**	**Concord Gully (Freeport)**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'04 -'10	**'12**				**ME0106000106_602R 03**	**Concord Gully (Freeport)**	**Habitat Assessment (Streams)**		

Category by Report Year										
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'10	**'12**				**ME0106000106_602R 03**	**Concord Gully (Freeport)**	**Oxygen, Dissolved**		
	'12				**ME0106000106_602R 03**	**Concord Gully (Freeport)**	**Periphyton (Aufwuchs) Indicator Bioassessments**		
'04			'06-'12	'02	ME0106000106_607R 12	Norton Brook (Falmouth)	Benthic-Macroinvertebrate Bioassessments (Streams)	Flaws in original listing of this cause (Category 3) 10/2006	Administrative error, conflicting data. More data required to support impaired assessment. Non-attainment of biocriteria in 2002 may be due to natural habitat effects; needs resampling
	'12				**ME0106000106_612R 01_01**	**Goosefare Brook below I-95**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
'02	'04-'12				ME0106000106_612R 01_01	Goosefare Brook	Cd, Cr, Cu, Fe, Pd, Ni, Zn	EPA approval of TMDL (Category 4A) 9/29/2003	EPA approved TMDL 9/29/2003; name changed in 2012 - added 'below I-95'
'02-'08	'10 '12				ME0106000106_612R 01_02	Bear Brook, Saco CSO	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0106000106_616R 04	Bear Bk	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'04-'08				'10 '12	ME0106000204_618R 01	Saco R., Fryeburg	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	Monitoring for Statewide bacteria TMDL indicates this water attains bacteria standards
'04 '06 '08				'10 '12	ME0106000209_614R 01	Ossippee R	Escherichia coli	Applicable WQS attained; original basis for listing was incorrect	Monitoring for Statewide bacteria TMDL indicates this water attains bacteria standards
'02-'08	'10 '12				ME0106000211_616R 02	Tappan Bk	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0106000211_616R 03	Sawyer Bk	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'06 -'10	**'12**				**ME0106000211_616R 05**	**Thacher Bk (Biddeford)**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**

Category by Report Year									
5	4A	4B	3	2	ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
'02-'08	'10 '12				ME0106000211_616R 05	Thatcher Bk (Biddeford)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0106000211_616R 06	Swan Pond Brook at South Street (Biddeford)	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'06-'08	'10 '12				ME0106000211_619R 01	Saco River at Biddeford-Saco	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'02-'08	'10 '12				ME0106000301_622R 01	Kennebunk River	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
'06 '08		'10 '12			ME0106000301_622R 02	Lord's Brook (Lyman)	BOD, Biochemical oxygen demand		
'06 '08		'10 '12			ME0106000301_622R 02	Lord's Brook (Lyman)	Nutrient/Eutrophication Biological Indicators	TMDL Alternative	Court-ordered controls in place
'06 '08		'10 '12			ME0106000301_622R 02	Lord's Brook (Lyman)	Oxygen, Dissolved		
'02-'08	'10 '12				ME0106000302_628R 02	Mousam River at Sanford	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	
	'12		**'06 -'10**		**ME0106000304_625R 04**	**Goodall Brook (Sanford)**	**Benthic-Macroinvertebrate Bioassessments (Streams)**	**TMDL approved or established by EPA (4A) 9/27/12**	**Approval of Statewide % Impervious Cover TMDL.**
	'12				**ME0106000304_625R 04**	**Goodall Brook (Sanford)**	**Habitat Assessment (Streams)**		
'02-'08	'10 '12				ME0106000305_630R 01	Salmon Falls R	Escherichia coli	TMDL approved by EPA (4A) 9/28/2009	Approval of Statewide Bacteria TMDL
	'02-'12				ME0106000305_630R 01	Salmon Falls R	Ammonia (Un-ionized)		
	'02-'12				ME0106000305_630R 01	Salmon Falls R	Nutrient/Eutrophication Biological Indicators	EPA approval of TMDL (Category 4A) 11/1/1999	4-A EPA approved TMDL 11/22/99 for BOD, ammonia and phosphorus; 5B non-CSO, low priority bacteria listing; 5D fish tissue monitoring shows legacy PCBs and Dioxin
	'02-'12				ME0106000305_630R 01	Salmon Falls R	Oxygen, Dissolved		

Table 8-10 Status of Listed and Delisted Category 5 Lakes and Ponds

Note that history (2000–2012) is provided for lakes that have been listed in Category 5 at any time since 2002 per request of EPA Region I staff. Bold font indicates AU/Cause combinations that changed Category during this cycle.

Lake	Town	MIDAS	Acres	HUC10	List Cat 00[2]	List Cat 02	List Cat 04	List Cat 06	List Cat 08	List Cat 10	List Cat 12	Comments
CHRISTINA RESERVOIR	FT FAIRFIELD	9525	400	0101000501	(5a)	5a	5a	5a	5a	4a	4a	12: Stable, chronic blooming 'wetland'; TMDL March 2010
LILLY P	ROCKPORT	83	29	0105000220	(5a)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL Dec. 2005
NARROWS P (UPPER)	WINTHROP	98	279	0103000311	(3)	5a	5a	2 *	2 *	2 *	2 *	12: Originally listed in 1998, TMDL 2005. Data indicate stable trend
ELL (L) P	WELLS	119	32	0106000304	(5a)	3	2	2 *	2 *	2 *	2 *	12: Delisted; no longer supports repeated nuisance blooms
ARNOLD BROOK L	PRESQUE ISLE	409	395	0101000412	(5a)	5a	5a	5a	4a	4a	4a	12: Stable; TMDL Feb. 2007
DAIGLE P	NEW CANADA	1665	36	0101000303	(5a)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL Sept. 2006
CROSS L	T17 R05 WELS	1674	2515	0101000303	(5a)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL Sept. 2006
ECHO L	PRESQUE ISLE	1776	90	0101000412	(5a)	5a	5a	5a	4a	4a	2 *	12: Improving, occasional bloom ; TMDL Feb. 2007
MADAWASKA L	T16 R04 WELS	1802	1526	0101000413	(5a)	4a	4a	2 *	2 *	2 *	2 *	12: Stable, occasional bloom; TMDL 2000
MONSON P	FT FAIRFIELD	1820	160	0101000413	(5a)	5a	5a	5a	4a	4a	4a	12: Stable; TMDL Nov. 2006
SEBASTICOOK L	NEWPORT	2264	4288	0103000308	(5a)	4a	4a	4a	4a	4a	4a	12: Slow Improv.; TMDL 2001
HERMON P	HERMON	2286	461	0102000511	(5a)	5a	5a	5a	5a	5a	2	12: Stable; Paleo evidence of historic natural productivity; in equilibrium with adjacent wetlands
HAMMOND P	HAMPDEN	2294	83	0102000511	(5a)	5a	5a	5a	5a	5a	2	12: Stable; Paleo evidence of historic natural productivity; in equilibrium with adjacent wetlands and upstream lake
TOOTHAKER P	PHILLIPS	2336	30	0103000305	(3)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL Sept. 2004
HIGHLAND L	BRIDGTON	3454	1401	0106000101	(5a)	5a	5a	2*	2*	2*	2 *	12: TMDL Aug 2004; data indicates persistent stable trend
HIGHLAND (DUCK) L	FALMOUTH	3734	634	0106000103	(5a)	5a	4a	4a	4a	2 *	2 *	12: TMDL 2003; stable

Lake	Town	MIDAS	Acres	HUC10	List Cat 00[2]	List Cat 02	List Cat 04	List Cat 06	List Cat 08	List Cat 10	List Cat 12	Comments
SABATTUS P	GREENE	3796	1962	0104000210	(5a)	5a	5a	4a	4a	4a	4a	12: Stable perhaps Improving; TMDL August 2004
COCHNEWAGON P	MONMOUTH	3814	410	0103000311	(2)	2	2	3	3	3	5a	12: new listing
WILSON P	WAYNE	3832	582	0103000311	(3)	3	2	5a	4a	4a	4a	12: deteriorating trophic trend – all trophic param.; TMDL Aug. 2007
MOUSAM L	ACTON	3838	900	0106000302	(5a)	5a	4a	2*	2*	2 *	2 *	12: Attainment of monitored uses verified. Data indicate stable trend.
UNITY P	UNITY	5172	2528	0103000309	(5a)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL Sept 2004
LOVEJOY P	ALBION	5176	324	0103000309	(5a)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL 2004
COBBOSSEECONTEE L	WINTHROP	5236	5543	0103000311	(5a)	4a	4a	2 *	2 *	2 *	2 *	12: persistent improvement
PLEASANT (MUD) P	GARDINER	5254	746	0103000311	(5a)	5a	4a	4a	4a	4a	4a	12: Stable, blooms persist; TMDL complete 2004
LONG P	BELGRADE	5272	2714	0103000310	(3)	3	3	5a	5a	4a	4a	12: Deterior. Trophic & DO; Gloeotrichia blooms; trophic param. indicate shift; TMDL April 2008
GREAT P	BELGRADE	5274	8239	0103000310	(3)	3	3	3	3	5a	5a	12: Deterior. Trophic & DO; Gloeotrichia blooms
EAST P	SMITHFIELD	5349	1823	0103000310	(5a)	4a	4a	4a	4a	4a	4a	12: blooms persist; deteriorating trophic trend continues; TMDL 2001
WEBBER P	VASSALBORO	5408	1201	0103000312	(5a)	5a	4a	4a	4a	4a	4a	12: Stable; chronic blooms; TMDL 2003
THREEMILE P	CHINA	5416	1162	0103000312	(5a)	5a	4a	4a	4a	4a	4a	12: Stable; chronic blooms; TMDL 2003
THREECORNERED P	AUGUSTA	5424	182	0103000312	(5a)	5a	4a	3	3	2 *	2 *	12: TMDL 2003;Improving; no recent blooms
CHINA L	CHINA	5448	3845	0103000309	(5a)	4a	4a	4a	4a	4a	4a	12: Stable, blooms persist; TMDL 2001.
DUCKPUDDLE P	NOBLEBORO	5702	293	0105000303	(5a)	5a	5a	3	3	2 *	2 *	12: Stable; TMDL Sept 2005, occasional bloom
LONG L	BRIDGTON	5780	4867	0106000101	(5a)	5a	5a	2 *	2 *	2 *	2 *	12: TMDL May 2005; Data indicate stable trend.
LITTLE COBBOSSEECONTEE	WINTHROP	8065	75	0103000311	(5a)	5a	5a	4a	4a	4a	2 *	12: Improving; rarely blooms; TMDL 2005
TRAFTON L	LIMESTONE	9779	85	0101000413	(5a)	5a	5a	5a	4a	4a	4a	12: Stable; TMDL Oct. 2006

Lake	Town	MIDAS	Acres	HUC10	List Cat 00[2]	List Cat 02	List Cat 04	List Cat 06	List Cat 08	List Cat 10	List Cat 12	Comments
TOGUS P	AUGUSTA	9931	660	0103000312	(5a)	5a	5a	4a	4a	4a	4a	12: Stable; TMDL Sept 2005
SEWALL P	ARROWSIC	9943	46	0105000307	(3)	3	5a	4a	4a	4a	4a	12: Stable; TMDL March 2006
ANNABESSACOOK L	MONMOUTH	9961	1420	0103000311	(5a)	5a	4a	4a	4a	4a	4a	12: Improving but blooms persist; TMDL 2004

[1] Non TMDL listing changes are summarized in Appendix III, Category Listing Change Summary

[2] In 2000, current Listing Categories had not been established. Equivalent Listing Categories have been assigned for purposes of comparison.

* Lakes currently listed in Category 2 do not appear individually in Appendix III but rather are included in the overall lake summary for the HUC.

Table 8-11 Status of Delisted Category 5 Wetlands

Wetlands were listed for the first time in the 2010 cycle. As a result, Table 8-11 only contains the listing history of wetlands that were delisted from Category 5-A for the 2010 and 2012 cycles. For more detailed comments, consult Appendix IV, Category 4-A and 4-B.

Category by Report Year					ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
5	4A	4B	3	2					
‘10	‘12				ME0106000105_607R11_01_W127	Nasons Brook Wetland Complex, Portland	Benthic-Macroinvertebrate Bioassessments (Wetlands)	TMDL approved or established by EPA (4A) 9/27/12	2010: impaired as determined by 2005 wetland bioassessment.
‘10	‘12				ME0106000105_607R11_02_W172	Nasons Brook Wetland Complex, Westbrook	Benthic-Macroinvertebrate Bioassessments (Wetlands)	TMDL approved or established by EPA (4A) 9/27/12	2010: impaired as determined by 2008 wetland bioassessment.
	‘12		‘10		ME0106000105_609R01_W026	Dole Brook wetlands	Benthic-Macroinvertebrate Bioassessments (Wetlands)	TMDL approved or established by EPA (4A) 9/27/12	February 2012: Wetland biological monitoring showed impairment in 2000 and 2010.
‘10	‘12				ME0106000105_610R01_W023	Capisic Pond wetland	Benthic-Macroinvertebrate Bioassessments (Wetlands)	TMDL approved or established by EPA (4A) 9/27/12	

Category by Report Year					ADB Assessment Unit #	Water Name	Cause	Delisting Reason / Date	Comments
5	4A	4B	3	2					
'10	'12				ME0106000211_616R05_ W043	Thacher Brook (Biddeford) wetland	Benthic-Macroinvertebrate Bioassessments (Wetlands)	TMDL approved or established by EPA (4A) 9/27/12	
		'10 '12			ME0103000308_325R01 _W080	East Branch Sebasticook River Wetland	Benthic-Macroinvertebrate Bioassessments (Wetlands)	Other point source or nonpoint source controls are expected to meet water quality standards (Category 4B) 3/15/2004	Haz waste remediation project (Superfund). CSO removal. New wastewater permit, removal to land treatment in 2004. Segment attains aquatic life criteria (2003 data). Expected to attain by 2008.
		'10 '12			ME0103000308_325R01 _W080	East Branch Sebasticook River Wetland	Benzene		
		'10 '12			ME0106000301_622R02 _W176	Lord's Brook Pond wetland	Benthic-Macroinvertebrate Bioassessments (Wetlands)	TMDL Alternative	Court-ordered controls in place 2/09

Table 8-12 Status of Delisted Category 5 Marine/Estuarine Waters

A history table similar to tables 8-9 to 8-11 for other waterbody types has not been previously compiled for marine/estuarine waters. In the 2010 reporting cycle, a large number of marine/estuarine waterbodies were delisted from Category 5-A, 5-B-1 or 5-B-2 to Category 4-A due to EPA approval of a Statewide Bacteria TMDL (9/28/2009). In the 2010 Integrated Report, these waterbodies were solely listed in Appendix V and a reference to that location was provided in Table 8-3 ('2008 Category 5/TMDL Estuarine/Marine Waters not on 2010 Category 5/TMDL List'). These waters, as well as waters previously delisted from Category 5 to 4-B, continue to reside in the same category in the current reporting cycle. Please consult Appendix V, Category 4-A and 4-B, for the list of those waters.

As explained in the section 'Summary of Statewide Status' for Estuaries/Coastal Waters (page 94, above), MDEP will develop assessment unit (AU) codes similar to what is used for freshwaters (i.e. consisting of a HUC identifier and a waterbody-specific code) to be used in the 2014 reporting cycle. Because of this upcoming change in reporting, MDEP has elected not to compile a history table for marine/estuarine waters for the current cycle. In the 2014 cycle, we will present a cross-walk between historic and new AU codes as well as a listing history for recently delisted waters.

TMDL Development Status

Table 8-13 Rivers/Streams TMDL Current Project Update

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0101000105_103R01	Shields Branch of Big Black R	Mainstem	Oxygen, Dissolved	5/29/12: Canadian POTW discharge	2016 / L
ME0101000412_140R03_02	N Br Presque Isle Stream	Tributary to Presque Isle Stream	DDT	5-D listed for legacy pollutant-DDT	2020 / L
ME0101000412_140R04	Hanson Brook- "Unnamed Stream (P.I. airport)" BioSta 743	Tributary to Presque Isle Stream, draining the airport	Periphyton (Aufwuchs) Indicator Bioassessments	5/29/12: consider for future % impervious cover TMDL, need additional information on airport runoff	2014 / M
ME0101000412_140R04	Hanson Brook- "Unnamed Stream (P.I. airport)" BioSta 743	Tributary to Presque Isle Stream, draining the airport	Benthic-Macroinvertebrate Bioassessments		2014 / M
ME0101000412_140R05	Kennedy Brook (Presque Isle)	Tributary to Presque Isle Stream	Periphyton (Aufwuchs) Indicator Bioassessments		2015
ME0101000412_143R01	Everett Brook (Ft. Fairfield)	Tributary to Aroostook River	Oxygen, Dissolved	5/23/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0101000412_143R02	Merrit Brook	Entering Aroostook R. from south, downstream of Presque Isle	Benthic-Macroinvertebrate Bioassessments	5/23/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0101000412_143R02	Merrit Brook	Entering Aroostook R. from south, downstream of Presque Isle	Periphyton (Aufwuchs) Indicator Bioassessments		2014 / H
ME0101000413_146R02	Coloney Brook	Fort Fairfield, tributary to Limestone Stream	Benthic-Macroinvertebrate Bioassessments	5/23/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0101000413_146R02	Coloney Brook	Fort Fairfield, tributary to Limestone Stream	Periphyton (Aufwuchs) Indicator Bioassessments		2014 / H
ME0101000501_149R	Minor tributaries to Prestile Stream above dam in Mars Hill		DDT	5-D listed for legacy pollutant-DDT	2020 / L

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0101000501_149R01	Prestile Stream above dam in Mars Hill	Including Christina Reservoir	DDT	5-D listed for legacy pollutant - DDT	2020 / L
ME0101000501_150R	Prestile Str and tributaries entering below dam in Mars Hill		DDT	5-D legacy pollutant	L
ME0101000504_152R01_01	Meduxnekeag River	Below confluence with S Branch	DDT	Legacy pollution	2020 / L
ME0102000402_219R01	Piscataquis R	Main stem, below Dover Foxcroft	Oxygen, Dissolved	10/19/11 Monitoring for DO in 2010 still showing impairment; probably algae problems. Need low flow data to complete TMDL.	H
ME0102000404_216R01_01	W. Br. Pleasant R (KIW Twp)		Iron	5/29/12: Monitoring indicates potentially natural condition; consider future delisting.	2016 / L
ME0102000404_216R01_02	Blood Bk (KIW Twp)	Tributary to West Branch Pleasant River	Iron	5/29/12: Monitoring indicates potentially natural condition; consider future delisting.	2016 / L
ME0102000502_231R	Penobscot R	Main stem, from Cambolasse Str to Piscataquis R	Polychlorinated biphenyls	Legacy pollutant- 5-D	2020 / L
ME0102000506_222R01	Costigan Brook (Milford)	Tributary to Penobscot River	Oxygen, Dissolved	8/21/12: Low DO probably due to natural causes (wetlands); mostly forested watershed. Collect more data.	2015 / M
ME0102000506_232R	Penobscot R	Main stem, from Piscataquis R to Orson Is	Polychlorinated biphenyls	Legacy pollutant- 5-D	2020 / L
ME0102000509_233R_01	Penobscot R	Main stem, from Orson Is to Veazie Dam	Polychlorinated biphenyls	Category 5-D for legacy PCB contamination	2020 / L
ME0102000510_224R01	Burnham Brook (Garland)	Tributary to Kenduskeag Stream	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0102000510_224R03	French Stream (Exeter)	Tributary to Kenduskeag Stream	Benthic-Macroinvertebrate Bioassessments	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0102000510_224R03	French Stream (Exeter)	Tributary to Kenduskeag Stream	Periphyton (Aufwuchs) Indicator Bioassessments		2014 / H
ME0102000510_224R07	Crooked Brook, Corinth	Tributary to Kenduskeag Stream	Periphyton (Aufwuchs) Indicator Bioassessments	8/23/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0102000513_226R03	Penjajawoc Stream (Bangor) Meadow Bk (Bangor)	Tributaries to Penobscot River	Benthic-Macroinvertebrate Bioassessments	5/31/12: Watershed Plan complete: implementation is underway; completed TMDL on hold pending further evaluation.	2014 / M
ME0102000513_226R03	Penjajawoc Stream (Bangor) Meadow Bk (Bangor)	Tributaries to Penobscot River	Habitat Assessment (Streams)		2014 / M
ME0102000513_226R03	Penjajawoc Stream (Bangor) Meadow Bk (Bangor)	Tributaries to Penobscot River	Oxygen, Dissolved		2014 / M
ME0102000513_234R02	Penobscot	Main stem, Veazie Dam to Reeds Bk	Polychlorinated biphenyls	5-D-legacy PCBs	2020 / L
ME0103000305_319R_02	Sandy R,	Main stem, segment below Farmington WWTP	Benthic-Macroinvertebrate Bioassessments	6/11/12: Plan to collect additional data to further assess and determine P limits.	M
ME0103000305_319R_02	Sandy R,	Main stem, segment below Farmington WWTP	Oxygen, Dissolved		M
ME0103000306_314R02	Cold Stream (Skowhegan)		Benthic-Macroinvertebrate Bioassessments	Monitoring in 2006; TMDL not started	2015 / M
ME0103000306_320R04	Mill Stream (Norridgewock)		Benthic-Macroinvertebrate Bioassessments		L
ME0103000306_338R_04	Kennebec R,	Main stem, from Carrabassett R to Fairfield-Skowhegan boundary	Polychlorinated biphenyls	Not started- legacy PCB problem	2020 / L
ME0103000306_339R_02	Kennebec R,	Main stem, from Fairfield-Skowhegan boundary to Sebasticook R	Polychlorinated biphenyls	Not started- legacy PCB problem	2020 / L
ME0103000307_330R	W Branch of Sebasticook R	Main stem, below Rt. 23 bridge in Hartland	Dioxin (including 2,3,7,8-TCDD)	TMDL not started	L

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0103000307_330R	W Branch of Sebasticook R	Main stem, below Rt. 23 bridge in Hartland	Polychlorinated biphenyls	10/29/12: No current sources of contamination, remaining PCBs are legacy pollutants	2020 / L
ME0103000308_325R01	East Branch Sebasticook River Corundel L to Sebasticook L	Corinna Superfund site	Dioxin (including 2,3,7,8-TCDD)	5-D listed, legacy pollutant	L
ME0103000308_325R01	East Branch Sebasticook River Corundel L to Sebasticook L	Corinna Superfund site	Polychlorinated biphenyls		2020 / L
ME0103000308_325R02	Brackett Brook (Palmyra)	Tributary to East Branch Sebasticook River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0103000308_325R03	Mulligan Stream (St. Albans)	Below Mulligan Stream Dam, to Sebasticook Lake	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Oxygen, Dissolved	6/11/12: Eutrophic lake source. Total Phosphorus and Chl a levels in the lake have decreased in the past decade.	L
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Phosphorus (Total)		L
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Dioxin (including 2,3,7,8-TCDD)	5-D listed, legacy pollutant	L
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Polychlorinated biphenyls		2020 / L
ME0103000308_332R	Sebasticook R	Main stem, from E and W Branches to Burnham bridge, including Burnham impoundment	Dioxin (including 2,3,7,8-TCDD)	low priority	2011 / L
ME0103000308_332R	Sebasticook R	Main stem, from E and W Branches to Burnham bridge, including Burnham impoundment	Polychlorinated biphenyls	5-D, legacy PCB contamination	2020 / L
ME0103000309_327R01	Mill Stream (Albion)	Tributary to Fifteenmile Stream	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Dioxin (including 2,3,7,8-TCDD)	Legacy upstream sources (W.Br. Sebasticook); TMDL not started	L
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Oxygen, Dissolved	10/19/11: Impairment likely due to Benton impoundment; good candidate for monitoring to confirm or reject continued DO impairment. No recent monitoring data.	2016 / L
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Polychlorinated biphenyls	5-D, legacy upstream sources (W. Br. Sebasticook)	2020 / L
ME0103000309_332R01	Sebasticook River (site of former Halifax impoundment)	Tributary to Kennebec River	Dioxin (including 2,3,7,8-TCDD)		L
ME0103000309_332R01	Sebasticook River (site of former Halifax impoundment)	Tributary to Kennebec River	Polychlorinated biphenyls	5-D, legacy upstream sources (W. Br. Sebasticook)	2020 / L
ME0103000311_334R03	Jock Stream (Wales)	Tributary to Cobbosseecontee Lake/Stream	Nutrient/Eutrophication Biological Indicators	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0103000311_334R03	Jock Stream (Wales)	Tributary to Cobbosseecontee Lake/Stream	Oxygen, Dissolved		2014 / H
ME0103000311_334R04	Mill Stream (Winthrop)		Benthic-Macroinvertebrate Bioassessments	6/11/12: TMDL monitoring in 2005 & 2010, EPA assistance monitoring 2010; biomonitoring in 2004; toxic spill probable source	2015 / M
ME0103000311_334R04	Mill Stream (Winthrop)		Cause Unknown		2015 / M
ME0103000311_334R05	Cobbossee Stream (Gardiner)	Tributary to Kennebec River	Benthic-Macroinvertebrate Bioassessments		2015 / M

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0103000311_334R05	Cobbossee Stream (Gardiner)	Tributary to Kennebec River	Periphyton (Aufwuchs) Indicator Bioassessments		2015 / M
ME0103000312_333R01_02	Bond Brook mainstem	From confluence of Spring and Tanning Brook to tidal influence	Periphyton (Aufwuchs) Indicator Bioassessments		2015 / M
ME0103000312_335R03	Meadow Brook (Farmingdale)		Benthic-Macroinvertebrate Bioassessments	5/29/12: Probably due to Habitat & Flow	2015 / M
ME0103000312_339R_01	Kennebec R,	Main stem, from Sebasticook R to Augusta (Calumet Bridge)	Polychlorinated biphenyls	not started- legacy PCB contamination	2020 / L
ME0103000312_340R_01	Kennebec R,	Main stem, from Augusta (Calumet Bridge) to Merrymeeting Bay (Chops)	Polychlorinated biphenyls	not started- legacy PCB contamination	2020 / L
ME0103000312_427R	Merrymeeting Bay	including tidal portions of tributaries from the Androscoggin R to The Chops	Polychlorinated biphenyls	not started- legacy PCB contamination; 5-D listed	2020 / L
ME0103000324_333R_02	Spring Brook (Augusta)	From Gov Hill fish hatchery to Mt Vernon Rd, Augusta	Benthic-Macroinvertebrate Bioassessments	10/26/12: Pursue permitting actions to improve conditions.	L
ME0103000324_333R_02	Spring Brook (Augusta)	From Gov Hill fish hatchery to Mt Vernon Rd, Augusta	Phosphorus (Total)		L
ME0104000201_421R	Androscoggin R	Main stem, from Maine-NH border to Wild R	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000202_421R	Androscoggin R	Main stem, above Rumford Point	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000204_421R	Androscoggin R	Main stem, from Rumford Pt to Virginia Bridge	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000204_422R	Androscoggin R	Main stem, from Virginia bridge to Webb R	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000205_410R01_02	Whitney Brook (Canton)		Benthic-Macroinvertebrate Bioassessments		2015 / M
ME0104000205_422R	Androscoggin R	Main stem, Webb R to Riley dam	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0104000206_423R	Androscoggin R	Main stem, from Riley Dam to Nezinscot R	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000206_423R01	Androscoggin R	Main stem, Livermore impoundment	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000208_413R01	Jepson Brook (Lewiston)	Tributary to Androscoggin River	Benthic-Macroinvertebrate Bioassessments	6/11/12: Develop TMDL as precursor to potential Use Attainability Analysis	2018
ME0104000208_413R01	Jepson Brook (Lewiston)	Tributary to Androscoggin River	Habitat Assessment (Streams)		2018
ME0104000208_413R01	Jepson Brook (Lewiston)	Tributary to Androscoggin River	Oxygen, Dissolved		2018
ME0104000208_413R03	Stetson Brook (Lewiston)	Tributary to Androscoggin River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0104000208_413R07	Gully Brook (Auburn)		Oxygen, Dissolved	5/29/12: Mostly urban: include in future % Impervious Cover TMDL	2014 / M
ME0104000208_424R	Androscoggin R,	Main stem, from confluence of Nezinscot R to confluence with Little Androscoggin R, except Gulf Island Pond	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000208_424R_01	Androscoggin R, GIP	Main stem, upstream of the Gulf Island Dam	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000210_413R02	Penley Brook (Auburn)	Tributary to Androscoggin River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0104000210_418R01	Sabattus River between Sabattus P and Androscoggin R	From Sabattus Pond to limits of Lisbon urban area	Nutrient/Eutrophication Biological Indicators	5/1/12: Sabattus Pond eutrophic and source of SOD in river; lake TMDL complete 2004; slow recovery is expected.	2015 / L
ME0104000210_418R01	Sabattus River between Sabattus P and Androscoggin R	From Sabattus Pond to limits of Lisbon urban area	Oxygen, Dissolved		2015 / L
ME0104000210_418R02	No Name Brook (Lewiston)	Tributary to Sabattus River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0104000210_418R03	Sabattus River between Sabattus P and Androscoggin R	From limits of Lisbon urban area to Androscoggin R	Benthic-Macroinvertebrate Bioassessments	5/1/12: effects from legacy pollutants, habitat and development as well as nutrients/DO on macroinvertebrates	2015 / L
ME0104000210_418R03	Sabattus River between Sabattus P and Androscoggin R	From limits of Lisbon urban area to Androscoggin R	Nutrient/Eutrophication Biological Indicators	5/1/12: Sabattus Pond eutrophic and source of SOD in river; lake TMDL complete 2004; slow recovery is expected.	2015 / L
ME0104000210_418R03	Sabattus River between Sabattus P and Androscoggin R	From limits of Lisbon urban area to Androscoggin R	Oxygen, Dissolved		2015 / L
ME0104000210_419R03	Unnamed Stream (Lewiston Municipal Landfill)	Biomon Sta 857 affected by Lewiston Municipal Landfill near Plourde Pky	Benthic-Macroinvertebrate Bioassessments		2015 / M
ME0104000210_425R_01	Androscoggin R,	Main stem, from L Androscoggin R to Pejepscot Dam	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000210_425R_01_01	Androscoggin R,	Main stem, from Pejepscot Dam to Brunswick Dam	Fish-Passage Barrier		
ME0104000210_425R_01_01	Androscoggin R,	Main stem, from Pejepscot Dam to Brunswick Dam	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0104000210_426R	Androscoggin R	Main stem, from Brunswick Dam to Brunswick-Bath boundary	Polychlorinated biphenyls	5-D, PCB legacy pollutant	2020 / L
ME0105000209_512R_02	McCoy Brook (Deblois)	Tributary to Narraguagus River	Benthic-Macroinvertebrate Bioassessments	Legacy effect from abandoned peat mining - low pH	2015 / L
ME0105000209_512R_02	McCoy Brook (Deblois)	Tributary to Narraguagus River	pH		2015 / L
ME0105000209_512R_03	Great Falls Branch, Schoodic Stream (Deblois)	Tributary to Narraguagus River	Benthic-Macroinvertebrate Bioassessments		2015 / M
ME0105000218_521R01	Warren Brook (Belfast)	Tributary to Passagassawakeag River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0105000305_528R02	West Branch Sheepscot River	Below Halls Corner, Rt 17/32	Escherichia coli	8/30/12: Will be included in future update to statewide bacteria TMDL (approved 9/28/09).	2014
ME0105000305_528R02	West Branch Sheepscot River	Below Halls Corner, Rt 17/32	Periphyton (Aufwuchs) Indicator Bioassessments	8/30/12: Potential natural impairment due to low flows	2016 / M
ME0105000305_528R03	Dyer River below Rt 215	Tributary to Sheepscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0105000305_528R04	Trout Brook (Alna)	Tributary to Sheepscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0105000305_528R05	Meadow Bk (Whitefield)	Tributary to West Branch Sheepscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0105000305_528R06	Carlton Bk (Whitefield)	Tributary to Sheepscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0105000305_528R07	Choate Bk (Windsor)	Tributary to West Branch Sheepscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0105000305_528R08_01	Chamberlain Bk (Whitefield)	Tributary to Sheepscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000102_603R02	Chandler River including East Branch	Tributary to Royal River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000102_603R06	Cole Brook (Gray)		Benthic-Macroinvertebrate Bioassessments		2015 / M
ME0106000103_607R01	Black Brook (Windham)	Tributary to Presumpscot River	Escherichia coli	4/13/10: Will be included in future update to statewide bacteria TMDL (approved 9/28/09)	2014

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0106000103_607R01	Black Brook (Windham)	Tributary to Presumpscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R03	Colley Wright Brook (Windham)	Tributary to Presumpscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R06	Hobbs Brook (Cumberland)	Tributary to Piscataqua River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R07	Inkhorn Brook (Westbrook)	Tributary to Presumpscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R08	Mosher Brook (Gorham)	Tributary to Presumpscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R09	Otter Brook (Windham)	Tributary to Presumpscot River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R10	Thayer Brook	Gray, tributary to Pleasant River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000103_607R12	Pleasant River (Windham)	Mainstem of Pleasant River from Thayer Brook to confluence with Presumpscot R	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000105_610R02	Clark Brook (Westbrook)		Oxygen, Dissolved		2016 / L
ME0106000105_610R04	Stroudwater River (Portland, Westbrook)	Tributary to Fore River and Casco Bay	Oxygen, Dissolved	ADD: 0/19/11: Candidate for monitoring to re-confirm or refute dissolved oxygen non-attainment.	2016 / L
ME0106000105_610R07	Red Brook (Scarborough, S Portland)	Tributary to Long Creek	Polychlorinated biphenyls	10/29/12: No current sources of contamination, remaining PCBs are legacy pollutants	2020 / L
ME0106000105_610R08	Fall Bk (Portland)		Habitat Assessment (Streams)	6/11/12: Develop TMDL as precursor to potential Use Attainability Analysis	2013 / L

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0106000106_602R03	Concord Gully (Freeport)	Tributary to Harraseeket River	Escherichia coli	2/16/12: Will be included in future update to statewide bacteria TMDL (approved 9/28/09).	2014
ME0106000106_612R01	Goosefare Brook above I-95	Goosefare Brook, Saco	Escherichia coli	2/16/12: Will be included in future update to statewide bacteria TMDL (approved 9/28/09).	2013 / M
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Escherichia coli	2/16/12: Will be included in future update to statewide bacteria TMDL (approved 9/28/09).	2014
ME0106000210_615R01	Little Ossippee R	Segment from Lake Arrowhead (Ledgemere) Dam to Saco River	Benthic-Macroinvertebrate Bioassessments	5/31/12: Impairment likely due to upstream impoundment	2016 / L
ME0106000210_615R01	Little Ossippee R	Segment from Lake Arrowhead (Ledgemere) Dam to Saco River	Oxygen, Dissolved		2016 / L
ME0106000210_615R02	Brown Brook (Limerick)	Sokokis Lake to Lake Arrowhead	Benthic-Macroinvertebrate Bioassessments	6/11/12: TMDL monitoring in 2005 & 2010, EPA assistance monitoring 2010; biomonitoring in 2005 and 2010; toxic spill probable source.	2015 / M
ME0106000210_615R02	Brown Brook (Limerick)	Sokokis Lake to Lake Arrowhead	Habitat Assessment (Streams)		2015 / M
ME0106000211_616R	Wales Pond Brook (Hollis)		Benthic-Macroinvertebrate Bioassessments	6/21/12: Not started; needs re-sampling	2015 / H
ME0106000301_622R03	Duck Brook and tributaries	Arundel	Escherichia coli	4/5/12: Will be included in future update to statewide bacteria TMDL (approved 9/28/09).	2013 / M
ME0106000303_624R01	Stevens Brook (Wells, Ogunquit)	Only portion flowing in westerly-to-easterly direction, to start of wetland section	Benthic-Macroinvertebrate Bioassessments	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/ Priority
ME0106000304_625R01	Adams Brook (Berwick)	Tributary to Lovers Brook and Great Works River	Benthic-Macroinvertebrate Bioassessments	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000304_625R03	West Brook (N. Berwick)	From 0.1 miles above Bragdon Rd to confluence with Great Works River	1,1-Dichloroethane	5/29/12: Remediation of original contaminant source has occurred; attenuation of contaminant concentration expected over time; monitoring continues.	2015
ME0106000304_625R03	West Brook (N. Berwick)	From 0.1 miles above Bragdon Rd to confluence with Great Works River	1,2-Dichloroethane		2015
ME0106000304_625R03	West Brook (N. Berwick)	From 0.1 miles above Bragdon Rd to confluence with Great Works River	Oxygen, Dissolved	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.	2014 / H
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Dioxin (including 2,3,7,8-TCDD)	Not started; legacy pollutants	2020 / L
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Polychlorinated biphenyls		2020 / L

Table 8-14 Lakes/Ponds TMDL Current Project Update

HUC	Lake	Lake ID	Cause	Project Status	Priority *	TMDL Submittal Target**
ME0103000310	Great Pond	5274	Total phosphorus; Secchi disk transparency	Included in TMDL for downstream lake (Long P, TMDL 2008) thus low priority	2	2016
ME0103000311	Cochnewagon Pond	3814	Total phosphorus; Secchi disk transparency	Listed this cycle	1	2016

Table 8-15 Wetland TMDL Current Project Update

Assessment Unit ID	AU Name	Location Description	Cause	Project Status	TMDL Submittal Target Date/Priority
ME0101000501_149R01_W203	Prestile Stream wetlands above dam in Mars Hill	Including sites W-203 and W-204	DDT	5-D listed for legacy pollutant	L / 2020
ME0103000308_325R01_W080	East Branch Sebasticook River Wetland	Between Corundel Pond and Sebasticook Lake, wetland site W-080	Dioxin (including 2,3,7,8-TCDD)	5-D listed for legacy pollutant	L
ME0103000308_325R01_W080	East Branch Sebasticook River Wetland	Between Corundel Pond and Sebasticook Lake, wetland site W-080	Polychlorinated biphenyls	5-D listed for legacy pollutant	L / 2020
ME0104000210_418R01_W188	Sabattus River Wetland, between Sabattus P and Rt 126	Wetland site W-188, between Sabattus Pond and Rt 126 in Sabattus	Benthic-Macroinvertebrate Bioassessments	5/1/12: Sabattus Pond eutrophic and source of SOD in river; lake TMDL complete 2004; slow recovery expected. Updated, revised modeling report completed 2006	L / 2015
ME0106000302_628R01_02_W054	Unnamed tributary wetland to Mousam River, Sanford	Wetland Station W-054	Benthic - Macroinvertebrate Bioassessments (Wetlands)	Not started	L

Table 8-16 Estuarine/Marine Current TMDL Project Update

Waterbody ID	Segment Description	Cause	Project Status	TMDL Submittal Target Date/Priority
812-2	Piscataqua R. Estuary (Eliot, Kittery)	Nutrient/ Eutrophication Biological Indicators	TMDL dictated by NH licensing and ME nitrogen criteria processes.	L
812-3	Portsmouth Harbor (south and west of Gerrish Island)	Cause Unknown	TMDL contingent on identification of impairment cause(s); data collection planned for summer 2014	L
811-9	Mousam River Estuary (DMR Area 6)	Dissolved Oxygen	Modeling report complete	2016
811-8	Saco R. Estuary	Toxicity, Copper	Further data collection required	L
804-7	Fore R. Estuary	Marine life, Toxics	Further data collection required	M
802-25	Royal R. Estuary	Dissolved Oxygen	Further data collection required	2016

CHAPTER 9 ACCESSING AND MANAGING DATA USED IN MAKING DECISIONS ON STATUS OF WATERS

MAINE DEP QUALITY MANAGEMENT SYSTEM

Contact: John Silvestri, DEP Quality Assurance Manager, Office of the Commissioner

Tel: (207) 287-7830 email: John.Silvestri@maine.gov

Related Website: www.maine.gov/dep/about/planning.html

- Please refer to pages 191-192 the 2006 Integrated Water Quality Monitoring and Assessment Report for complete information and details on this subject. http://www.maine.gov/dep/water/monitoring/305b/2006/2006_Final_305b_Report.pdf

Data used in making decisions on the status of Maine waters are collected, analyzed, and evaluated according to the standards contained in the Department's QMP or Quality Management Plan (Revision 4, as approved by EPA-New England, October 2011). The Plan documents DEP's Quality Management System (QMS) which applies to all program areas and activities in the Maine DEP. The QMS uses a rigorous internal second-party audit approach to managing for quality, in addition to program-level QA/QC activities. The latter are documented in Standard Operating Procedures (SOPs) developed and implemented for each program area. SOPs are included in all Quality Assurance Project/Program Plans (QAPPs) applicable to environmental data gathering and analysis. Maine DEP has received delegated authority from EPA-New England (Memorandum of Understanding 7/24/09) to review and approve most QAPPs related to environmental data used in making decisions on status of waters

ENVIRONMENTAL AND GEOGRAPHIC ANALYSIS DATABASE (EGAD)

Contact: Susanne Meidel, DEP BLWQ, Division of Environmental Assessment (DEA)
Tel: (207) 441-3612 email: Susanne.K.Meidel@maine.gov

Groundwater Contact: Mark Holden, DEP BLWQ, Division of Environmental Assessment (DEA)

Tel: (207) 215-1691 email: Mark.K.Holden@maine.gov

Related Websites: http://www.maine.gov/dep/maps-data/egad/index.html and http://www.maine.gov/dep/gis/datamaps/index.htm (for access to MDEP data via Google Earth projects on the internet)

The Maine Environmental and Geographic Analysis Database (EGAD) stores site and water quality information in a relational database using Oracle technology and spatial locations using Environmental Systems Research Institute (ESRI) Spatial Database Engine (SDE) software. The database includes data from groundwater and surface water samples as well as sediment and biological samples and other pertinent information. To date (January 2012), data from the following MDEP programs involved in monitoring activities has been incorporated: Environmental Geology, Biological Monitoring, SWAT (Surface Water Ambient Toxics; freshwater and marine), Dioxin Monitoring, Rivers-Stream TMDL, Rivers-Modeling, Rivers-Salmon, and Maine Healthy Beaches; data from the Lakes Assessment program has been partly incorporated. There are a total of 20,959 sampling sites in the database and a total of 8.1 million samples each of which has one to many results records; ~3.1 million of these samples are used in water quality assessments in general. Approximately 450 groundwater sites and 150 surface water sites are added to the database every year.

Data collected by MDEP staff or submitted by contractors or laboratories are loaded to EGAD using a standard EDD (Electronic Data Deliverable) which offers automated quality control. The EGAD system allows complete integration of all data via spatial relationships. Database functionalities exist to assess trends in water quality information, satisfy requests for data, assist in answering inquiries, provide automated analysis, and enable customized reporting and map-making. The database allows rapid access to information which is critical for emergency response for hazardous materials spills. MDEP staff can also geo-locate, browse and access all EGAD data together with related site and monitoring information on the Internet via several Google Earth projects. The ability to access a large variety of data quickly, easily and in a number of different formats allows staff to identify resources that require protection, such as lakes, streams, or municipal or private wells, and to target monitoring efforts.

Water quality assessment results are stored in Maine's version of the EPA Assessment Database (ADB) and a link to an ArcMap project shows geo-referenced assessment units and the water quality geodatabase. MDEP envisions that all raw water quality data in support of the Integrated Report will ultimately be stored in EGAD. The GIS-facilitated link to ADB assessments will ultimately allow for waterbody assessments via a fully geo-referenced Maine ADB.

Since 2008, Maine water quality data stored in EGAD have been exported to national EPA databases (STORET, PRAWN) via WQX, the Water Quality Exchange system; to date data from the SWAT, River-Stream TMDL, and Maine Healthy Beaches programs have been transferred to WQX. Like MDEP staff, the public can also access Maine surface and groundwater data as well as related site and monitoring information data via Google Earth.

Water Quality Monitoring and Reporting Utilizing GIS and the National Hydrography Dataset (NHD)

Contacts: Vicki Schmidt, BLWQ GIS Unit

Tel: (207) 485-1482 email: Vicki.l.schmidt@maine.gov

Doug Suitor, BLWQ GIS Unit

Tel: (207) 441-6616 email: douglas.suitor@maine.gov

The MDEP Bureau of Land & Water Quality is highly active in designing, creating, and maintaining hydrologic and terrestrial spatial data for use in water quality decision making programs for the State of Maine. Our primary objective over the last year (2011) has been to establish and maintain The National Hydrography Dataset (NHD) as Maine's primary surface water dataset. The MDEP Bureau of Land & Water Quality has a staff person who serves as one of the States two NHD data stewards. Additionally working in conjunction with additional MDEP GIS staff, we are incorporating water quality information into a NHD compatible format. Using the NHD with the NHD compatible data it is possible to study relationships between the surface waters and linked datasets. To promote use of the NHD, staff has created on-line tutorials for internal staff as well as outside users of the NHD.

The NHD, as well as all supporting spatial data sets regarding water quality, are housed at the Maine Office of GIS (MEGIS) for efficient on-line access through the MEGIS Internet Data Catalog (http://megis.maine.gov/catalog). The MEGIS Internet Data Catalog is provided at no cost and is supported by Maine's Legislative initiative (L.D. 2116 "An Act to Establish the Maine Library of Geographic Information (Chapter 649). The initiative established data custodians within Departments to organize, catalog, and provide access to public geographic information to all levels of government and to the public. The MDEP and BL&WQ are responsible for disseminating spatial components of water quality information and analysis activities.

These programs will ensure easy access and retrieval of water quality information for MDEP users as well as State and national users of Maine's GIS water quality information.

LISTINGS ON INDIVIDUAL WATERS

See Appendices II through V (separate document) for listing information on specific waters. Appendices include assessments for rivers/streams, lakes, wetlands and estuarine waters.

State of Maine

Department of Environmental Protection

2012 Integrated Water Quality Monitoring and Assessment Report

Appendices:

Acronyms, HUC Maps, Definitions And Integrated Lists of Surface Waters

DEPLW-1246

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APPENDIX I: ACRONYMS FOUND IN THE BODY OF THE 2012 INTEGRATED REPORT ALONG WITH THE MEANING OR DEFINITION

No.	Term	Meaning or Definition
1	303(d) List	List of a state's Impaired Waters
2	305(b) Report	The 305(b) report is a complete assessment of all water quality management sub-segments in the state for which uses and standards are available. (a.k.a. The Integrated Report)
3	ACE	Army Corps of Engineers
4	ADB	EPA Database (short for Assessment DataBase)
5	ALU	Aquatic Life Use
6	ANC	Acid Neutralizing Capacity
7	AQUA Index	Aquifer Quantitative Use Assessment Index
8	AST	Above Ground Storage tank
9	AU	Assessment Unit
10	BEACH	Beaches Environmental Assessment, Closure and Health
11	BEP, Board	Board of Environmental Protection
12	BMP	Best Management Practice
13	BOD	Biological or Biochemical Oxygen Demand
14	BRFSS	Behavioral Risk Factors Surveillance Survey
15	CAFO	Concentrated Animal Feeding Operation
16	CBD	Center for Biological Diversity
17	CDBG	Community Development Block Grant
18	CERCLA	Comprehensive Environmental Response and Comprehensive Liability Act
19	CHL a	Chlorophyll a
20	CSO	Combined Sewer Overflow
21	CWA	Clean Water Act
22	CWSRF	Clean Water State Revolving Fund
23	DDT	Dichlorodiphenyltrichloroethane
24	Deca-BDE	Decabromodiphenyl ether
25	DEP, MDEP, "The Department"	State of Maine - Department of Environmental Protection
26	DEP - BLWQ	DEP - Bureau of Land and Water Quality
27	DEP - BLWQ - DEA	DEP - Bureau of Land and Water Quality - Division of Environmental Assessment
28	DEP - BLWQ - DLRR	DEP - Bureau of Land and Water Quality - Division of Land Resource Regulation
29	DEP - BLWQ - DWM	DEP - Bureau of Land and Water Quality - Division of Watershed Management
30	DEP - BLWQ - DWRR	DEP - Bureau of Land and Water Quality - Division of Water Resource Regulation
31	DEP - BRWM	Department of Environmental Protection - Bureau of Remediation and Waste Management
32	DHHS	Department of Health and Human Services
33	DHHS – Maine CDC, MCDC	DHHS – Maine Center for Disease Control and Prevention
34	DHHS - MCDC - DEH	DHHS - MCDC - Division of Environmental Health
35	DHHS - MCDC - DEH - DWP	DHHS - MCDC - DEH - Drinking Water Program
36	DHHS - MCDC - DEH - DWP - WHPP	DHHS - MCDC - DEH - DWP - Wellhead Protection Program
37	DHHS - MCDC - DEH - RCP	DHHS - MCDC - DEH - Radiation Control Program
38	DHHS - MCDC - HETL	DHHS - Bureau of Health - Public Health and Environmental Testing Laboratory
39	DIF&W	Maine Department of Inland Fisheries and Wildlife

No.	Term	Meaning or Definition
40	DLWA	Damariscotta Lake Watershed Association
41	DMR	Discharge Monitoring Report
42	DMR	Department of Marine Resources
43	DMR - BRM	DMR - Bureau of Resource Management
44	DMR - BRM - PHD	DMR - BRM - Public Health Division
45	DOA	Maine Department of Agriculture
46	DOA - BPC	DOA - Board of Pesticide Control
47	DOA - DARD	Maine Department of Agriculture - Division of Agricultural Resource Development
48	DOA - DARD – NARR - NMP	DOA - DARD - Natural and Rural Resources - Nutrient Management Program
49	DOC	Dissolved Organic Carbon
50	DOC	Department of Conservation
51	DOC - BGNA	Department of Conservation - Bureau of Geology and Natural Areas
52	DOC - BGNA - MGS	DOC - BGNA - Maine Geological Survey
53	DOC - BGNA - MNAP	DOC - BGNA - Maine Natural Areas Program
54	DOC - LURC	Department of Conservation - Land Use Regulation Commission
55	DOT, MDOT	Maine Department of Transportation
56	EDD	Electronic Data Deliverable
57	EGAD	Environmental Groundwater Analysis Database
60	EPA, USEPA	United States Environmental Protection Agency
61	EPA-New England	Region 1 of the EPA (Covers CT, MA, ME, NH, RI & VT)
62	ESRI	Environmental Systems Research Institute
63	FFY	Federal Fiscal Year
64	FTAL	Fish Tissue Action Level
65	GIS	Geographic Information Systems - computerized mapping systems
66	GPA	Great Pond Class A
67	GW-A	Potable drinking water in the state classification
68	GW-B	Non-potable drinking water in the state classification
69	HBMI	Houlton Band of Maliseet Indians
70	HELM	High Elevation Lakes Monitoring
71	HUC	Hydrologic Unit Code
72	IR	Integrated (Water Quality Assessment and Monitoring) Report
73	LEA	Lakes Environmental Association
74	LUST	Leaking Underground Storage Tank
75	MCL	Maximum Contaminant Level
76	MDL	Minimum Detection Limit
77	MEG	Maximum Exposure Guideline
78	MEGIS	Maine Office of Geographic Information Systems (GIS)
79	MEPDES	Maine Pollutant Discharge Elimination System
80	mg/L	Milligrams Per Liter
81	MHB	Maine Healthy Beaches Program
82	MMI	Maine Milfoil Initiative
83	MRSA, M.R.S.A.	Maine Revised Statutes Annotated
84	MS4	Municipal Separate Storm Sewer Systems

No.	Term	Meaning or Definition
85	NGO	Non-governmental Organization
86	NHDES	New Hampshire Department of Environmental Services
87	NWCA	National Wetland Condition Assessment
88	NHD	National Hydrography Dataset
89	NPS	Nonpoint Source (of Pollution)
90	NRPA	Natural Resources Protection Act
91	NS&T	National Status and Trends
92	O&M	Operations and Maintenance (procedures)
93	OA	Ocean Acidification
94	OBD	Overboard Discharge
95	OC	Organochlorine pesticide
96	ODGP	Overboard Discharge Grant Program
97	P2 Program	Pollution Prevention Program
98	PAH	Polycyclic Aromatic Hydrocarbons
99	PBDE	Polybrominated Diphenyl Ethers
100	PCB	Polychlorinated Biphenyls
101	pCi/L	Picocuries Per Liter
102	pdf	Portable Document Format
103	PFC	Perfluorinated Compounds
104	PFOS	Perfluorooctane sulfonate
105	POTW	Publicly Owned Treatment Works - e.g. a municipal wastewater treatment plant
106	Ppb	Parts Per Billion
107	Ppm	Parts Per Million
108	PRAWN	EPA'S PRogram tracking, beach Advisories,Water quality standards, and Nutrients database
109	PSP	Paralytic Shellfish Poisoning
110	QA/QC	Quality Assurance / Quality Control
111	QAPP	Quality Assurance Project/Program Plan
112	QMP	Quality Management Plan
113	QMS	Quality Management System
114	RCRA	Resource Conservation and Recovery Act
115	REMAP	Regional Environmental Monitoring and Assessment Program
116	RPA	Range Pond Association
117	SCGP	Small Community Grant Program
118	SDT	Secchi Disk Transparency
119	SDWA	Safe Drinking Water Act
120	SOP	Standard Operating Procedures
121	SPO	Maine State Planning Office
122	SPU	Standard Platinum Units
123	STORET	EPA Database (short for STOrage and RETrieval)
124	SVOC	Semi Volatile Organic Compound
125	SWAT	Surface Water Ambient Toxics

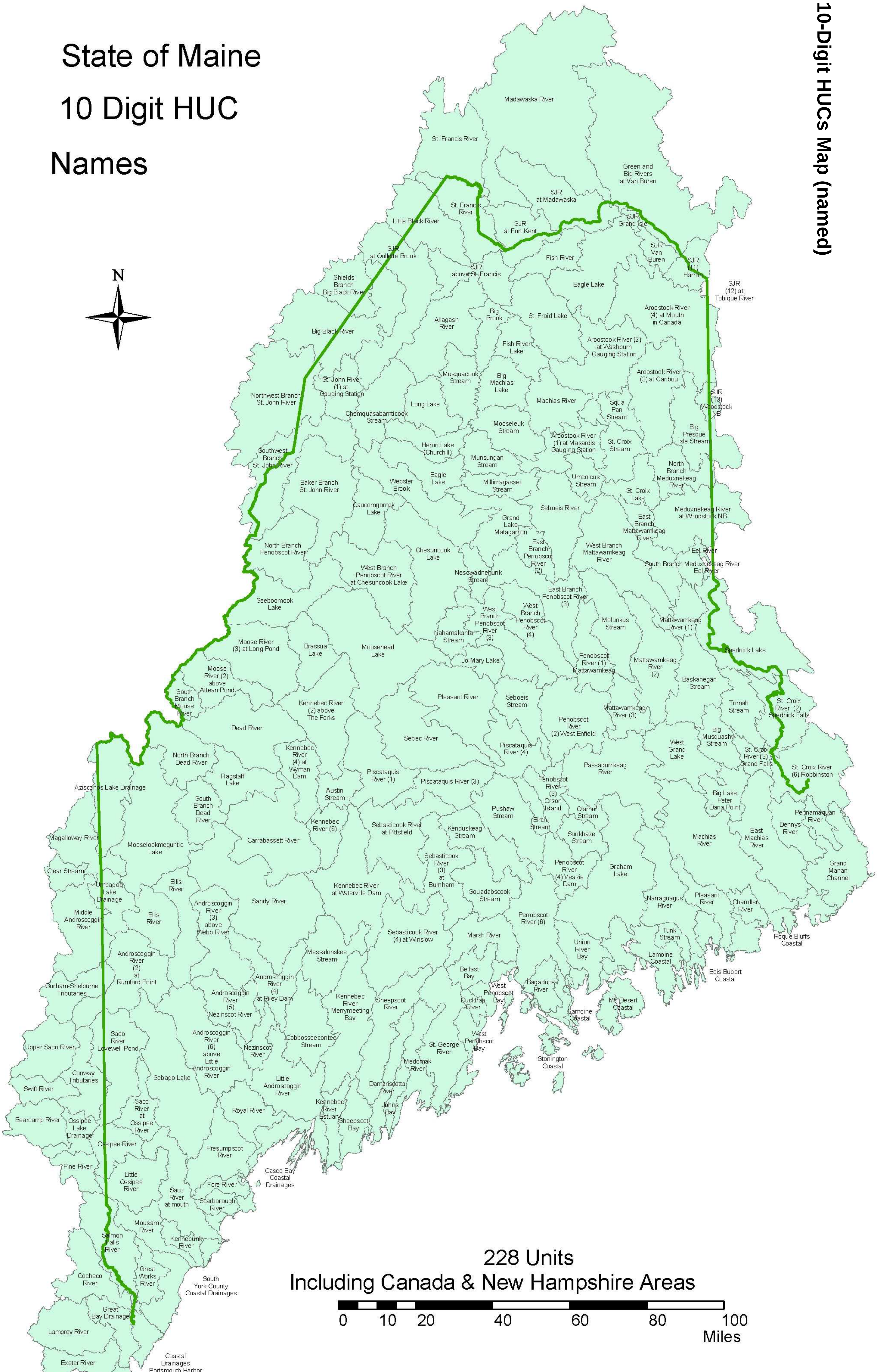
No.	Term	Meaning or Definition
126	TMDL	Total Maximum Daily Load
127	TSI	Trophic State Indices
128	UIC	Underground Injection Conduit
129	USDA	United States Department of Agriculture
130	USGS	United States Geological Survey
131	UST	Underground Storage Tank
132	VLMP	Volunteer Lake Monitoring Program
133	VOC	Volatile Organic Compound
134	VRAP	Voluntary Remedial Action Program
135	VRMP	Volunteer River Monitoring Program
136	WBD	Watershed Boundary Dataset
137	WET	Whole Effluent Toxicity
138	WQ	Water Quality
139	WQS	Water Quality Standards

Hydrologic Unit Code[1] (HUC) Maps for Appendices II through V

[1] The USGS has replaced the HUC system with the WBD (Watershed Boundary Dataset) system. Because of this conversion, a mismatch now exists between some HUCs used in the IR and current WBDs (former HUCs). DEP did not update the HUC part of any AU ID to conform to the new WBD system and is retaining the term 'HUC' to indicate continued usage of the older system.

State of Maine
10 Digit HUC
Names

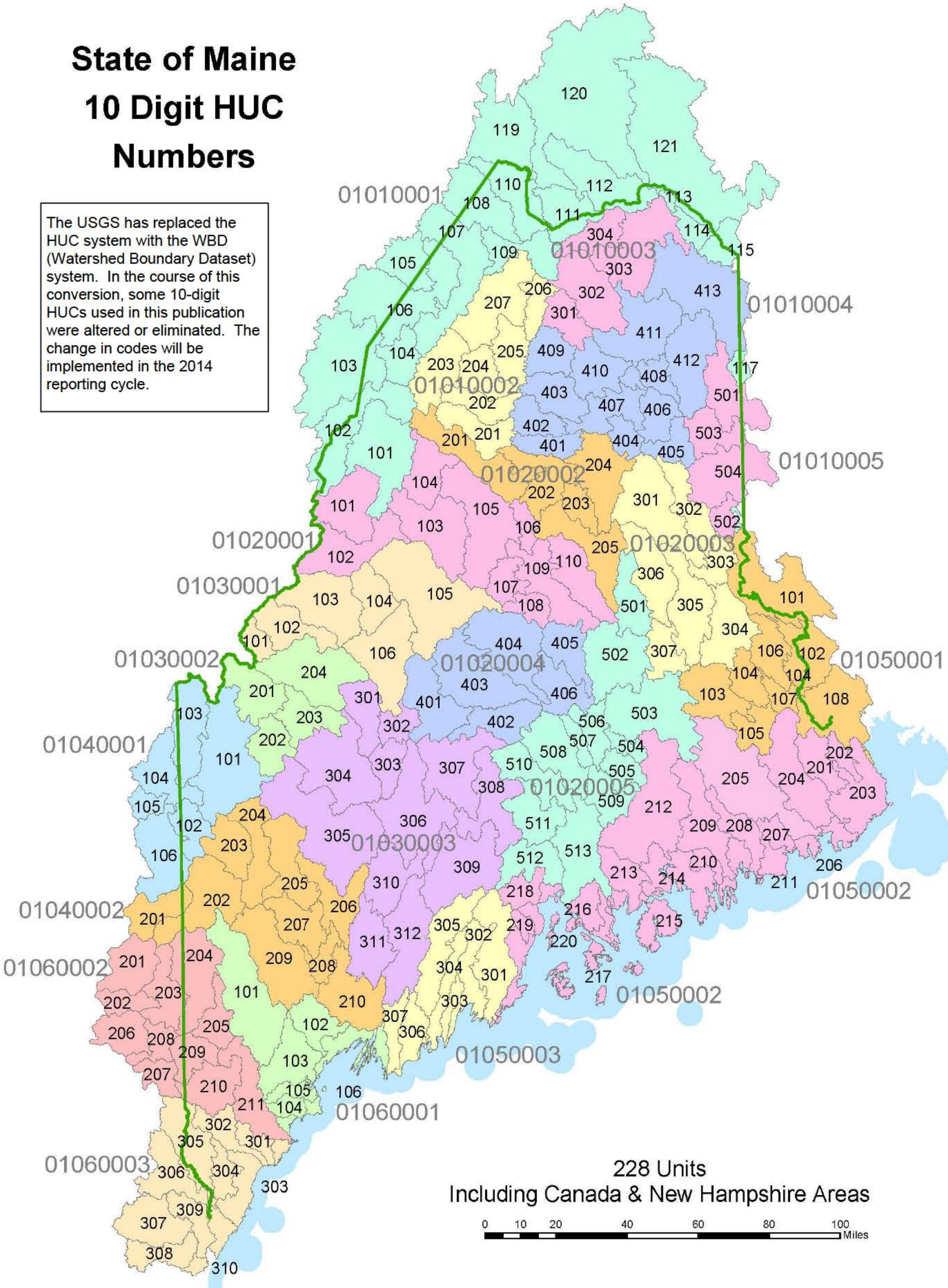
10-Digit HUCs Map (named)



228 Units
Including Canada & New Hampshire Areas

State of Maine 10 Digit HUC Numbers

The USGS has replaced the HUC system with the WBD (Watershed Boundary Dataset) system. In the course of this conversion, some 10-digit HUCs used in this publication were altered or eliminated. The change in codes will be implemented in the 2014 reporting cycle.



Definitions for terms common in Appendices II through V

ADB Assessment Unit ID: (rivers and streams and wetlands only) Combination of the Assessment Unit (HUC – Hydrologic Unit Code; 10-digit HUCs used here) and Segment ID (used in previous Integrated Reports) to create a unique identification code for each water segment in the ADB. Wetland IDs are augmented by '_W###'.
Note 1: HUCs can be thought of as very large watersheds; they have not been assigned to marine waters.
Note 2: the USGS has replaced the HUC system with the WBD (Watershed Boundary Dataset) system. In the course of this conversion, some 10-digit HUCs used in this publication were altered or eliminated.

Waterbody or Lake ID: Segment numbers within an assessment unit (these are the same numbers used by the Waterbody System in previous 305b reports). For lakes, this is a unique ID number for each lake that is also known as a MIDAS code.

DMR Area: A numeric code assigned to generalized areas of marine waters by the State Department of Marine Resources (DMR).

Segment or Lake Name / Segment Description: Common name for a river or stream segment, a lake or wetland, or portions of marine waters (respectively).

Location: Additional description of the location of a segment.

Segment Size / Lake Area: In miles for rivers and streams, in acres for lakes, wetlands or marine waters (also in square miles for marine waters).
Note: segment acres for wetland segments are provided for the first time in this report.

Segment Class: The assigned classification from M.R.S.A. Title 38 Section 467, 468, and 469. Assessment is made according to the standards of the assigned class.

Monitored Date / Last Year Sampled: The last year data was collected from an assessment unit or segment. When data is older than five years, it is listed as an evaluated segment.

Scheduled Monitoring Date: Estimate of when a segment/lake is likely to be sampled again.

Impaired Use: Uses from M.R.S.A. Title 38 Section 465, 465-A, 465-B that are found to not be fully supported.

Cause(s): Criteria that have not been attained or known pollutants that cause impairment. Final determination of all causes may require completion of the TMDL or other analyses.

Reason for DMR Closure: The reason as to why the DMR has closed an area to shellfishing.

Sources: A list of probable sources of impairment to a water body or segment. Final determination of sources may require completion of a TMDL or other problem analysis.

TMDL Schedule: Projected date for TMDL (Total Maximum Daily Load) completion. A "2012" indicates the TMDL's completion is expected within this reporting cycle. Other entries indicate when those TMDL's completion may be expected (or other management actions will be taken to bring a segment into attainment). These schedules may be revised in future report listings.

TMDL (Target) Date: Projected / scheduled date that a TMDL Report will be completed.

TMDL Number: (If known) A number assigned by the EPA to identify and track TMDLs.

TMDL Approval: The year that the EPA approved a TMDL for a water segment or lake.

Expect to Attain Date: Future date when the quality of a waterbody or segment is expected to attain its designated uses and will no longer be considered impaired.

Comments / Notes: A general field to display relevant comments or notes.

Appendix II: Rivers and Streams

Category 1: Rivers and Streams Fully Attaining All Designated Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000101_101R	Baker Branch St. John R and its tributaries		210.92	Class AA	Nature Conservancy reserve
ME0101000102_101R	SW Branch St. John R and its tributaries		142.9	Class AA	Nature Conservancy reserve
ME0101000104_106R	Minor tributaries St. John R entering above Nine Mile Bridge		74.36	Class A	
ME0101000104_114R	St. John R	main stem, above Nine Mile Bridge	17.4	Class AA	
ME0101000106_103R	Big Black R and its tributaries		159.14	Class AA	
ME0101000107_104R	Chimenticook Str and its tributaries	those riverine waters	25.35	Class A	
ME0101000107_105R	Pocwock Str and its tributaries	those riverine waters lying	37.8	Class A	
ME0101000107_106R	Minor tributaries St. John R entering above Ouellette Bk		77.41	Class A	
ME0101000107_114R	St. John R	main stem, above Ouellette Bk	47.2	Class AA	
ME0101000108_107R	Little Black R and its tributaries		111.07	Class A	
ME0101000109_106R	Minor tributaries St. John R entering above Little Black R		63.22	Class A	
ME0101000201_119R	Eagle Lake	Allagash R tributaries	98.83	Class AA	Allagash Wilderness Waterway
ME0101000202_119R	Heron (Churchill) Lake	Allagash R tributaries	97.52	Class AA	Allagash Wilderness Waterway
ME0101000203_119R	Chemquasabamticook Stream and tributaries		159.18	Class AA	Allagash Wilderness Waterway
ME0101000204_119R	Long Lake	Allagash R tributaries	155.17	Class AA	Allagash Wilderness Waterway
ME0101000204_120R	Allagash R	main stem	7.41	Class AA	Allagash Wilderness Waterway
ME0101000205_119R	Musquacook Stream and tributaries		171.46	Class AA	Allagash Wilderness Waterway

Category 1: Rivers and Streams Fully Attaining All Designated Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000206_119R	Big Brook and tributaries		118.62	Class AA	Allagash Wilderness Waterway
ME0101000207_119R	Allagash R tributaries		272.88	Class AA	Allagash Wilderness Waterway
ME0101000207_120R	Allagash R	main stem	45.41	Class AA	Allagash Wilderness Waterway
ME0101000301_121R	Fish R	main stem, and its tributaries above outlet of Fish River Lake	144.98	Class AA	
ME0101000401_130R	Millimagasset Stream and tributaries		97.63	Class AA	
ME0101000402_130R	Munsungan Stream and tributaries		103.28	Class AA	
ME0101000403_130R	Mooseleuk Stream and tributaries		159.07	Class AA	
ME0101000404_130R	Umcolcus Stream and tributaries		77.28	Class AA	
ME0101000405_131R	St. Croix Stream	tributaries to St. Croix L	127.97	Class AA	
ME0101000406_131R	St. Croix Str and its tributaries		124.68	Class AA	
ME0101000407_130R	Aroostook R	main stem, and tributaries above St Croix Str	141.83	Class AA	
ME0101000409_133R	Machias R and tributaries above Big Machias L		175.53	Class AA	
ME0101000411_136R01	Gardner Brook and tributaries	Entering Aroostook R. from the north, upstream of Washburn	10	Class B	
ME0102000101_201R	North Branch of Penobscot R and its tributaries		176.66	Class A	
ME0102000106_202R	Nesowadnehunk Stream and tributaries		56.94	Class AA	Baxter State Park
ME0102000107_202R	Namakanta Stream and tributaries		97.36	Class AA	Nature Conservancy Reserve, State Ecological Reserve
ME0102000109_202R	Tributaries of West Branch Penobscot R above Ferguson L		207.95	Class AA	Baxter State Park
ME0102000201_206R	Webster Bk and tributaries of East Branch Penobscot R	above Grand Matagamon	188.67	Class AA	Baxter State Park

Category 1: Rivers and Streams Fully Attaining All Designated Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0102000202_206R	Tributaries of East Branch Penobscot R at Grand Matagamon		167.03	Class AA	Baxter State Park
ME0103000101_301R	South Branch Moose R and its tributaries		48.72	Class AA	
ME0103000102_301R	Moose R and its tributaries above Attean Pd		139.43	Class AA	

Note 1: Bold text indicates waters that were removed from the 2010 impaired waters list

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000103_102R	NW Branch St. John R and its tributaries		54.04	Class AA	
ME0101000105_103R	Shields Branch of Big Black R	Tributaries	7.88	Class AA	
ME0101000109_109R	Minor tributaries St. John R entering above St. Francis R		90.89	Class A	
ME0101000109_114R	St. John R	Main stem, above confluence St. Francis R	26.59	Class AA	
ME0101000110_108R	St. Francis R and its tributaries		134.93	Class A	
ME0101000111_109R	Minor tributaries St. John R entering above Fort Kent		44	Class A	
ME0101000111_114R	St. John R	Main stem, above Fort Kent	1.4	Class AA	
ME0101000111_115R	St. John R	Main stem, above Fort Kent	17.49	Class A	
ME0101000112_110R	Minor tributaries St. John R entering above Madawaska		40.67	Class B	
ME0101000112_115R	St. John R	Main stem, above Madawaska	0.63	Class A	
ME0101000113_111R	Minor tributaries St. John R entering above Grand Isle		14.58	Class B	
ME0101000114_112R	Violette Str and its tributaries (riverine waters only)		72.02	Class B	
ME0101000115_113R	Minor tributaries St. John R entering below Violette Bk		47.34	Class B	
ME0101000115_118R	St. John R	Main stem, below Van Buren	10.02	Class C	
ME0101000116_113R	Minor tributaries St. John R entering beloe Grand Falls		5.79	Class B	
ME0101000116_116R	St. John R	Main stem, above Madawaska	21.84	Class B	
ME0101000116_117R	St. John R	Main stem, from Madawaska to La Grande Isle	15.51	Class C	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000117_150R	Riviere de Chute and its tributaries		24.67	Class B	
ME0101000118_153R	Minor tributaries of the Eel River		21.21	Class B	
ME0101000121_111R	Minor tributaries St. John R	Entering Madawaska and Van Buren	15.21	Class B	
ME0101000121_118R	St. John R	Main stem, from La Grande Isle to Van Buren	10.23	Class C	
ME0101000302_121R	Fish R	Main stem, and its tributaries above outlet of Portage L.	106.81	Class AA	
ME0101000302_122R	Fish R	Main stem, and tributaries above the outlet of St. Froid lake	214.23	Class AA	
ME0101000303_123R	Tributaries of Fish R entering above the outlet of Mud Lake		87.36	Class B	
ME0101000303_124R	Tributaries of Fish R above the outlet Cross L		24.5	Class B	
ME0101000303_125R	Tributaries of Fish R above the outlet Square L		83.5	Class B	
ME0101000303_126R	Fish R	Main stem, and tributaries above outlet of Eagle L	104.4	Class A	
ME0101000304_127R	Wallagrass Str and tributaries		76.71	Class B	
ME0101000304_128R	Tributaries of Fish R entering below outlet of Eagle Lake		61.45	Class B	
ME0101000304_129R	Fish R	Main stem, below outlet of Eagle Lake	12.59	Class A	
ME0101000304_147R	Aroostook River	Main stem, between St. Croix Stream and Rt 11 bridge in Ashland	12.3	Class AA	5/3/12: Updated Location Description from 'main stem, between St. Croix and Masardis Gauge' to 'Main stem, between St. Croix Stream and Rt 11 bridge in Ashland' and segment length from 1.8 to 12.3 miles.

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000408_132R	Scopan Stream and tributaries		83.16	Class B	4/9/12 Changed AU name from 'Squa Pan Stream and tributaries' to 'Scopan Stream and tributaries', in keeping with ME LD 797 "An Act to Fully Implement the Legislation to Prohibit Offensive Place Names'.
ME0101000408_136R	Minor tributaries of Aroostook R entering between confluence		25.54	Class A	
ME0101000410_133R	Machias R and its tributaries		182.92	Class AA	
ME0101000411_134R	Little Machias R and its tributaries		66.96	Class A	
ME0101000411_135R	Beaver Brk and its tributaries		104.55	Class B	
ME0101000411_136R	Minor tributaries of Aroostook R above Washburn Gauge		92.29	Class B	
ME0101000411_137R	Salmon Brk and its tributaries	Tributaries to Aroostook River	52.37	Class B	5/22/12 Mainstem Salmon Brook: new Category 3 listing [Salmon Brook (Washburn,) ME0101000411_137R01] for Aquatic Life Use (algae/periphyton).
ME0101000411_147R	Aroostook River	Main stem between Rt 11 bridge in Ashland and Washburn Gauge	22.2	Class B	5/3/12: Changed Location Description from 'main stem, above Washburn Gauge' to 'Main stem between Rt 11 bridge in Ashland and Washburn Gauge' and Use Class A to Use Class B; updated length from 29.39 to 22.2 miles.
ME0101000412_138R	Minor tributaries Aroostook R	Entering from south above Presque Isle	11.96	Class B	
ME0101000412_139R	Presque Isle Str	Main stem above confluence of Alder Brk	108.56	Class A	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000412_140R	Presque Isle Str	Main stem below confluence of Alder Brk	48.17	Class B	
ME0101000412_140R01	No. Br.Presque Isle Stream between Mapleton and Presque Isle		11.49	Class B	Previously 5-A listed. Removal of Mapleton POTW complete. 2004 biomonitoring showed attainment of Class A biocriteria at Station 11 (0.2 km downstream of fomer Mapleton POTW).
ME0101000412_141R	Minor tributaries Aroostook R	Entering north and west above Caribou	39.57	Class B	
ME0101000412_143R	Minor tributaries Aroostook R	Entering from south below Presque Isle Str	9.91	Class B	
ME0101000412_148R	Aroostook River	Main stem between Washburn Gauge and confluence with Presque Isle Stream	10	Class B	5/3/12: Changed Location Description from 'main stem, above Caribou' to 'Main stem between Washburn Gauge and confluence with Presque Isle Stream' and updated length from 24.17 to 10.0 miles.
ME0101000413_142R	Caribou Str and its tributaries		33.18	Class B	
ME0101000413_144R	Minor tributaries Arosstook R	Entering from north below Caribou	35	Class B	
ME0101000413_145R	Little Madawaska R and tributaries		247.46	Class A	
ME0101000413_146R	Limestone Str and its tributaries		40.45	Class B	
ME0101000413_146R01	Webster Brook		4.9	Class B	5/23/12 Corrected stream length from 12.1 to 4.9 miles. Delisted to Category 2 due to TMDL monitoring data showing attainment of bacteria standards. Was included in multi-stream bacteria TMDL (approved 9/28/09).

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000413_148R01	Aroostook River (Caribou)	Main stem between 3 miles upstream of Caribou water supply intake and 100 yards downstream of intake	3	Class B	5/3/12: New Assessment Unit, split out from AU ME0101000413_148R, Aroostook River, formerly 'main stem, above Caribou'
ME0101000413_148R02	Aroostook River	Main stem between 100 yards downstream of Caribou water supply intake and international boundary	16.6	Class C	5/3/12: New Assessment Unit, split out from AU ME0101000413_148R, Aroostook River, formerly 'main stem, above Caribou'
ME0101000502_153R	S Branch of Meduxnekeag R and its tributaries		61.33	Class B	
ME0101000503_151R	N Branch of Meduxnekeag R and its tributaries		153.88	Class A	
ME0101000504_152R	Meduxnekeag R	Main stem, and tributaries	234.13	Class B	
ME0102000102_201R	West Branch of Penobscot R	And its tributaries above Seboomook L outlet	194.24	Class A	
ME0102000103_201R01	West Branch of Penobscot R and its tributaries at Chesuncook		233.11	Class A	
ME0102000103_201R02	West Branch of Penobscot R	Below Seboomook Lake	1	Class A	Delisted from 4-C in 2006 cycle. Flow modified for hydropower. New hydro water quality certification in place, 2006.
ME0102000104_201R	West Branch Penobscot R tributaries above Caucomgomoc L		115.89	Class A	
ME0102000105_201R	West Branch of Penobscot R	And its tributaries above Chesuncook outlet	300.36	Class A	
ME0102000108_202R	Jo-Mary Lake tributaries		61.49	Class AA	
ME0102000109_203R	West Branch Penobscot R	Main stem, from Ripogenus dam to Ferguson L	18.49	Class A	
ME0102000110_202R	Tributaries of West Branch Penobscot R	Entering below Ferguson L	247.22	Class AA	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0102000110_205R01	Backwater of Dolby Impoundment		0.5	Class C	Delisted in 2004 from Category 4-C. New impoundment oxygen measurement in attainment.
ME0102000203_206R	Tributaries of East Branch Penobscot R above Seboeis R		62.57	Class AA	
ME0102000203_207R	East Branch Penobscot R	Main stem above Seboeis R	22.89	Class AA	
ME0102000204_206R	Seboeis River and tributaries		228.46	Class AA	
ME0102000205_206R	Tributaries of East Branch Penobscot R below Seboeis R		264.48	Class AA	
ME0102000205_207R	East Branch Penobscot R	Main stem above Seboeis R	24.97	Class AA	
ME0102000301_208R	West Branch of Mattawamkeag R and its tributaries		337.93	Class A	
ME0102000302_209R	East Branch of Mattawamkeag R and its tributaries		160.72	Class A	
ME0102000303_212R	Minor tributaries of Mattawamkeag R	Below confluence of E and W Branch	82.9	Class A	
ME0102000303_213R	Mattawamkeag R,	Main stem, below confluence with E and W Branch	15.46	Class A	
ME0102000304_210R	Baskahegan Str and its tributaries		202.99	Class A	
ME0102000305_212R	Minor tributaries of Mattawamkeag R	Below confluence with Baskahegan Str	218.31	Class A	
ME0102000305_213R	Mattawamkeag R	Main stem, below confluence with Baskahegan Str	21.9	Class A	
ME0102000306_211R	Molunkus Str and its tributaries		238.97	Class A	
ME0102000307_212R	Minor tributaries of Mattawamkeag R below Kingman		117.37	Class A	
ME0102000307_213R	Mattawamkeag R	Main stem, below confluence with E and W Branch	12.79	Class AA	
ME0102000401_214R	Piscataquis R	Main stem and tributaries, above the Rt. 6 bridge in Guilford	312.14	Class AA	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0102000402_218R	Minor tributaries of Piscataquis R	Above confluence with Sebec R	203.6	Class A	
ME0102000403_215R	Sebec R and its tributaries		350.6	Class A	2006 and earlier reports use AU# ME0102000403_215R_01 for this segment.
ME0102000403_215R01	Sebec River at Milo above confluence with Piscataquis R		2.29	Class B	Previously listed in 5-A for biocriteria non-attainment based on 1985 data. Segment was delisted in 2008 - resampling in 2006 at Biomonitoring Station 827, below the Milo Dam, shows attainment of Class A biocriteria.
ME0102000404_216R	Pleasant R and its tributaries		361.07	Class AA	
ME0102000405_217R	Sebois Str and its tributaries		159.76	Class A	
ME0102000406_218R	Minor tributaries of Piscataquis R	Entering below confluence with Sebec R	154.74	Class A	
ME0102000406_219R	Piscataquis R	Main stem, above confluence with Sebec R	23.29	Class B	
ME0102000501_220R	Minor tributaries Penobscot R	Above confluence of Mattawamkeag R	144.51	Class A	
ME0102000502_220R_02	Minor tributaries Penobscot R	Piscataquis R	241.86	Class A	
ME0102000503_221R	Passadumkeag R and its tributaries		382.42	Class AA	
ME0102000504_222R	Olamon Stream and its tributaries		53.34	Class A	
ME0102000505_226R	Sunkhaze Stream and its tributaries		88.7	Class AA	
ME0102000506_222R	Minor tributaries of Penobscot R	Between Piscataquis R and Orson Is	91.11	Class A	
ME0102000507_226R	Birch stream and its tributaries		63.38	Class B	
ME0102000508_223R	Pushaw Str and its tributaries		277.17	Class B	
ME0102000509_226R	Minor tributaries of Penobscot R	Between Orson Is and Veazie Dam	127.81	Class B	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0102000509_226R02	**Boynton Brook**	**Bradley, trib to Great Works Stream/Penobscot River**	**2.64**	**Class A**	**5/24/12 Classification corrected from (erroneous) Class B to Class A [MRSA 38, Ch. 3, Sec. 467, 7(F)(2)]. Delisted to Category 2 due to newer monitoring data showing attainment of bacteria standards. 9/28/09 Recreational use impairments now Category 4A due to approval of statewide bacteria TMDL.**
ME0102000510_224R	Kenduskeag Str and its tributaries		199.83	Class B	
ME0102000510_224R02	Kenduskeag Stream	Bangor, Bullseye Bridge to Penobscot R	2.96	Class C	7/17/12: Corrected statutory class to Class C (was B). Recreational use impairments Category 4-A due to approval of statewide bacteria TMDL by EPA 9/28/09. Segment delisted to Category 2 in 2010 for recreational uses due to TMDL monitoring data showing attainment of bacteria standards. Listing was inadvertently omitted in 2010 report.
ME0102000511_225R	Souadabscook Str and tributaries		156	Class AA	
ME0102000512_228R	Marsh River and its tributaries (nontidal portions)		199.77	Class B	
ME0102000513_226R	Minor tributaries Penobscot R	Between Veazie Dam and Reeds Bk (non-tidal portions)	62.12	Class B	8/14/12: Corrected spelling of Reed Brook to Reeds Brook.
ME0102000513_227R	Minor tributaries entering from the east to Penobscot R	Between Reeds Bk and south end of Verona Is	185.21	Class B	8/14/12: Corrected spelling of Reed Brook to Reeds Brook.

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0102000513_227R01	Mill Stream (Orrington)		2	Class B	
ME0102000513_228R	Minor tributaries entering from the west to Penobscot R	Between Reeds Bk and south end of Verona Is	26.57	Class B	8/14/12: Corrected spelling of Reed Brook to Reeds Brook.
ME0103000103_301R	Moose R and its tributaries above Rt 201 Jackman		88.74	Class AA	
ME0103000103_302R	Moose R and its tributaries at Long Pond		113.6	Class A	
ME0103000104_302R	Moose River and tributaries at Brassua L		134.37	Class A	
ME0103000105_303R	Moosehead Lake and minor tributaries of Moosehead Lake		401.92	Class A	
ME0103000106_304R	Minor tributaries of Kennebec R entering above Dead R		268.45	Class AA	
ME0103000106_306R	Kennebec R	Main stem, above confluence of Dead R	19.16	Class AA	
ME0103000201_307R	North Branch of Dead R and its tributaries		131.98	Class A	
ME0103000203_309R	Flagstaff Lake and minor tributaries of Flagstaff Lake		96.52	Class A	
ME0103000204_310R	Tributaries of Dead R entering below Flagstaff Lake		204.87	Class A	
ME0103000204_311R_01	Dead R, main stem		21.47	Class AA	A 1-mile segment (ME0103000204_311R_02) also listed in Category 4-C, flow modified for hydropower.
ME0103000301_312R	Minor tributaries Kennebec R	Between Dead River and Wyman Dam	80.26	Class A	
ME0103000302_312R	Austin Stream and tributaries		75.68	Class A	
ME0103000303_312R	Minor tributaries Kennebec R	Between Wyman dam and Carrabassett R	69.04	Class A	
ME0103000304_313R	Carrabassett R and its tributaries		279.53	Class AA	
ME0103000305_315R_01	Sandy R	And tributaries above Rt 145 Strong	138.67	Class AA	
ME0103000305_316R	Sandy River and tributaries	Between Rt. 145 and Rt. 2 Farmington	190.66	Class A	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0103000305_317R	Wilson Str and its tributaries above Wilson Pond		64.8	Class A	
ME0103000305_318R	Wilson Str	Main stem, below Wilson Pond	15.99	Class C	
ME0103000305_319R_01	Sandy R,	Main stem, below Rt. 2 bridge in Farmington	29.69	Class B	
ME0103000305_320R	Minor tributaries Kennebec R	Between Carrabassett R and Sebasticook R	193.79	Class B	
ME0103000305_322R	Tributaries Messalonskee Str entering below Messalonskee L		21.23	Class B	
ME0103000305_323R	Messalonskee Str	Main stem	10.27	Class C	
ME0103000306_314R	Wesserunsett Str and its tributaries		109.85	Class B	
ME0103000307_324R	W Branch of Sebasticook R	And its tributaries except for main stem below Rt 23 (Hartland)	350.13	Class B	
ME0103000307_329R	Higgins Brook, tributary to Great Moose L. & Sebasticook		97.99	Class A	
ME0103000308_325R	E Branch of Sebasticook R	And its tributaries except for main stem below Corundel Pd	190.86	Class B	Attaining some uses, hazardous waste remediation project complete. 2003 biocriteria in attainment of Class C.
ME0103000309_326R	Twentyfive Mile Str and its tributaries		136.96	Class B	
ME0103000309_327R	Fifteen Mile Str and its tributaries		70.97	Class B	
ME0103000309_328R	China Lake Outlet and its tributaries		41.04	Class B	
ME0103000309_329R	Minor tributaries of Sebasticook R entering below Burnham		111.48	Class B	
ME0103000309_329R01	Minor tributaries of Sebasticook R	From E and W Branches to Burnham (bridge)	32.21	Class B	
ME0103000310_321R	Tributaries Messalonskee Str entering above Messalonskee L		167.07	Class B	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0103000311_334R	Cobbosseecontee Str and its tributaries		185.45	Class B	
ME0103000311_335R	Minor tributaries Kennebec R	Cobbossee Str to Merrymeeting Bay (Chops)	144.38	Class B	
ME0103000312_333R	Minor tributaries Kennebec R	Between Sebasticook R and Cobbossee Str	132.5	Class B	
ME0103000312_333R01	Bond Brook (Augusta)		10.0	Class B	
ME0103000312_335R02	Togus Stream (Chelsea)		2.01	Class B	
ME0103000312_336R	Kennebec R	Main stem, from Dead R to Wyman Dam	24.86	Class A	
ME0103000312_337R	Kennebec R	Main stem, from Wyman Dam to Carrabassett R	23.14	Class A	
ME0104000101_402R	Mooseleukmeguntic - Cupsuptic R and its tributaries		38.33	Class AA	
ME0104000101_403R	Mooseleukmeguntic -Kennebago R and its tributaries		82.69	Class AA	
ME0104000102_404R	Umbagog - Rapid R and its tributaries		141.6	Class AA	
ME0104000102_405R	Umbagog	Tributaries of Umbagog Lake and segments of minor tributaries entering Androscoggin R in NH	43.95	Class A	
ME0104000103_401R	Azicohos - Magalloway R	And its tributaries upstream of the Maine-NH border	137.8	Class A	
ME0104000104_401R	Magalloway - Sturtevant Str and its tributaries		13.75	Class A	
ME0104000106_405R	Minor tributaries entering Androscoggin R in NH		8.83	Class A	
ME0104000201_406R	Minor tributaries of Androscoggin R	Entering upstream of the Wild R	11.24	Class A	
ME0104000202_406R	Minor tributaries of Androscoggin R	Entering above Rumford Point	129.85	Class AA	
ME0104000203_407R	Ellis R and its tributaries		119.67	Class A	
ME0104000204_408R	Swift R and its tributaries		66.07	Class A	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0104000204_410R	Androscoggin R	Minor tributaries of entering between Rumford Pt and Webb R	35.51	Class B	
ME0104000205_409R	Webb R and its tributaries		102.33	Class A	
ME0104000205_410R	Minor tributaries of Androscoggin R	Entering between Rumford Pt and Webb R	46.0	Class B	
ME0104000206_410R	Minor tributaries of Androscoggin R	Between Riley Dam and Nezinscot R	34.13	Class B	
ME0104000206_411R	Dead R and its tributaries above Androscoggin L		43.47	Class B	
ME0104000206_411R01	Dead R	Androscoggin L to Androscoggin R	8.0	Class B	
ME0104000207_412R	Nezinscot R and its tributaries		107.91	Class A	
ME0104000208_413R	Minor tributaries of Androscoggin R	Between Nezinscot R and L Androscoggin R	17.32	Class B	
ME0104000209_414R	Little Androscoggin R	And tributaries above Rt. 26 bridge in Paris	141.16	Class A	
ME0104000209_415R	Bog Brk and other tributaries of Little Androscoggin R	Below Rt 26 bridge	78.25	Class A	
ME0104000209_416R	Little Androscoggin R	Main stem, from Rt. 26 bridge in Paris to Rt 121 in Oxford	12.65	Class C	
ME0104000209_417R_01	Little Androscoggin R,	Main stem, below Rt. 121 bridge in Oxford	24.49	Class C	
ME0104000210_418R	Sabattus R and its tributaries		22.45	Class B	
ME0104000210_419R	Minor tributaries of Androscoggin R	Between L Androscoggin R and Brunswick Dam	89.77	Class B	
ME0104000210_420R	Minor tributaries of Merrymeeting Bay		94.31	Class B	
ME0105000101_501R	Tributaries of St. Croix R	Entering above outlet of Spednik L	111.07	Class A	
ME0105000102_502R	St. Croix R	Main stem, from outlet of Spednik Lake to Spednik Falls	110.55	Class A	
ME0105000103_502R	Grand Lake Stream and tributaries		230.47	Class A	Hatchery permit issued August 2006 to protect water quality.
ME0105000104_502R	Musquash Stream and tributaries		123.19	Class A	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0105000105_502R	Big Lake at Peter Dana Point		134.7	Class A	
ME0105000106_502R	Tomah Stream and tributaries		166.98	Class AA	
ME0105000107_502R	St. Croix River and tributaries above Grand Falls		60.35	Class A	
ME0105000108_503R	Minor tributaries of St. Croix R	Between Grand Falls and tidewater	59.28	Class B	
ME0105000108_504R	Minor tributaries of St. Croix River Estuary	Entering tidewater in Calais and Robbinston	38.1	Class B	
ME0105000108_505R	St. Croix R	Main stem, from Grand Falls to tidewater	22.17	Class A	
ME0105000201_507R	Dennys R and its tributaries		125.39	Class AA	
ME0105000202_508R	Pennamaquan River and tributaries		63.24	Class B	
ME0105000203_508R	Minor drainage entering tidewater in Washington County	Between Robbinston and Sandy Point (Cutler)	180.8	Class B	
ME0105000204_509R	E Machias R and its tributaries		288.08	Class AA	
ME0105000204_509R01	Chase Mill Stream (East Machias)		1.52	Class B	
ME0105000205_510R	Machias R and its tributaries		489.5	Class AA	
ME0105000206_508R	Roque Bluffs Coastal	Minor drainages entering tidewater between Sandy Pt (Cutler) and E Machias R	51.68	Class B	
ME0105000207_513R	Chandler R and its tributaries		57.11	Class B	
ME0105000207_513R01	Minor drainages entering tidewater in Addison and Harrington		39.85	Class A	
ME0105000208_511R	Pleasant R and its tributaries		109.2	Class AA	
ME0105000208_511R01	Bog Stream (T18 MD BPP)		1.02	Class B	8/20/12: Town corrected (was T18MD).
ME0105000209_512R_01	Narraguagus R and its tributaries		323.8	Class AA	
ME0105000209_513R	Minor drainages entering tidewater in Machias Bay		30.39	Class B	
ME0105000209_513R01	Roque Bluff Coastal	Minor drainages entering tidewater between E Machias R and Pleasant R	90.14	Class B	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0105000210_513R	Tunk Stream and tributaries		54.42	Class A	
ME0105000211_513R	Bois Bubert Coastal	And Tunk Str	76.96	Class B	
ME0105000212_515R	W Branch of Union R and its tributaries		210.3	Class B	
ME0105000212_516R	E Branch of Union R and its tributaries		159.2	Class B	
ME0105000212_517R	Minor tributaries of Graham Lake		203.69	Class B	8/19/12: Green Lake National Fish Hatchery (Ellsworth) permit re-issued 9/9/2009, exp date 9/9/2014.
ME0105000212_518R	Tributaries of Union R entering below outlet of Graham Lake		64.14	Class B	
ME0105000212_520R	Minor drainages entering Penobscot Bay	In Hancock County between Verona Is and Castine	7.51	Class B	
ME0105000213_514R_02	Union River Bay		18.62	Class AA	
ME0105000214_514R	Min. drainages entering tidewater between Tunk S./Haynes Pt.	(Trenton)	228.71	Class A	
ME0105000215_514R	Mt Desert Coastal	Tributaries entering from Mt Desert and adjacent islands	115.98	Class AA	
ME0105000216_520R	Bagaduce River and its tributaries		125.06	Class B	
ME0105000216_520R01	Stonington Coastal	Minor drainages entering tidewater in Hancock County	209.66	Class B	
ME0105000217_514R	Stonington Coastal	Minor drainages entering tidewater in Hancock County west of Union River	39.64	Class AA	
ME0105000218_521R	Minor drainages entering tidewater in Waldo County		93.17	Class B	
ME0105000219_521R	Ducktrap River and its tributaries		51.55	Class AA	
ME0105000220_521R	West Penobscot Bay Coastal	Minor drainages entering tidewater in Waldo County south of Verona Is	84.39	Class B	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0105000220_522R01_02	Minor drainages entering tidewater in Knox County		116.06	Class B	
ME0105000220_522R02_01	**Rock Brook (formerly 'Unnamed Brook') (Camden)**		**0.7**	**Class B**	**5/24/12: Delisted to Category 2 due to newer monitoring data showing attainment of bacteria standards. 7/28/2010: Stream name updated from 'Unnamed Brook' Camden to Rock Brook. 9/28/2009: Recreational use impairments now Category 4-A approval of statewide bacteria TMDL.**
ME0105000220_522R02_02	West Penobscot Bay Coastal -	Minor drainages entering tidewater from Waldo Cty line to Marshall Pt (St George R)	86.02	Class B	
ME0105000220_522R03	Unnamed Brook (Rockport)		0.5	Class B	Recreational use impairments Category 4-A due to approval of statewide bacteria TMDL by EPA 9/28/09. Segment delisted to Category 2 in 2010 for recreational uses due to TMDL monitoring data showing attainment of bacteria standards.
ME0105000301_523R	St. George R and its tributaries		216.79	Class AA	
ME0105000301_524R01	Min drainages entering tidewater portion of St George R		79.67	Class B	
ME0105000301_524R02	Minor drainages to Muscongus Bay	Including Meduncook River to Pemaquid Point	13.26	Class B	
ME0105000302_524R01	Unnamed Brook (N. Cushing)		0.5	Class B	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0105000302_525R	Medomak River and its tributaries	Including Meduncook River to Pemaquid Point .	86.91	Class A	
ME0105000302_526R	Minor drainages to Muscongus Bay	Including Meduncook River to Pemaquid Point .	97.78	Class B	
ME0105000303_526R	Minor drainages entering tidewater into Johns Bay		46.92	Class B	
ME0105000303_526R01	Minor drainages entering tidewater of Damariscotta River		40.26	Class B	
ME0105000304_527R	Damariscotta Lake outlet	Including its tributaries entering above tidewater	30.82	Class B	
ME0105000304_527R01	Damariscotta River below lake outlet		0.2	Class B	
ME0105000305_528R	Sheepscot R and its tributaries		186.3	Class AA	8/19/12: Palermo Fish Hatchery permit re-issued 12/20/2011; exp date 12/20/2016.
ME0105000305_529R01	Minor drainages entering tidewater of Damariscotta River		7.07	Class B	
ME0105000305_529R02	Minor drainages entering tidewater of Sheepscot River		82.55	Class B	
ME0105000306_529R	Minor drainages entering tidewater of Sheepscot Bay		93.8	Class B	
ME0105000306_530R	Minor drainages entering tidewater of Sheepscot Bay		50.48	Class B	
ME0105000307_530R	Min. drainages entering tidewater of Kennebec Estuary	Below the Chops	133.36	Class B	
ME0106000101_605R	Crooked R and its tributaries		173.58	Class AA	
ME0106000101_606R	Sebago Lake and its tributaries		256.73	Class A	
ME0106000102_603R	Royal R and its tributaries		131.86	Class A	
ME0106000102_603R03	Eddy Brook (New Gloucester)		3.68	Class B	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0106000102_603R04	Hatchery Brook (Gray)		0.87	Class B	8/9/12: Final hatchery permit issued 2/7/12; exp date 2/7/17. Macroinvertebrates met class in 2010.
ME0106000102_603R05	Royal River	Segment below Collyer Bk	2.15	Class B	Segment delisted in 2006. CERCLA hazardous waste site; water quality criteria are met down-gradient of the contaminated site.
ME0106000102_604R	Min. drainages entering tidewater	Between Royal River and Presumpscot River	9.8	Class B	
ME0106000103_607R	Tributaries of Presumpscot R	Entering below outlet of Sebago L	267.59	Class B	
ME0106000103_608R	Presumpscot R	Main stem, above Dundee Dam	3.9	Class A	
ME0106000103_609R_01	Presumpscot R,	Main stem, below Sacarappa Dam	6.9	Class C	Segment delisted in 2006. Closure of pulp mill and breach of Smelt Hill Dam. Attainment of dissolved oxygen and biocriteria.
ME0106000103_611R	Min. drainages entering tidewater	In Cumberland County between Fore River and Scarborough R	36.49	Class B	
ME0106000103_612R	Min. drainages entering tidewater	In York County east of Saco River	10.19	Class B	
ME0106000106_601R	Min. drainages entering tidewater in Sagadhoc County	West of Small Point	26.74	Class B	
ME0106000106_602R	Min. drainages entering tidewater	Between Cumberland-Sagadahoc line and Royal River	94.47	Class B	
ME0106000203_613R	Minor tributaries of Saco R entering above Swans Falls		1.48	Class A	
ME0106000203_618R	Saco R,	Main stem, between the Maine-New Hampshire border and Swans Falls	5.42	Class AA	
ME0106000204_613R	Minor tributaries of Saco R	Between Swans Falls and Rt 160 in Brownfield	209.74	Class A	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0106000204_618R	Saco R,	Main stem, between Swans Falls and Rt 160 in Brownfield	27.53	Class AA	
ME0106000204_618R01	Saco R, Fryeburg	Main stem, Swans Falls to Rt 5 (Fryeburg)	5.0	Class AA	9/28/09 Approval of statewide bacteria TMDL. All TMDL bacteria monitoirng values were low - delisted to Category 2 due to TMDL monitoring data showing attainment of bacteria standards.
ME0106000205_613R	Minor tributaries of Saco R	Between Rt 160 in Brownfield and Ossippee River	116.42	Class A	
ME0106000205_618R	Saco R,	Main stem, between Rt 160 in Brownfield and Ossippee River	14.95	Class AA	
ME0106000209_614R	Ossippee R and its tributaries		105.38	Class B	
ME0106000209_614R01	Ossippee R	Mainstem below Kezar Falls	5.0	Class B	9/28/09 Approval of statewide bacteria TMDL. Delisted to Category 2 due to TMDL monitoring data showing attainment of bacteria standards.
ME0106000210_615R	Little Ossippee R and its tributaries		266.16	Class B	
ME0106000210_616R	Minor tributaries of Saco R	Between Little Ossippee River and tidewater	214.67	Class B	
ME0106000211_613R	Minor tributaries of Saco R	Between the Ossippee River and Little Ossippee River	75.58	Class B	
ME0106000211_616R01	Deep Brook (Saco)		2.5	Class B	
ME0106000211_617R	Min. tributaries of Saco River Estuary	Entering tidewater between head of tide and Camp Ellis	12.0	Class B	
ME0106000211_618R	Saco R	Main stem, between the Maine-New Hampshire border and Swans Falls	14.71	Class AA	

Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0106000211_619R	Saco R	Main stem, between the Little Ossippee River and tidewater	24.1	Class AA	
ME0106000211_619R02	Saco River (Dayton)		0.2	Class A	
ME0106000211_619R03	Saco River (West Buxton)		0.2	Class A	
ME0106000211_619R04	Saco River (Bar Mills)		0.2	Class A	
ME0106000301_622R	Kennebunk R and its tributaries		84.05	Class B	
ME0106000302_623R	Mousam R	Main stem, above Rt. 224 bridge in Sanford and all tributaries to the entire main stem	170.61	Class B	3/4/2011: Category 2--Biomonitoring station 259, 2010 sample shows attainment of Class C biocriteria. Added 5.7 miles that had been erroneously placed in AU ME0106000302_628R01.
ME0106000302_624R	Min. drainages entering tidewater	Between Mousam River and the Ogunquit-York boundary	98.83	Class B	
ME0106000302_628R	Mousam River mainstem below Coldwater Brook	From Coldwater Brook (below Estes Lake) to tidewater	9.8	Class B	
ME0106000303_621R	Min. drainages entering tidewater	Between Saco River and Kennebunk River	37.41	Class B	
ME0106000304_625R02	Great Works R,	Main stem, above Rt. 9 bridge in N Berwick and all tributaries	137.32	Class B	
ME0106000304_626R	Min. drainages entering tidewater	Between Ogunquit-York boundary and Piscataqua Estuary	99.62	Class B	
ME0106000305_627R	Minor tributaries of Salmon Falls River		155.81	Class B	
ME0106000305_629R	Great Works R	Main stem, below Rt. 9 bridge in N Berwick	15.23	Class B	
ME0106000305_630R03	Salmon Falls R,	Main stem, from Great East Lake to Rt 9	22.2	Class B	
ME0106000310_626R	Min. drainages entering	Tidewater of the Piscataqua Estuary	36.22	Class B	
ME0106000310_626R01	Smelt Brook (York)		3.18	Class B	

Note 1: Bold text indicates waters that were moved into Category 3 during this reporting cycle

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0101000303_123R01	**North Fork McLean Brook**	**St Agatha, tributary to Fish River**	**5.6**	**Class B**	**5/23/12: New Category 3 listing for Aquatic Life Use: Biomonitoring station S-922, macroinvertebrates and algae (periphyton) attained Class C in 2009, likely due to sedimentation issues resulting from agriculture (80% of watershed area). Resampling needed to confirm whether impairment exists. Will be included in a Statewide NPS TMDL when analysis is complete.**	**2014**
ME0101000304_128R01	**Perley Brook (Fort Kent)**	**Includes South Perley Bk and North Br Perley Bk; trib to Fish R**	**16**	**Class B**	**5/23/12: New Category 3 listing for Aquatic Life Use: biomonitoring station S-727 showed algae (periphyton) met Class C in 2004 and 2009, likely due to agriculture effects (30% of watershed area). Resampling needed to confirm whether impairment exists.**	**2014**
ME0101000411_137R01	**Salmon Brook (Washburn)**	**Tributary to Aroostook River**	**6.6**	**Class B**	**5/22/12: New Category 3 listing for Aquatic Life Use: biomonitoring station S-377 showed algae (periphyton) Class C in 2009, likely due to agriculture effects (24% of watershed area). Resampling needed to confirm whether impairment exists.**	**2014**
ME0101000413_142R01	Caribou Stream (Caribou)	Below Rt 164	2.73	Class B	5/23/12: New biomonitoring station S-935: macroinvertebrates attained Class A, algae Class C in 2009. Resample.	2014

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0101000413_148R	**Aroostook River**	**Main stem between confluence with Presque Isle Stream and 3 miles upstream of Caribou water supply intake**	**10.5**	**Class C**	**5/3/12: This AU is now in Category 3 due to presence of McCain discharge. Sampling in 2012. Changed Location Description from 'main stem, above Caribou' to 'Main stem between confluence with Presque Isle Stream and 3 miles upstream of Caribou water supply intake' and changed Use Class from B to C; also updated length (was 17.16 miles).**	**2012**
ME0101000501_150R02	**Rocky Brook**	**Mars Hill, tributary to Prestile Stream**	**8.9**	**Class B**	**5/22/12: New Category 3 listing for Aquatic Life Use: biomonitoring station S-375 showed algae (periphyton) non-attainment in 2004 and Class C in 2009, likely due to agriculture effects (46% of watershed area). Resampling needed to confirm whether impairment exists. Will be included in a Statewide NPS TMDL when analysis is complete.**	**2014**
ME0101000504_152R01_02	Meduxnekeag R. mainstem below Meduxnekeag L.	Mainstem between Meduxnekeag L. and So. Br. Meduxnekeag R.	10.8	Class B	6/21/12: Length corrected (was 9.5 miles) due to improved mapping information. 2009 and 2010 data indicate little change in DO and total phosphorus values. 2007 and 2008 data submitted by Houlton Band of Maliseet Indians documents environmental indicators of nutrient problems including diurnal DO swings, increased algal coverage and low DO.	2012
ME0102000502_220R_01	Mattanawcook Stream (Lincoln)	Valley Ave Boat Launch; Outlet to Mattanawcook Stream. PIN site LE1	1.2	Class C	Removed from Urban Impaired Streams list 2010- cause is not due to urban stormwater; delisted for DO in 2006; Category 3 listed due to sediment data showing elevated dioxin, Hg and PCBs: fish tissue data needed to determine if impaired fish consumption use.	2014

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0102000511_225R01_01	Souadabscook Stream	main stem below Hammond Pd	7.3	Class AA	7/18/12: Corrected length (was 5.5 miles). Eutrophic lake source, (Hermon Pd TMDL required). Data inconclusive for river segment.	2014
ME0102000512_228R01	Unnamed Brook (Frankfort)		1	Class B	Potential sources for impairment, inconclusive data.	2014
ME0103000305_316R01	Barker Stream (Farmington)	Tributary to Sandy River	8.22	Class B	Errors or inconsistencies in the original data. Limited new data indicates attainment.	2014
ME0103000305_316R03	Tannery Brook (Farmington)		1.5	Class B	Potential sources for impairment unknown, inconclusive data.	2014
ME0103000305_317R01	Meadow Brook (Wilton)	Wilton and Jay, trib to Wilson Stream	4.0	Class B	Potential sources for impairment unknown, inconclusive data.	2014
ME0103000306_314R01	Wesserunsett Stream at Athens	Tributary to Kennebec River	2.67	Class B	Errors or inconsistencies in the data.	2014
ME0103000306_320R01	Carrabassett Stream (Canaan, Skowhegan)	Tributary to Kennebec River	19.88	Class B	Errors or inconsistencies in the data.	2014
ME0103000306_339R_01	Kennebec R,	Shawmut Dam	5.5	Class C	Insufficient data to delist: attained Class C biocriteria in 2004; did not attain Class C biocriteria in 2002, (NA).	2014
ME0103000309_328R01	China Lake Outlet (Vassalboro)	Tributary to Sebasticook River (in Winslow)	4.27	Class B	2002 and 2007 aquatic life assessments in attainment. NPS controls. Improved lake condition. Facility compliance review recommended.	2012
ME0103000309_329R02	Twelvemile Brook (Clinton)	Tributary to Sebasticook River	3	Class B	Errors or inconsistencies in the data.	2014
ME0103000309_329R03	Unnamed Stream (Benton)		2	Class B	Potential sources for impairment unknown, inconclusive data.	2014
ME0103000309_329R04	Farnham Brook (Pittsfield)	Tributary to Sebasticook River	3	Class B	Potential sources for impairment unknown, inconclusive data.	2014

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0103000311_334R01	Mud Mills Stream (Monmouth)	Tributary to Wilson Stream/Lake Annabessacook	10.5	Class B	Errors or inconsistencies in the data.	2014
ME0103000311_334R02	Potters Brook (Litchfield)	Tributary to Pleasant Pond/Cobbosseecontee Stream	4.23	Class B	Errors or inconsistencies in the data.	2014
ME0103000312_333R01_01	Tanning Brook	Manchester, tributary to Bond Brook	5	Class B	Biomonitoring Station 744 showed attainment of Class C in 2004; needs resampling	2014
ME0103000312_335R01	Kimball Brook (Pittston)	Tributary to Eastern River	3.38	Class B	Errors or inconsistencies in the data.	2014
ME0103000312_420R01	Abagadasset River (Richmond, Bowdoinham)	Tributary to Merrymeeting Bay	13.33	Class B	Errors or inconsistencies in the data.	2014
ME0103000324_333R_01	Riggs Brook (Augusta)	Augusta, including portions of tribs affected by watershed development	1.3	Class B	2007-Biomonitoring only attains Class C (invertebrates and algae). Elevated phosphorus Resampling needed to confirm whether impairment exists.	2012
ME0104000101_403R_01	Rangeley River	From Rangeley Lake Dam to Mooselookmeguntic Lake in Oquossoc	1.3	Class A	Rangeley River, Cooke-Oquossoc Hatchery; hatchery permit re-issued , exp date 10/15/2015. Lake outlet effect confounds interpretation of effect of salmon hatchery.	2016
ME0104000202_406R01	Sunday River (Newry, Bethel)	Tributary to Androscoggin R	5	Class A	Potential sources for impairment, inconclusive data.	2013
ME0104000205_410R01_01	Spears Stream (Peru)	Tributary to Androscoggin River	9.75	Class B	Potential sources for impairment unknown, inconclusive data.	2014
ME0104000206_410R02	Sevenmile Stream	Tributary to Androscoggin entering from the north in Jay	3	Class B	Data from 1995 indicates possible dissolved oxygen and nutrient problem. Needs re-sampling to confirm impairment. Segment length is from Jay POTW to confluence with Androscoggin.	2014

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0104000207_412R01	Nezinscot River at Buckfield	Tributary to Androscoggin River	4	Class B	Potential sources for impairment, recent data provides conflicting status.	2014
ME0104000207_412R03	Nezinscot River at Turner	Tributary to Androscoggin River	2	Class B	Potential sources for impairment, inconclusive data.	2014
ME0104000208_413R08	Bobbin Mill Brook (Lake Auburn Outlet, Auburn)	Tributary to Androscoggin River	3.45	Class B	6/7/12: Conflicting biomonitoring results (at station S-357): macroinvertebrates attained only Class C in 1998 (likely due to natural conditions) but met Class B in 2003 and 2008; algae (periphyton) showed non-attainment in 2008. Resampling needed to confirm whether impairment exists.	2013
ME0104000209_414R02	Penneseeewassee Lake Outlet	Tributary to Little Androscoggin River	1.24	Class B	New information inconclusive.	2014
ME0104000209_415R01	Davis Brook (Poland)	Tributary to Little Androscoggin River	1	Class B	Errors or inconsistencies in the data.	2014
ME0105000108_503R01	Unnamed Stream (Calais)		1	Class B	Potential sources for impairment unknown, inconclusive data.	2014
ME0105000108_505R01	Woodland Impoundment	St Croix River, Baileyville	5.5	Class C	Insufficient data. Long term river study in progress 2006.	2014
ME0105000213_519R	Union R	main stem (Ellsworth)	2.94	Class B	9/12/12: Sampled in 2007; new WQ model for dissolved oxygen under construction. New treatment plant scheduled to be completed by the end of 2012. Resampling planned for 2013.	2013
ME0106000103_607R04	Piscataqua River (Falmouth)	Tributary to Presumpscot River	12.53	Class B	6/1/12: New Category 3 listing for aquatic life use; biomonitoring station S-787 showed algae (periphyton) non-attainment in 2005 and Class C in 2010. Needs resampling. Category 2 for contact recreation due to TMDL monitoring data showing attainment of bacteria standards. Was included in statewide bacteria TMDL (approved 9/28/09).	2014

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0106000103_607R05	East Branch Piscataqua River	Mainstem entering Piscataqua just upstream of confluence with Presumpscot River in Falmouth	5.5	Class B	Class B stream only attained Class C biocriteria in 2004; resampling needed to confirm whether impairment exists.	2014
ME0106000103_607R13	**Tannery Brook (Gorham)**	**Tributary to Little River in Gorham**	**2**	**Class B**	**5/24/12: Potential sources of impairment, variable or conflicting information for macroinvertebrate and algae (periphyton) samples - resample to confirm. (2010 Category 3 listing of this AU did not specify cause.) Category 3 listed from Rt 114 to confluence with Little River.**	**2015**
ME0106000104_611R	Tributaries of the Scarborough River and Scarborough Marsh		99.99	Class B	Potential sources for impairment, insufficient data.	2014
ME0106000105_610R	Stroudwater River and minor drainages of the Fore River		50.45	Class B	Potential sources for impairment, insufficient data.	2014
ME0106000105_610R10	**Stroudwater River (Gorham)**	**Below South Branch Stroudwater River**	**3.6**	**Class B**	**5/23/12: New Category 3 listing for Aquatic Life Use: Biomonitoring station S-789, algae (periphyton) showed Class C in 2005 and non-attainment in 2010. Resampling needed to confirm whether impairment exists.**	**2015**
ME0106000106_607R12	Norton Brook (Falmouth)	Tributary to Mill Creek/Casco Bay	1.34	Class B	Administrative error, conflicting data. More data required to support impaired assessment. Non-attainment of biocriteria in 2002 may be due to natural habitat effects; needs resampling.	2017

Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0106000211_616R07	Swan Pond Brook Tributary	Dayton and Biddeford	7.1	Class B	5/22/12: New Category 3 listing for Aquatic Life Use: biomonitoring station S-786 showed algae (periphyton) non-attainment in 2005 and 2010. Resampling needed to confirm whether impairment exists.	2015
ME0106000301_622R04	Kennebunk River (Arundel/ Kennebunk)	Ward Brook to Kennebunk Landing	4.0	Class B	5/23/12: New Category 3 listing for Aquatic Life Use: biomonitoring station S-270 showed algae (periphyton) Class C results in 2004 and 2010. Resampling needed to confirm whether impairment exists.	2015

Note 1: Bold text indicates waters that were moved into Category 3 during this reporting cycle

Note 2: an * in the field SEGMENT SIZE indicates that an estimate of affected river miles is not provided since it is highly variable depending on an overflow event.

Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed

Waters Impaired by Atmospheric Deposition of Mercury: All freshwaters formerly listed in Category 5-C were moved to Category 4-A in the 2008 cycle due to US EPA approval of a Regional Mercury TMDL in December 2007. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0101000105_103R01	Shields Branch of Big Black R	Mainstem	Escherichia coli	9.4	Class AA	37774	10/19/11 Mapping corrected, length updated (was 8.16 miles). 9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a). Also in Category 5-A for DO.
ME0101000121_117R	St. John River at Madawaska	Variable, CSO affected	Escherichia coli	0 *	Class C	37779	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0101000303_124R01	Dickey Brook	Tributary to Cross Lake/ Fish River	Nutrient/Eutrophication Biological Indicators	19.5	Class B	30683	Impairment covered under EPA approved TMDL for Cross Lake and Daigle Pond (9/15/2006, TMDL #30683).
ME0101000303_124R01	Dickey Brook	Tributary to Cross Lake/ Fish River	Oxygen, Dissolved	19.5	Class B	30683	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0101000303_124R01	**Dickey Brook**	**Tributary to Cross Lake/Fish River**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**19.5**	**Class B**	**30683**	**9/25/2012: New Categroy 4-A listing for aquatic life use due to algae (periphyton) non-attainment (2003 and 2009, biomonitoring station S-688). Impairment covered under EPA approved TMDL for Cross Lake and Daigle Pond (9/15/2006, TMDL #30683).**
ME0101000303_124R02	Daigle Brook	Tributary to Cross Lake/ Fish River	Nutrient/Eutrophication Biological Indicators	7.99	Class B	30681	Daigle Brook is included in the Daigle Pond and Cross Lake TMDL; attainment of Daigle Pond water quality targets will ensure attainment of Daigle Brook uses. TMDL approved by EPA 9/28/06.
ME0101000303_124R02	Daigle Brook	Tributary to Cross Lake/ Fish River	Oxygen, Dissolved	7.99	Class B	30681	
ME0101000412_140R02	Dudley Brook (Chapman)	Tributary to North Branch Presque Isle Stream	Benthic-Macroinvertebrate Bioassessments (Streams)	6.41	Class A	38550	5/23/2012: New Category 3 listing for Aquatic Life Use: biomonitoring station S-215 showed algae (periphyton) Class C results in 2009, potentially due to naturally high alkalinity. Resampling needed to confirm whether impairment exists. 4/26/2010 EPA approval of TMDL- delisted to Category 4-A (invertebrates, TP, TN and Sediments).
ME0101000412_140R02	Dudley Brook (Chapman)	Tributary to North Branch Presque Isle Stream	Nitrogen (Total)	6.41	Class A	38549	
ME0101000412_140R02	Dudley Brook (Chapman)	Tributary to North Branch Presque Isle Stream	Phosphorus (Total)	6.41	Class A	38548	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0101000412_140R02	Dudley Brook (Chapman)	Tributary to North Branch Presque Isle Stream	Sedimentation/Siltation	6.41	Class A	38550	5/23/2012: New Category 3 listing for Aquatic Life Use: biomonitoring station S-215 showed algae (periphyton) Class C results in 2009, potentially due to naturally high alkalinity. Resampling needed to confirm whether impairment exists. 4/26/2010 EPA approval of TMDL- delisted to Category 4-A (invertebrates, TP, TN and Sediments).
ME0101000412_140R03_01	Presque Isle Stream at Presque Isle	Tributary to Aroostook River	Ammonia (Un-ionized)	1	Class B	2529	8/22/2000: Aquatic life use impairments Category 4-A due to TMDL approval.
ME0101000412_140R03_01	Presque Isle Stream at Presque Isle	Tributary to Aroostook River	BOD, Biochemical oxygen demand	1	Class B	2529	
ME0101000412_140R03_01	Presque Isle Stream at Presque Isle	Tributary to Aroostook River	Phosphorus (Total)	1	Class B	2529	
ME0101000501_149R01	Prestile Stream above dam in Mars Hill	Including Christina Reservoir	Benthic-Macroinvertebrate Bioassessments (Streams)	15.78	Class A	38544-38546	3/29/12 EPA approval of TMDL (5/10/10), delisted to Category 4-A (invertebrates, nutrients and DO). New 4-A listing for Aquatic Life Use due to algae (periphyton) non-attainment (2003, 2004 and 2009, biomonitoring stations 690 and 734) - impairment covered under approved TMDL. Also Category 5-D for legacy DDT.
ME0101000501_149R01	Prestile Stream above dam in Mars Hill	Including Christina Reservoir	Nutrient/Eutrophication Biological Indicators	15.78	Class A	38544-38546	
ME0101000501_149R01	Prestile Stream above dam in Mars Hill	Including Christina Reservoir	Oxygen, Dissolved	15.78	Class A	38544-38546	
ME0101000501_149R01	**Prestile Stream above dam in Mars Hill**	**Including Christina Reservoir**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**15.78**	**Class A**	**38544-38546**	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0101000504_152R01_01	Meduxnekeag River	Below confluence with S Branch	Phosphorus (Total)	11	Class B	2471	6/21/2012: 2009 and 2010 data indicate little change in DO and total phosphorus values. Category 4-A for Total Phosphorus (TMDL approved 3/8/2001). Also in Category 5D for legacy DDT contamination.
ME0102000110_205R03	Millinocket Stream (Millinocket)		Escherichia coli	3.03	Class C	37778	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0102000402_219R_02	Piscataquis River at Dover Foxcroft	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0102000403_215R_02	Sebec River at Milo	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0102000506_222R01	Costigan Brook (Milford)		Escherichia coli	2.7	Class B	37775	8/21/12: Corrected assessment unit name [was Costigan Str (Costigan)]. Corrected mapping and updated length (was 0.78 miles). 9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a). Also in Category 5-A for DO.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0102000509_226R01	Otter Stream, Milford		Escherichia coli	6.27	Class B	37775	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0102000509_233R_02	Penobscot River at Orono	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0102000509_233R_03	Penobscot River at Old Town-Milford	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0102000510_224R04	Birch Stream (Bangor)	Tributary to Kenduskeag Stream	Benthic-Macroinvertebrate Bioassessments (Streams)	0.5	Class B	33160	**9/25/2012: Restoration activities in progress; on-going macroinvertebrate non-attainment in 2010 (biomonitoring station S-312). New Categroy 4-A listing for Aquatic Life Use due to algae (periphyton) non-attainment (2001, 2003 and 2006, biomonitoring station S-691), impairment covered under EPA approved TMDL (9/12/2007, TMDL #33160).**
ME0102000510_224R04	**Birch Stream (Bangor)**	**Tributary to Kenduskeag Stream**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**0.5**	**Class B**	**33160**	
ME0102000510_224R05	**Capehart (Pushaw) Brook (Bangor)**	**Tributary to Kenduskeag Stream**	**Habitat Assessment (Streams)**	**0.46**	**Class B**	**42454**	**9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL.**
ME0102000510_224R06	**Arctic Brook (near Valley Ave, Bangor)**	**Tributary to Kenduskeag Stream**	**Benthic-Macroinvertebrate Bioassessments**	**1**	**Class B**	**42453**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of**

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0102000510_224R06	Arctic Brook (near Valley Ave, Bangor)	Tributary to Kenduskeag Stream	Habitat Assessment (Streams)	1	Class B	42453	Statewide % Impervious Cover TMDL. Previous stream length (0.18 miles) was based on inadequate GIS coverage; correct length is 1.0 mile.
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Benthic-Macroinvertebrate Bioassessments	3.91	Class B	42475	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 6/5/2012: New 5-A listing for aquatic life use: biomonitoring station S-480 showed algae (periphyton) only met Class C in 2001, 2006 and 2011.
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Habitat Assessment (Streams)	3.91	Class B	42475	
ME0102000511_225R01_02	Shaw Brook (Bangor, Hampden)	Tributary to Penobscot River	Periphyton (Aufwuchs) Indicator Bioassessments	3.91	Class B	42475	
ME0102000511_225R02	Sucker Brook (Hampden) (formerly 'Unnamed St.-Hampden')	Tributary to Penobscot R. entering from the west, in Hampden	Benthic-Macroinvertebrate Bioassessments	2.5	Class B	42477	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.
ME0102000511_225R02	Sucker Brook (Hampden) (formerly 'Unnamed St.-Hampden')	Tributary to Penobscot R. entering from the west, in Hampden	Oxygen, Dissolved	2.5	Class B	42477	
ME0102000513_234R	Penobscot River	At Bangor-Brewer including Kenduskeag Stream	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0103000306_320R02	Currier Brook		Escherichia coli	3.19	Class B	37775	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0103000306_320R03	Whitten Brook (Skowhegan)	Tributary to Kennebec River	Benthic-Macroinvertebrate Bioassessments	1.12	Class B	42490	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0103000306_320R03	**Whitten Brook (Skowhegan)**	**Tributary to Kennebec River**	**Habitat Assessment (Streams)**	**1.12**	**Class B**	**42490**	**Statewide % Impervious Cover TMDL.**
ME0103000306_320R03	Whitten Brook (Skowhegan)	Tributary to Kennebec River	Escherichia coli	1.12	Class B	37775	**9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a).**
ME0103000306_338R_02	Kennebec River at Skowhegan, CSO	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0103000306_339R_03	Kennebec River, near Fairfield	Variable, CSO affected	Escherichia coli	0 *	Class C	37779	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Escherichia coli	22	Class C	37779	9/5/12: This AU and the adjacent upstream AU (ME0103000308_332R) were both listed in 2010 with their combined length of 30.83 miles; in 2012, the AUs are listed with their correct respective lengths of 22 and 8.83 miles. Updated AU name [was "main stem, below confluence of E and W Branches (excluding the Halifax Impd)"] to clarify extent. Nutrient/Eutrophication Biological Indicators cause of Aquatic Life Use impairment delisted to Category 2 due to new data showing removal of cause of impairment. 9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for dioxin and DO, and Category 5-D for legacy PCBs.
ME0103000310_322R01	Fish Brook (Fairfield)		Benthic-Macroinvertebrate Bioassessments (Streams)	6.34	Class B	12077	8/30/2005: Aquatic life use impairments Category 4-A due approved TMDL. Restoration plan implemented; needs follow-up monitoring in 2012 to determine current status.
ME0103000310_322R01	Fish Brook (Fairfield)		Oxygen, Dissolved	6.34	Class B	12077	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0103000311_334R05	Cobbossee Stream (Gardiner)		Phosphorus (Total)	1.46	Class B	9998	5/31/12: Corrected length (was 7 miles). Phosphorus Cause of aquatic life use impairment Category 4-A due to approval of Pleasant Pond TMDL (included this AU; 5/20/2004). Also in Category 5-A for macroinvertebrates and algae.
ME0103000312_333R02	**Whitney Brook (Augusta)**	**Tributary to Kennebec River**	**Benthic-Macroinvertebrate Bioassessments**	**1.86**	**Class B**	**42489**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. Algae listing inadvertently not displayed separately in 2010 report. Corrected segment length (was 2.68 miles). 9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a).**
ME0103000312_333R02	**Whitney Brook (Augusta)**	**Tributary to Kennebec River**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**1.86**	**Class B**	**42489**	
ME0103000312_333R02	Whitney Brook (Augusta)	Tributary to Kennebec River	Escherichia coli	1.86	Class B	37777	
ME0103000312_333R03	**Kennedy Brook (Augusta)**	**Tributary to Kennebec River**	**Benthic-Macroinvertebrate Bioassessments**	**0.87**	**Class B**	**42463**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.**

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0103000312_333R03	**Kennedy Brook (Augusta)**	**Tributary to Kennebec River**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**0.87**	**Class B**	**42463**	**4/12/2012: New 5-A listing for Aquatic Life Use due to algae (periphyton) non-attainment (2002 and 2007, biomonitoring station S-613). Corrected length (was 2 miles).**
ME0103000312_333R04	**Unnamed tributary to Bond Brook**	**Augusta**	**Benthic-Macroinvertebrate Bioassessments**	**1.34**	**Class B**	**42483**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 6/5/2012: New 5-A listing for aquatic life use: algae (periphyton) showed non-attainment in 2002 and only met Class C in 2007 (biomonitoring station S-618).**
ME0103000312_333R04	**Unnamed tributary to Bond Brook**	**Augusta**	**Habitat Assessment (Streams)**	**1.34**	**Class B**	**42483**	
ME0103000312_333R04	**Unnamed tributary to Bond Brook**	**Augusta**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**1.34**	**Class B**	**42483**	
ME0103000312_339R_02	Kennebec River at Waterville, CSO	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0103000312_340R_02	Kennebec River at Augusta, including Riggs Brook- CSO	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0103000312_340R_03	Kennebec River at Hallowell-CSO	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0103000312_340R_04	Kennebec River at Gardiner-Randolph	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0104000208_413R01	Jepson Brook (Lewiston)		Escherichia coli	2.43	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for DO, habitat and macroinvertebrates.
ME0104000208_413R03	Stetson Brook (Lewiston)		Escherichia coli	6.82	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for DO.
ME0104000208_413R04	Logan Brook, Auburn	Tributary to Androscoggin River	Escherichia coli	0.96	Class B	37777	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Watershed plan complete.**
ME0104000208_413R04	**Logan Brook, Auburn**	**Tributary to Androscoggin River**	**Habitat Assessment (Streams)**	**0.96**	**Class B**	**42465**	
ME0104000208_413R04	**Logan Brook, Auburn**	**Tributary to Androscoggin River**	**Oxygen, Dissolved**	**0.96**	**Class B**	**42465**	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0104000208_413R07	Gully Brook (Lewiston)		Escherichia coli	1.91	Class B	37777	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for DO.
ME0104000209_417R_02	Little Androscoggin River at Mechanic Falls	Variable, CSO affected	Escherichia coli	0 *	Class C	37779	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0104000210_418R02	No Name Brook (Lewiston)		Escherichia coli	10.02	Class C	37780	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for DO.
ME0104000210_419R01	**Unnamed Brook (Biomon Sta. 347-Lisbon Falls at Rt 196)**	**Tributary to Androscoggin River**	**Habitat Assessment (Streams)**	**1.36**	**Class B**	**42482**	**9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL.**
ME0104000210_419R02	**Hart Brook (Lewiston) A.K.A Dill Bk and including Goff Bk**	**Tributary to Androscoggin River**	**Benthic-Macroinvertebrate Bioassessments**	**4.15**	**Class B**	**42462**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.**
ME0104000210_419R02	**Hart Brook (Lewiston) A.K.A Dill Bk and including Goff Bk**	**Tributary to Androscoggin River**	**Habitat Assessment (Streams)**	**4.15**	**Class B**	**42462**	**6/5/2012: New 5-A listing for Aquatic Life Use: biomonitoring station S-663 showed algae (periphyton) non-**

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0104000210_419R02	**Hart Brook (Lewiston) A.K.A Dill Bk and including Goff Bk**	**Tributary to Androscoggin River**	**Oxygen, Dissolved**	**4.15**	**Class B**	**42462**	**attainment in 2003 and 2004 and Class C in 2008. 9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a).**
ME0104000210_419R02	**Hart Brook (Lewiston) A.K.A Dill Bk and including Goff Bk**	**Tributary to Androscoggin River**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**4.15**	**Class B**	**42462**	
ME0104000210_419R02	Hart Brook (Lewiston) A.K.A Dill Bk and including Goff Bk	Tributary to Androscoggin River	Escherichia coli	4.15	Class B	37777	
ME0104000210_420R01	**Unnamed tributary (Brunswick 2) to Androscoggin R**	**Biomon Sta 641 (near River Rd. Brunswick) 43.91538/69.98089**	**Benthic-Macroinvertebrate Bioassessments**	**1.85**	**Class B**	**42486**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 5-A macroinvertebrate listing inadvertently omitted in 2010 report.**
ME0104000210_420R01	**Unnamed tributary (Brunswick 2) to Androscoggin R**	**Biomon Sta 641 (near River Rd. Brunswick) 43.91538/69.98089**	**Habitat Assessment (Streams)**	**1.85**	**Class B**	**42486**	
ME0104000210_420R02	**Unnamed tributary (Brunswick 3) to Androscoggin R**	**Biomon Sta 642 (near Water St. Brunswick) 43.92167/69.95586**	**Benthic-Macroinvertebrate Bioassessments**	**0.56**	**Class B**	**42488**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 5-A macroinvertebrate listing inadvertently omitted in 2010 report.**
ME0104000210_420R02	**Unnamed tributary (Brunswick 3) to Androscoggin R**	**Biomon Sta 642 (near Water St. Brunswick) 43.92167/69.95586**	**Habitat Assessment (Streams)**	**0.56**	**Class B**	**42488**	
ME0104000210_420R03	**Unnamed tributary (Brunswick 4) to Androscoggin R**	**Biomon Sta 643 (near Jordan Ave., Brunswick) 43.91077/69.94130**	**Benthic-Macroinvertebrate Bioassessments**	**1.73**	**Class B**	**42485**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 5-A macroinvertebrate listing inadvertently omitted in 2010 report.**
ME0104000210_420R03	**Unnamed tributary (Brunswick 4) to Androscoggin R**	**Biomon Sta 643 (near Jordan Ave., Brunswick) 43.91077/69.94130**	**Habitat Assessment (Streams)**	**1.73**	**Class B**	**42485**	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0104000210_420R04	**Unnamed tributary (Topsham 2) to Androscoggin R**	**Bio Sta 633 (Topsham-Dwnstrm of Rt. 24 crossing) 43.92470/69.95027**	**Benthic-Macroinvertebrate Bioassessments**	**1.77**	**Class B**	**42487**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.**
ME0104000210_420R04	**Unnamed tributary (Topsham 2) to Androscoggin R**	**Bio Sta 633 (Topsham-Dwnstrm of Rt. 24 crossing) 43.92470/69.95027**	**Habitat Assessment (Streams)**	**1.77**	**Class B**	**42487**	**3/21/2012: New 5-A listing for aquatic life use due to benthic macroinvertebrate impairment in 2002 and 2008 at Station 633.**
ME0104000210_420R05	**Unnamed tributary (Topsham 4) to Androscoggin**	**BioSta 634; Drains Topsham Fair Mall**	**Benthic-Macroinvertebrate Bioassessments**	**1.4**	**Class B**	**42484**	**9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL.**
ME0104000210_425R_02	Androscoggin River, Lewiston-Auburn	Variable, CSO affected	Escherichia coli	0 *	Class C	37779	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0105000108_505R_02	St. Croix R., Calais CSO	Variable, CSO affected	Escherichia coli	0 *	Class A	37779	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0105000203_508R02	Pottle Brook (Perry)		Escherichia coli	0.5	Class B	37775	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0105000213_514R_01	**Card Brook (Ellsworth)**	**Tributary to Union River**	**Benthic-Macroinvertebrate Bioassessments**	**1.2**	**Class B**	**42457**	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.
ME0105000213_514R_01	**Card Brook (Ellsworth)**	**Tributary to Union River**	**Oxygen, Dissolved**	**1.2**	**Class B**	**42457**	9/28/09: Recreational use impairments now Category 4-

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0105000213_514R_01	Card Brook (Ellsworth)	Tributary to Union River	Escherichia coli	1.2	Class B	37775	A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a).
ME0105000217_520R01	Carleton Stream (Blue Hill)		Benthic-Macroinvertebrate Bioassessments (Streams)	1.23	Class C	10917	10/7/2004: Aquatic life use impairments Category 4-A due to approved TMDL.
ME0105000217_520R01	Carleton Stream (Blue Hill)		Iron	1.23	Class C	10917	
ME0105000220_522R01_01	Megunticook River (Camden)		Escherichia coli	3.56	Class B	37775	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0105000220_522R04	Unnamed Brook (Rockland)		Escherichia coli	0.5	Class B	37775	11/7/12: City of Rockland performed remedial sewer work in 2012 to address bacteria contamination; more work is likely needed in the future to successfully address the entire watershed. 9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0105000305_528R01	Sheepscot River at Alna		Escherichia coli	4.01	Class AA	37773	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0105000305_528R03	Dyer River below Rt 215	Tributary to Sheepscot River	Escherichia coli	9.35	Class B	37775	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for DO.
ME0106000103_607R03	Colley Wright Brook (Windham)		Escherichia coli	8.16	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a). Also in Category 5-A for DO.
ME0106000103_607R06	Hobbs Brook (Cumberland)		Escherichia coli	1.54	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a). Also in Category 5-A for DO.
ME0106000103_607R07	Inkhorn Brook (Westbrook)		Escherichia coli	4.32	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a). Also in Category 5-A for DO.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000103_607R08	Mosher Brook (Gorham)	Tributary to Presumpscot River	Escherichia coli	2.03	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 report).
ME0106000103_607R09	Otter Brook (Windham)		Escherichia coli	2.16	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a). Also in Category 5-A for DO.
ME0106000103_607R11	Nason Brook (Gorham)	Trib to Presumpscot entering so. of Dundee Pd.	Escherichia coli	2.7	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000103_607R12	Pleasant River (Windham)	mainstem of Pleasant River from Thayer Brook to confluence with Presumpscot	Escherichia coli	11.2	Class B	37777	5/29/12: Corrected length (was 8.8 miles). 9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). Also in Category 5-A for DO.
ME0106000103_609R_02	Presumpscot River at Westbrook	Variable, CSO affected	Escherichia coli	0 *	Class C	37779	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000104_611R02	Phillips Brook (Scarborough)	Tributary to Dunstan River	Habitat Assessment (Streams)	2.77	Class C	42472	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 6/5/2012: New 5-A listing for aquatic life use due to dissolved oxygen impairment (based on 2008 TMDL-DO study data).
ME0106000104_611R02	Phillips Brook (Scarborough)	Tributary to Dunstan River	Oxygen, Dissolved	2.77	Class C	42472	
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River	Tributary to Fore River	Benthic-Macroinvertebrate Bioassessments	2	Class C	42467	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 2/6/2012: New 5-A listing for aquatic life use due to dissolved oxygen impairment (based on 2008 TMDL-DO study data) and for algae (periphyton; non-attainment of biocriteria in 2003 and 2004 at biomonitoring station S-638). AU name changed from 'Nasons Brook (Portland) south of Rt 25, trib to Fore River' to 'Nasons Brook (Portland), trib to Fore River'. This unit was split into two due to differences in statutory class; the Portland segment is Class C, the new upstream Westbrook segment (AU ME0106000105_607R11_02) is Class B.
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River	Tributary to Fore River	Oxygen, Dissolved	2	Class C	42467	
ME0106000105_607R11_01	Nasons Brook (Portland), trib to Fore River	Tributary to Fore River	Periphyton (Aufwuchs) Indicator Bioassessments	2	Class C	42467	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River	Tributary to Fore River	Benthic-Macroinvertebrate Bioassessments	0.8	Class B	42495	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 3/26/2012: New 5-A listing for aquatic life use due to dissolved oxygen impairment (based on 2008 TMDL-DO study data) and for algae (periphyton; non-attainment of biocriteria in 2003 and 2004 at biomonitoring station S-638). New Assessment Unit, resulting from splitting of AU ME0106000105_607R11_01, Nasons Brook (Portland), trib to Fore River', into 2 due to differences in statutory class. Existing Aquatic Life Use listing for Benthic-Macroinvertebrate Assessment carried over from Portland AU.
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River	Tributary to Fore River	Oxygen, Dissolved	0.8	Class B	42495	
ME0106000105_607R11_02	Nasons Brook (Westbrook), trib to Fore River	Tributary to Fore River	Periphyton (Aufwuchs) Indicator Bioassessments	0.8	Class B	42495	
ME0106000105_609R01	Dole Brook (formerly known as 'Unnamed Stream-Portland 3')	Tributary to Presumpscot R. entering east of Rt. 302 in Portland	Benthic-Macroinvertebrate Bioassessments	1.6	Class B	42460	9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000105_610R01	Capisic Brook	Portland	Benthic-Macroinvertebrate Bioassessments	4.1	Class C	42456	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 3/20/2012: New 5-A listing for Aquatic Life Use due to algae (periphyton) non-attainment results (2003 and 2004, biomonitoring station 257). Mapping corrected, resulting in increase in segment size (was 3.02 miles). City of Portland's Draft Capisic Brook Watershed Management Plan was approved by DEP in October 2011.
ME0106000105_610R01	Capisic Brook	Portland	Habitat Assessment (Streams)	4.1	Class C	42456	
ME0106000105_610R01	Capisic Brook	Portland	Periphyton (Aufwuchs) Indicator Bioassessments	4.1	Class C	42456	
ME0106000105_610R05	Trout Brook (South Portland)	Tributary to Fore River/Casco Bay	Benthic-Macroinvertebrate Bioassessments (Streams)	2.93	Class C	33816	10/22/12: Watershed Management Plan under development with expected completion date of December 2012. Restoration activities are underway, and a 319 implementation grant project is scheduled for startup in spring 2013. Aquatic life use use impairments Category 4-A due to approval of TMDL on 10/25/2007 (under bundled urban stream project).
ME0106000105_610R05	Trout Brook (South Portland)	Tributary to Fore River/Casco Bay	Habitat Assessment (Streams)	2.93	Class C	33817	
ME0106000105_610R06	Kimball Brook	South Portland, tributary to Fore River/Casco Bay	Benthic-Macroinvertebrate Bioassessments	1.55	Class C	42464	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.
ME0106000105_610R06	Kimball Brook	South Portland, tributary to Fore River/Casco Bay	Habitat Assessment (Streams)	1.55	Class C	42464	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000105_610R07	**Red Brook (Scarborough, S Portland)**	**Tributary to Long Creek**	**Habitat Assessment (Streams)**	**5.4**	**Class C**	**42473**	**9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL. Mapping corrected, updated segment length (was 7.15 miles). 5-D Fish tissue monitoring shows PCBs.**
ME0106000105_610R09	Barberry Cr	South Portland, tributary to Fore River/Casco Bay	Benthic-Macroinvertebrate Bioassessments (Streams)	3.03	Class C	32399	6/21/2007: Aquatic life use use impairments now Category 4-A due to approval of TMDL (under bundled urban stream project).
ME0106000105_610R09	Barberry Cr	South Portland, tributary to Fore River/Casco Bay	Habitat Assessment (Streams)	3.03	Class C	32400	
ME0106000106_602R01	**Frost Gully Brook**	**Freeport, tributary to Harrseeket River**	**Benthic-Macroinvertebrate Bioassessments**	**3.2**	**Class A**	**42461**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. Mapping corrected, updated segment length (was 4.04 miles). 12/3/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a). TMDL monitoring indicates not impaired for DO- delisted for DO in 2006.**
ME0106000106_602R01	**Frost Gully Brook**	**Freeport, tributary to Harrseeket River**	**Habitat Assessment (Streams)**	**3.2**	**Class A**	**42461**	
ME0106000106_602R01	Frost Gully Brook	Freeport, tributary to Harrseeket River	Escherichia coli	3.2	Class A	37772	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000106_602R02	**Mare Brook (Brunswick) and selected tributaries**	**AU includes tributaries downstream of airport runway**	**Benthic-Macroinvertebrate Bioassessments**	**8**	**Class B**	**42466**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 6/5/12: New 5-A listing for aquatic life use due to benthic macroinvertebrate non-attainment; corrected mapping and included tributaries downstream of airport runway (resulting in increase in segment size - was 4.9 miles); updated name from 'Mare Brook (Brunswick)' to 'Mare Brook (Brunswick) and selected tributaries'.**
ME0106000106_602R02	**Mare Brook (Brunswick) and selected tributaries**	**AU includes tributaries downstream of airport runway**	**Habitat Assessment (Streams)**	**8**	**Class B**	**42466**	
ME0106000106_602R03	**Concord Gully (Freeport)**	**Tributary to Harrseeket River**	**Benthic-Macroinvertebrate Bioassessments**	**2.47**	**Class B**	**42459**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 12/2/11: New 5-A listing for Aquatic Life Use due to algae (periphyton) non-attainment results (2001 and 2010, biomonitoring station 498). Also in Category 5-A for bacteria.**
ME0106000106_602R03	**Concord Gully (Freeport)**	**Tributary to Harrseeket River**	**Habitat Assessment (Streams)**	**2.47**	**Class B**	**42459**	
ME0106000106_602R03	**Concord Gully (Freeport)**	**Tributary to Harrseeket River**	**Oxygen, Dissolved**	**2.47**	**Class B**	**42459**	
ME0106000106_602R03	**Concord Gully (Freeport)**	**Tributary to Harrseeket River**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**2.47**	**Class B**	**42459**	
ME0106000106_612R01_01	**Goosefare Brook below I-95**	**Saco, Old Orchard Beach**	**Benthic-Macroinvertebrate Bioassessments**	**5.54**	**Class B**	**42494**	**9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 2/22/2012: New 5-A listing**
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Cadmium	6.14	Class B	9765	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Chromium (total)	6.14	Class B	9765	**for aquatic life use due to benthic macroinvertebrate non-attainment. AU extent was corrected to begin below I-95, resulting in a shortening of this AU from 6.14 miles to 5.54. 9/23/2003: Aquatic life use use impairments (metals) now Category 4-A due to approval of TMDL. Also in Category 5-A for bacteria.**
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Copper	6.14	Class B	9765	
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Iron	6.14	Class B	9765	
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Lead	6.14	Class B	9765	
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Nickel	6.14	Class B	9765	
ME0106000106_612R01_01	Goosefare Brook below I-95	Saco, Old Orchard Beach	Zinc	6.14	Class B	9765	
ME0106000106_612R01_02	Bear Brook, Saco CSO	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000106_616R04	Bear Bk	Saco, tributary to Goosefare Brook	Escherichia coli	0.5	Class B	37775	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000211_616R02	Tappan Bk	Saco, tributary to Saco River	Escherichia coli	0.5	Class B	37775	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000211_616R03	Sawyer Bk	Saco, tributary to Saco River	Escherichia coli	0.5	Class B	37775	9/28/09 Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000211_616R05	**Thacher Bk (Biddeford)**	**Tributary to Saco River**	**Benthic-Macroinvertebrate Bioassessments**	**5.67**	**Class B**	**42478**	**9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL. TMDL uses the spelling 'Thatcher'.**
ME0106000211_616R05	Thacher Bk (Biddeford)	Tributary to Saco River	Escherichia coli	5.67	Class B	37777	**9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 4-A table but was noted in 5-A table and report Table 8-1a).**
ME0106000211_616R06	Swan Pond Brook at South Street (Biddeford)	Tributary to Saco River	Escherichia coli	1	Class B	37777	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000211_619R01	Saco River at Biddeford-Saco	Variable, CSO affected	Escherichia coli	0 *	Class B	37776	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000301_622R01	Kennebunk River	Kennebunk Landing to Goochs Beach	Escherichia coli	3.07	Class B	37775	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Aluminum	9.9	Class B	2530	5/30/12 Updated segment name (was 'main stem, below Rt. 22A bridge in Sanford') and length (20.48 miles) to clarify extent. Segment includes 3.7 mile stretch from Rt 4 to Estes Lake covered in 2001 TMDL (approved 3/8/2001).
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Ammonia (Un-ionized)	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Arsenic	9.9	Class B	2530	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	BOD, Biochemical oxygen demand	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Copper	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Lead	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Phosphorus (Total)	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Selenium	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Silver	9.9	Class B	2530	
ME0106000302_628R01	Mousam R,	Main stem, Rt. 224 (Bridge St.) bridge in Sanford to Estes Lake	Zinc	9.9	Class B	2530	
ME0106000302_628R02	Mousam River at Sanford	Variable, CSO affected	Escherichia coli	0 *	Class C	37779	9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL.

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000304_625R04	**Goodall Brook (Sanford)**	**Upstream of Daylight Ave**	**Benthic-Macroinvertebrate Bioassessments**	**1.5**	**Class B**	**42493**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 12/29/2011: New 5-A listing (was Category 3 in 2010) for aquatic life use - benthic macroinvertebrate impairment (based on 2004 data). Also newly listed for habitat impairment. Location description was changed (was 'upstream of Berwick Rd') and segment length was updated (was 2.5 miles).**
ME0106000304_625R04	**Goodall Brook (Sanford)**	**Upstream of Daylight Ave**	**Habitat Assessment (Streams)**	**1.5**	**Class B**	**42493**	
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Escherichia coli	5.8	Class B	37776	6/18/12: Provided more specific segment location from prior general Salmon Falls R listing; corrected mapping and length (was 7.43 mi.), and corrected classification (was Class B) according to existing statute [MRSA 38, Ch. 3, Sec. 467, 16(A)(2)]. 10/19/11: Water quality still poor due to blooms. 9/28/09: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL (listing inadvertently omitted in 2010 Appendix but included in report Table 8-1a).
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Ammonia (Un-ionized)	5.8	Class B	1029	
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Nutrient/Eutrophication Biological Indicators	5.8	Class B	1029	

Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Oxygen, Dissolved	5.8	Class B	1029	11/22/99: Aquatic life impairments now Category 4-A due to approval of TMDL for BOD, ammonia and phosphorus. Also in Category 5-D for legacy PCBs and Dioxin below Berwick.

Note 1: Bold text indicates waters that were moved into Category 4-B during this reporting cycle

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0101000413_145R01	Little Madawaska River	from source including Green Pond and Chapman Pit	Polychlorinated biphenyls	20.5	Class B	Hazardous waste remediation project is complete (Superfund) - 4-B expected to attain standards. Erroneously listed for benthic invertebrates in 2006-08; biomonitoring results attained Class B in 2001, 2004 and 2008. Macroinvertebrate Cause removed in 2010; listing inadvertently included in 2010 report in Category 4-B.	2020
ME0101000413_145R02	Greenlaw Brook	Tributary to Little Madawaska River	Polychlorinated biphenyls	17.12	Class B	9/6/12 Corrected name, was Greenlaw Stream. Hazardous waste remediation project is complete (Superfund) - 4-B expected to attain standards.	2020
ME0102000109_205R01	West Branch Penobscot R, including Dolby Pd	Main stem, below confluence with Millinocket Str	Nutrient/Eutrophication Biological Indicators	4.25	Class C	10/23/12: 2011 permits (Millinocket) providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016.	2016
ME0102000109_205R01	West Branch Penobscot R, including Dolby Pd	Main stem, below confluence with Millinocket Str	Oxygen, Dissolved	4.25	Class C		2016
ME0102000503_221R01	Cold Stream (Enfield) downstream of hatchery	Tributary to Passadumkeag River	Benthic-Macroinvertebrate Bioassessments (Streams)	1.63	Class A	9/4/12: hatchery permit renewed 12/7/11; macroinvertebrates met Class A biocriteria in 2006 and 2011 (station S-484).	2016
ME0102000502_230R	**Penobscot R-(Mattawamkeag to Cambolasse)**	**Main stem, from Mattawamkeag R to Cambolasse Str**	**Nutrient/Eutrophication Biological Indicators**	**14.05**	**Class B**	**10/23/12: 2011 permits (Millinocket to Veazie) providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016. Preliminary data from 2011 looks promising.**	**2016**
ME0102000502_230R	**Penobscot R-(Mattawamkeag to Cambolasse)**	**Main stem, from Mattawamkeag R to Cambolasse Str**	**Oxygen, Dissolved**	**14.05**	**Class B**		**2016**

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0102000502_231R	**Penobscot R**	**Main stem, from Cambolasse Str to Piscataquis R**	**Nutrient/Eutrophication Biological Indicators**	**19.08**	**Class B**	**10/23/12: 2011 permits (Millinocket to Veazie) providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016. Preliminary data from 2011 looks promising. Also in Category 5-D for PCBs.**	**2016**
ME0102000502_231R	**Penobscot R**	**Main stem, from Cambolasse Str to Piscataquis R**	**Oxygen, Dissolved**	**19.08**	**Class B**		**2016**
ME0102000502_231R	Penobscot R	Main stem, from Cambolasse Str to Piscataquis R	Dioxin (including 2,3,7,8-TCDD)	19.08	Class B	4-B Dioxin controls in place, monitoring in 2003 and 2005 shows no difference above:below; expected to attain standards. Also in Category 5-D for PCBs.	2020
ME0102000506_232R	**Penobscot R**	**Main stem, from Piscataquis R to Orson Is**	**Nutrient/Eutrophication Biological Indicators**	**36.49**	**Class B**	**10/23/12: 2011 permits (Millinocket to Veazie) providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016. Preliminary data from 2011 looks promising. Also in Category 5-D for PCBs.**	**2016**
ME0102000506_232R	**Penobscot R**	**Main stem, from Piscataquis R to Orson Is**	**Oxygen, Dissolved**	**36.49**	**Class B**		**2016**
ME0102000506_232R	Penobscot R	Main stem, from Piscataquis R to Orson Is	Dioxin (including 2,3,7,8-TCDD)	36.49	Class B	Dioxin license limits in 38 MRSA Section 420. New Dioxin sources removed, expected to attain standards. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for PCBs.	2020
ME0102000509_233R_01	**Penobscot R**	**Main stem, from Orson Is to Veazie Dam**	**Nutrient/Eutrophication Biological Indicators**	**14.51**	**Class B**	**10/23/12: 2011 permits (Millinocket to Veazie) providing nutrient limits are expected to correct existing aquatic life**	**2016**

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0102000509_233R_01	**Penobscot R**	**Main stem, from Orson Is to Veazie Dam**	**Oxygen, Dissolved**	**14.51**	**Class B**	**use impairments. Expected to attain in 2016. Preliminary data from 2011 looks promising. Also in Category 5-D for PCBs.**	**2016**
ME0102000509_233R_01	Penobscot R	Main stem, from Orson Is to Veazie Dam	Dioxin (including 2,3,7,8-TCDD)	14.51	Class B	Dioxin license limits in 38 MRSA Section 420. New Dioxin sources removed, expected to attain standards. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for PCBs.	2020
ME0102000512_229R	Penobscot R	Main stem, above confluence of Mattawamkeag R	Nutrient/Eutrophication Biological Indicators	13.03	Class C	10/23/12: 2011 permits (Millinocket to Veazie) providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016. Preliminary data from 2011 looks promising.	2016
ME0102000512_229R	Penobscot R	Main stem, above confluence of Mattawamkeag R	Oxygen, Dissolved	13.03	Class C		2016
ME0102000513_234R02	**Penobscot**	**Main stem, Veazie Dam to Reeds Bk**	**Nutrient/Eutrophication Biological Indicators**	**10.1**	**Class B**	**10/23/12: 2011 permits (Millinocket to Veazie) providing nutrient limits are expected to correct existing aquatic life use impairments. Expected to attain in 2016. Preliminary data from 2011 looks promising. Also in Category 5-D for legacy PCBs.**	**2016**
ME0102000513_234R02	**Penobscot**	**Main stem, Veazie Dam to Reeds Bk**	**Oxygen, Dissolved**	**10.1**	**Class B**		**2016**

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0102000513_234R02	Penobscot	Main stem, Veazie Dam to Reeds Bk	Dioxin (including 2,3,7,8-TCDD)	10.1	Class B	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0103000304_313R01	Mill Stream (Embden)	Tributary to Carrabasset River	Benthic-Macroinvertebrate Bioassessments (Streams)	2.57	Class B	8/9/12: Hatchery permit issued 7/6/2011; exp. date 7/5/2016. 2006 biomonitoring results show attainment of Class B biocriteria (Class B stream).	2011
ME0103000305_315R_02	Unnamed Stream trib to Sandy R (Avon-Dunham Hatchery)	Unnamed tributary to Sandy River 44.79788/70.31753	Benthic-Macroinvertebrate Bioassessments (Streams)	2.63	Class B	11/17/10 Fish hatchery that used to discharge to this waterbody is permanently closed.	2010
ME0103000306_338R_04	Kennebec R,	Main stem, from Carrabassett R to Fairfield-Skowhegan boundary	Dioxin (including 2,3,7,8-TCDD)	22.76	Class B	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0103000306_339R_02	Kennebec R,	Main stem, from Fairfield-Skowhegan boundary to Sebasticook R	Dioxin (including 2,3,7,8-TCDD)	14.65	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0103000308_325R01	East Branch Sebasticook River Corundel L to Sebasticook L	Corinna Superfund site	Benthic-Macroinvertebrate Bioassessments (Streams)	4.51	Class C	Corinna superfund site - benzene. Hazardous waste remediation project (Superfund). CSO removal. New wastewater permit, removal to land treatment in 2004, renewed 6/5/2012. Segment attained aquatic life criteria in 2003 and 2007. Also in Category 5-D for dioxin and PCBs.	2010
ME0103000308_325R01	East Branch Sebasticook River Corundel L to Sebasticook L	Corinna Superfund site	Benzene	4.51	Class C		2010
ME0103000308_331R01	Martin Stream (Dixmont)	Tributary to East Branch Sebasticook	Ammonia (Un-ionized)	0.5	Class A	10/23/12: CAFO permit transferred to new farm (2009), expiration date January 13, 2014; expected to attain. Monitoring in 2012 to determine WQS attainment status. Segment length is from fields draining manure storage piles to downstream of Rt 7.	2014
ME0103000308_331R01	Martin Stream (Dixmont)	Tributary to East Branch Sebasticook	Benthic-Macroinvertebrate Bioassessments (Streams)	0.5	Class A		2014
ME0103000312_339R_01	Kennebec R,	Main stem, from Sebasticook R to Augusta (Calumet Bridge)	Dioxin (including 2,3,7,8-TCDD)	17.7	Class B	9/5/12: Location description updated - Curran Bridge was renamed Calumet Bridge in 2009. 4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0103000312_340R_01	Kennebec R,	Main stem, from Augusta (Calumet Bridge) to Merrymeeting Bay (Chops)	Dioxin (including 2,3,7,8-TCDD)	30.53	Class C	9/5/12: Location description updated - Curran Bridge was renamed Calumet Bridge in 2009. 4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0103000312_427R	Merrymeeting Bay	Including tidal portions of tributaries from the Androscoggin R to The Chops	Dioxin (including 2,3,7,8-TCDD)	3.44	Class B	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0104000201_421R	Androscoggin R	Main stem, from Maine-NH border to Wild R	Dioxin (including 2,3,7,8-TCDD)	2.35	Class B	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0104000202_421R	Androscoggin R	Main stem, above Rumford Point	Dioxin (including 2,3,7,8-TCDD)	31.04	Class B	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0104000204_421R	Androscoggin R	Main stem, from Rumford Pt to Virginia Bridge	Dioxin (including 2,3,7,8-TCDD)	10.97	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0104000204_422R	Androscoggin R	Main stem, from Virginia bridge to Webb R	Dioxin (including 2,3,7,8-TCDD)	6.8	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0104000205_422R	Androscoggin R	Main stem, Webb R to Riley dam	Dioxin (including 2,3,7,8-TCDD)	15.7	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0104000206_423R	Androscoggin R	Main stem, from Riley Dam to Nezinscot R	Dioxin (including 2,3,7,8-TCDD)	21.7	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020
ME0104000206_423R01	Androscoggin R	Main stem, Livermore impoundment	Dioxin (including 2,3,7,8-TCDD)	1	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs and Category 2 for benthic macroinvertebrates and TSS (delisted in 2008 cycle; biomonitoring station S-244 attained Class C biocriteria in 2003, and Class B biocriteria in 2004-2010).	2020
ME0104000207_412R02	House/Lively Brook	Turner, tributaries to Martin Stream	Nitrogen (Total)	3.53	Class B	Waste (manure) removal (Agric NPS) by Consent Order and Site Permit-expected to attain standards; needs addtional monitoring to confirm attainment.	2013

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0104000208_424R	Androscoggin R,	Main stem, from confluence of Nezinscot R to confluence with Little Androscoggin R, except Gulf Island Pond	Dioxin (including 2,3,7,8-TCDD)	7.25	Class C	5/4/12 Corrected length (to 7.25 miles) to exclude GIP impoundment (8.19 miles) from 15.45-mile general "Androscoggin R" segment listed in 2010 for this AU. 4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for PCBs.	2020
ME0104000208_424R_01	**Androscoggin R, GIP**	**Main stem, upstream of the Gulf Island Dam**	**Algae blooms (Chl a)**	**8.19**	**Class C**	**8/28/13: New Category 4-B listing (previously 4-A) based on new permits issued in December 2012. Expected to attain in 2017. Also in Category 5-D for legacy PCBs.**	**2017**
ME0104000208_424R_01	**Androscoggin R, GIP**	**Main stem, upstream of the Gulf Island Dam**	**BOD, Biochemical oxygen demand**	**8.19**	**Class C**		**2017**
ME0104000208_424R_01	**Androscoggin R, GIP**	**Main stem, upstream of the Gulf Island Dam**	**Oxygen, Dissolved**	**8.19**	**Class C**		**2017**
ME0104000208_424R_01	**Androscoggin R, GIP**	**Main stem, upstream of the Gulf Island Dam**	**Phosphorus (Total)**	**8.19**	**Class C**		**2017**
ME0104000208_424R_01	**Androscoggin R, GIP**	**Main stem, upstream of the Gulf Island Dam**	**Total Suspended Solids**	**8.19**	**Class C**		**2017**

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0104000208_424R_01	Androscoggin R, GIP	Main stem, upstream of the Gulf Island Dam	Dioxin (including 2,3,7,8-TCDD)	8.19	Class C	8/28/12: Corrected length (to 8.19 miles) to reflect resegmentation of the 15.45-mile general "Androscoggin R" segment (ME0104000208_424R) listed in 2010. 4-B New dioxin permit expected in fiscal year 2013. Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Dioxin listing was included in 15.45 mile length of ME0104000208_424R in 2010 report. Also in Category 5-D for legacy PCBs.	2020
ME0104000210_425R_01	Androscoggin R,	Main stem, from L Androscoggin R to Pejepscot Dam	Dioxin (including 2,3,7,8-TCDD)	17.65	Class C	9/5/12 Corrected length (was 22.15 miles) to exclude newly (2010) created segment between Pejepscot Dam and Brunswick Dam (ME0104000210_425R_01_01, 4.5 miles). Updated AU name (was 'Main stem, from L Androscoggin R to Brunswick Dam') to reflect correct extent. 4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for legacy PCBs.	2020

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0104000210_425R_01_01	Androscoggin R,	Main stem, from Pejepscot Dam to Brunswick Dam	Dioxin (including 2,3,7,8-TCDD)	4.5	Class C	4-B Dioxin license limits in 38 MRSA Section 420. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Dioxin listing was included in 22.15 mile length of ME0104000210_425R_01 in 2010 report. Also in Category 5-D for PCBs and Category 4-C for fish-passage barrier.	2020
ME0104000210_426R	Androscoggin R	Main stem, from Brunswick Dam to Brunswick-Bath boundary	Dioxin (including 2,3,7,8-TCDD)	8.49	Class C	Dioxin license limits in 38 MRSA Section 420. New Dioxin sources removed, expected to attain standards. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. Also in Category 5-D for PCBs.	2020
ME0105000201_507R01	Dennys River	Meddybemps L. to Dead Str	Polychlorinated biphenyls	4.5	Class AA	Hazardous waste remediation project (Superfund), PCB cause - expected to attain standards by 2013.	2013
ME0105000305_528R08_02	Sheepscot River below Sheepscot L (hatchery-affected)	Palermo and Somerville	Oxygen, Dissolved	5.67	Class B	8/6/12: Hatchery permit renewed 12/19/11, expiration date 12/19/2016.	2016
ME0106000101_605R01	Mile Brook (Casco)	Tributary to Crooked River	Benthic-Macroinvertebrate Bioassessments (Streams)	2.28	Class B	6/8/12: Hatchery permit re-issued 5/2/12, expiration date 5/1/17. Macroinvertebrates only attained Class C criteria in 2010. Facility upgrades occurred in the fall of 2011.	2013

Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS	EXPECT TO ATTAIN DATE
ME0106000105_610R03	Long Creek (South Portland)	Tributary to Fore River and Casco Bay	Benthic-Macroinvertebrate Bioassessments (Streams)	4.12	Class C	10/15/12: Watershed restoration process in third year now. Long Creek was moved to Category 4-B in 2010 cycle due to Stormwater General Permit, MEPDES MEG190000. Wastewater Discharge license number W-9052-5Y-A-N November 6, 2009.	2020
ME0106000105_610R03	Long Creek (South Portland)	Tributary to Fore River and Casco Bay	Habitat Assessment (Streams)	4.12	Class C		2020
ME0106000301_622R02	Lord's Brook (Lyman)	From upstream of Davis Rd to Rt 111	BOD, Biochemical oxygen demand	2.35	Class B	August 2007: Consent Decree signed, agreeing to make water quality improvements. May 2008: Contempt of Court Order. February 2009: District Court ordered cease and desist acceptance of new solid waste (appealed). Moved to Category 4-B in 2010 cycle – court-ordered controls in place.	2014
ME0106000301_622R02	Lord's Brook (Lyman)	From upstream of Davis Rd to Rt 111	Nutrient/Eutrophication Biological Indicators	2.35	Class B		2014
ME0106000301_622R02	Lord's Brook (Lyman)	From upstream of Davis Rd to Rt 111	Oxygen, Dissolved	2.35	Class B		2014

Category 4-C: Rivers and Streams with Impairment not Caused by a Pollutant

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0102000109_205R02	West Branch Penobscot R	Main stem, below outlet of Quakish L (Millinocket)	Other flow regime alterations	5.2	Class C	Flow diversion - modified for hydropower. Corrected mapping, updated length (was 4.24 miles).
ME0102000513_227R02	Silver Lake Outlet	Bucksport, tributary to Penobscot River	Other flow regime alterations	1.28	Class B	Water withdrawal.
ME0103000204_311R_02	Dead R, main stem		Other flow regime alterations	1	Class AA	Flow modified for hydropower.
ME0103000306_338R_01	Kennebec R,	Main stem between Mill Str., Norridgewock, and Weston Dam	Other flow regime alterations	5	Class B	Impounded water
ME0104000210_425R_01_01	Androscoggin R,	Main stem, from Pejepscot Dam to Brunswick Dam	Fish-Passage Barrier	4.5	Class C	Aquatic Life impairment due to inadequate fish passage for American shad at Brunswick Dam. Also in Category 5-D for legacy PCBs and 4-B for dioxin
ME0106000103_608R01	Presumpscot River	Dundee Dam to Sacarrappa Dam	Other flow regime alterations	16.14	Class A Class B	9/4/12: Length is 10.5 miles, Class A to confluence with Pleasant River, Class B below that point. Impoundments. Draft water quality certificate.
ME0106000203_613R01	Wards Brook (Fryeburg)	Outlet from Fryeburg Dam, trib to Lovewell Pond	Other flow regime alterations	1.5	Class C	Impounded water
ME0106000302_628R01_01	Mousam River below Old Falls Dam	From Old Falls Dam to Cold Water Brook in Kennebunk	Other flow regime alterations	1	Class B	Low dissolved oxygen from bottom release

Note 1: Bold text indicates waters that were moved into Category 5-A during this reporting cycle

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0101000105_103R01	Shields Branch of Big Black R	Mainstem	Oxygen, Dissolved	9.4	Class AA	2016 / L	10/19/11: Mapping corrected, length updated (was 8.16 miles). St. Pamphile Canada POTW discharge is probable source of DO non-attainment; PI office of DEP tracking questions of inadequate sewage treatment. Mapping corrected, length updated (was 8.16 miles). Also in Category 4-A for bacteria.
ME0101000412_140R04	Hanson Brook- "Unnamed Stream (P.I. airport)" BioSta 743	Tributary to Presque Isle Stream, draining the airport	Benthic-Macroinvertebrate Bioassessments	2.5	Class B	2014 / M	**5/24/12: New 5-A listing for Aquatic Life Use - algae (periphyton) impairment; biomonitoring at station 743 showed Class C in 2004 and non-attainment in 2009. Consider for future % impervious cover TMDL, need additional information on airport runoff. This AU is a.k.a. Skanky Brook and Unnamed Str. Presque Isle.**
ME0101000412_140R04	**Hanson Brook- "Unnamed Stream (P.I. airport)" BioSta 743**	**Tributary to Presque Isle Stream, draining the airport**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**2.5**	**Class B**	2014 / M	
ME0101000412_140R05	**Kennedy Brook (Presque Isle)**	**Tributary to Presque Isle Stream**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**3.2**	**Class B**	2015	**5/23/12: New 5-A listing for Aquatic Life Use: biomonitoring station S-646 showed algae (periphyton) non-attainment in 2004 and Class C in 2009, likely due to agriculture (58% of watershed area) and urban effects.**
ME0101000412_143R01	Everett Brook (Ft. Fairfield)	Tributary to Aroostook River	Oxygen, Dissolved	3.53	Class B	2014 / H	5/23/12: Will be included in a Statewide NPS TMDL when analysis is complete. New Category 3 listing for Aquatic Life Use: biomonitoring station S-924 showed algae (periphyton) non-attainment in 2009, likely due to agriculture effects (76% of watershed area).

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0101000412_143R02	Merrit Brook	Entering Aroostook R. from south, downstream of Presque Isle	Benthic-Macroinvertebrate Bioassessments	2.8	Class B	2014 / H	12/2/2011: New 5-A listing for Aquatic Life Use; biomonitoring (station 742) in 2009 - non-attainment for benthic macroinvertebrates and algae (periphyton); in 2004 - non-attainment for algae. Previously Category 3 due to biocriteria issues (first listed in 2006). Corrected length (was 1 mile). Will be included in a Statewide NPS TMDL when analysis is complete.
ME0101000412_143R02	Merrit Brook	Entering Aroostook R. from south, downstream of Presque Isle	Periphyton (Aufwuchs) Indicator Bioassessments	2.8	Class B	2014 / H	
ME0101000413_146R02	Coloney Brook	Fort Fairfield, tributary to Limestone Stream	Benthic-Macroinvertebrate Bioassessments	4.5	Class B	2014 / H	5/23/12: New 5-A listing for Aquatic Life Use: biomonitoring station S-733, macroinvertebrates attained Class C in 2009 (Class A in 2004); algae (periphyton) non-attainment results in 2004 and 2009. Impairment likely due to enrichment (macroinvertebrates) and sedimentation issues (algae) resulting from agriculture. Will be included in a Statewide NPS TMDL when analysis is complete.
ME0101000413_146R02	Coloney Brook	Fort Fairfield, tributary to Limestone Stream	Periphyton (Aufwuchs) Indicator Bioassessments	4.5	Class B	2014 / H	
ME0102000402_219R01	Piscataquis R	Main stem, below Dover Foxcroft	Oxygen, Dissolved	13.44	Class B	H	Segment is from Dover Foxcroft to about 4 miles upstram of confluence with Sebec River and is listed for dissolved oxygen.
ME0102000506_222R01	Costigan Brook (Milford)	Tributary to Penobscot River	Oxygen, Dissolved	2.7	Class B	2015 / M	8/21/12: Low DO probably due to natural causes (wetlands); mostly forested watershed. Collect more data. Corrected assessment unit name [was Costigan Str (Costigan)]. Corrected mapping and updated length (was 0.78 miles). Also in Category 4-A for bacteria.
ME0102000510_224R01	Burnham Brook (Garland)	Tributary to Kenduskeag Stream	Oxygen, Dissolved	3.73	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0102000510_224R03	French Stream (Exeter)	Tributary to Kenduskeag Stream	Benthic-Macroinvertebrate Bioassessments	12.79	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping. Periphyton listing inadvertently omitted in 2010 report (but was included in Table 8-4).
ME0102000510_224R03	French Stream (Exeter)	Tributary to Kenduskeag Stream	Periphyton (Aufwuchs) Indicator Bioassessments	12.79	Class B	2014 / H	
ME0102000510_224R07	**Crooked Brook, Corinth**	**Tributary to Kenduskeag Stream**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**10.6**	**Class B**	2014 / H	**8/23/2012: New Category 5-A listing for Aquatic Life Use - algae (periphyton) impairment; Class C biomonitoring results in 2001, 2006 and 2011 at station S-510. Will be included in a Statewide NPS TMDL when analysis is complete.**
ME0102000513_226R03	Penjajawoc Stream (Bangor) Meadow Bk (Bangor)	Tributaries to Penobscot River	Benthic-Macroinvertebrate Bioassessments	6.76	Class B	2014 / M	5/31/12: Watershed Plan complete: implementation is underway; completed TMDL on hold pending further evaluation.
ME0102000513_226R03	Penjajawoc Stream (Bangor) Meadow Bk (Bangor)	Tributaries to Penobscot River	Habitat Assessment (Streams)	6.76	Class B	2014 / M	
ME0102000513_226R03	Penjajawoc Stream (Bangor) Meadow Bk (Bangor)	Tributaries to Penobscot River	Oxygen, Dissolved	6.76	Class B	2014 / L	
ME0103000305_319R_02	Sandy R,	Main stem, segment below Farmington WWTP	Benthic-Macroinvertebrate Bioassessments	3.24	Class B	M	10/19/11: 2010 data shows continued DO problems but insufficient data to set permit limits. Plan to collect additional data to further assess and determine P limits. DO listing inadvertently omitted in 2010 report. May be able to delist for biocriteria in 2014.
ME0103000305_319R_02	Sandy R,	Main stem, segment below Farmington WWTP	Oxygen, Dissolved	3.24	Class B	M	
ME0103000306_314R02	Cold Stream (Skowhegan)		Benthic-Macroinvertebrate Bioassessments	5.73	Class B	2015 / M	Monitoring in 2006; TMDL not started
ME0103000306_320R04	Mill Stream (Norridgewock)		Benthic-Macroinvertebrate Bioassessments	8.17	Class B	L	Low priority for TMDL.

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0103000307_330R	W Branch of Sebasticook R	Main stem, below Rt. 23 bridge in Hartland	Dioxin (including 2,3,7,8-TCDD)	12.5	Class C	L	TMDL not started. Also in Category 5-D for PCBs.
ME0103000308_325R02	Brackett Brook (Palmyra)	Tributary to East Branch Sebasticook River	Oxygen, Dissolved	2.74	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Part of the ID of this AU will be updated in the 2014 cycle to match new HUCs/WBDs.
ME0103000308_325R03	Mulligan Stream (St. Albans)	Below Mulligan Stream Dam, to Sebasticook Lake	Oxygen, Dissolved	4.8	Class B	2014 / H	5/29/12: TMDL monitoring in 2006; will be included in a Statewide NPS TMDL when analysis is complete. Clarified location description, corrected mapping and updated length (was 4.03 miles).
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Oxygen, Dissolved	10.25	Class C	L	6/11/12: Eutrophic lake source. In the past decade (since approval of lake TMDL in 2001) Total Phosphorus and Chl a levels in the lake have decreased, Secchi disk transparency has increased; expect TP and DO situation in river to improve over time. Total Phosphorus listing only noted in Comments in 2010 report, not as a line item. Also in Category 5-D for Dioxin and PCBs.
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Phosphorus (Total)	10.25	Class C	L	
ME0103000308_332R	Sebasticook R	Main stem, from E and W Branches to Burnham bridge, including Burnham impoundment	Dioxin (including 2,3,7,8-TCDD)	8.83	Class C	2011 / L	9/5/12: This AU and the adjacent downstream AU (ME0103000309_332R) were both listed in 2010 with their combined length of 30.83 miles; in 2012, the AUs are listed with their correct respective lengths of 8.83 and 22 miles. Category 5-A listing for Dioxin inadvertently included in Category 5-D in 2010 IR. AU includes impounded water. New hydro certification received in 2006- attains applicable uses, except for Fish Consumption (dioxin 5-A and PCBs- 5-D).

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0103000309_327R01	Mill Stream (Albion)	Tributary to Fifteenmile Stream	Oxygen, Dissolved	2.17	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Dioxin (including 2,3,7,8-TCDD)	22	Class C	L	10/2/12: Nutrient/Eutrophication Biological Indicators cause of Aquatic Life Use impairment delisted to Category 2 due to new data showing removal of cause of impairment. Updated AU name [was "main stem, below confluence of E and W Branches (excluding the Halifax Impd)"] to clarify extent. This AU and the adjacent upstream AU (ME0103000308_332R) were both listed in 2010 with their combined length of 30.83 miles; in 2012, the AUs are listed with their correct respective lengths of 22 and 8.83 miles.
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Oxygen, Dissolved	22	Class C	2016 / L	10/19/11 DO impairment likely due to Benton impoundment; good candidate for monitoring to confirm or reject continued DO impairment. No recent monitoring data. Also in Category 4-A for bacteria and 5-D for legacy PCBs.
ME0103000309_332R01	Sebasticook River (site of former Halifax impoundment)	Tributary to Kennebec River	Dioxin (including 2,3,7,8-TCDD)	2	Class C	L	9/25/12: Updated AU name [was "Sebasticook River (Halifax impoundment)"] to better describe the segment after removal of the Halifax Dam (July 17, 2008). Fish Consumption 5-A (dioxin) and 5-D (PCBs) fish tissue contamination from upstream sources. Segment was delisted in 2010 to Category 2 for Aquatic Life Use Impairment - dam removal eliminated the cause of ALU impairment.
ME0103000311_334R03	Jock Stream (Wales)	Tributary to Cobbosseecontee Lake/Stream	Nutrient/Eutrophication Biological Indicators	9.43	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0103000311_334R03	Jock Stream (Wales)	Tributary to Cobbosseecontee Lake/Stream	Oxygen, Dissolved	9.43	Class B	2014 / H	
ME0103000311_334R04	Mill Stream (Winthrop)		Benthic-Macroinvertebrate Bioassessments	0.63	Class B	2015 / M	6/11/12: TMDL monitoring in 2005 & 2010, EPA assistance monitoring 2010; biomonitoring in 2004 (macroinvertebrate non-attainment); toxic spill probable source. BRWM Remediation completed (underground storage tank - #6 fuel oil).
ME0103000311_334R04	Mill Stream (Winthrop)		Cause Unknown	0.63	Class B	2015 / M	
ME0103000311_334R05	Cobbossee Stream (Gardiner)	Tributary to Kennebec River	Benthic-Macroinvertebrate Bioassessments	8.2	Class B	2015 / M	5/31/12: Corrected length (was 7 miles). 2010 cycle: New 5-A listing for aquatic life use: benthic macroinvertebrate non-attainment and algae Class C in 2007. Also in Category 4-A for Phosphorus.
ME0103000311_334R05	Cobbossee Stream (Gardiner)	Tributary to Kennebec River	Periphyton (Aufwuchs) Indicator Bioassessments	8.2	Class B	2015 / M	
ME0103000312_333R01_02	Bond Brook mainstem	From confluence of Spring and Tanning Brook to tidal influence	Periphyton (Aufwuchs) Indicator Bioassessments	5	Class B	2015 / M	2010 new listing for Bond Brook mainstem; algae model indicates nutrient problems at algae Stas. 838 and 597. Invertebrate monitoring Log No1637 at Sta 597- attains Class B.
ME0103000312_335R03	Meadow Brook (Farmingdale)	HUC: 0103000312	Benthic-Macroinvertebrate Bioassessments	2	Class B	2015 / M	5/29/12: Probably due to Habitat & Flow.
ME0103000324_333R_02	Spring Brook (Augusta)	From Gov Hill fish hatchery to Mt Vernon Rd, Augusta	Benthic-Macroinvertebrate Bioassessments	0.75	Class B	L	10/26/12: Permit expired 7/5/2011, not yet renewed. Settling basin upgrade stipulated in June 2010 consent agreement was completed in July 2010; did not result in significant improvement in the discharge of total or dissolved phosphorus. Need biomonitoring sampling to determine current WQS attainment situation.
ME0103000324_333R_02	Spring Brook (Augusta)	From Gov Hill fish hatchery to Mt Vernon Rd, Augusta	Phosphorus (Total)	0.75	Class B	L	
ME0104000205_410R01_02	Whitney Brook (Canton)		Benthic-Macroinvertebrate Bioassessments	1.82	Class B	2015 / M	Class B stream-2008 biomonitoring at Sta 342- Class C; result may be in part due to lake outlet effect (increased temp and enrichment).

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0104000208_413R01	Jepson Brook (Lewiston)	Tributary to Androscoggin River	Benthic-Macroinvertebrate Bioassessments	2.43	Class B	2018	6/11/12: Develop TMDL as precursor to potential Use Attainability Analysis. Upstream section is 80% channelized. Also in Category 4-A for bacteria.
ME0104000208_413R01	Jepson Brook (Lewiston)	Tributary to Androscoggin River	Habitat Assessment (Streams)	2.43	Class B	2018	
ME0104000208_413R01	Jepson Brook (Lewiston)	Tributary to Androscoggin River	Oxygen, Dissolved	2.43	Class B	2018	
ME0104000208_413R03	Stetson Brook (Lewiston)	Tributary to Androscoggin River	Oxygen, Dissolved	6.82	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Also in Category 4-A for bacteria.
ME0104000208_413R07	Gully Brook (Auburn)		Oxygen, Dissolved	1.91	Class B	2014 / M	5/29/12: Mostly urban: include in future % Impervious Cover TMDL for aquatic life use impairment (DO). Also in Category 4-A for bacteria.
ME0104000210_413R02	Penley Brook (Auburn)	Tributary to Androscoggin River	Oxygen, Dissolved	1.57	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.
ME0104000210_418R01	Sabattus River between Sabattus P and Androscoggin R	From Sabattus Pond to limits of Lisbon urban area	Nutrient/Eutrophication Biological Indicators	9.1	Class C	2015 / L	5/1/12: Sabattus Pond eutrophic and source of SOD in river; lake TMDL complete 2004; slow recovery is expected. This AU was split into upper, Class C segment and lower, Class B segment (ME0104000210_418R03), location description was updated and length was reduced from 11.4 to 9.1 miles; aquatic life use impairment (Benthic-Macroinvertebrate Bioassessments) was delisted to Category 2 due to classification attainment at 3 biomonitoring stations (S-359, S-629, S-630) on 2-3 occasions. Aquatic life use impairment due to DO and nutrient/eutrophication biological indicators continues (Category 5-A).
ME0104000210_418R01	Sabattus River between Sabattus P and Androscoggin R	From Sabattus Pond to limits of Lisbon urban area	Oxygen, Dissolved	9.1	Class C	2015 / L	
ME0104000210_418R02	No Name Brook (Lewiston)	Tributary to Sabattus River	Oxygen, Dissolved	10.02	Class C	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Also in Category 4-A for bacteria.

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0104000210_418R03	Sabattus River between Sabattus P and Androscoggin R	From limits of Lisbon urban area to Androscoggin R	Benthic-Macroinvertebrate Bioassessments	2.3	Class B	2015 / L	5/1/12: This AU was split off from existing mixed Class C and B segment (ME0104000210_418R01); macroinvertebrates at biomonitoring station S-170 affected by legacy pollutants, habitat and development. Sabattus Pond eutrophic and source of SOD in river; lake TMDL complete 2004; slow recovery is expected.
ME0104000210_418R03	Sabattus River between Sabattus P and Androscoggin R	From limits of Lisbon urban area to Androscoggin R	Nutrient/Eutrophication Biological Indicators	2.3	Class B	2015 / L	
ME0104000210_418R03	Sabattus River between Sabattus P and Androscoggin R	From limits of Lisbon urban area to Androscoggin R	Oxygen, Dissolved	2.3	Class B	2015 / L	
ME0104000210_419R03	Unnamed Stream (Lewiston Municipal Landfill)	Biomon Sta 857 affected by Lewiston Municipal Landfill near Plourde Pky	Benthic-Macroinvertebrate Bioassessments	0.8	Class B	2015 / M	2010 new listing-Biomon Sta 857 showed non-attainment in 2008 below Lewiston Municipal landfill; upstream Sta 856 is on watch list.
ME0105000209_512R_03	Great Falls Branch, Schoodic Stream (Deblois)	Tributary to Narraguagus River	Benthic-Macroinvertebrate Bioassessments	1.33	Class A	2015 / M	8/9/12: Formerly listed as segment 512R_02- Great Falls Branch, Schoodic Stream. Biocriteria (macroinvertebrates) non-attainment in 2006 and 2011.
ME0105000218_521R01	Warren Brook (Belfast)	Tributary to Passagassawakeag River	Oxygen, Dissolved	6.04	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.
ME0105000305_528R02	West Branch Sheepscot River	Below Halls Corner, Rt 17/32	Escherichia coli	2.29	Class AA	2015	**7/24/12: New 5-A listing for Aquatic Life Use - algae (periphyton) impairment; biomonitoring results were B in 2002-2003 and 2005-2011 at station S-550. Contact recreation impairment will be covered in future update to statewide bacteria TMDL (approved 9/28/09).**
ME0105000305_528R02	**West Branch Sheepscot River**	**Below Halls Corner, Rt 17/32**	**Periphyton (Aufwuchs) Indicator Bioassessments**	**2.29**	**Class AA**	**2016 / M**	

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0105000305_528R03	Dyer River below Rt 215	Tributary to Sheepscot River	Oxygen, Dissolved	9.35	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Also in Category 4-A for bacteria.
ME0105000305_528R04	Trout Brook (Alna)	Tributary to Sheepscot River	Oxygen, Dissolved	7.7	Class B	2014 / H	5/29/12: TMDL monitoring for dissolved oxygen in 2005 and 2007; will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping and updated length (was 3.43 miles).
ME0105000305_528R05	Meadow Bk (Whitefield)	Tributary to West Branch Sheepscot River	Oxygen, Dissolved	5.94	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.
ME0105000305_528R06	Carlton Bk (Whitefield)	Tributary to Sheepscot River	Oxygen, Dissolved	5.5	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping and updated length (was 3.94 miles).
ME0105000305_528R07	Choate Bk (Windsor)	Tributary to West Branch Sheepscot River	Oxygen, Dissolved	1.33	Class A	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected statutory class (was Class B).
ME0105000305_528R08_01	Chamberlain Bk (Whitefield)	Tributary to Sheepscot River	Oxygen, Dissolved	3.7	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping and updated length (was 1.76 miles).
ME0106000102_603R02	Chandler River including East Branch	Tributary to Royal River	Oxygen, Dissolved	27.19	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete.
ME0106000102_603R06	Cole Brook (Gray)	HUC: 0106000102	Benthic-Macroinvertebrate Bioassessments	2.49	Class B	2015 / M	
ME0106000103_607R01	Black Brook (Windham)	Tributary to Presumpscot River	Escherichia coli	8.2	Class B	2015	5/29/12: TMDL monitoring in 2007; will be included in a Statewide NPS TMDL when analysis is complete. Corrected length (was 6.07 miles). 4/13/10: Will be included in future update to statewide bacteria TMDL (approved 9/28/09).
ME0106000103_607R01	Black Brook (Windham)	Tributary to Presumpscot River	Oxygen, Dissolved	8.2	Class B	2014 / H	

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0106000103_607R03	Colley Wright Brook (Windham)	Tributary to Presumpscot River	Oxygen, Dissolved	8.16	Class B	2014 / H	5/29/12: TMDL monitoring for dissolved oxygen in 2007; will be included in a Statewide NPS TMDL when analysis is complete. Also in Category 4-A for bacteria.
ME0106000103_607R06	Hobbs Brook (Cumberland)	Tributary to Piscataqua River	Oxygen, Dissolved	1.54	Class B	2014 / H	5/29/12: TMDL monitoring for dissolved oxygen in 2007; will be included in a Statewide NPS TMDL when analysis is complete. Also in Category 4-A for bacteria.
ME0106000103_607R07	Inkhorn Brook (Westbrook)	Tributary to Presumpscot River	Oxygen, Dissolved	4.32	Class B	2014 / H	5/29/12: TMDL monitoring for dissolved oxygen in 2007; will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping. Also in Category 4-A for bacteria.
ME0106000103_607R08	Mosher Brook (Gorham)	Tributary to Presumpscot River	Oxygen, Dissolved	2.03	Class B	2014 / H	5/29/12: TMDL monitoring for dissolved oxygen in 2007; will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping. Also in Category 4-A for bacteria.
ME0106000103_607R09	Otter Brook (Windham)	Tributary to Presumpscot River	Oxygen, Dissolved	2.16	Class B	2014 / H	5/29/12: TMDL monitoring for dissolved oxygen in 2007; will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping. Also in Category 4-A for bacteria.
ME0106000103_607R10	Thayer Brook	Gray, tributary to Pleasant River	Oxygen, Dissolved	4.7	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping and updated length (was 3.82 miles).

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0106000103_607R12	Pleasant River (Windham)	Mainstem of Pleasant River from Thayer Brook to confluence with Presumpscot R	Oxygen, Dissolved	11.2	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected length (was 8.8 miles). Presumpscot Riverwatch (VRMP) monitoring showed occasional low DO values in 2009 and 2010 at one location. Also in Category 4-A for bacteria.
ME0106000105_610R02	Clark Brook (Westbrook)		Oxygen, Dissolved	1.23	Class C	2016 / L	
ME0106000105_610R04	Stroudwater River (Portland, Westbrook)	Tributary to Fore River and Casco Bay	Oxygen, Dissolved	8.4	Class B	2016 / L	10/19/11: Candidate for monitoring to re-confirm or refute dissolved oxygen non-attainment. Previously erroneously identified as being in South Portland - is in Portland; length corrected (was 15.71 miles).
ME0106000105_610R08	Fall Bk (Portland)	HUC: 0106000105	Habitat Assessment (Streams)	2.54	Class C	2013 / L	6/11/12: Develop TMDL as precursor to potential Use Attainability Analysis.
ME0106000106_602R03	Concord Gully (Freeport)	Tributary to Harrseeket River	Escherichia coli	2.47	Class B	2015	2/16/12: Will be included in future update to statewide bacteria TMDL (approved 9/28/09). Also in Category 4-A for macroinvertebrates, algae, habitat and DO.
ME0106000106_612R01_01	**Goosefare Brook below I-95**	**Saco, Old Orchard Beach**	**Escherichia coli**	**5.54**	**Class B**	**2015**	**2/22/2012: New 5-A listing for primary/secondary contact recreation (will be included in future update to statewide bacteria TMDL, approved 9/28/09) due to E. coli exceedance (2011 monitoring data). AU extent was corrected to begin below I-95, resulting in a shortening of this AU from 6.14 miles to 5.54. Also Category 4-A for metals due EPA approved TMDL (9/29/2003). Also in Category 4-A for macroinvertebrates and metals.**

Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0106000210_615R01	Little Ossippee R	Segment from Lake Arrowhead (Ledgemere) Dam to Saco River	Benthic-Macroinvertebrate Bioassessments	12.49	Class B	2016 / L	5/31/12: Class B stream, Biomonitoring Station 446, macroinvertebrates attained Class C in 2000 and 2005, Class B in 2010.
ME0106000210_615R01	Little Ossippee R	Segment from Lake Arrowhead (Ledgemere) Dam to Saco River	Oxygen, Dissolved	12.49	Class B	2016 / L	
ME0106000210_615R02	Brown Brook (Limerick)	Sokokis Lake to Lake Arrowhead	Benthic-Macroinvertebrate Bioassessments	2.44	Class B	2015 / M	6/11/12: TMDL monitoring in 2005 & 2010, EPA assistance for monitoring in 2010; biomonitoring in 2005 (Class C) and 2010 (Class B); toxic spill probable source. 2005 Biomon Station 445- Class B stream only at attains Class C.
ME0106000210_615R02	Brown Brook (Limerick)	Sokokis Lake to Lake Arrowhead	Habitat Assessment (Streams)	2.44	Class B	2015 / M	
ME0106000211_616R	Wales Pond Brook (Hollis)		Benthic-Macroinvertebrate Bioassessments	2.66	Class B	2015 / H	6/21/12: Permit expired 3/29/2012, renewal application has not been submitted. Resampling required. AAG ruled that Wales Pond should be considered as a Class B stream (rather than GPA).
ME0106000303_624R01	Stevens Brook (Wells, Ogunquit)	Only portion flowing in westerly-to-easterly direction, to start of wetland section	Benthic-Macroinvertebrate Bioassessments	2.7	Class B	2014 / H	5/29/12: Will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping and updated length (was 2.87 miles).
ME0106000304_625R01	Adams Brook (Berwick)	Tributary to Lovers Brook and Great Works River	Benthic-Macroinvertebrate Bioassessments	1.2	Class B	2014 / H	5/29/12: TMDL data collected in 2006; will be included in a Statewide NPS TMDL when analysis is complete. Corrected mapping and updated length (was 2.97 miles).

ME0106000304_625R03	West Brook (N. Berwick)	From 0.1 miles above Bragdon Rd to confluence with Great Works River	1,1-Dichloroethane	3.22	Class B	2015	5/29/12: Will be included in a Statewide NPS TMDL for aquatic life use impairment when analysis is complete. AWQC drinking water impairment (1,1 and 1,2 dichloroethane) from industrial NPS/hazardous waste. Remediation of original contaminant source has occurred; attenuation of contaminant concentration expected over time; monitoring continues. Dichloroethane listings only noted in Comments in 2010 report, not as line items.
ME0106000304_625R03	West Brook (N. Berwick)	From 0.1 miles above Bragdon Rd to confluence with Great Works River	1,2-Dichloroethane	3.22	Class B	2015	
ME0106000304_625R03	West Brook (N. Berwick)	From 0.1 miles above Bragdon Rd to confluence with Great Works River	Oxygen, Dissolved	3.22	Class B	2014 / H	

Category 5-B: Rivers and Streams Impaired for Bacteria Only, TMDL Required

In September of 2009 EPA approved a Statewide Maine Bacteria Total Maximum Daily Load that resulted in the removal of 34 bacteria-impaired segments from Category 5-B-1 and 5-B-2 to Category 4-A. The TMDL addresses bacteria impairments caused by Escherichia coli in freshwaters. Waters listed below will be included in future update to statewide bacteria TMDL.

Category 5-B: Rivers and Streams Impaired for Bacteria Only, TMDL Required

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0106000106_612R01	Goosefare Brook above I-95	Goosefare Brook, Saco	Escherichia coli	0.6	Class B	2013 / M	2/16/12: New 5-A listing for primary/secondary contact recreation due to E. coli exceedance (2011 monitoring data); will be included in future update to statewide bacteria TMDL (approved 9/28/09).
ME0106000301_622R03	Duck Brook and tributaries	Arundel	Escherichia coli	8.6	Class B	2013 / M	4/5/12: New 5-A listing for primary/secondary contact recreation due to E. coli exceedance (2011 monitoring data); will be included in future update to statewide bacteria TMDL (approved 9/28/09). Assessment unit does not include small tributary entering Duck Brook from the northwest (attained criteria).

Category 5-C: Waters Impaired by Atmospheric Deposition of Mercury

All freshwaters formerly listed in Category 5-C were moved to Category 4-A in the 2008 cycle due to US EPA approval of a Regional Mercury TMDL in December 2007. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources.

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0101000412_140R 03_02	N Br Presque Isle Stream	Tributary to Presque Isle Stream	DDT	14.68	Class B	5-D Legacy DDT contamination
ME0101000501_149R	Minor tributaries to Prestile Stream above dam in Mars Hill		DDT	77.2	Class B	5-D Legacy DDT contamination
ME0101000501_149R 01	Prestile Stream above dam in Mars Hill	Including L. Christina	DDT	15.78	Class A	5-D for legacy DDT. Also in Category 4-A for macroinvertebrates, nutrients and DO. New 4-A listing for algae/periphyton.
ME0101000501_150R	Prestile Str and tributaries entering below dam in Mars Hill		DDT	95.55	Class B	5-D for legacy DDT. Also in Category 3 (new listing) for macroinvertebrates and algae/periphyton.
ME0101000504_152R 01_01	Meduxnekeag River	Below confluence with S Branch	DDT	11	Class B	5-D for legacy DDT contamination. Also in Category 4-A for Total Phosphorus.
ME0102000404_216R 01_01	W. Br. Pleasant R (KIW Twp)		Iron	1	Class AA	10/19/11 Data collection underway to determine if iron source of impairment is natural or due to legacy iron mine contamination.
ME0102000404_216R 01_02	Blood Bk (KIW Twp)	Tributary to West Branch Pleasant River	Iron	1	Class A	10/19/11: Monitoring indicates potentially natural condition; consider future delisting.
ME0102000502_231R	Penobscot R	Main stem, from Cambolasse Str to Piscataquis R	Polychlorinated biphenyls	19.08	Class B	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for Dioxin, DO and Nutrient/ Eutrophication Biological Indicators.
ME0102000506_232R	Penobscot R	mainstem, Piscataquis to Orson Is.	Polychlorinated biphenyls	36.49	Class B	5-D Fish tissue monitoring revealed legacy PCBs (listing inadvertently omitted in 2010 report). Also in Category 4-B for Dioxin, DO and Nutrient/ Eutrophication Biological Indicators.
ME0102000509_233R _01	Penobscot R	Main stem, from Orson Is to Veazie Dam	Polychlorinated biphenyls	14.51	Class B	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for Dioxin, DO and Nutrient/ Eutrophication Biological Indicators.
ME0102000513_234R 02	Penobscot	Main stem, Veazie Dam to Reeds Bk	Polychlorinated biphenyls	10.1	Class B	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for Dioxin, DO and Nutrient/ Eutrophication Biological Indicators.

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0103000306_338R_04	Kennebec R,	Main stem, from Carrabassett R to Fairfield- Skowhegan boundary	Polychlorinated biphenyls	22.76	Class B	5-D Recent fish tissue monitoring has revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0103000306_339R_02	Kennebec R,	Main stem, from Fairfield-Skowhegan boundary to Sebasticook R	Polychlorinated biphenyls	14.65	Class C	5-D Recent fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0103000307_330R	**W Branch of Sebasticook R**	**Main stem, below Rt. 23 bridge in Hartland**	**Polychlorinated biphenyls**	**12.5**	**Class C**	**10/29/12: No current sources of contamination, remaining PCBs are legacy pollutants – AU moved from Category 5-A to 5-D in 2012 cycle.** **Also in Category 5-A for dioxin.**
ME0103000308_325R01	East Branch Sebasticook River Corundel L to Sebasticook L	Corinna Superfund site	Dioxin (including 2,3,7,8-TCDD)	4.51	Class C	5-D for legacy Dioxin and PCBs; listings inadvertently omitted in 2010 report. Also in Category 4-B for benzene and macroinvertebrates.
ME0103000308_325R01	East Branch Sebasticook River Corundel L to Sebasticook L	Corinna Superfund site	Polychlorinated biphenyls	4.51	Class C	
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Dioxin (including 2,3,7,8-TCDD)	10.25	Class C	5-D for legacy Dioxin and PCBs. Also in Category 5-A for DO and Total Phosphorus.
ME0103000308_331R	E Branch of Sebasticook R	Main stem, below Sebasticook Lake	Polychlorinated biphenyls	10.25	Class C	
ME0103000308_332R	Sebasticook R	Main stem, from E and W Branches to Burnham bridge, including Burnham impoundment	Polychlorinated biphenyls	8.83	Class C	9/5/12: This AU and the adjacent downstream AU (ME0103000309_332R) were both listed in 2010 with their combined length of 30.83 miles; in 2012, the AUs are listed with their correct respective lengths of 8.83 and 22 miles. 5-D for legacy PCBs. Category 5-A listing for Dioxin inadvertently included in Category 5-D in 2010 IR. Includes impounded water. New hydro certification received in 2006 - attains applicable uses, except for Fish Consumption (dioxin, PCBs).

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0103000309_332R	Sebasticook River	Main stem, from Burnham bridge to Kennebec R (excluding site of former Halifax Impd)	Polychlorinated biphenyls	22	Class C	9/5/12: This AU and the adjacent upstream AU (ME0103000308_332R) were both listed in 2010 with their combined length of 30.83 miles; in 2012, the AUs are listed with their correct respective lengths of 22 and 8.83 miles. Updated AU name [was "main stem, below confluence of E and W Branches (excluding the Halifax Impd)"] to clarify extent. Nutrient/Eutrophication Biological Indicators cause of Aquatic Life Use impairment delisted to Category 2 due to new data showing removal of cause of impairment. 5-D Fish tissue monitoring revealed PCBs. Also in Category 5-A for dioxin and DO, and Category 4-A for bacteria.
ME0103000309_332R 01	Sebasticook River (site of former Halifax impoundment)	Tributary to Kennebec River	Polychlorinated biphenyls	2	Class C	9/25/12: Updated AU name [was "Sebasticook River (Halifax impoundment)"] to better describe the segment after removal of the Halifax Dam (July 17, 2008). 5-D (PCBs) and 5-A (dioxin) fish tissue contamination from upstream sources. Segment was delisted in 2010 to Category 2 for Aquatic Life Use Impairment.
ME0103000312_339R _01	Kennebec R,	Main stem, from Sebasticook R to Augusta (Calumet Bridge)	Polychlorinated biphenyls	17.7	Class B	9/5/12: Location description updated - Curran Bridge was renamed Calumet Bridge in 2009. 5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0103000312_340R _01	Kennebec R,	Main stem, from Augusta (Calumet Bridge) to Merrymeeting Bay (Chops)	Polychlorinated biphenyls	30.53	Class C	9/5/12: Location description updated - Curran Bridge was renamed Calumet Bridge in 2009. 5-D fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0103000312_427R	Merrymeeting Bay	Including tidal portions of tributaries from the Androscoggin R to The Chops	Polychlorinated biphenyls	3.44	Class B	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000201_421R	Androscoggin R	Main stem, from Maine-NH border to Wild R	Polychlorinated biphenyls	2.35	Class B	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0104000202_421R	Androscoggin R	Main stem, above Rumford Point	Polychlorinated biphenyls	31.04	Class B	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000204_421R	Androscoggin R	Main stem, from Rumford Pt to Virginia Bridge	Polychlorinated biphenyls	10.97	Class C	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000204_422R	Androscoggin R	Main stem, from Virginia bridge to Webb R	Polychlorinated biphenyls	6.8	Class C	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000205_422R	Androscoggin R	Main stem, Webb R to Riley dam	Polychlorinated biphenyls	15.7	Class C	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000206_423R	Androscoggin R	Main stem, from Riley Dam to Nezinscot R	Polychlorinated biphenyls	21.7	Class C	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000206_423R 01	Androscoggin R	Main stem, Livermore impoundment	Polychlorinated biphenyls	1	Class C	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin and Category 2 for benthic macroinvertebrates and TSS (delisted in 2008 cycle; biomonitoring station S-244 attained Class C biocriteria in 2003, and Class B biocriteria in 2004-2010).
ME0104000208_424R	Androscoggin R,	Main stem, from confluence of Nezinscot R to confluence with Little Androscoggin R, except Gulf Island Pond	Polychlorinated biphenyls	7.25	Class C	5/4/12: Corrected length (to 7.25 miles) to exclude GIP impoundment (8.19 miles) from 15.45-mile general "Androscoggin R" segment listed in 2008 5-D for this AU. 5-D Fish tissue monitoring revealed legacy PCBs (listing was included in 15.45 mile length of ME0104000208_424R_01 in 2010 report). Also in Category 4-B for dioxin.
ME0104000208_424R _01	Androscoggin R, GIP	Main stem, upstream of the Gulf Island Dam	Polychlorinated biphenyls	8.19	Class C	8/28/12: Corrected length (to 8.19 miles) to reflect resegmentation of the 15.45-mile general "Androscoggin R" segment listed in 2008 5-D. (See also 2012 5-D listing for ME0104000208_424R.) 5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-A for BOD, DO, phosphorus, TSS and algae blooms (Chl a), and Category 4-B for dioxin (dioxin listing was included in 15.45 mile length of ME0104000208_424R in 2010 report).

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0104000210_425R_01	Androscoggin R,	Main stem, from L Androscoggin R to Pejepscot Dam	Polychlorinated biphenyls	17.65	Class C	9/5/12 Corrected length (was 22.15 miles) to exclude newly (2010) created segment between Pejepscot Dam and Brunswick Dam (ME0104000210_425R_01_01, 4.5 miles). Updated AU name (was 'Main stem, from L Androscoggin R to Brunswick Dam') to reflect correct extent. 5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0104000210_425R_01_01	Androscoggin R,	Main stem, from Pejepscot Dam to Brunswick Dam	Polychlorinated biphenyls	4.5	Class C	5-D Fish tissue monitoring revealed legacy PCBs; this listing was included in 22.15 mile length of ME0104000210_425R_01 in 2010 report. Also in Category 4-B for dioxin (included in 22.15 mile length of ME0104000210_425R_01 in 2010 report) and Category 4-C for fish-passage barrier.
ME0104000210_426R	Androscoggin R	Main stem, from Brunswick Dam to Brunswick-Bath boundary	Polychlorinated biphenyls	8.49	Class C	5-D Fish tissue monitoring revealed legacy PCBs. Also in Category 4-B for dioxin.
ME0105000209_512R_02	McCoy Brook (Deblois)	Tributary to Narraguagus River	Benthic-Macroinvertebrate Bioassessments (Streams)	1	Class B	Legacy pollution- abandoned peat mining operation.
ME0105000209_512R_02	McCoy Brook (Deblois)	Tributary to Narraguagus River	pH	1	Class B	
ME0106000105_610R 07	**Red Brook (Scarborough, S Portland)**	**Tributary to Long Creek**	**Polychlorinated biphenyls**	**5.4**	**Class C**	**10/29/12: No current sources of contamination, remaining PCBs are legacy pollutants - AU moved from Category 5-A to 5-D in 2012 cycle for PCBs. Also in Category 4-A for habitat assessment.**
ME0106000305_630R 01	Salmon Falls R	Main stem, from Route 9 to tidewater	Dioxin (including 2,3,7,8-TCDD)	5.8	Class C	6/18/12: Provided more specific segment location from prior general Salmon Falls R listing; corrected mapping and length (was 7.43 mi.), and corrected classification (was Class B) according to existing statute [MRSA 38,

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (MILES)	SEGMENT CLASS	COMMENTS
ME0106000305_630R01	Salmon Falls R	Main stem, from Route 9 to tidewater	Polychlorinated biphenyls	5.8	Class C	Ch. 3, Sec. 467, 16(A)(2)]. 5-D Fish tissue monitoring revealed legacy PCBs and Dioxin below Berwick. Also in Category 4-A for bacteria as well as BOD, ammonia and phosphorus (bacteria listing inadvertently omitted in 2010 report).

Appendix III: Lakes

Category 1: Lake Waters Fully Attaining All Designated Uses							
HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 1 (Acres)	# of Lakes within the HUC listed in Category 1	Other listing categories having lakes within this HUC
ME	0101000101	*	Baker Branch St. John River	355.24	3383	89	
ME	0101000102	*	Southwest Branch St. John River	354.42	191	30	
ME	0101000103	*	Northwest Branch St. John River	504.67	333	5	
ME	0101000104	*	St. John River (1) at Gauging Station	127.53	211	25	
ME	0101000105	*	Shields Branch Big Black River	162.98	2	1	
ME	0101000106	*	Big Black River	466.4	1178	14	
ME	0101000107	*	St. John River at Oullette Brook	384.74	2866	10	
ME	0101000108	*	Little Black River	261.73	38	4	2
ME	0101000109	*	St. John River above St. Francis	176.48	298	17	2
ME	0101000110	*	St. Francis River	228.41	3289	9	2
ME	0101000114	*	St. John River at Van Buren	64.98	8	1	2
ME	0101000201	*	Eagle Lake	169.18	11806	30	
ME	0101000202	*	Heron Lake (Churchill)	129	5875	21	
ME	0101000203	*	Chemquasabamticook Stream	214.54	3293	9	
ME	0101000204	*	Long Lake	143.4	2436	10	
ME	0101000205	*	Musquacook Stream	155.53	3889	20	
ME	0101000206	*	Big Brook	100.88	708	11	
ME	0101000207	*	Allagash River	320.93	2134	15	2
ME	0101000301	*	Fish River Lake	128.98	3601	15	
ME	0101000302	*	St. Froid Lake	273.95	1238	43	2
ME	0101000303	*	Eagle Lake	353.06	1067	9	2,4a
ME	0101000304	*	Fish River	133.44	107	4	2
ME	0101000401	*	Millimagasset Stream	108.59	5215	35	
ME	0101000402	*	Munsungan Stream	120.15	2668	37	
ME	0101000403	*	Mooseleuk Stream	168.76	1600	24	
ME	0101000404	*	Umcolcus Stream	82.6	1244	10	2

Category 1: Lake Waters Fully Attaining All Designated Uses

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 1 (Acres)	# of Lakes within the HUC listed in Category 1	Other listing categories having lakes within this HUC
ME	0101000405	*	St. Croix Lake	112.34	162	25	2
ME	0101000406	*	St. Croix Stream	126.48	273	17	
ME	0101000407	*	Aroostook River (1) at Masardis Gauging Station	175.93	43	6	2
ME	0101000409	*	Big Machias Lake	146.85	1542	14	
ME	0101000410	*	Machias River	182.46	395	10	
ME	0101000411	*	Aroostook R (2) at Washburn Gauging Station	348.8	110	8	2
ME	0101000412	*	Aroostook River (3) at Caribou	289.41	41	2	2,4a
ME	0101000413	*	Aroostook River (4) at Mouth in Canada	499.04	92	2	2,4a
ME	0101000501	*	Big Presque Isle Stream	232.18	5	2	2,4a
ME	0101000502	*	South Branch Meduxnekeag River	64.55	4	1	2
ME	0101000503	*	North Branch Meduxnekeag River	147.7	186	12	2
ME	0102000101	*	North Branch Penobscot River	255.48	3529	59	
ME	0102000102	*	Seeboomook Lake	266.8	4999	102	2
ME	0102000103	*	WEST Branch Penobscot R at Chesuncook Lk	314.76	5473	59	2
ME	0102000104	*	Caucomgomok Lake	178.46	10211	59	
ME	0102000105	*	Chesuncook Lake	404.77	34926	73	
ME	0102000106	*	Nesowadnehunk Stream	66.56	1936	32	
ME	0102000107	*	Nahamakanta Stream	103.18	4679	76	
ME	0102000108	*	Jo-Mary Lake	83.5	6949	40	
ME	0102000109	*	West Branch Penobscot River (3)	245.71	25876	105	2
ME	0102000110	*	West Branch Penobscot River (4)	211.31	12365	66	2
ME	0102000201	*	Webster Brook	289.69	21919	48	2
ME	0102000202	*	Grand Lake Matagamon	200.84	6042	51	
ME	0102000203	*	East Branch Penobscot River (2)	89.69	913	43	
ME	0102000204	*	Seboeis River	268.31	6638	76	2
ME	0102000205	*	East Branch Penobscot River (3)	269.47	1439	81	2
ME	0102000301	*	West Branch Mattawamkeag River	368.52	129	9	2
ME	0102000302	*	East Branch Mattawamkeag River	165.95	45	1	2
ME	0102000304	*	Baskahegan Stream	233.6	824	4	2
ME	0102000305	*	Mattawamkeag River (2)	276.47	1358	5	2

Category 1: Lake Waters Fully Attaining All Designated Uses

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 1 (Acres)	# of Lakes within the HUC listed in Category 1	Other listing categories having lakes within this HUC
ME	0102000306	*	Molunkus Stream	233.59	766	8	2
ME	0102000401	*	Piscataquis River (1)	264.05	282	16	2
ME	0102000403	*	Sebec River	351.1	1372	37	2
ME	0102000404	*	Pleasant River	339.32	4354	81	2
ME	0102000405	*	Seboeis Stream	161.16	3812	24	2
ME	0102000501	*	Penobscot River (1) at Mattawamkeag	161.07	941	6	2
ME	0102000502	*	Penobscot River (2) at West Enfield	298.2	1115	5	2
ME	0102000503	*	Passadumkeag River	398.81	10851	27	2
ME	0102000504	*	Olamon Stream	53.88	9	1	2
ME	0102000505	*	Sunkhaze Stream	94.65	68	13	2
ME	0102000508	*	Pushaw Stream	238.53	1014	2	2
ME	0103000101	*	South Branch Moose River	68.34	171	14	
ME	0103000102	*	Moose River (2) above Attean Pond	180.94	2207	56	2
ME	0103000103	*	Moose River (3) at Long Pond	307.3	1643	35	2
ME	0103000104	*	Brassua Lake	157.53	473	27	4c
ME	0103000105	*	Moosehead Lake	549	4116	92	2
ME	0103000106	*	Kennebec River (2) above The Forks	323.12	6404	120	2
ME	0103000201	*	North Branch Dead River	200.89	2348	50	2
ME	0103000202	*	South Branch Dead River	147.96	73	4	2
ME	0103000203	*	Flagstaff Lake	173.02	825	18	2,4c
ME	0103000204	*	Dead River	357.53	5691	190	2
ME	0103000301	*	Kennebec River (4) at Wyman Dam	158.85	2344	22	2
ME	0103000302	*	Austin Stream	89.87	297	11	2
ME	0103000303	*	Kennebec River (6)	110.29	87	9	2
ME	0103000304	*	Carrabassett River	396.83	398	19	2
ME	0103000305	*	Sandy River	592.92	86	6	2,4c
ME	0103000312	*	Kennebec River at Merrymeeting Bay	314.46	3	1	2,4a
ME	0104000101	*	Mooselookmeguntic Lake	473.72	3283	36	2
ME	0104000102	*	Umbagog Lake Drainage	122.05	759	7	2
ME	0104000103	*	Aziscohos Lake Drainage	245.91	1606	33	4c

Category 1: Lake Waters Fully Attaining All Designated Uses

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 1 (Acres)	# of Lakes within the HUC listed in Category 1	Other listing categories having lakes within this HUC
ME	0104000202	*	Androscoggin River (2) at Rumford Point	308.23	27	3	2
ME	0104000203	*	Ellis River	164.26	29	2	2
ME	0104000204	*	Ellis River	202.35	89	13	2
ME	0104000205	*	Androscoggin River (3) above Webb River	245.05	22	3	2
ME	0104000209	*	Androscoggin R (6) above Little Androscoggin	353.1	6	1	2
ME	0105000101	*	Spednick Lake	411.52	291	1	2
ME	0105000102	*	St. Croix River (2) at Spednick Falls	216.84	778	6	
ME	0105000103	*	West Grand Lake	224.54	4426	10	2
ME	0105000104	*	Big Musquash Stream	114.17	412	3	2
ME	0105000105	*	Big Lake at Peter Dana Point	121.07	1417	15	2
ME	0105000106	*	Tomah Stream	153.03	233	8	2
ME	0105000201	*	Dennys River	130.64	190	2	2
ME	0105000203	*	Grand Manan Channel	246.09	370	8	2
ME	0105000204	*	East Machias River	311.96	1357	11	2
ME	0105000205	*	Machias River	498.35	11912	90	2
ME	0105000208	*	Pleasant River	130.39	243	13	2
ME	0105000209	*	Narraguagus River	245.16	826	47	2
ME	0105000210	*	Tunk Stream	48.41	1076	15	2
ME	0105000212	*	Graham Lake	495.07	1908	20	2,4c
ME	0105000214	*	Lamoine Coastal	256.14	180	11	2
ME	0106000101	*	Sebago Lake	441.76	306	13	2
ME	0106000103	*	Presumpscot River	205.44	15	4	2
ME	0106000105	*	Fore River	54.46	1	1	2
ME	0106000305	*	Salmon Falls River	242.91	150	1	2
Totals within Category 1:					**295,443**	**2,857**	

* Lakes within this HUC can be found under other listing categories (see right column)

Category 2: Lake Waters Within Hydrologic Unit Attaining Some Designated Uses - Insufficient Information for Other Uses (HUCs with lakes added are in bold)

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 2 (Acres)	# of Lakes within the HUC listed in Category 2	Other listing categories having lakes within this HUC
ME	0101000108	*	Little Black River	261.73	3	1	1
ME	0101000109	*	St. John River above St. Francis	176.48	41	4	1
ME	0101000110	*	St. Francis River	228.41	330	2	1
ME	0101000111	*	St. John River at Fort Kent	184.38	266	7	
ME	0101000112	*	St. John River at Madawaska	310.29	3	1	
ME	0101000113	*	St. John River at Grand Isle	16.18	16	1	
ME	0101000114	*	St. John River at Van Buren	64.98	4	3	1
ME	0101000115	*	St. John River (11) at Hamlin	102.19	41	7	
ME	0101000116	*	St. John River (12) at Tobique River	0.41	19	1	
ME	0101000117	*	St. John River (13) at Woodstock NB	40.37	28	6	
ME	0101000121	*	Green and Big Rivers at Van Buren	948.13	11	6	
ME	0101000207	*	Allagash River	320.93	1	1	1
ME	0101000302	*	St. Froid Lake	273.95	4874	2	1
ME	0101000303	*	Eagle Lake	353.06	20281	15	1,4a
ME	0101000304	*	Fish River	133.44	792	18	1
ME	0101000404	*	Umcolcus Stream	82.6	2	2	1
ME	0101000405	*	St. Croix Lake	112.34	416	1	1
ME	0101000407	*	Aroostook R (1) at Masardis Gauging Station	175.93	338	21	1
ME	0101000408	*	Squa Pan Stream	81.21	17	1	4c
ME	0101000411	*	Aroostook R (2) at Washburn Gauging Station	348.8	340	4	1
ME	**0101000412**	*	**Aroostook River (3) at Caribou**	**289.41**	**442**	**16**	**1,4a**
ME	0101000413	*	Aroostook River (4) at Mouth in Canada	499.04	1948	34	1,4a
ME	0101000501	*	Big Presque Isle Stream	232.18	214	24	1,4a
ME	0101000502	*	South Branch Meduxnekeag River	64.55	290	7	1
ME	0101000503	*	North Branch Meduxnekeag River	147.7	138	10	1
ME	0101000504	*	Meduxnekeag River at Woodstock NB	300.02	1868	45	
ME	0102000102	*	Seeboomook Lake	266.8	6460	3	1
ME	0102000103	*	WEST Branch Penobscot R at Chesuncook Lk	314.76	22	1	1

Category 2: Lake Waters Within Hydrologic Unit Attaining Some Designated Uses - Insufficient Information for Other Uses (HUCs with lakes added are in bold)

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 2 (Acres)	# of Lakes within the HUC listed in Category 2	Other listing categories having lakes within this HUC
ME	0102000109	*	West Branch Penobscot River (3)	245.71	8	2	1
ME	0102000110	*	West Branch Penobscot River (4)	211.31	554	5	1
ME	0102000201	*	Webster Brook	289.69	58	1	1
ME	0102000204	*	Seboeis River	268.31	1242	10	1
ME	0102000205	*	East Branch Penobscot River (3)	269.47	7	1	1
ME	0102000301	*	West Branch Mattawamkeag River	368.52	5218	43	1
ME	0102000302	*	East Branch Mattawamkeag River	165.95	2732	16	1
ME	0102000303	*	Mattawamkeag River (1)	102.28	70	1	
ME	0102000304	*	Baskahegan Stream	233.6	10280	6	1
ME	0102000305	*	Mattawamkeag River (2)	276.47	443	12	1
ME	0102000306	*	Molunkus Stream	233.59	1591	13	1
ME	0102000307	*	Mattawamkeag River (3)	127.82	804	14	
ME	0102000401	*	Piscataquis River (1)	264.05	3406	46	1
ME	0102000402	*	Piscataquis River (3)	178.58	1253	19	
ME	0102000403	*	Sebec River	351.1	14497	64	1
ME	0102000404	*	Pleasant River	339.32	14	4	1
ME	0102000405	*	Seboeis Stream	161.16	4445	14	1
ME	0102000406	*	Piscataquis River (4)	164.69	7515	32	
ME	0102000501	*	Penobscot River (1) at Mattawamkeag	161.07	928	8	1
ME	0102000502	*	Penobscot River (2) at West Enfield	298.2	5581	17	1
ME	0102000503	*	Passadumkeag River	398.81	8073	20	1
ME	0102000504	*	Olamon Stream	53.88	318	3	1
ME	0102000505	*	Sunkhaze Stream	94.65	4	1	1
ME	0102000506	*	Penobscot River (3) at Orson Island	112.65	6	4	
ME	0102000507	*	Birch Stream	54.55	103	3	
ME	0102000508	*	Pushaw Stream	238.53	6058	16	1
ME	0102000509	*	Penobscot River (4) at Veazie Dam	140.5	2253	25	
ME	0102000510	*	Kenduskeag Stream	191.28	174	5	

Category 2: Lake Waters Within Hydrologic Unit Attaining Some Designated Uses - Insufficient Information for Other Uses (HUCs with lakes added are in bold)

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 2 (Acres)	# of Lakes within the HUC listed in Category 2	Other listing categories having lakes within this HUC
ME	**0102000511**	*	**Souadabscook Stream**	**177.79**	**1189**	**14**	
ME	0102000512	*	Marsh River	168.72	438	20	
ME	0102000513	*	Penobscot River (6)	290.37	6098	25	
ME	0103000102	*	Moose River (2) above Attean Pond	180.94	19	1	1
ME	0103000103	*	Moose River (3) at Long Pond	307.3	9581	24	1
ME	0103000105	*	Moosehead Lake	549	79454	12	1
ME	0103000106	*	Kennebec River (2) above The Forks	323.12	3051	17	1
ME	0103000201	*	North Branch Dead River	200.89	48	5	1
ME	0103000202	*	South Branch Dead River	147.96	657	10	1
ME	0103000203	*	Flagstaff Lake	173.02	83	6	1,4c
ME	0103000204	*	Dead River	357.53	385	23	1
ME	0103000301	*	Kennebec River (4) at Wyman Dam	158.85	4700	21	1
ME	0103000302	*	Austin Stream	89.87	882	11	1
ME	0103000303	*	Kennebec River (6)	110.29	337	16	1
ME	0103000304	*	Carrabassett River	396.83	3615	42	1
ME	0103000305	*	Sandy River	592.92	3741	88	1,4a
ME	0103000306	*	Kennebec River at Waterville Dam	410.5	3280	43	
ME	0103000307	*	Sebasticook River at Pittsfield	316.21	7012	28	
ME	0103000308	*	Sebasticook River (3) at Burnham	266.25	2936	14	4a
ME	0103000309	*	Sebasticook River (4) at Winslow	365.58	1898	47	4a
ME	0103000310	*	Messalonskee Stream	207.64	8249	50	4a,5a
ME	**0103000311**	*	**Cobbosseecontee Stream**	**216.27**	**10654**	**48**	**4a,5a**
ME	0103000312	*	Kennebec River at Merrymeeting Bay	314.46	1751	34	1,4a
ME	0104000101	*	Mooselookmeguntic Lake	473.72	32243	45	1
ME	0104000102	*	Umbagog Lake Drainage	122.05	8353	4	1
ME	0104000104	*	Magalloway River	195.1	650	9	
ME	0104000106	*	Middle Androscoggin River	268.68	24	1	
ME	0104000201	*	Gorham-Shelburne Tributaries	154.72	7	1	

Category 2: Lake Waters Within Hydrologic Unit Attaining Some Designated Uses - Insufficient Information for Other Uses (HUCs with lakes added are in bold)

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 2 (Acres)	# of Lakes within the HUC listed in Category 2	Other listing categories having lakes within this HUC
ME	0104000202	*	Androscoggin River (2) at Rumford Point	308.23	713	5	1
ME	0104000203	*	Ellis River	164.26	1258	6	1
ME	0104000204	*	Ellis River	202.35	108	11	1
ME	0104000205	*	Androscoggin River (3) above Webb River	245.05	3461	11	1
ME	0104000206	*	Androscoggin River (4) at Riley Dam	203.85	9886	53	
ME	0104000207	*	Androscoggin River (5) at Nezinscot River	178.75	1743	29	
ME	0104000208	*	Nezinscot River	83.22	3591	16	
ME	0104000209	*	Androscoggin R (6) above Little Androscoggin	353.1	10255	58	1
ME	0104000210	*	Little Androscoggin River	262.87	614	28	4a
ME	0105000101	*	Spednick Lake	411.52	35904	10	1
ME	0105000103	*	West Grand Lake	224.54	31174	22	1
ME	0105000104	*	Big Musquash Stream	114.17	3218	10	1
ME	0105000105	*	Big Lake at Peter Dana Point	121.07	10334	4	1
ME	0105000106	*	Tomah Stream	153.03	239	7	1
ME	0105000107	*	St. Croix River (3) at Grand Falls	70.2	7627	4	
ME	0105000108	*	St. Croix River (6) at Robbinston	323.71	2792	20	
ME	0105000201	*	Dennys River	130.64	10294	5	1
ME	0105000202	*	Pennamaquan River	54.4	2025	10	
ME	0105000203	*	Grand Manan Channel	246.09	3332	12	1
ME	0105000204	*	East Machias River	311.96	15289	26	1
ME	0105000205	*	Machias River	498.35	1948	14	1
ME	0105000206	*	Roque Bluffs Coastal	83.23	167	4	
ME	0105000208	*	Pleasant River	130.39	1201	15	1
ME	0105000209	*	Narraguagus River	245.16	2382	17	1
ME	0105000210	*	Tunk Stream	48.41	2466	6	1
ME	0105000211	*	Bois Bubert Coastal	75.62	53	6	
ME	0105000212	*	Graham Lake	495.07	18596	93	1,4c
ME	0105000213	*	Union River Bay	126.78	4117	12	

Category 2: Lake Waters Within Hydrologic Unit Attaining Some Designated Uses - Insufficient Information for Other Uses (HUCs with lakes added are in bold)

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 2 (Acres)	# of Lakes within the HUC listed in Category 2	Other listing categories having lakes within this HUC
ME	0105000214	*	Lamoine Coastal	256.14	3300	51	1
ME	0105000215	*	Mt. Desert Coastal	108.01	2626	44	
ME	0105000216	*	Bagaduce River	81.92	1250	12	
ME	0105000217	*	Stonington Coastal	140	1030	55	
ME	0105000218	*	Belfast Bay	91.6	2254	25	
ME	0105000219	*	Ducktrap River	33.17	993	16	
ME	0105000220	*	West Penobscot Bay Coastal	162.7	1989	31	4a
ME	0105000301	*	St. George River	278.44	8010	100	
ME	0105000302	*	Medomak River	152.87	1554	38	
ME	0105000303	*	Johns Bay	46.94	2766	15	
ME	0105000304	*	Damariscotta River	115.51	4604	21	
ME	0105000305	*	Sheepscot River	250.89	4366	55	
ME	0105000306	*	Sheepscot Bay	113.16	514	36	
ME	0105000307	*	Kennebec River Estuary	89.51	723	16	4a
ME	0106000101	*	Sebago Lake	441.76	45688	76	1
ME	0106000102	*	Royal River	140.93	769	12	
ME	0106000103	*	Presumpscot River	205.44	3261	30	1
ME	0106000104	*	Scarborough River	53.72	10	3	
ME	0106000105	*	Fore River	54.46	45	11	1
ME	0106000106	*	Casco Bay Coastal Drainages	170.01	368	32	
ME	0106000204	*	Saco River-Lovewell Pond	566.22	7340	58	
ME	0106000205	*	Saco River at Ossipee River	114.23	4180	49	
ME	0106000209	*	Ossipee River	122.89	2052	31	
ME	0106000210	*	Little Ossipee River	185.21	4287	73	
ME	0106000211	*	Saco River at mouth	220.24	1513	41	
ME	0106000301	*	Kennebunk River	59.18	319	9	
ME	0106000302	*	Mousam River	116.97	3232	39	
ME	0106000303	*	South York County Coastal Drainages	155.09	594	37	

Category 2: Lake Waters Within Hydrologic Unit Attaining Some Designated Uses - Insufficient Information for Other Uses (HUCs with lakes added are in bold)

HUC			HUC Name	Total HUC Area (Sq. Miles)	Lake Area within the HUC listed in Category 2 (Acres)	# of Lakes within the HUC listed in Category 2	Other listing categories having lakes within this HUC
ME	0106000304	*	Great Works River	86.67	519	22	
ME	0106000305	*	Salmon Falls River	242.91	3766	20	1
ME	0106000310	*	Coastal Drainages-Portsmouth Harb.to Salisbury	65.19	39	8	
Totals within Category 2:					606,945**	2,894**	

* Lakes within this HUC can be found under other listing categories (see right column)
** Totals do not include 6 lakes (22 Acres) occurring on islands and not currently assigned to a HUC

Category 3: Lake Waters with Insufficient Data or Information to determine if Designated Uses are Attained

HUC			Lake Name	Lake ID	Lake Area (Acres)	Date of Last Visit; Year of Likely Next Visit		Comments	Other listing categories having lakes within this HUC	2010 Listing Category
Total acreage for lakes within Categoy 3:					0					

Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury

All freshwaters are listed in Category 4-A (TMDL Completed) due to US EPA approval of a Regional Mercury TMDL in 2007. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources.

Category 4-A: Lake Waters with Impaired Use other than mercury, TMDL Completed

HUC			Lake Name	Lake ID	Lake Area (Acres)	Date of Last Visit; Year of Likely Next Visit		TMDL Year approved by EPA (Impaired use & notes)	Other listing categories having lakes within this HUC	2010 Listing Cat.
ME	0101000303	*	CROSS L	1674	2515	2009	2013	2006 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0101000303	*	DAIGLE P	1665	36	2006	2015	2006 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0101000412	*	ARNOLD BROOK L	409	395	2009	2015	2007 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0101000413	*	MONSON P	1820	160	2005	2011	2006 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0101000413	*	TRAFTON L	9779	85	2009	2011	2006 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0101000501	*	CHRISTINA RESERVOIR	9525	400	2004	2011	2010 (Prim. Cont, stable, chronic bloomer)	1, 2	4a
ME	0103000305	*	TOOTHAKER P	2336	30	2010	2011	2004 (Prim.Contact, stable, blooms persist)	1,2	4a
ME	0103000308	*	SEBASTICOOK L	2264	4288	2010	2011	2001 (Prim.Contact, slow improve., blooms persist)	2	4a
ME	0103000309	*	CHINA L	5448	3845	2010	2011	2001 (Prim.Contact, stable, blooms persist)	2,4a	4a
ME	0103000309	*	LOVEJOY P	5176	324	2009	2011	2004 (Prim.Contact, stable, blooms persist)	2,4a	4a
ME	0103000309	*	UNITY P	5172	2528	2010	2011	2004 (Prim.Contact, stable, blooms persist)	2,4a	4a
ME	0103000310	*	EAST P	5349	1823	2010	2011	2001 (Prim.Contact, blooms persist; deteri trophic trd)	2,5a	4a
ME	0103000310	*	LONG P	5272	2714	2010	2011	2008 (Aq. Life – trophic trend)	2,5a	4a
ME	0103000311	*	ANNABESSACOOK L	9961	1420	2010	2011	2004 (Prim.Contact; blooms persist; poss. Improve.)	2,3,4a	4a
ME	0103000311	*	PLEASANT (MUD) P	5254	746	2010	2011	2004 (Prim.Contact, stable, blooms persist)	2,3,4a	4a
ME	0103000311	*	WILSON P	3832	582	2010	2011	2007 (Trophic trend)	2,3,4a	4a
ME	0103000312	*	THREEMILE P	5416	1162	2010	2011	2003 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0103000312	*	TOGUS P	9931	660	2010	2011	2005 (Prim.Contact, stable, occas.bloom)	1,2,4a	4a
ME	0103000312	*	WEBBER P	5408	1201	2010	2011	2003 (Prim.Contact, stable, blooms persist)	1,2,4a	4a
ME	0104000210	*	SABATTUS P	3796	1962	2010	2011	2004 (Prim.Contact, stable perhaps improving	2	4a
ME	0105000220	*	LILLY P	83	29	2008	2013	2005 (Prim.Contact, stable)	2	4a
ME	0105000307	*	SEWALL P	9943	46	2010	2013	2006 (Prim.Contact, stable)	2	4a
Total acreage for 22 lakes with Category 4A:					**26,951**					

* Lakes within this HUC can be found under other listing categories (see column second in from right)

Category 4-C: Lake Waters with Impairment not Caused by a Pollutant

HUC			Lake Name	Lake ID	Lake Area (Acres)	Date of Last Visit; Year of Likely Next Visit		Comment (Impaired use)	Other listing categories having lakes within this HUC	2012 Listing Category
ME	0101000408	*	SCOPAN L	1654	5120	2001	**2014**	Non-att.d/t non-poll. (Aquatic Life: draw down)	2	4c
ME	0103000104	*	BRASSUA L	4120	8979	1996	**2014**	Non-att.d/t non-poll. (Aquatic Life: draw down)	1	4c
ME	0103000203	*	FLAGSTAFF L	38	20300		**2014**	Non-att.d/t non-poll. (Aquatic Life: draw down)	1,2	4c
ME	0104000103	*	AZISCOHOS L	3290	6700	2010	**2014**	Non-att.d/t non-poll. (Aquatic Life: draw down)	1	4c
ME	0105000212	*	GRAHAM L	4350	7865	2008	**2014**	Non-att.d/t non-poll. (Aquatic Life: draw down)	1,2,3	4c
Total acreage for 5 lakes within Category 4C:					**48,964**					

* Lakes within this HUC can be found under other listing categories (see column second in from right)

Category 5-A: Lake Waters Needing TMDLs

HUC			Lake Name	Lake ID	Lake Area (Acres)	Date of Last Visit; Year of Likely Next Visit	Impaired Use	TMDL (Target Dates)	Priority	Other listing categories having lakes within this HUC	2010 Listing Category
ME	**0103000311**	*	**COCHNEWAGON P**	**3814**	**410**	**2010 2011**	**Aquatic Life; Primary Contact; trophic trend/internal recycling**	**2016**	**1**	**2,4a**	**3**
ME	0103000310	*	GREAT P	5274	8239	2010 2011	Aquatic Life: trophic trend, lowDO, Gloeotrichia blooms	**2016**	**2**	2,4a	5a
Total acreage for 2 lakes in Category 5a:					**8,649**						

* Lakes within this HUC can be found under other listing categories (see column second in from right)

Category Listing Change Summary: 2010 to 2012 (5 Lakes)

HUC	Lake Name	Lake ID	Acres	2010 ListCat	2012 ListCat*	Notes
0101000412	ECHO L	1776	90	4a	2	Now stable, occasional blooms
0103000311	COBBOSSEECONTEE (LT)	8065	75	4a	2	Now stable, occasional blooms
0103000311	COCHNEWAGON P	3814	410	3	5a	Alum treatment no longer effective
0103000511	HERMON P	2286	461	5a	2	Paleo evidence indicates naturally eutrophic
0103000511	HAMMOND P	2294	83	5a	2	Paleo evidence indicates naturally eutrophic
Total acreage for 5 lakes moved to a new Listing Category in 2012			1,119			

* Lakes currently listed in Categories 1 or 2 do not appear individually in their respective Appendix III tables but rather are included in the overall lake summary for the HUC.

APPENDIX IV MAINE WETLANDS ASSESSMENT

Category 1: Wetland Habitat Fully Attaining All Designated Uses

NO WETLAND SEGMENTS ARE CURRENTLY LISTED IN CATEGORY 1.

Note 1: ADB Assessment Unit ID prefix for wetlands corresponds to the associated river/stream or lake assessment units

Note 2: Bold text indicates waters that were moved into Category 23 during this reporting cycle

Category 2: Wetland Habitat Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS
ME0101000201_119R_W125	Pillsbury Deadwater		Undetermined Size	Class A	
ME0101000403_1990_W120	Mooseleuk Lake		Undetermined Size	Class GPA	Cat 1 on river/stream (r/s) and lakes tables
ME0101000410_1784_W114	Salmon Brook Lake		Undetermined Size	Class GPA	
ME0101000502_153R_W122	South Branch Meduxnekeag River		Undetermined Size	Class B	
ME0101000504_1034_W118	Green Pond	MEDUXNEKEAG RIVER	Undetermined Size	Class GPA	
ME0101000504_1736_W117	Drews Lake		Undetermined Size	Class GPA	
ME0102000305_3092_W123	Mud Pond (Drew Plt)		Undetermined Size	Class GPA	Mattawamkeag RIiver Wildlife Management Area
ME0102000205_2036_W226	**Widden Pond #2**	**Baxter State Park**	**Undetermined size**	**Class GPA**	
ME0102000401_214R_W126	West Shirley Bog		Undetermined Size	Class A	
ME0102000503_221R_W149	Passadumkeag River		Undetermined Size	Class A	
ME0103000203_309R_W169	Stratton Brook Pond		Undetermined Size	Class A	
ME0103000204_5110_W170	Baker Pond		Undetermined Size	Class GPA	
ME0103000205_310R_W073	Dead River Tributary		Undetermined Size	Class A	

Category 2: Wetland Habitat Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS
ME0103000205_310R_W166	Black Brook (Carrying Place Town Twp)		Undetermined Size	Class A	
ME0103000306_18_W069	Bauds Pond		Undetermined Size	Class GPA	Stump Pond Wildlife Management Area
ME0103000307_4_W167	Gilman Pond		Undetermined Size	Class GPA	
ME0103000308_74_W068	Fahi Pond	Wildlife Management Area	Undetermined Size	Class GPA	
ME0103000311_317R_W063	Mosher Pond		Undetermined Size	Class B	
ME0103000311_317R_W064	Little Norridgewock Stream		Undetermined Size	Class B	Chesterville Wildlife Management Area
ME0103000314_314R_W164	West Branch Cold Stream		Undetermined Size	Class B	
ME0103000315_320R_W067	Cannan Bog		Undetermined Size	Class B	
ME0103000317_324R_W066	Madawaska Bog		Undetermined Size	Class B	Wildlife Management Area
ME0103000319_2276_W147	Plymouth Pond		Undetermined Size	Class GPA	
ME0103000320_326R_W071	Carlton Stream		Undetermined Size	Class B	
ME0103000320_41_W070	Carlton Bog		Undetermined Size	Class GPA	
ME0103000321_329R_W077	Pattee Pond Brook		Undetermined Size	Class B	
ME0103000322_5280_W-76	Messalonskee Lake		Undetermined Size	Class GPA	
ME0103000323_334R_W158	Horseshoe Pond		Undetermined Size	Class B	
ME0103000323_5302_W157	Jamie's Pond		Undetermined Size	Class GPA	
ME0103000324_335R_W061	Brann Brook		Undetermined Size	Class B	Garcelon Wildlife Management Area
ME0104000203_407R_W096	Meadow Brook (Rumford)		Undetermined Size	Class A	
ME0104000206_411R_W095	Hopkins Stream		Undetermined Size	Class B	
ME0104000206_5656_W197	Cranberry Pond		Undetermined Size	Class GPA	
ME0104000207_3476_W190	Washburn Pond		Undetermined Size	Class GPA	
ME0104000207_3600_W191	Little Labrador Pond		Undetermined Size	Class GPA	
ME0104000207_412R_W109	Bunganock Brook		Undetermined Size	Class B	
ME0104000207_412R_W187	Brettun's Pond South		Undetermined Size	Class B	
ME0104000209_3760_W185	Lower Range Pond		Undetermined Size	Class GPA	
ME0104000209_415R_W178	**Bog Brook (Minot)**		**Undetermined size**	**Class B**	

Category 2: Wetland Habitat Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS
ME0104000209_9693_W195	Bird Pond		Undetermined Size	Class GPA	
ME0104000210_418R_W100	Curtis Bog		Undetermined Size	Class B	
ME0104000210_420R_W091	Cathance River Tributary		Undetermined Size	Class B	
ME0104000210_5258_W092	Ceasar Pond		Undetermined Size	Class GPA	
ME0105000104_502R_W150	Big Musquash Stream		Undetermined Size	Class A	
ME0105000201_1386_W156	Great Works Pond		Undetermined Size	Class GPA	Wildlife Management Area
ME0105000221_4880_W135	Cross Pond		Undetermined Size	Class GPA	
ME0105000221_521R_W137	Hurd's Pond Inlet		Undetermined Size	Class B	
ME0105000301_4918_W163	Trues Pond		Undetermined Size	Class GPA	
ME0105000302_525R_W083	Pettengill Stream		Undetermined Size	Class A	
ME0105000302_5692_W159	Medomak Pond		Undetermined Size	Class GPA	
ME0105000303_526R_W168	Pemaquid River		Undetermined Size	Class B	
ME0105000304_5382_W161	Clary Lake		Undetermined Size	Class GPA	
ME0105000304_7911_W162	Dead Water Slough		Undetermined Size	Class GPA	
ME0106000101_3230_W130	Black Pond		Undetermined Size	Class GPA	
ME0106000101_3370_W032	Holt Pond		Undetermined Size	Class GPA	
ME0106000101_3458_W021	Otter Pond		Undetermined Size	Class GPA	
ME0106000101_5786_W007	Unnamed Tributary To Sebago Lake	Upstream (north) of Smith Mill Rd in Standish	Undetermined Size	Class GPA	
ME0106000101_605R_W008	Songo Pond Inlet Wetland	Tributary to Songo Pond; including wetland stations W-008, W-134 and W-222	7	Class AA	
ME0106000101_605R_W019	Duck Pond Brook		Undetermined Size	Class A	
ME0106000101_606R_W013	**Northwest River**	**Wetland complex tributary to Sebago Lake; includes wetland stations W-013 and W-131**	**165**	**Class A**	
ME0106000101_606R_W022	Unnamed Tributary To Holt Pond		Undetermined Size	Class A	

Category 2: Wetland Habitat Attaining Some Designated Uses - Insufficient Information for Other Uses

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS
ME0106000102_603R_W002	**Unnamed Tributary to Royal River**	**Wetland near Tufts/Weymouth Rd New Gloucester, wetland station W-002**	**33**	**Class B**	
ME0106000103_607R_W033	**Morgan Meadow**	**above dam, includes wetland stations W-033 and W-225**	**Undetermined size**	**Class B**	
ME0106000103_607R12_W004	Gray Meadow (Pleasant River)	Wetlands in headwaters of Pleasant River, Gray. Wetland Stations W-004, W-005 and W-030	190	Class B	
ME0106000204_613R_W056	Brownfield Bog	Includes wetland sites W-056 and W-057	Undetermined Size	Class A	
ME0106000205_613R_W048	Unnamed Pond (Hiram)		Undetermined Size	Class A	
ME0106000209_3190_W045	Spruce Pond		Undetermined Size	Class GPA	
ME0106000210_615R_W040	Black Brook (Limington)		Undetermined Size	Class B	
ME0106000210_615R_W046	Head Of Pendexter Brook		Undetermined Size	Class B	
ME0106000210_615R_W047	Unnamed Tributary To Branch Brook		Undetermined Size	Class B	
ME0106000210_615R_W058	Swetts Meadow		Undetermined Size	Class B	
ME0106000211_613R_W038	Kelly Brook		Undetermined Size	Class B	
ME0106000211_613R_W039	Quaker Brook		Undetermined Size	Class B	
ME0106000211_613R_W059	Tucker Brook		Undetermined Size	Class B	
ME0106000211_616R_W042	Bartlett Brook		Undetermined Size	Class B	
ME0106000302_623R_W044	Unnamed Tributary To Bunganut Pond		Undetermined Size	Class B	
ME0106000302_623R_W051	Unnamed Tributary To Mousam Lake		Undetermined Size	Class B	
ME0106000302_623R_W211	Carpenter Brook		Undetermined size	Class B	

Note 1: ADB Assessment Unit ID prefix corresponds to the associated river/stream or lake assessment units

Note 2: Bold text indicates waters that were moved into Category 3 during this reporting cycle

Category 3: Wetland Habitat With Insufficient Data Or Information To Determine If Designated Uses Are Attained (One Or More Uses May Be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0101000501_149R_ W200	**Tributary wetlands to Prestile Stream above dam in Mars Hill**	**includes site W-200**	**2**	**Class B**	**5/7/12: 2009 wetland biomonitoring shows impairment.**	**2014**
ME0101000501_149R01 _W203	**Prestile Stream wetlands above dam in Mars Hill**	**outlet of Christina Reservoir to dam in Mars Hill, including sites W-203 and W-204**	**125**	**Class A**	**5/7/12: 2009 wetland biomonitoring shows impairment at both sites; consider including these sites in the approved TMDL. Segment also listed as 5-D for legacy DDT sources. 3/29/12: EPA approval of TMDL (5/10/10), corresponding river/stream AU delisted to Category 4A (invertebrates, nutrients and DO). New river/stream 4A listing for Aquatic Life Use due to algae (periphyton) non-attainment - impairment covered under approved TMDL.**	**2014**
ME0101000501_9525_W 115	Christina Reservoir wetlands	wetland station W-115	127	Class GPA	January 2012: 2004 wetland biomonitoring showed impairment. 2009 wetland biomonitoring was indeterminate.	2014
ME0102000513_226R03 _W106	Penjajawoc Marsh	wetland site W-106	214	Class B	2/22/12: 2003 wetland biomonitoring shows impairment. AU ID corrected, was ME0102000510_226R_W106.	2016
ME0103000308_325R03 _W088	Mulligan Stream Impoundment (St Albans)	wetland station W-088	175	Class GPA	2/22/12: 2002 and 2007 wetland biomonitoring shows conflicting results. AU formerly called 'St Albans Game Management Pond '	2012
ME0103000324_333R_0 1_W062	Unnamed tributary to Riggs Brook, Augusta Wetland	downstream of Hatch Hill Landfill in Augusta	24	Class B	November 2011: 2002 and 2007 wetland biomonitoring data shows conflicting results. Formerly called 'Headwater Tributary To Riggs Brook'. AU ID corrected, was ME0103000324_333R_W062.	2012

Category 3: Wetland Habitat With Insufficient Data Or Information To Determine If Designated Uses Are Attained (One Or More Uses May Be Impaired)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS	SCHEDULED MONITORING DATE
ME0104000208_413R03_W183	Stetson Brook (Lewiston) wetlands	wetland station W-183	13	Class B	February 2012: Wetland bioassessment shows impairment, resample to confirm. corresponding r/s segment also in 5A table for DO.	2013
ME0104000210_3796_W099	SABATTUS POND wetland	wetlands at lake inlet (north end of lake)wetlands at lake inlet (north end of lake), wetland site W-099	89	Class GPA	December 2011: 2003 biological monitoring shows non-attainment, need to resample.	2013
ME0104000210_418R02_W101	No Name Brook (Lewiston) wetland	wetlands along No Name Brook in Lewiston, includes biomonitoring station W-101 and W-102	120	Class B	May 2012: AU ID corrected, was ME0104000210_418R02_W102. Corresponding river/stream AU is in Category 5A for Dissolved Oxygen.	2013
ME0106000105_610R03_W028	Long Creek headwater wetlands	Wetland Stations W-027 (headwater) and W-028 (below Gannet Drive)	26	Class C	January 2012: Wetland bioassessment shows conflicting results, need to resample. Formerly called 'Head Of Long Creek'; AU ID corrected, was ME0106000104_610R_W027. River/stream segment has been moved to Category 4B due to Stormwater General Permit, MEPDES MEG190000.	2015
ME0106000302_628R01_W053	**Number One Pond wetlands (Sanford)**	**Wetland station W-053**	**51**	**Class GPA**		**2015**

Note 1: ADB Assessment Unit ID prefix corresponds to the associated river/stream or lake assessment units

Note 2: Bold text indicates waters that were moved into Category 4-A during this reporting cycle

Category 4-A: Wetland Habitat with Impaired Use, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (ACRES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000105_607R11_01_W127	**Nasons Brook Wetland Complex, Portland**	**Wetland complex draining to Fore River including wetland station W-127**	**Benthic - Macroinvertebrate Bioassessments (Wetlands)**	**8**	**Class C**	**42467**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 3/27/2012: This unit (fomerly called 'Nason's Brook') was split into two due to differences in statutory class; the Portland segment is Class C, the new upstream Westbrook segment (AU ME0106000105_607R11_02_W172) is Class B. 2010: impaired as determined by 2005 wetland bioassessment.**
ME0106000105_607R11_02_W172	**Nasons Brook Wetland Complex, Westbrook**	**Wetland complex draining to Fore River including wetland station W-172**	**Benthic - Macroinvertebrate Bioassessments (Wetlands)**	**11**	**Class B**	**42495**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. 3/26/12: New Assessment Unit, resulting from splitting of AU ME0106000105_607R11_01_W127, Nasons Brook Wetland Complex (fomerly called 'Nason's Brook'), into 2 due to differences in statutory class. 2010: impaired as determined by 2008 wetland bioassessment.**
ME0106000105_609R01_W026	**Dole Brook wetlands**	**Tributary to Presumpscot R, entering east of Rt. 302 in Portland, wetland stations W-025 and W-026**	**Benthic - Macroinvertebrate Bioassessments (Wetlands)**	**14**	**Class B**	**42460**	**9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL. February 2012: Wetland biological monitoring showed impairment in 2000 and 2010. Previous name of this AU was 'DOLE BROOK (Formerly Known As 'Unnamed Stream- Portland 3')'.**

Category 4-A: Wetland Habitat with Impaired Use, TMDL Completed

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (ACRES)	SEGMENT CLASS	TMDL NUMBER	COMMENTS
ME0106000105_610R01_W023	Capisic Pond wetland	Capisic Pond wetland stations W-023 and W-224	Benthic - Macroinvertebrate Bioassessments (Wetlands)	9	Class C	42456	9/27/2012: Aquatic life use impairments now Category 4-A due to approval of Statewide % Impervious Cover TMDL.
ME0106000211_616R05_W043	Thacher Brook (Biddeford) wetland	Wetland station W-043, upstream (south) of Rt 111, Biddeford	Benthic - Macroinvertebrate Bioassessments (Wetlands)	9	Class B	42478	9/27/2012: Aquatic life use impairment now Category 4-A due to approval of Statewide % Impervious Cover TMDL. TMDL uses the spelling 'Thatcher'. 2010: wetland bioassessment shows impairment.

Note 1: ADB Assessment Unit ID prefix corresponds to the associated river/stream or lake assessment units

Category 4-B: Wetland Habitat Impaired By Pollutants - Pollution Control Requirements Reasonably Expected To Result In Attainment

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS	EXPECTED TO ATTAIN DATE
ME0103000308_325R01_W080	East Branch Sebasticook River Wetland Between Corundel Pond and Sebasticook Lake, wetland site W-080	Between Corundel Pond and Sebasticook Lake, wetland site W-080	Benthic - Macroinvertebrate Bioassessments (Wetlands)	212	Class C	**May 2012: Formerly known as 'East Branch Sebasticook River Corundel Pd To Sebasticook L'. New listing for benzene (inferred from related river AU). December 2011: 2002 Wetland biomonitoring showed impairment. Resample in 2012. Corinna superfund site upstream. River/stream segment attained aquatic life criteria in 2003 and 2007. Also in Category 5-D for legacy PCBs and Dioxin.**	2010
ME0103000308_325R01_W080	**East Branch Sebasticook River Wetland**	**Between Corundel Pond and Sebasticook Lake, wetland site W-080**	**Benzene**	**212**	**Class C**		**2010**
ME0106000301_622R02_W176	Lord's Brook Pond wetland	Wetland station W-176, pond downstream of Winterwood Farm	Benthic - Macroinvertebrate Bioassessments (Wetlands)	6	Class B	May 2012: AU ID corrected, was ME0106000301_622R_W176 2010 cycle: 2008 wetland bioassessment shows impairment. River/stream segment moved to Category 4B- court-ordered controls in place. Expected to attain 2014.	2014

Note 1: ADB Assessment Unit ID prefix corresponds to the associated river/stream or lake assessment units

Note 2: Bold text indicates waters that were moved into Category 5-A during this reporting cycle

Category 5-A: Wetland Habitat Impaired By Pollutants Other Than Those Listed In 5-B Through 5-D (TMDL Required)

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (ACRES)	SEGMENT CLASS	TMDL PRIORITY	COMMENTS
ME0104000210_418R01_W188	Sabattus River Wetland, between Sabattus P and Rt 126	Wetland site W-188, between Sabattus Pond and Rt 126 in Sabattus	Benthic - Macroinvertebrate Bioassessments (Wetlands)	3	Class C	L	June 2012: associated river/stream segment listed (Category 5A) for DO and Nutrients. AU name changed to clarify extent. September 2011: 2008 wetland biomonitoring shows non-attainment.
ME0106000302_628R01_02_W054	**Unnamed tributary wetland to Mousam River, Sanford**	**Wetland Station W-054**	**Benthic - Macroinvertebrate Bioassessments (Wetlands)**	**1.5**	**Class B**	**L**	**3/26/2012: 2001 and 2010 wetland bioassessment shows impairment. AU ID corrected, was ME0106000302_623R_W054.**

Note 1: ADB Assessment Unit ID prefix corresponds to the associated river/stream or lake assessment units

Note 2: Bold text indicates waters that were moved into Category 5-D during this reporting cycle

Category 5-D: Wetland Habitat Impaired by Legacy Pollutants

ADB ASSESSMENT UNIT ID	SEGMENT NAME	LOCATION	CAUSE	SEGMENT SIZE (ACRES)	SEGMENT CLASS	COMMENTS
ME0101000501_149R01_W203	**Prestile Stream wetlands above dam in Mars Hill**	**Outlet of Christina Reservoir to dam in Mars Hill, including sites W-203 and W-204**	**DDT**	**125**	**Class A**	**5-D for legacy DDT (listing inferred from related river AU). 5/7/12 - Segment also listed in Category 3 for Benthic-Macroinvertebrate Bioassessments (Wetlands).**
ME0103000308_325R01_W080	**East Branch Sebasticook River Wetland**	**Between Corundel Pond and Sebasticook Lake, wetland site W-080**	**Dioxin (including 2,3,7,8-TCDD)**	**212**	**Class C**	**5-D for legacy PCBs and Dioxin (listing inferred from related river AU). Also in Category 4-B for Benthic-Macroinvertebrate Bioassessments (Wetlands) and benzene.**
ME0103000308_325R01_W080	**East Branch Sebasticook River Wetland**	**Between Corundel Pond and Sebasticook Lake, wetland site W-080**	**Polychlorinated biphenyls**	**212**	**Class C**	

APPENDIX V: ESTUARINE AND MARINE WATERS

Category 1: Estuarine and Marine Waters Fully Attaining All Designated Uses

NO ESTUARINE AND MARINE WATERS ARE CURRENTLY LISTED IN CATEGORY 1.

Note 1: Bold text indicates waters that were moved into Category 2 during this reporting cycle

Note 2: * indicates that segments of this waterbody can be found in other listing categories

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
826		*	Fort Foster, Kittery to Bald Head York		0.00	SB/SA			
824		*	Bald Head, York to Kennebunk R. Estuary (east bank), Kennebunkport		0.00	SB			
824-1	4B		Ogunquit & Moody Beaches	1,108	1.73	SB	Current	2 STP outfalls	
821		*	Kennebunk R. Estuary (east bank), Kennebunkport to Biddeford Pool, Biddeford		0.00	SB			
821-3	8-B		Timber Point to Fortunes Rocks, Biddeford	279	0.44	SB	Current	OBDs (Over Board Discharges)	
811		*	Biddeford Pool, Biddeford to Dyer Point (Two Lights), Cape Elizabeth		0.00	SB			
811-3	12		Prouts Neck, Scarborough	1,005	1.57	SB	Current	STP outfall	
804		*	Dyer Point (Two Lights), Cape Elizabeth to Parker Point (west bank of Royal R.), Yarmouth		0.00	SB/SA			

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
802		*	Parker Point (west Bank of Royal R.), Yarmouth to south end of Butler Cove (Merrymeeting Bay), Bath		0.00	SB/SA			
802-1	14-D		Great Chebeague Island, Cumberland	22	0.03	SB	Current	OBD	
802-3	16-C		Cousins & Littlejohn Islands, Yarmouth	60	0.09	SB	Current	STP outfall; OBDs	
802-4	17		Harraseeket River, Freeport	531	0.83	SB	Current	STP outfall	
802-10	18-C		Mere Point Neck-Birch Island, Brunswick	15	0.02	SB	Current	Improper septic systems	
802-12	18-E		Cundy's Harbor and Dingley Island, Harpswell	235	0.37	SB	Current	OBDs	
802-14	18-H		Harpswell Sound, Harpswell	55	0.09	SB	Current	OBDs	
802-15	18-I		Harpswell Fuel Depot, Harpswell	102	0.16	SB	Current	Closed originally because of presumed fuel contamination; 2002 mussel results show no contamination; Testing clams and sediments in the SWAT program	
802-16	18-M		Lookout Point & Wilson Cove, Harpswell	10	0.02	SB	Current	Horse manure runoff, but elevated fecal counts not reported	
802-17	18-R		East Harpswell and Long Island, Harpswell	15	0.02	SB	Current	Improper septic systems	
					0.00				
802-21	18AA		Little Yarmouth Island	8	0.01	SB	Current	Improper septic systems	

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
	18-P		Bombazine Is. And Foster Pt.	30	0.05	SB	Current	DMR Area open as of 12/31/10	All OBDs removed
802-22	19		Wood Island - Malaga Island, Phippsburg	350	0.55	SB	Current/ incomplete survey	Improper septic systems	Moved from Category 5 (incorrect placement in 2004?)
802-23	19-A		Birch Point, West Bath - Bear Island, Phippsburg	107	0.17	SB	Current	OBDs; septic system malfunction	All OBDs removed except for Bear Island
802-22	19B		N. Cape Small Hbr.	7	0.01	SB	Current	Septic system problems	
802-24	19-C		Dam Cove - Birch Point, West Bath	292	0.46	SB	Current	Septic system malfunction	All OBDs removed
710		*	South end of Butler Cove (Meerymeeting Bay), Bath to east point of Sagadahoc Bay, Georgetown		0.00	SB			
730		*	East point of Sagadahoc Bay, Georgetown to Ocean Point, Boothbay		0.00	SB/SA			
730-2	20-E		N.Robinhood Cove, So. Robinhood Cove, & Knubble Bay, Georgetown/Westport	674	1.05	SB	Current	OBDs, marina	Moved from Category 3
730-3	21		Indian Point, Georgetown, to Fowle Pt., Westport	2,425	3.79	SB	Current	OBDs, incomplete survey	
730-4	22		Sheepscot River	1,432	2.24	SB	Current	OBDs	
730-5	22-B		Hodgdon Island, Boothbay	249	0.39	SB	Current	OBD	Knickercane Cove - Merrow Island, Boothbay
730-5	22-C		Cameron Point. Southport	207	0.32	SB	Current	OBD, gray water discharges	Back River, Boothbay
730-7	22-F		Ovens Mouth - Sherman Creek, Boothbay – Edgecomb	162	0.25	SB	Current	OBD; NPS	All OBDs removed. Moved from Category 5, elevated fecals in 2004

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
730-8	22-G		Upper Sheepscot River	299	0.47	SB	Current	Restricted: possible NPS	No prohibited areas - 7/2/1997
730-9	23		Boothbay Harbor - Damariscove Island	7,338	11.47	SB/SA	Mainland is current	OBDs; Boats	
730-11	23-B		Southwestern Southport Island	393	0.61	SB	Current	OBDs	
729-1	24		Damariscotta River - Boothbay	693	1.08	SB	Current	OBDs; Boats	
729		*	Ocean Point, Boothbay to Pemaquid Point, Bristol		0.00	SB			
729-3	25-A		South Bristol	550	0.86	SB	Current	OBDs; Boats	
729-4	25-B		Pemaquid River, Bristol	325	0.51	SB	Current	OBDs; Boats	
726-1	25-C		New Harbor, Bristol	162	0.25	SB	Current	OBDs; Boats	
729-5	25-E		Inner Heron Island	11	0.02	SB	no station	No station; Septic system problems	
729-6	25-F		Pemaquid Neck, Bristol	580	0.91	SB	Current	OBDs	
726-2	25-D		Long Cove Point to Muscongus Harbor, Bristol	556	0.87	SB	Current	OBDs	
726-4	25-G		Soldiers Cove, Bristol	19	0.03	SB	Current	OBDs, improper septics	
726-5	25-H		Keene Narrows, Medomak - Bremen	70	0.11	SB	Current	Marina; Septic system problems	
726-6	25-I		Muscongus Harbor, Bristol-Bremen	12	0.02	SB	Current	OBD; Boats, Septic system problems	
726-7	25-J		Eastern Farmers Island, South Bristol	13	0.02	SB	Current	OBD	
726-8	25-N		High Island to McFarlands Cove, South Bristol	173	0.27	SB	Current	Improper septic systems	OBD in 2004
726		*	Pemaquid Point, Bristol to middle north side of Back River Cove, Waldoboro		0.00	SB			

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
724		*	Middle north side of Back River Cove, Waldoboro to Marshall Point, St. George		0.00	SB			
724-3	26-B		Friendship Harbor	509	0.79	SB	Current	OBDs	
724-5	26-H		Broad Cove, Cushing	26	0.04	SB	Current	Restricted: wildlife	
724-6	26-K		Upper Meduncook Rive - Crotch Island, Cushing	27	0.04	SB	Current	Septic system problems - Crotch Island	
724-7	26-M		Pleasant Point Gut - Davis Cove, Cushing	25	0.04	SB	Current	Septic system problems	
724-9	26-0		Friendship Long Island & Vicinity, Friendship	168	0.26	SB	Current but more samples needed	Septic system problems	Moved from Category 3
724-10	27		St. George River	1,046	1.64	SB	Current	STP; seasonal closure	Moved from Category 5, elevated fecals in 2004
	27-C		Upper Bay, St. George	469	0.73	SB	Current	Conditional on STP	
724-12	28-A		Port Clyde and the St. George Islands, St. George and Cushing	390	0.61	SB	Current	OBDs; Septic system problems	
722		*	Marshall Point, St. George to Naskeag Point, Brooklin		0.00	SB/SA			
722-3	28-B		Spruce Head Island - Thorndike Point	404	0.63Breau, David P	SB	Current	OBDs; Boats; NPS	Thorndike Point and 50% of Spruce Head Island OBDs removed
722-4	28-C		Rackliff Island, St. George	65	0.10	SB	2 stations dropped in 2002	OBDs	
722-5	28-E		Ash Point-Birch Point, Owl's Head	60	0.09	SB	Current	Incomplete DMR sanitary survey; OBDs	
722-9	29-A		Owl's Head	727	1.14	SB	Current	OBDs	

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
722-12	30-A		Southwestern Vinalhaven	2,243	3.50	SB		Incomplete DMR sanitary survey; OBDs; Septic system problems	
	30-B		The Basin, Vinalhaven	35	0.05	SB	Current	Questionable plumbing	New
722-15	30-I		North Haven Island	3,985	6.23	SB	Current	OBDs; Boats	
722-18	30-L		Bartlett and Crabtree	52	0.08	SB	Current	Septic system problems	Ames Creek, North Haven
722-20	30-N		Indian Point - Burnt Island, North Haven	41	0.06	SB	Current	Septic system malfunction	OBD removed
722-25B	**35-B**	*	**Penobscot River estuary (Reeds Brook to Marsh River)**	**3,239**	**5.06**	**SC**	**1992**	**n/a**	**Initially included in coastwide 5D shellfish consumption impairment due to lobster tomalley contamination. Determination was not specific to this location. 1992 survey and 2011 DMR personal communication suggests occurence of harvestable lobster unlikely in this segment.**
722-26	36		Penobscot & Bagaduce Rivers, in Castine-Penobscot	1,632	2.55	SB/SA	Current	OBDs	lower acres--divided into 36, 36A, B & C
722-26	36-C		Harborside, Brooksville	207	0.32	SB	Current	Heavy metals	OBDs removed, new, also lists heavy metals
722-27	36-F		Islesboro	1,771	2.77	SB	Current	OBD; Boats; Septic system problems	
722-28	37		Condon Point, Brooksville, to "Herricks" Village Brooksville	547	0.85	SB	Current	OBDs	

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
722-29	37-A		Deer Isle	61	0.10	SB	Current	OBDs	
722-30	37-B		Blastow Cove, Deer Isle	7	0.01	SB	Current	DMR Area open as of 12/31/10	All OBDs removed
722-31	37-C		Heart Island, Deer Isle	9	0.01	SB	Current	OBDs	
722-32	37-E		Eggemoggin, Little Deer Isle	43	0.07	SB	Current	OBDs	
722-35	38-A		Inner Harbor, Stonington-Deer Isle	0.5	<0.01	SB	Current	OBDs (and STP)	
722-36	38-B		Burnt Cove, Stonington	75	0.12	SB	Current	OBD, formerly high fecal counts, on OBD removal list	
722-37	38-C		Fifield Point to Moose Island	51	0.08	SB	Current	OBDs	
707		*	Naskeag Point, Brooklin to Bass Harbor Head, Tremont		0.00	SB/SA			
707-1	39		Blue Hill Harbor	308	0.48	SB	Current	OBDs	
707-2	39-C		McHerd Cove - Webber Cove, East Blue Hill	42	0.07	SB	Current	OBDs	
707-3	39-D		High Head-Sand Point, South Blue Hill	38	0.06	SB	Current	OBDs	
707-1A	39-J		Hub Island and Peters Cove, Blue Hill Harbor, Blue Hill	62	0.10	SB	Current	STP	New
707-5	40		Union River Bay, Surry & Trenton	6,778	10.59	SB	Current	STP	
707-5A	40-A		Union River, Patten Bay & Heath Brook, Ellsworth, Surry & Trenton	1,828	2.86	SB	Current	OBDs, WWTP	was DMR area 40
707-6	42		Bass Harbor & Eastern Duck Cove, Tremont	702	1.10	SB	Current	OBDs (placed in incorrect category 2004)	
707-7	42-A		Lunt Harbor, Frenchboro	10	0.02	SB	Current	DMR Area open as of 12/31/10	All OBDs removed
707-8	42-B		Burnt Coat Harbor, Swans Island	64	0.10	SB	Current	Malfunctioning septic system	All OBDs removed

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
707-9	42-D		Red Point, Swans Island	178	0.28	SB	Current	OBDs	
714		*	Bass Harbor Head, Tremont to Schoodic Point, Winter Harbor		0.00	SB/SA			
714-1	43		Southwest Harbor	569	0.89	SB	Current	OBDs	
714-2	44		Northeast Harbor and Bracy Cove	1,259	1.97	SB/SA	Current	OBDs and STP	was Southern Mt. Desert Island & the Cranberry Isles was 8711 acres now in DMR areas 45, 45A, 45B
714-3	44A		Broad Cove and Somes Harbor, Mount Desert	125	0.20	SB/SA	Current	POTW	All OBDs removed
	45		Sutton Island	120	0.19	SB	Current	OBDs	was part of DMR area 44
	45A		Great Cranberry Island	81	0.13	SB	Current	OBDs	was part of DMR area 44
	45B		Little Cranberry Island	196	0.31	SB	Current	OBDs	was part of DMR area 44
714-4	46		Seal Harbor	288	0.45	SB	Current	OBDs and STP	
714-6	47		Bar Harbor	1,941	3.03	SB	Current	OBDs	
714-6	47		Bar Harbor depuration area (Bar Island bar)	46	0.07	SB	Current	CSOs; Seasonal marina	
714-8	49		Salisbury Cove, Bar Harbor	208	0.33	SB	Current	OBDs	
714-12	50		Sorrento	49	0.08	SB	Current	Seasonal marina/unknown pollution source	All OBDs removed
714-17	51		Winter Harbor	139	0.22	SB	Current	OBDs	
714-18	51-A		Arey Cove, Winter Harbor	84	0.13	SB	Current	OBDs	
714-19	51-B		Grindstone Neck, Winter Harbor	292	0.46	SB	Current	OBDs	
714-20		*	Northwest End Flanders Bay, Sullivan-Sorrento		0.00	SB		DMR Area 50-D; 9/19/2001 Repealed - open; Was on TMDL list in 1998	

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
706		*	Schoodic Point, Winter Harbor to Petit Manan Point, Steuben		0.00	SB			
706-1	52		Prospect Harbor and Shark Cove, Gouldsboro	288	0.45	SB	Current	OBDs	was Corea Hbr, was 443 acres
706-2	52-A		Corea Harbor and Sand Cove, Gouldsboro	110	0.17	SB	Current	OBDs	Sand Cove added, was 42 acres
706-4	52-C		Bunkers Harbor, Gouldsboro	207	0.32	SB	Current	OBDs	
706-5	52-D		Southwestern Petit Manan Point, Steuben	106	0.17	SB	Current	OBDs	
706-9			Wonsqueak Harbor, Gouldsboro	10	0.02	SB	Current	DMR Area open as of 12/31/10	All OBDs removed
705		*	Petit Manan Point, Steuben to Ray Point, Milbridge		0.00	SB/SA			
704		*	Ray Point, Milbridge to south end of Cape Split, Addison		0.00	SB			
704-1	53-A		Pleasant River and Dyer Cove, Addison	489	0.76	SB	Current	OBDs	
704-4	53-H		Cape Split, Addison	84	0.13	SB	Current	DMR Area open as of 12/31/10	All OBDs removed
703		*	South end of Cape Split, Addison to Kelley Point, Jonesport		0.00	SB/SA			
703-1	53-H		Cape Split, Addison	acres in waterbody 704-4		SB	Current	OBDs	
713		*	Kelley Point, Jonesport to Point of Maine, Machiasport		0.00	SB			
709		*	Point of Maine, Machiasport to Thorton Point, Cutler		0.00	SB			
709-1	55-E		Machias - East. Machias Rivers	729	1.14	SB	Current	OBDs (and STP)	was DMR area 55
709-2A	55		Randall Flats and Sanborn Cove, Machiasport	710	1.11	SB	Current	STP (Conditional restricted)	

Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses

Waterbody ID	DMR Area		Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Reason for DMR Closure	Comments
709-2	55-B		Howard Cove - Starboard Cove, Bucks Harbor	118	0.18	SB	Current	OBDs	
709-3	55-C		Northeastern Holmes Bay, Whiting - Cutler	144	0.23	SB	Current	high fecal counts	All OBDs removed
709-4	55-H		Bucks Harbor, Machiasport	47	0.07	SB	Current	high fecal counts	All OBDs removed
708		*	Thorton Point, Cutler to Todd Head, Eastport		0.00	SB/SA/SC			
708-2	55-D		Great Head, Cutler & Bog Brook Cove, Trescott	167	0.26	SB	Current	OBDs	
708-5	57		Eastport	653	1.02	SC	Current	POTW	All OBDs removed
701		*	Cobscook Bay		0.00	SB/SA			All OBDs removed
701-5	57		Eastport	acres in waterbody 701-5		SC	Current	POTW	All OBDs removed
701-6	57-A		Pleasant Point, Perry and Kendall Head, Eastport	872	1.36	SB	Current	POTW	All OBDs removed
701-9	58-C		North Lubec	70	0.11	SB	Current	POTW	All OBDs removed
702		*	Todd Head, Eastport to Whitlocks Mill, Calais		0.00	SB/SC			
702-1	57		Eastport	653	1.02	SC	Current	POTW	All OBDs removed

Category 3: Estuarine and Marine Waters with Insufficient Data or Information to Determine if Designated Uses are Attained

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Projected Sample Date	Comments
824-2	4-A	Perkins Cove (Bald Head to mouth of Kennebunk River estuary)	13	0.02	SB	No stations or surveys		Many boats – no data. Initially closed to shellfish harvest due to OBDs.
802-26	18-D	Quahog Bay (southeast of Pole Island)	590	0.92	SB	2011	2012	Possible Dissolved Oxygen non-attainment. Closed to shellfish harvest due to OBDs.
722-10	29-B	Matinicus Island & Ragged Island	2,203	3.44	SB	No stations or surveys	Far off the Maine coast - logistical problems	
702-3	60	Little River (Perry)	29	0.05	SB	2011	2012	Non-point source pollution.
		Total =	2,835	4.43				

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

(A TMDL is complete, but there is insufficient new data to determine if attainment has been achieved. Note: Bacteria may impair either recreational uses (swimming) or shellfish consumption uses, or both. Shell fish consumption impairments only apply to waters naturally capable of supporting the shellfish-harvesting use (i.e., waters of high enough salinity for propagation of shellfish).

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
812	1	Piscataqua R. Estuary, Eliot, So. Berwick	1,144	1.79	SB	1994	1999	Dissolved Oxygen
811-9		Mousam R. Estuary (DMR Area 6)	192	0.30	SB	2010	2009	Elevated fecals
811-8		Saco R. Estuary	576	0.90	SC	1998	2009	Elevated fecals
804-7		Fore R. Estuary	768	1.20	SC	2001	2009	Elevated fecals
802-25		Royal R. Estuary	174	0.27	SB	2005	2009	Elevated fecals
812-1	1	Piscataqua R. Estuary, Kittery, Eliot, So. Berwick	1,144	1.79	SB/SC	Current	2009	Elevated fecals only
826-1	1B	Jaffrey Point, N. H. to Brave Boat Harbor, York	1,212	1.89	SB	Current	2009	Elevated fecals only
826-2	2	York River	276	0.43	SB	Current	2009	Elevated fecals only
826-2	2A	York Harbor	41	0.06	SB	Current	2009	Elevated fecals only
826-3	2B	Lobster Cove	57	0.09	SB	Current	2009	Elevated fecals only
826-3	3	Cape Neddick	1,426	2.23	SB	Current	2009	Elevated fecals only
824-1	4	Ogunquit River	33	0.05	SB	Current	2009	Elevated fecals only
824-3	5	Webhannet River	605	0.94	SB	Current	2009	Elevated fecals only
824-3	5A	Little River	133	0.21	SB	Current	2009	Elevated fecals only
824-4	7	Kennebunk River	499	0.78	SB	Current	2009	Elevated fecals only
821-1	8	Cape Porpoise	127	0.20	SB	Current	2009	Elevated fecals only
821-2	8-A	Cape Porpoise Harbor	131	0.20	SB	Current	2009	Elevated fecals only

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
821-2A	8-AA	Goosefare Bay	8	0.01	SB	Current	2009	Elevated fecals only
811-1	9	Saco River	1,245	1.95	SB/SC	Current	2009	Elevated fecals only
	10	Saco Bay	3,404	5.32	SB	Current	2009	Elevated fecals only
811-2	11	Scarborough River	202	0.32	SB/SA	Current	2009	Elevated fecals only
811-4	13	Spurwink River	45	0.07	SB/SA	Current	2009	Elevated fecals only
804-1	14	Portland - Falmouth Area	12,828	20.04	SB/SC	2/19/2002	2009	Elevated fecals only
804-2	14-A	Falmouth – Cumberland	12	0.02	SB	Current	2009	Elevated fecals only
804-3	14-C	Long Island - Cliff Island, Portland	617	0.96	SB	Current - Long Is; 10/12/00 – others	2009	Elevated fecals only
802-25	16	Royal & Cousins R. Estuaries	109	0.17	SB	Current	2009	Elevated fecals only
802-5	17-B	Maquoit Bay, Brunswick and Freeport	301	0.47	SB	Current	2009	Elevated fecals only
	17-E	Basin, Ash and Stover Coves, Harpswell	280	0.44	SB	Current	2009	Elevated fecals only
	17-F	Orrs and Bailey Island, Harpswell	200	0.31	SB	Current	2009	Elevated fecals only
	17-G	Harpswell Sound, Harpswell	547	0.85	SB	Current	2009	Elevated fecals only
802-7	18	Potts Harbor	675	1.06	SB	Current	2009	Elevated fecals only
802-8	18-A	Gurnet Strait, Harpswell	155	0.24	SB	Current	2009	Elevated fecals only
802-9	18-BB	New Meadows River, Brunswick, West Bath, Harpswell	13	0.02	SB	Current	2009	Elevated fecals only
	18-B	New Meadows Lake, Brunswick, West Bath	23	0.04	SB	Current	2009	Elevated fecals only
802-10	18-J	Middle Bay	77	0.12	SB	Current	2009	Elevated fecals only
	18-CC	Merepoint, Brunsick	15	0.02	SB	Current	2009	Elevated fecals only
802-11	18-D	Eastern Bailey - Orr's Island, Western Quahog Bay,	1,257	1.96	SB	Current	2009	Elevated fecals only
802-12	18-F	Card Cove and Orrs Cove, Harpswell	52	0.08	SB	Current	2009	Elevated fecals only

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
	18-G	Northern Quahog Bay	257	0.40	SB	Current	2009	Elevated fecals only
802-19	18-X	Little Hen Island and Big Hen Island, Harpswell	71	0.11	SB	Current	2009	Elevated fecals only
802-9	19-F	Long Cove, West Bath	8	0.01	SB	Current	2009	Elevated fecals only
710-1	20	Upper Kennebec River and Tributaries	17,294	27.02	SB	Current	2009	Elevated fecals only
	20-G	Middle Kennebec River	1,146	1.79	SB	Current	2009	Elevated fecals only
710-2	20-H	Lower Kennebec, Phippsburg/Georgetown	1,865	2.91	SB	Current	2009	Elevated fecals only
730-1	20-B	Back River, Wiscasset and Westport	139	0.22	SB	Current	2009	Elevated fecals only
730-6	22-E	Western Barters Island, Boothbay	226	0.35	SB	Current	2009	Elevated fecals only
730-10	23-A	Ebencook Harbor, Southport	1,227	1.92	SB	Current	2009	Elevated fecals only
729-2	24-A	Lower Salt Bay	43	0.07	SB	Current	2009	Elevated fecals only
729-2	25	Damariscotta River, Newcastle – Damariscotta	695	1.09	SB	Current	2009	Elevated fecals only
726-10	26	Medomak River, Waldoboro and Friendship	156	0.24	SB	Current	2009	Elevated fecals only
724-2	26-A	Monhegan Island	522	0.82	SB	Never	2009	Elevated fecals only
724-4	26-D	Wiley Cove, Cushing	61	0.10	SB	Current	2009	Elevated fecals only
	26-E	Dutch Neck and Back River	35	0.05	SB	Current	2009	Elevated fecals only
724-8	26-N	Maple Juice Cove, Cushing	124	0.19	SB	Current	2009	Elevated fecals only
724-11	27-B	Deep Cove - Otis Cove, St. George	318	0.50	SB	Current	2009	Elevated fecals only
722-1	27-A	Eastern Wheeler Bay, St. George	35	0.06	SB	Current	2009	Elevated fecals only
	27-E	Upper St. George and Mill River	318	0.50	SB	Current	2009	Elevated fecals only
722-2	28	Tenants Harbor to Mosquito Head, St. George	621	0.97	SB	Current	2009	Elevated fecals only
722-6	28-H	Marshall Point - Mosquito Head, St. George	194	0.30	SB	Current	2009	Elevated fecals only

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
722-7	28-I	Weskeag River, So. Thomaston and Owls Head	42	0.07	SB	Current	2009	Elevated fecals only
722-8	**29**	**Rockland**	**2,460**	**3.84**	**SB/SC**	**Current**	**2009**	**Elevated fecals only. Segment includes 722-40 (Rockland) that was removed from Category 4-A (formerly Category 5-B-2) due to elimination of all CSO discharges to Rockland Harbor.**
722-11	30	Rockport	2,036	3.18	SB	Current	2009	Elevated fecals only
722-13	30-D	Vinalhaven	1,255	1.96	SB	Current	2009	Elevated fecals only
722-14	30-H	Kent Cove, North Haven	181	0.28	SB	Current	2009	Elevated fecals only
722-16	30-J	Vinal Cove - Starboard Rock, Vinalhaven	90	0.14	SB	Current	2009	Elevated fecals only
722-17	30-K	Southern Harbor, North Haven	36	0.06	SB	Current	2009	Elevated fecals only
722-19	30-M	Roberts Harbor, Vinalhaven	175	0.27	SB	Current	2009	Elevated fecals only
722-21	31-A	Rockport Harbor to Ducktrap Harbor, Lincolnville	2,140	3.34	SB	Current	2009	Elevated fecals only
722-22	31-B	Great Spruce Head - Kelleys Cove, Northport	1,237	1.93	SB	Current	2009	Elevated fecals only
722-23	32	Belfast Bay	4,172	6.52	SB	Current	2009	Elevated fecals only
722-24	33	Searsport - Stockton Springs	2,789	4.36	SB/SC	Current	2009	Elevated fecals only
	34	Stockton Springs	461	0.72	SB/SC	Current	2009	Elevated fecals only
722-25A	35-A	Penobscot River Estuary	9,743	15.22	SB/SC	Current	2009	Elevated fecals only
722-25B	35-B	Penobscot River Estuary, Winterport, Reeds Bk to Marsh River (segment size corrected, was 250 acres or 0.4 square miles)	3,239	5.06	SC	Current	2009	Elevated fecals only
722-26A	36-A	Northern Bay, Penobscot	786	1.23	SB	Current	2009	Elevated fecals only
722-26B	36-B	Upper Bagaduce River	7	0.01	SA	Current	2009	Elevated fecals only
722-29A	37-D	Long Cove, Deer isle	22	0.03	SB	Current	2009	Elevated fecals only

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
722-34	38	Stonington Harbor & NW Crocket Cove, Deer Isle & Stonington	222	0.35	SB	Current	2009	Elevated fecals only
722-38	39-A	Center Harbor – Brooklin	32	0.05	SB	Current	2009	Elevated fecals only
722-38	39-B	Eastern Flye Point, Brooklin	11	0.02	SB	Current	2009	Elevated fecals only
722-39	39-F	Benjamin River, Sedgwick	23	0.04	SB	Current	2009	Elevated fecals only
707-4	39-E	Salt Pond, Sedgwick – Brooklin	80	0.13	SB	Current	2009	Elevated fecals only
	39-H	Northwest Herrick Bay, Brooklin	38	0.06	SB	Current	2009	Elevated fecals only
	39-G	Northern Morgan Bay	114	0.18	SB	Current	2009	Elevated fecals only
	39-I	Bragdon Brook, Blue Hill	25	0.04	SB	Current	2009	Elevated fecals only
707-10	42-E	Mackerel Cove, Swans Island	4	0.01	SB	Current	2009	Elevated fecals only
707-5	48-A	Goose Cove, Trenton	121	0.19	SB	Current	2009	Elevated fecals only
707-11	48-B	Pretty Marsh Harbor, Mount Desert	180	0.28	SB	Current	2009	Elevated fecals only
	48-C	Northwest Cove, Bar Harbor	87	0.14	SB	Current	2009	Elevated fecals only
714-9	49-A	Jellison Cove, Hancock	9	0.01	SB	Current	2009	Elevated fecals only
714-10	49-B	Carrying Place, Hancock	25	0.04	SB	Current	2009	Elevated fecals only
714-11	49-C	Kilkenny Cove, Hancock	43	0.07	SB	Current	2009	Elevated fecals only
	49-D	Eagle Point, Sullivan	7	0.01	SB	Current	2009	Elevated fecals only
714-13	50-A	US Rt. 1 Bridge, West Sullivan and Long Cove, Sullivan	30	0.05	SB	Current	2009	Elevated fecals only
714-14	50-B	Springer Brook, Mill Brook and West Brook, W. Franklin	93	0.15	SB	Current	2009	Elevated fecals only
714-15	50-C	Johnny's Brook and Card Mill Stream, Franklin	2	<0.01	SB	Current	2009	Elevated fecals only
	50-D	Evergreen Point, Sullivan	34	0.05	SB	Current	2009	Elevated fecals only
714-16	50-E	Egypt Bay, Hancock and Franklin	106	0.17	SB	Current	2009	Elevated fecals only

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
	51-C	Bunker Cove, South Gouldsboro	12	0.02	SB	Current	2009	Elevated fecals only
706-3	52-B	Mill Pond Stream, Gouldsboro	8	0.01	SB	Current	2009	Elevated fecals only
706-6	52-E	Dyer Harbor - Pinkham Bay, Steuben	73	0.11	SB	Current	2009	Elevated fecals only
706-7	52-F	Birch Harbor, Gouldsboro	19	0.03	SB	Current	2009	Elevated fecals only
	52-G	Joy Bay, Gouldsboro and Steuben	1,024	1.60	SB	Current	2009	Elevated fecals only
706-8	52-J	Dyer Harbor, Steuben	162	0.25	SB	Current	2009	Elevated fecals only
705-3	52-K	Mitchell Point, Milbridge	32	0.05	SB	Current	2009	Elevated fecals only
705-1	53	Narraguagus River, Milbridge	821	1.28	SB	Current	2009	Elevated fecals only
704-2	53-D	Curtis Creek, Flat Bay, Harrington	31	0.05	SB	Current	2009	Elevated fecals only
704-3	53-E	Upper Harrington River	483	0.75	SB	Current	2009	Elevated fecals only
705-3	53-G	Smith Cove, Narraguagus Bay, Milbridge	3	<0.01	SB	Current	2009	Elevated fecals only
703-2	54	Jonesport and West Jonesport	459	0.72	SB	Current	2009	Elevated fecals only
703-3	54-A	North End of Beals Island	95	0.15	SB	Current	2009	Elevated fecals only
703-4	54-B	Indian River, Addison – Jonesport	68	0.11	SB	Current	2009	Elevated fecals only
703-5	54-K	Southeastern Alley Bay & Pig Island Gut, Beals	24	0.04	SB	Current	2009	Elevated fecals only
703-6	54-M	Lamesen Brook in West River, Addison	52	0.08	SB	Current	2009	Elevated fecals only
713-1	54-D	East & West Branches, Little Kennebec Bay, Machias and Machiasport	68	0.11	SB	Current	2009	Elevated fecals only
713-2	54-G	White Creek, Masons Bay, Jonesport – Jonesboro	47	0.07	SB	Current	2009	Elevated fecals only
713-3	54-H	Chandler River, Jonesboro	119	0.19	SB	Current	2009	Elevated fecals only
709-5	55-I	Indian Head, Machiasport	17	0.03	SB	Current	2009	Elevated fecals only

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed

Waterbody ID	DMR Area	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	TMDL Approved	Cause
708-1	55-A	Little River - Cutler Harbor	37	0.06	SB	Current	2009	Elevated fecals only
708-3	55-G	Money Cove, Cutler	32	0.05	SB	Current	2009	Elevated fecals only
708-4	56-C	Haycock Harbor, Trescott	16	0.03	SA/SB	Current	2009	Elevated fecals only
708-6	58	Lubec and South Lubec	70	0.11	SB	Current	2009	Elevated fecals only
701-1	56	Denny's River and Northwest Denny's Bay, Edmunds – Pembroke	88	0.14	SA/SB	Current	2009	Elevated fecals only
701-2	56-A	Pennamaquan Bay, Pembroke	80	0.13	SB	Current	2009	Elevated fecals only
708-4	56-B	East Stream, Trescott	15	0.02	SA/SB	Current	2009	Elevated fecals only
	56-D	Crane Mill Brook, Edmunds	94	0.15	SA	Current	2009	Elevated fecals only
	56-H	Ox Cove, Pembroke	653	1.02	SA	Current	2009	Elevated fecals only
701-7	57-B	Deep Cove, Eastport	154	0.24	SC	Current	2009	Elevated fecals only
	59	Hal Moon Cove, Eastport	46	0.07	SB	Current	2009	Elevated fecals only
701-8	58	Lubec and South Lubec	487	0.76	SB	Current	2009	Elevated fecals only
701-10	58-F	The Haul-Up, South Bay, West Lubec	40	0.06	SB	Current	2009	Elevated fecals only
702-4	62	St. Croix River – Passamaquoddy Bay	7,933	12.40	SB/SC	Current	2009	Elevated fecals only
		Total =	101,477	158.57				

Category 4-A: Estuarine and Marine Waters with Impaired Use. TMDL Completed. (Formerly Category 5-B-2 (Bacteria from Combined Sewer Overflows)).

Waterbody ID	Location	Permitted Facility Name	Goal (separation or partial)	Enforcement Control (permit expiration or consent decree, year)	TMDL Approval	Segment Size (sq. miles)	Cause
709-6	Machias	Machias WWTF	Separation	Permit 2016	2009	0	Sewer separation projects complete
710-03	Bath	Bath WPCF	Partial w/ generic bypass	Permit 2014	2009	0	Some separation complete
714-21	Bar Harbor	Bar Harbor, Town of	Separation	Permit 2015	2009		Master Plan submitted Dec. 2006
722-41	Belfast	Belfast WWTF	Separation	Permit 2016	2009	0	CSO-affected, some separation complete
722-42	Bucksport	Bucksport WWTP	Separation w/ generic bypass	Permit 2017	2009	0	CSO-affected
722-43	Winterport	Winterport Sewerage District	Separation	Permit 2017	2009	0	CSO-affected
722-44	Hampden	Hampden, Town of	Partial w/ storage	Permit 2013	2009	0	CSO-affected
804-5	Portland	Portland Water District - Portland WWTF	Partial w/ generic bypass	Permit 2016	2009	0	CSO-affected, some separation complete
804-6	South Portland	South Portland WPCF	Partial w/ generic bypass	Permit 2014	2009	0	CSO-affected
804-7	Cape Elizabeth	Portland Water District	Separation	Permit 2014	2009	0	CSO-affected
811-6	Biddeford	Biddeford WWTF	Separation	Permit 2014 & A.O. 2013	2009	0	CSO-affected, some separation complete
811-7	Saco	Saco WWTP	Partial w/ generic bypass	Permit 2016 and C.D. 2011	2009	0	CSO-affected, some separation complete, two discharge points closed

Category 4-B-1: Estuarine and Marine Waters Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment

Waterbody ID	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Impaired Use	Cause	Source	Comments
824-5	Ogunquit R.	33	0.05	SB	1995	Marine Life Use Support	Dissolved Oxygen	Municipal point source	Outfall moved out of estuary
811-8	Goosefare Brook	8	0.01	SC	1994	Marine Life Use Support	Dissolved Oxygen	Municipal point source	Outfall moved out of estuary; TMDL on freshwater brook
726-11	Medomak R. Estuary	156	0.24	SB	2003	Marine Life Use Support	Dissolved Oxygen	Municipal Point Source	Discharge has been removed (spray irrigation). No data available yet on attainment.
724-13	St. George R. Estuary (DMR Area 27)	1,920	3.00	SB	1999	Marine Life Use Support;	Dissolved Oxygen	Nonpoint source, Municipal Point Source	New discharge license issued based on modeling. No data available yet on attainment. Also listed in Category 4A for elevated fecals
722-45	Penobscot R. Estuary	7,624	11.91	SC		Fish Consumption	Toxics: Dioxin, PCBs	Industrial point sources, CSOs	Dioxin legislation passed; hazardous waste clean-up. Also listed in Category 4A for elevated fecals
	Total =	9,741	15.21						

Category 4-C: Estuarine and Marine Waters with Impairment not Caused by a Pollutant

Waterbody ID	Segment Description	Segment Size (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Impaired Use	Cause	Source	Comments
802-27	New Meadows R. Estuary, including the "Lake" upstream of Howard Point	35	0.05	SB	2010	Marine Life Use Support	Dissolved Oxygen	Partial Impoundment	Construction of causeways in 1937 and 1960s created a lake-like system due to significantly restricted tidal flushing.

Note: Bold text indicates waters that were moved into Category 5-A during this reporting cycle

Category 5-A: Estuarine and Marine Waters Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

Waterbody ID	Segment Description	Segment (acres)	Segment Size (sq. miles)	Segment Class	Last Year Sampled	Impaired Use	Cause	Source	TMDL Priority	Comments
812-2	**Piscataqua R. Estuary (Eliot, Kittery)**	**1,221**	**1.91**	**SB/SC**	**2010**	**Marine Life Use Support**	**Nutrient/ Eutrophication Biological Indicators**	**Source unknown**	**L**	**Eelgrass areal extent and density decreases documented since 1996 by NH DES and ME DMR.**
812-3	**Portsmouth Harbor (south and west of Gerrish Island)**	**1,380**	**2.16**	**SB**	**2010**	**Marine Life Use Support**	**Cause Unknown**	**Source unknown**	L	**Eelgrass loss documented in NH and Maine waters; assignment of impairment cause not possible until further data collection (summer 2014) and analysis.**
811-9	Mousam R. Estuary (DMR Area 6)	192	0.30	SB	2010	Marine Life Use Support	Dissolved Oxygen	Municipal point source, Nonpoint source, Sediment Oxygen Demand	2016	Includes 54.7 acre DMR closure; also listed in Category 4A for elevated fecals. Further data collection required.
811-8	Saco R. Estuary	576	0.90	SC	1998	Marine Life Use Support	Toxicity, Copper	Municipal point source, CSOs	L	Also listed in Category 4A for elevated fecals. Further data collection required.
804-7	Fore R. Estuary	768	1.20	SC	2009	Marine Life Use Support	Marine life, Toxics	Municipal point source, CSOs, Stormwater, Hazardous waste sites, Nonpoint	M	Also listed in Category 4A for elevated fecals. Further data collection required.
802-25	Royal R. Estuary	174	0.27	SB	2010	Marine Life Use Support	Dissolved Oxygen	Municipal point source, Stormwater, Nonpoint Source, Sediment Oxygen Demand	2016	Also listed in Category 4A for elevated fecals. Pending wasteload allocation study. Further data collection required.
	Total =	4,311	6.74							

Category 5-B: Estuarine and Marine Waters Impaired for Bacteria Only, TMDL Required

No waters are listed in Category 5-B in 2012.

Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants

All estuarine and marine waters capable of supporting American lobster are listed in Category 5-D for shellfish consumption due to elevated levels of PCBs and other persistent, bioaccumulating substances in tomalley.