



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

August 21, 2008

David Littell, Commissioner
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

RE: Maine's 2008 §303(d) List

Dear Commissioner Littell:

Thank you for Maine's final submittal of Maine's 2008 §303(d) list received by EPA on July 22, 2008. In accordance with §303(d) of the Clean Water Act and 40 CFR §130.7, the U.S. Environmental Protection Agency (EPA) conducted a complete review of Maine's 2008 §303(d) list. Based on this review, EPA has determined that Maine's 2008 §303(d) list of water quality limited segments still requiring total maximum daily loads (TMDLs) meets the requirements of §303(d) of the Clean Water Act (CWA) and EPA's implementing regulations. Therefore, EPA hereby approves Maine's decision to include the waters in the Categories 5-A, 5-B, and 5-D in Maine's 2008 integrated list of surface waters, as well as Maine's decision to remove specific waters from the 2008 list.

The submittal includes a list of those waters for which technology-based and other required controls for point and nonpoint sources are not stringent enough to attain or maintain compliance with the State's Water Quality Standards. The submittal presents Maine's TMDL strategy which describes a priority-setting approach and identifies those waters for which TMDLs will be completed and submitted over time. The statutory and regulatory requirements, and EPA's review of Maine's compliance with each requirement, are described in detail in the enclosed approval document.

The Maine Department of Environmental Protection (ME DEP) also successfully completed a public participation process in 2008 during which the public was given the opportunity to review and comment on the §303(d) list. As a result of this effort, Maine has considered public comments in the development of the final list. A summary of the public comments and ME DEP's response to comments were included in the final submittal.

Although EPA is taking no action on Maine's Data Interpretation section of the 2008 Integrated Report (pages 52-53), we would like to relay one comment on Maine's reference to legislation found in the final sentence of the paragraph on dissolved oxygen. We realize that Maine's intent of this paragraph is to explain how the Department interprets data, and to mention that Maine's law limits the measurement of dissolved oxygen in riverine impoundments for the purpose of determining compliance with the numeric dissolved oxygen criteria in certain circumstances. [Chapter 257 An Act Regarding Riverine Impoundments, enacted May 23, 2003; Sec. 1. 38 MRSA §464, sub-§13]. We think it is important to note, as we did in our February 9, 2004 approval of Chapter 257, that it is our understanding that ME DEP intends to monitor dissolved oxygen (to within 0.5 m of the bottom) for the entire water column of any impoundment, and that compliance with the narrative criterion set forth in the final paragraph of §464, sub-§13 (i.e., dissolved oxygen sufficient to support existing and designated uses) would still be determined where compliance with the numeric criteria is not measured.

We greatly appreciate the concerted effort by your staff towards a timely preparation and submittal of the 2008 list. My staff and I look forward to continued cooperation with ME DEP in implementing the requirements under Section 303(d) of the CWA. Please feel free to contact me or Jennie Bridge at 617-918-1685 if you have any questions or comments on our review.

Sincerely,

Stephen S. Perkins, Director
Office of Ecosystem Protection

Enclosures

cc: Andrew Fisk, ME DEP
Susan Davies, ME DEP

ME §303(d) Approval Documentation

I. INTRODUCTION

EPA has conducted a complete review of Maine's 2008 Section 303(d) list and supporting documentation and information and, based on this review, EPA has determined that Maine's list of water quality limited segments (WQLSs) still requiring TMDLs meets the requirements of Section 303(d) of the Clean Water Act ("CWA" or "the Act") and EPA's implementing regulations. Therefore, by this order, EPA hereby approves Maine's 2008 Section 303(d) list. The statutory and regulatory requirements, and EPA's review of Maine's compliance with each requirement, are described in detail below.

II. STATUTORY AND REGULATORY BACKGROUND

Identification of WQLSs for Inclusion on 303(d) List

Section 303(d)(1) of the Act directs States to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 CFR §130.7(b)(1).

Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate non-attainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. See 40 CFR §130.7(b)(5). In addition to these minimum categories, States are required to consider any other data and information that is existing and readily available. EPA's 2006 Integrated Report Guidance describes categories of water quality-related data and information that may be existing and readily available. See EPA's October 12, 2006 memorandum on *Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions* which recommended that the 2008 integrated water quality reports follow the *Guidance for 2006 Assessment, Listing and Reporting*

Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (2006 Integrated Report Guidance (IRG)) issued July 29, 2005 (available at <http://www.epa.gov/owow/tmdl/2006IRG/>) as supplemented by the October 12, 2006 memo and attachments. While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR §130.7(b)(6) require States to include as part of their submissions to EPA documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

Priority Ranking

EPA regulations also codify and interpret the requirement in Section 303(d)(1)(A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 CFR §130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See Section 303(d)(1)(A). As long as these factors are taken into account, the Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and State or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA's 2006 Integrated Report Guidance.

III. REVIEW OF MAINE'S §303(d) SUBMISSION

The Maine Department of Environmental Protection (ME DEP) issued a draft 2008 §303(d) list for public review on March 10, 2008. ME DEP then revised the list based on comments received during the public comment period including EPA comments sent by email on March 11, 2008. On July 22, 2008, ME DEP submitted to EPA-New England Maine's final 2008 §303(d) list which is included in Maine's 2008 *Integrated Water Quality Monitoring and Assessment Report*, or Integrated Report (IR). This EPA approval action pertains to Maine's inclusion of waters in categories 5-A, 5-B, and 5-D of Maine's 2008 §303(d) list, as well as Maine's decision to remove specific waters from the 2008 §303(d) list, as described below. These sub-categories of the §303(d) list are included in the following sections of Maine's Integrated Report:

- Appendix II (rivers and streams, pages 47-64 IR);
- Appendix III (lakes, page 77 IR);
- Appendix IV (estuarine and marine waters, pages 89-100 IR).

For purposes of §303(d) review and approval, EPA evaluated the following components of Maine's 2008 Integrated Report (IR):

- Maine's *Data Sources and Acknowledgements* (page 10, Chapter 1, IR)
- Maine's *Listing Methodology, Assessment Criteria, and Data Interpretation* (pages 45-53, Chapter 4, IR);
- Maine's *Process to Solicit Public Comments and Summary of Public Comments and Responses* (pages 16-27, Chapter 2, IR)

Public Review

ME DEP conducted a public participation process in which it provided the public the opportunity to review and comment on the 2008 draft Section 303(d) list. A public comment period was opened upon the release of the draft list on March 10, 2008 and was closed on March 31, 2008. ME posted the draft list on the Department's website, mailed notices directly to approximately 150 persons and entities on the DEP subscription service for rulemaking changes.

During the week of March 10, 2008, a legal notice was run in four major daily newspapers (Bangor Daily News, Kennebec Journal, Lewiston Sun, and Portland Press Herald). ME DEP also issued a press release on list availability on March 10th to roughly 15-18 radio, television and print outlets around the state and to the Associated Press. The release was also electronically linked to a news headline on the Department's homepage. EPA concludes that Maine's public participation process was consistent with its Continuing Planning Process (CPP), and that Maine provided sufficient public notice and opportunities for public involvement and response.

The final submittal took into account, and in many instances incorporated, suggested changes to the draft list from interested parties. ME DEP prepared a summary of public comments and responses which paraphrases each comment and provides the State's response. EPA reviewed ME DEP's summary responses as well as the original comment letters and concludes that Maine adequately responded to the comments.

One instance in which ME DEP declined to incorporate suggested changes resulting from public review concerned comments received from the Center for Biological Diversity (CBD), San Francisco, CA. In its comments, CBD requested "that Maine's ocean segments be added to the state's 303(d) list due to

impairment resulting from ocean acidification.” (CBD March 28, 2008) CBD provided extensive information to support its concern for wildlife habitats threatened by carbon dioxide pollution, measured changes in ocean pH, and the likelihood of severe ocean ecosystem degradation due to ocean acidification. CBD also commented that Maine’s water quality standard for pH, which allows changes in pH levels as long as the pH remains within the range of 7.0 to 8.5 units, is inadequate to protect ocean water quality and the designated uses of its waters, based on recent scientific research which has shown that a decrease of 0.2 units will adversely affect marine life (Caldeira et al 2007).

In the State’s response to CBD’s comments, ME DEP noted that the technical information provided by CBD was from areas outside Maine’s jurisdictional waters and mostly from areas quite remote from Maine, the Gulf of Maine, or northwestern Atlantic waters. We concur with ME DEP’s decision to not list all coastal waters due to acidification at this time because ME DEP has determined that there is no evidence of use impairment or a threat that would be realized within the next two years. We agree with ME DEP that the adequacy of existing criteria, in this case pH, is evaluated during the triennial review process, not during the listing process. Nevertheless, it is appropriate to evaluate whether uses are impaired notwithstanding the existing criteria. Having found no evidence of impairment or threatened impairment due to acidification, it was reasonable for ME DEP to decide not to list the waters as requested by CBD.

IV. IDENTIFICATION OF WATERS AND CONSIDERATION OF EXISTING AND READILY AVAILABLE WATER QUALITY-RELATED DATA AND INFORMATION

EPA has reviewed Maine’s submission, and has concluded that the State developed its §303(d) list in compliance with §303(d) of the Act and 40 CFR §130.7. EPA’s review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

ME DEP has several departmental monitoring programs, and routinely works cooperatively with various professional and volunteer monitoring groups on projects yielding surface water quality data that are taken into consideration during the §303(d) list preparation. Sources of data include other state agencies and resources, federal and other government agencies, Tribes, volunteer watershed groups / conservation organizations that work with DEP staff and “employ approved monitoring practices” (for a specific list of sources of assessment data for rivers and streams, lakes and estuarine and marine resources, see pages 8-9, Chapter 1, *Data Sources and Acknowledgements*, IR). Maine uses the latest available information generated by ME DEP’s and other state resource agencies’ monitoring and assessment activities to update the §303(d) list.

ME DEP identified the pollutants (when known) causing or expected to cause violations of the applicable water quality standards, including those pollutants for which there were no corresponding numeric criteria in the State’s standards (e.g., nutrients). In the cases where the identity of the pollutant was unknown, ME DEP identified the listing cause as the water quality standards impairment (e.g., dissolved oxygen, benthic macroinvertebrate assessments, habitat assessment).

Maine’s 2008 §303(d) list is part of *Maine’s 2008 Integrated Water Quality Monitoring and Assessment Report* which includes the most recent §305(b) report. As ME DEP explains in the 2008 listing methodology, three criteria for listing waters in Category 5 are as follows (page 48, Chapter 4, IR):

1. *Current data (collected within five years) for a standard indicating impaired use, or a trend toward expected impairment within the listing period [threatened], 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 that 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.*

ME DEP appropriately considered all existing and readily available information in the development of the 2008 §303(d) list, consistent with Maine's 2008 listing methodology. The IR explains (p. 50) that "A determination of nonattainment is only made when there is documented 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)." As long as assessment data were collected using approved monitoring practices, there were no cases where ME DEP made a decision to not use any readily available information.

In summary, ME DEP considered the most recent §305(b) assessments, as required by EPA's regulations, and used information obtained primarily through monitoring as the basis for adding water quality impairments to the 2008 §303(d) list. EPA concludes that the State properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR §130.7(b)(5).

Priority Ranking

Maine established a priority ranking for listed waters which includes detailed rankings for Category 5A waters, as well as assigning varying levels of priority for TMDL development to four other subcategories of Category 5 waters. Category 5A waters are Maine's highest priority for TMDL development and each waterbody is assigned a schedule for TMDL development (both in Chapter 8, Tables 8-4, 8-5, and 8-6 as well as in Appendices II-IV of the IR). As described in Chapter 4 (page 48 IR): "*TMDL schedules are assigned based on the value of a 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.*"

As part of the prioritization process, Maine also continues to use other subcategories of Category 5 waters with varying levels of priority for TMDL development, as explained in Table 2.

Table 2. Maine’s 2008 TMDL Development Priority

Category	Title/Description	TMDL development Priority	Applicable to:
5-A	Impairment caused by pollutants (other than those listed in 5-B through 5-D). A TMDL is required and will be conducted by the State of Maine.	A projected schedule is included for each listing.	<u>Specific:</u> Rivers & streams Lakes Marine & Estuarine
5-B	Impairment is caused solely by bacteria contamination. A TMDL is required.	Low priority if other actions are already in progress that will correct the problem in advance of TMDL development (e.g. better compliance), or where recreation (swimming) is impractical. A projected schedule is included where applicable. Waters impaired only by CSOs with Master Plans will be monitored for water quality and for provisions being in place for both funding and compliance timetables.	<u>Specific:</u> Rivers & streams Marine & Estuarine
5-D	Impairment caused by a “legacy” pollutant ((1) PCBs, DDT, or other substance already banned from production or use,)2) coastal waters with consumption advisory for lobster tomalley due to presence of persistent bioaccumulating toxics found in that organ).	Low priority for TMDL development.	<u>Specific:</u> Rivers & streams <u>All:</u> Marine & Estuarine

EPA finds that the waterbody prioritization and targeting method used by Maine is reasonable and sufficient for purposes of §303(d). Maine properly took into account the severity of pollution and the uses to be made of listed waters, as well as other relevant factors described above. EPA acknowledges that the schedule of TMDL completion establishes a meaningful priority ranking system.

Delistings

Maine did not include on its 2008 §303(d) list nine individual waters included on the 2006 list, and provided rationales for its decisions not to list these previously listed (Category 5) waters. The State has demonstrated, to EPA’s satisfaction, good cause for not listing these waters, as provided in 40 CFR §130.7(b)(6)(iv). EPA recognizes that Maine’s delisting in 2008 of these previously §303(d)-listed waterbodies has been done in accordance with EPA’s 2008 Listing Guidance, Maine’s 2008 listing methodology, and consistent with Maine’s water quality standards. Maine’s detailed lists and explanations providing justifications for the delistings are included in Chapter 8, Tables 8-1 (rivers & streams) and 8-2 (lakes), as described below.

Category 5 in 2006 to Category 2 in 2008

In one case of delisting to Category 2, more recent data or information indicate attainment of water quality standards. The following stream was previously impaired (Category 5) and now attains standards:

Sebec River at Milo, above the confluence with the Piscataquis River (ME0102000403_215R_01) was impaired due to biocriteria non-attainment based on 1985 data. Since then, the point source discharge to the stream is now discharging to the Piscataqua River. Resampling in 2006 at biomonitoring station 827, below Milo Dam, shows strong attainment of Class A biocriteria for this Class B stream due to restoration activities.

EPA approves this delisting because the State has provided adequate information to support the assessment that the water is in attainment for pollutants related to the original listing, as described above.

Category 5 in 2006 to Category 4A in 2008

Consistent with EPA's regulations and EPA's 2006 Integrated Report Guidance, Maine did not include on the §303(d) list eight waters for which TMDLs have been approved by EPA. These waters which were moved into IR Category 4A include the following 3 rivers and streams: Birch Stream (benthics), Trout Brook (benthics, habitat), Barberry Creek (benthics, habitat); and five lakes (eutrophication): Trafton Lake, Arnold Brook, Echo Lake, Monson Pond, Wilson Pond. In addition to these individual waters, Maine moved all freshwaters formerly narratively listed in Category 5-C for mercury from atmospheric deposition to Category 4A due to EPA's December 20, 2007 approval of the Northeast Regional Mercury TMDL.

EPA approves these delistings.

Waters showing water quality improvement

Although not subject to formal §303(d) review and approval, EPA notes that two of Maine's previously impaired waters that were delisted to Category 4-A and 4-B in the past have been re-listed in Category 2 because the waters now attain water quality standards, explained as follows:

Category 4A in 2006 to Category 2 in 2008

The Androscoggin River, main stem, Livermore impoundment (ME0104000206_423R01) was impaired for biocriteria, and a TMDL for TSS to address the impairment was approved by EPA on 7/18/05. Subsequent monitoring indicates that the Class B biocriteria were attained in 2004, 2005, and 2006 for this Class C water due to restoration activities. (The water is also listed in 4B for dioxin, and 5D for legacy PCB contamination)

Category 3 in 2006 to Category 2 in 2008

Estes Lake in Sanford was historically impaired for nutrient enrichment/phosphorous, and was moved from Category 5A to 4B in Maine's 2002 list after the Sanford POTW was upgraded and received a new permit with phosphorus limits (in concert with the EPA-approved TMDL for the Mousam River). Subsequent improvement in water quality resulted in a re-listing of Estes Lake into Category 3 in 2004-2006. The lake was re-listed into Category 2 in 2008 (ME106000302) on the basis of data which shows sustained improvement in water quality (page 77, IR appendix).

Waters impaired by nonpoint sources of pollution

The State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) and EPA guidance. Section 303(d) lists are to include all WQLSs still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources. In 'Pronsolino v. Marcus,' the District Court for Northern District of California held that Section 303(d) of the Clean Water Act authorizes EPA to identify and establish total maximum daily loads for waters impaired by nonpoint sources. Pronsolino v. Marcus, 91 F. Supp. 2d 1337, 1347 (N.D.Ca. 2000). This decision was affirmed by the 9th Circuit court of appeals in Pronsolino v. Natri, 291 F.3d 1123 (9th Cir. 2002). See also EPA's 2006 Integrated Report Guidance.

V. TRIBAL WATERS

In submitting the 2008 §303(d) list, ME DEP assumes that Maine's water quality standards apply statewide. EPA's approval of Maine's §303(d) list extends to all waterbodies on the list with the exception of those waters, if any, that are within Indian territories and lands. EPA is taking no action to approve or disapprove the State's list with respect to those waters at this time. EPA will retain responsibility under §303(c) and §303(d) of the Clean Water Act for those waters.