

November 17, 2006

W. Michael Sullivan, Director
RI Department of Environmental Management
235 Promenade Street
Providence, RI 02908-5767

Dear Director Sullivan:

Thank you for your submission of the State of Rhode Island 2006 Clean Water Act Section 303(d) list of impaired waters. 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 Rhode Island's 2006 §303(d) list and supporting documentation. Based on this review, EPA has determined that Rhode Island's 2006 §303(d) list meets the requirements of §303(d) of the Clean Water Act and EPA's implementing regulations. Therefore, by this order, EPA hereby approves the State's list, submitted on November 3, 2006.

The submission includes a list of water bodies 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. As required, this list includes a priority ranking for each listed water and specifically identifies waters targeted for total maximum daily load (TMDL) development in the next two years. A long-term schedule for developing TMDLs for all waters on its list was also provided. The statutory and regulatory requirements, and EPA's review of the State's compliance with these requirements are described in detail in the enclosed approval document.

Assessments of state waters conducted under §§ 305(b) and 303(d) of the Clean Water Act should be prepared in a manner to support their submission to EPA by April 1 of even numbered years in accordance with §§ 305(b) and 303(d) of the Clean Water Act and 40 CFR §130.7. In addition, waters should be assessed using water quality standards that are approved and in place at the time of the assessment.

We would like to bring to your attention our observations with regard to waters on Group 5 of your list that do not have an approved TMDL. EPA interprets these waters to be low priority for TMDL development based on the State's expectation that other actions (e. g., RIPDES permits, Superfund Records of Decision, the regional Mercury Action Plan) will result in water quality standards being achieved. EPA is not making any determination, however, on whether the suggested control strategies can take the place of doing a TMDL in the future. Because these waters are still listed on the State's 303(d) list, the requirement to do a TMDL exists if water quality standards are not met in the future. As the State transitions to the Integrated Report format, EPA New England would welcome the opportunity to discuss whether these, or other control strategies, will support moving these waters into Category 4b, where a use impairment caused by a pollutant is being addressed through other pollution control requirements.

The Rhode Island Department of Environmental Management (RIDEM) has also successfully completed a public participation process that provided the public an opportunity to review and comment on the §303(d) list. Through this effort, Rhode Island was able to consider and incorporate public comments in the development of the final list. A summary of the public comments and RIDEM's responses to public comments was included in the final submittal.

We are pleased with the quality of your submission and appreciate the level of effort that the RIDEM devoted to preparing its 2006 §303(d) list. Your staff have done an excellent job of preparing a comprehensive and informative list, and providing EPA with thorough supporting documentation and assistance. My staff and I look forward to continued cooperation with RIDEM in implementing the requirements under §303(d) of the CWA. Please feel free to contact me or Steven Winnett at (617) 918-1687, if you or your staff have any questions or comments on our review.

Sincerely,

/s/

Linda M. Murphy, Director
Office of Ecosystem Protection

Enclosure

cc: Alicia Good, RIDEM
Angelo Liberti, RIDEM
Elizabeth Scott, RIDEM
Connie Carey, RIDEM
Stephen Silva, EPA
Ann Williams, EPA
Steven Winnett, EPA

EPA - NEW ENGLAND'S REVIEW OF RHODE ISLAND 2006 CWA SECTION 303(d) LIST

I. INTRODUCTION

EPA has conducted a complete review of Rhode Island's (RI) 2006 Section 303(d) list and supporting documentation and information and, based on this review, EPA has determined that Rhode Island's list of water quality limited segments (WQLSs) still requiring total maximum daily loads (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 Rhode Island's 2006 revised final Section 303(d) list, submitted on November 3, 2006. The statutory and regulatory requirements, and EPA's review of Rhode Island'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 Section 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 nonattainment 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 Guidance for 2006 Assessment, Listing and Reporting Requirements describes categories of water quality-related data and information that may be existing and readily available. See Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act – EPA Office of Water-- July 29, 2005. 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 Guidance for 2006 Assessment, Listing and Reporting Requirements .

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

The Rhode Island Department of Environmental Management (RI DEM) submitted a final 2006 §303(d) list to EPA, along with responses to comments, dated August 11, 2006. Rhode Island did not submit an integrated §§ 305(b) and 303(d) list; the waters included in its Groups 1 through 5 comprise RI's 2006 §303(d) list. The list contains a schedule that reflects the State's prioritization of listed waters for the completion of TMDLs. Additional components of the list include an overview and explanation of the list and an index that identifies, on a watershed basis, the subgroup of the list (*i.e.*, 1 through 5) to which each water body is assigned.

The State submitted a draft list along with supporting documentation to EPA for its review on April 18, 2006. EPA submitted comments on the draft list on May 8. The State released its revised draft list to the public on May 11, 2006, with a public workshop on May 22, 2006 and a comment period that extended through June 12, 2006. DEM did not receive any comments during the comment period. In its final submission, the state gave its responses to EPA's comments, and explained the revisions it made to the list document prior to submitting it to EPA for approval.

Following further comments from EPA during review of the final list, RIDEM submitted a revised final list on November 3, 2006.

The submission includes the components listed below.

1. A) The 2006 Clean Water Act §303(d) list submission (all waters in Groups 1 through 5 are on the list):

- Group 1 - (TMDL Underway) These waters do not meet Rhode Island water quality standards (WQS) and a Total Maximum Daily Load analysis (TMDL) is underway.
- Group 2 - (TMDL Planned) These waters do not meet Rhode Island WQS and a TMDL is planned for the future.
- Group 3 - (Dissolved Metals Data Needed) For original listing (prior to 1997), data demonstrated that ambient total metal levels exceed the total metal criteria. In 1997, Rhode Island revised its WQSs to express metals criteria as dissolved. For many listed waters, the ambient dissolved levels are unknown. Additional data is required to determine if the dissolved criteria are exceeded. (There are no waters included in Group 3 of the 2006 submission.)
- Group 4 - (Insufficient Data Available) These are waters for which assessments were made based on insufficient and/or data that is old. Therefore, these waters need further monitoring to determine if there are Water Quality Standard violations.
- Group 5 - (TMDL or Equivalent Control Action Developed) A TMDL or control action "functionally equivalent" to a TMDL has been developed for these waters. Implementation is underway that will result in attainment of the standards. However, the standards will not be met within the next 2 years.

As noted above, RI has separated the waters on its §303(d) list into 5 groups. RI has included all waters known or suspected not to be meeting water quality standards on the §303(d) list. Under its current listing approach, RI has kept waters on its §303(d) list until it is shown that water quality standards are attained. TMDLs for listed waters will be completed in accordance with the schedule established for its specific group, which reflect priority rankings and other relevant factors.

For Groups 1 and 2, TMDLs are either underway, or planned for the future. Group 3 and 4 waters require additional information to better define the problem or, in some cases, to verify whether a water quality problem exists (for example, where the prior listing was based on insufficient or old data). The water body remains on the list until its status is determined through the collection of additional information.

Group 5 lists waters for which a TMDL has been approved or a “functionally equivalent” control action has been developed, but standards will not be met within the next 2 years. With respect to the waters for which there are alternative control actions (e.g., CSO facilities plans, Superfund Records of Decision, and NPDES discharge permits), we believe it is reasonable for the State to postpone TMDL development based on its expectation that other actions will result in water quality standards being attained, thereby obviating the need to prepare a TMDL. For purposes of this approval, EPA interprets these waters as low priority for TMDL development. EPA is not making any determination, however, on whether the suggested control strategies can take the place of doing a TMDL in the future. Because these waters are still listed on the State’s §303(d) list, the requirement to do a TMDL exists if water quality standards are not met in the future. As the State transitions to the Integrated Report format, EPA New England would welcome the opportunity to discuss whether these, or other control strategies, will support moving these waters into Category 4b, where a use impairment caused by a pollutant is being addressed through other pollution control requirements.

With respect to the Group 5 waters for which a TMDL has already been approved, the State is not required to retain such waters on the §303(d) list and therefore EPA is not addressing these waters. We understand the State’s interest in keeping TMDL-approved waters on the list as a matter of public information if standards will not be met in two years. We expect that when Rhode Island adopts the integrated §§ 305(b)/303(d) list, such waters will be moved to a different section of the integrated list and will no longer be included on the §303(d) list.

- B) An “Overview and Explanation” that explains the 303(d) requirements and listing methodology.
- C) A list index, organized by watershed, that provides the cause of impairment(s) and the associated group for each listed water body segment.
- D) A summary of changes from the 2004 §303(d) list and the schedule for TMDL development, sorted by watershed.

2. Response to public comments

On May 11, 2006, RI DEM sent an announcement via e-mail and US mail regarding the availability of the draft list to over 600 individuals and organizations. A public workshop was held on May 22, 2006 and the public comment period extended through June 12, 2006. RI DEM did not receive any comments during the comment period. DEM replied to EPA’s comments in

the cover letter accompanying its final submission of the list. It also responded to EPA's concerns about certain delistings by submitting a revised final list on November 3, 2006.

For approval purposes, EPA has generally deferred to the State's organization and has evaluated the overall list rather than focus on the placement of a water body in one group or another. EPA - New England has also reviewed RI DEM's responses and concludes that RI has adequately responded to its comments.

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

EPA has reviewed the State's submission, and has concluded that the State developed its §303(d) list in compliance with Section 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.

Rhode Island used the RI DEM, Office of Water Resources assessment databases to develop its 2006 §303(d) list. The same databases are used to assist in the preparation of the biennial §305(b) report. All waters reported in the §305(b) report as "partially meeting" or "not meeting" designated uses are included on the §303(d) list.

As part of its assessment, RI DEM solicits and uses data from local, state, or federal agencies; members of the public; and academic institutions in the preparation of its §305(b) report and §303(d) list. Water quality information obtained from these organizations were incorporated into the 2006 §303(d) list. Particularly important external sources of information include the citizen monitoring groups: URI Watershed Watch, Wood-Pawcatuck Watershed Association, Salt Pond Watchers, and the Narrow River Preservation Association. Additional data is provided by the RI Department of Health, the USGS, EPA, the Narragansett Bay Commission, Save the Bay, the Providence Water Supply Board, and the Pawtucket Water Supply Board. Information from these organizations support, in part, assessments of salt ponds, freshwater lakes and ponds, and the Narrow, Pawtuxet, Wood-Pawcatuck and Blackstone Rivers. In addition, RI DEM funds the collection of biological data at 45 stations by the Environmental Science Services, a consulting firm, and chemical water quality data for 25 of these stations by University of Rhode Island.

RI DEM also uses predictive models and dilution calculations in concert with ambient and discharge data to identify water quality limited segments. Examples of such listed waters include the Blackstone River, the Providence- Seekonk River, the Pawtuxet River, and the Barrington-Palmer-Runnins Rivers.

Consistent with RI's long-standing policy, RI DEM routinely lists waters impacted by point source discharges of pollutants based on qualitative assumptions of the available dilution. For example, waters that receive discharges from CSOs have long been listed for pathogens even if water quality data are not available.

In assessing its waters, the State uses all data that it receives and includes all waters with known or suspected water quality standards violations in its final 2006 §303(d) list. In interpreting whether to use available data, RI DEM utilizes EPA's §305(b) Report guidance for ranking data quality. Where the State concludes that the data are not sufficient to support a determination of an impairment, and the water is expected to continue to meet criteria prior to the next listing cycle, it is not included in the §303(d) listing. For example, RI DEM accepts and reviews data provided from citizen monitoring programs. If the data have not been through an approved QA/QC program, consistent with §305(b) guidance, RI DEM may identify such a water body as "threatened" in the §305(b) Report until additional data can be obtained. However, the State would not use the data to make a determination of an impairment.

EPA has reviewed Rhode Island's description of the data and information it considered, and its methodology for identifying waters. 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).

New impairments

The State added thirteen water bodies not previously listed before, for mercury impairments:

Indian Lake	Ashville Pond	Eisenhower Lake
Watchaug Pond	Locustville Pond	Tiogue Lake
Tucker Pond	Wyoming Pond	J.L. Curran Reservoir
Larkin Pond	Browning Mill Pond	
Alton Pond	Boone Lake	

The State also added mercury impairments to four more water bodies which appear on the list for other impairments:

Yawgoo Pond	Pawtuxet River, mainstem
Hundred Acre Pond	Pawtuxet River, north branch.

Non-mercury impairments appear for the following water bodies not previously listed as impaired:

Great Salt Pond	Lockwood Brook	Baker Brook
Trim's Pond	Meadow Brook	Fenner Brook
Round Pond	Tomaquag Brook	Assapumpset Brook
Lily Pond	Brushy Brook	
Warner Brook	Coney Brook	

The following, previously listed water bodies, have had new, non-mercury impairments assigned:

Woonasquatucket River, segment D
Buckeye Brook
Bailey Brook
Maidenform River

Jamestown Brook
Pawtuxet River, main stem
Canonchet Brook

Delistings

For the 2006 §303(d) list cycle, the State has, in its November 3, 2006 submittal, delisted some or all of the impairments in four water body segments included on the 2004 §303(d) list. All of these water body segments remain on the list because of other impairments. The justifications supporting delisting of these waters are as follows:

(1) Pawtuxet River Mainstem (dissolved lead) – This water body segment was listed on the 2004 §303(d) list for dissolved lead. The most recent data collected by USGS were reviewed for the 2006 assessment, using EPA’s new criteria. With one exception, all the samples were below both the acute or chronic criteria. There was one exceedance of the chronic criterion; however, because there is an allowable frequency of exceeding the criterion of once every three years, water quality standards are being met for this pollutant, and EPA approves the delisting.

This water body remains on the list for pathogens, mercury, cadmium, low dissolved oxygen, nutrients, and biodiversity impacts.

(2) Woonasquatucket River, segments B and C (dissolved cadmium, copper and lead) – These water bodies were listed on Rhode Island’s 2004 §303(d) list for the noted dissolved metals. Samples collected in 2001 and 2002 at the location of the original stations were assessed. With one exception, all the samples were below both the acute or chronic criteria. For the dissolved lead impairment in segment C, there was one exceedance of the chronic criterion; however, because there is an allowable frequency of exceeding the criterion of once every three years, water quality standards are being met for this pollutant, and EPA approves the delistings.

Segment B remains on the list for pathogens and mercury. Segment C remains on the list for pathogens, mercury, zinc, PCBs, dioxins, excess algal growth/chlorophyll A, and low dissolved oxygen.

(3) Woonasquatucket River, segments D (dissolved cadmium) – This water body was listed on Rhode Island’s 2004 §303(d) list for the dissolved cadmium. There was one exceedance of the chronic criterion; however, because there is an allowable frequency of exceeding the criterion of once every three years, water quality standards are being met for this pollutant, and EPA approves the delisting.

This water body remains on the list for pathogens, mercury, zinc, copper, lead, PCBs, dioxins, low dissolved oxygen, and biodiversity impacts.

In its August 11, 2006 submittal of the final list document, RI proposed the delisting of eight additional water body segments impaired by dissolved cadmium. In these water bodies, both the acute and chronic criteria were below the quantitation level for the data, which is that level below which measurements cannot be verified as accurate. RI DEM proposed to delist the water body segments as all the data for these water body segments were below the quantitation level. In its review of the final list, EPA expressed some concern about the basis of the delisting being the quantitation level instead of the water quality criteria. In response, RI DEM decided to relist the water body segments in question while awaiting the findings of a national work group on the subject.

EPA has reviewed the documentation submitted by the state in support of its delisting proposals and has concurred with the State's bases for these delistings. EPA concludes that Rhode Island's listing process is conservative and appropriately adopts a broad-spectrum approach that utilizes both quantitative and non-quantitative information.

Priority Ranking

RI DEM has prioritized its list through its establishment of a schedule for completing TMDLs for waters on the list. According to the "Overview and Explanation" that accompanies the list, this schedule reflects the high consideration the State has given to "shellfishing waters, drinking water supplies and other areas identified by the public as high priority areas." Other relevant factors include the availability and quality of data identifying the causes for non-attainment of WQS, and whether or not the pollutant sources are known. Targeted waters are scheduled for TMDL completion. For the purposes of this approval, EPA has interpreted Group 5 waters that do not have an approved TMDL to be low priority for TMDL development, based on the State's expectation that other actions will result in water quality standards being achieved.

Group 1 – Waters in Group 1 of the list are identified as those for which a TMDL analysis is underway. TMDLs for 33 of the water body segments in Group 1 are targeted for completion in 2006-2007. A number of these waters are listed for multiple pollutants that will be addressed during this period. The majority of these targeted waters are listed for nutrient, low dissolved oxygen, pathogen problems, and heavy metals. The remaining 10 waters in Group 1 are scheduled for TMDL development in 2008-2010.

Group 2 – Waters in Group 2 are scheduled for development of TMDLs in the future. The majority (37) are scheduled for TMDL development in 2010-2012. Thirty three waters are scheduled for TMDL development in the period 2012-2016. DEM has aligned the scheduling of the TMDLs for Group 2 water bodies so that most of them may be conducted on a watershed basis.

Group 3 and 4 – As described above, additional information is needed for waters in Groups 3 and 4 to further document the nature and extent of water quality standard violations in these waters. There are no waters included in Group 3 of the 2006 submission. There are 8 waters

included in Group 4; six of these are listed for biodiversity impairments that may be associated with flow. Dates for TMDL development are not proposed.

Group 5 – For waters on Group 5 that do not have an approved TMDL, EPA interprets these waters to be low priority for TMDL development based on the State's expectation that other actions will result in water quality standards being achieved. EPA is not making any determination, however, on whether the suggested control strategies (e. g., RIPDES permits, Records of Decision, the regional Mercury Action Plan), can take the place of doing a TMDL in the future. Because these waters are still listed on the State's 303(d) list, the requirement to do a TMDL exists if water quality standards are not met in the future. As the State transitions to the Integrated Report format, EPA New England would welcome the opportunity to discuss whether these, or other control strategies, will support moving these waters into Category 4b, where a use impairment caused by a pollutant is being addressed through other pollution control requirements.

EPA-New England finds the water body prioritization and targeting method used by Rhode Island to be acceptable for purposes of Section 303(d) list approval. The State properly took into account the uses of the listed waters and factored in public comment on its draft list, the severity of pollution and other relevant factors.

Water bodies on tribal lands

EPA's approval of Rhode Island's § 303(d) list extends to all water bodies on the list with the exception of those waters, if any, that are within Indian Country, as defined in 18 U.S.C. § 1151. EPA is taking no action to approve or disapprove the State's list with respect to those waters at this time. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under § 303(d) for those waters.

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. Nasti, 291 F.3d 1123 (9th Cir. 2002). See also EPA's Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act – EPA Office of Water-- July 29, 2005. Waters identified by the State as impaired or threatened by nonpoint sources of pollution (NPS) were appropriately considered for inclusion on RI's 2006 §303(d) list. RI properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d)

regulations and EPA guidance. Numerous waters on RI's 2006 §303(d) list are impaired solely because of nonpoint sources of pollution.

While the state NPS assessment prepared in 1989 has not been updated and many of the original assessments were based on aerial photographs, land-use information and old or scant data, RI DEM continues to re-evaluate the original NPS assessment data and gathers additional data as necessary to support either continued listing and TMDL development or removal from the list. No waters were delisted during this listing cycle based on RI's reevaluations of the NPS data.

EPA - New England concludes that RI DEM properly considered waters identified by the State as impaired or threatened in nonpoint assessments under Section 319 of the CWA in the development of the 2006 §303(d) list.