

July 29, 2008

Alicia Good, Assistant Director
Rhode Island Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, RI 02908

Dear Ms. Good:

Thank you for your submission of the State of Rhode Island 2008 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 2008 §303(d) list and supporting documentation. Based on this review, EPA has determined that Rhode Island's 2008 §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 April 1, 2008.

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 body 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.

The Rhode Island Department of Environmental Management (RI DEM) has 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 Rhode Island'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 RI DEM devoted to preparing its 2008 §303(d) list. Your staff has done an excellent job of preparing a comprehensive and informative list, and providing EPA with thorough supporting documentation and assistance. We would also like to commend you and your staff on your successful submission of the list by the regulatory deadline of April 1, 2008.

My staff and I look forward to continued cooperation with RI DEM in implementing the requirements under §303(d) of the CWA. If you have any questions regarding EPA's review or this approval, please contact Steve Silva at (617) 918-1561 or have your staff contact Steven Winnett at (617) 918-1687.

Sincerely,

/s/

Stephen S. Perkins, Director
Office of Ecosystem Protection

Enclosure

cc: Angelo Liberti, RI DEM
Elizabeth Scott, RI DEM
Connie Carey, RI DEM
Stephen Silva, EPA
Lynne Hamjian, EPA
Ann Williams, EPA
Steven Winnett, EPA

EPA NEW ENGLAND'S REVIEW OF RHODE ISLAND'S 2008 CWA SECTION 303(d) LIST

I. INTRODUCTION

EPA has conducted a complete review of Rhode Island's (RI) 2008 Section 303(d) list and supporting documentation and information. 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 implementing regulations. Therefore, by this order, EPA hereby approves Rhode Island's 2008 final Section 303(d) list, submitted on April 1, 2008 and a component of the State's *2008 Integrated Water Quality Report to Congress submitted pursuant to the Federal Clean Water Act Sections 305(b) and 303(d)*, which was also submitted on April 1, 2008. The statutory and regulatory requirements, and EPA's review of Rhode Island's compliance with each requirement, are described in detail below.

The purpose of this review document is to describe the rationale for EPA's approval of Rhode Island's 2008 Section 303(d) list. The following sections identify key elements to be included in the Section 303(d) list submittal based on the Clean Water Act and EPA regulations. See 40 CFR Section 130.7. The content of this review is based upon EPA *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act*, dated July 29, 2005 (U.S. EPA, 2005 -- available at <http://www.epa.gov/owow/tmdl/2006IRG/>) and as supplemented by 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*.

EPA reviewed Rhode Island's 2007 *Consolidated Assessment & Listing Methodology for 305(b) and 303(d) Integrated Water Quality Monitoring and Assessment Reporting* (RI CALM) used to develop the Section 303(d) list and the State's description of the data and information it considered during preparation of the list. EPA's review of Rhode Island's Section 303(d) list is based on an analysis of whether the State reasonably considered all existing and readily available water quality-related data and information, and reasonably identified waters required to be listed. EPA also closely examined all the requests made by the State to remove water bodies from the 2008 Section 303(d) list that had appeared on the previous list in 2006 to ensure that only those which had the proper justification were allowed to be removed. The paragraphs below are arranged to reflect the organization of guidance from EPA, titled, *Recommended Framework for EPA Approval Decisions on 2002 State Section 303(d) List Submissions*, transmitted in a memorandum from EPA Headquarters dated May 20, 2002.

II. STATUTORY AND REGULATORY BACKGROUND

Identification of WQLSs for Inclusion on Section 303(d) List

Section 303(d)(1) of the Act directs states to identify those waters within their 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 (WQS) 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 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 Section 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 guidance (U.S. EPA, 2005) describes categories of water quality-related data and information that may be existing and readily available. 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 Section 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 Section 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 guidance (U.S. EPA, 2005).

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

Rhode Island's Department of Environmental Management (DEM) submitted a final 2008 Section 303(d) list to EPA, along with responses to comments it received, on April 1, 2008. The State submitted the 2008 integrated report on April 1, 2008. The integrated report included the final Section 303(d) list under review here. The 2008 Section 303(d) list includes all waters that have been assigned to EPA Category 5 in accordance with the RI CALM. The Section 303(d) list contains a schedule prioritizing EPA Category 5 water bodies for TMDL development by 2008, 2010, 2012, 2016, and 2022 (Appendix G, Category 5 Waters, and Appendix J, Summary).

The State submitted a draft Section 303(d) list along with supporting documentation to EPA for its review on February 17, 2008. The draft list went to public notice and the comment period began on February 20, 2008 with notice posted on DEM's website, press releases, and mailings and emails to many stakeholders. A public informational meeting was held on March 4, 2008; eleven people attended. EPA submitted comments on the draft list on March 18, 2008. Eight parties, including EPA, submitted comments. In its final submission, the State gave responses to all comments, and explained the revisions made to the list prior to its submission to EPA for final approval.

The final 2008 State of Rhode Island Integrated Water Quality Monitoring and Assessment Report includes the following components:

- Appendix A: Index of Waterbodies and Category Listings;
- Appendix B: EPA Category 1 Waters, All Uses Supported;
- Appendix C: EPA Category 2 Waters, One or More Uses Supported;
- Appendix D: EPA Category 3 Waters, One or More Uses Not Assessed;
- Appendix E: EPA Category 4-A Waters – TMDL has been developed and approved;

- Appendix F: EPA Category 4-C Waters – Impairment is caused by pollution but not a pollutant;
- Appendix G: EPA Category 5 Waters – Waters impaired according to Section 303(d) of the Clean Water Act and TMDLs may be needed;
- Appendix H: EPA Category 4-B Waters – Other pollution control requirements have been established to address the impaired water;
- Appendix I: Delisting Document – Waterbodies Proposed for Removal from the 303(d) List for Meeting Water Quality Standards;
- Appendix J: Summary of Waterbody Impairments, TMDL Schedules, Approved TMDLs, and Delisted Impairments;
- Appendix K: CALM Public Participation;
- Appendix L: 2008 Integrated Report Data Request;
- Appendix M: Draft 303(d) Announcement and Press Release; and
- Appendix N: Response to Comments and Draft 2008 303(d) List.

Rhode Island has included all waters known or suspected not to be meeting water quality standards on the Section 303(d) list, or in EPA Category 4, as discussed below. Under its current listing approach, Rhode Island keeps a water body on its impaired waters list until it is shown that water quality standards are being attained, criteria are met for its placement in EPA Category 4, or the initial listing was incorrect. 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.

EPA Category 4 includes waters that are currently not meeting water quality standards but do not need a TMDL completed due to one of three reasons. Category 4A lists waters for which a TMDL has already been approved. Category 4B includes waters for which a “functionally equivalent” control action has been developed. An impairment caused by a pollutant is being addressed through other pollution control requirements. Waters in Category 4C are not attaining water quality standards but the cause is not associated with a pollutant. EPA reviews the Category 4 list to insure that the waters are categorized appropriately and do not belong in Category 5.

EPA Category 5 contains waters where available data and/or information indicates that the water is impaired or threatened by pollutants for one or more designated uses and a TMDL is required. Federal Regulations in 40 CFR Section 130.7 requires EPA to review and approve or disapprove the Category 5 list of impaired waters.

Response to public comments

Following DEM’s public notice of the draft 303(d) list and a public meeting on it, eight parties, including EPA, submitted comments. The State provided a detailed Response to Comments summary along with submission of the final impaired waters list on April 1, 2008. In it, DEM provided a copy of each comment letter. The text of the Responsiveness document grouped the

public comments and provided the State's responses to each question or issue raised. EPA has reviewed DEM's responses and concludes that Rhode Island has adequately responded to the public 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 Section 303(d) list in compliance with Section 303(d) of the Act and 40 CFR Section 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. The assessment methodology used by Rhode Island is described in the RI CALM.

For the 2008 assessment cycle, DEM, for the first time, used the US EPA's Assessment Database (ADB) to house the water quality assessment information and generate the Integrated Lists.

As noted in the CALM, DEM strives to consider all readily available water quality data and related information in developing the Integrated Lists. In determining if data are appropriate, DEM considers quality assurance/quality control, data quality objectives, monitoring design, age of data, accuracy of sampling location information, data documentation and data format (hard copy versus electronic).

The primary source of data generated for assessments is developed from programs consistent with the Water Monitoring Strategy, and as described in Chapter III.A of the 2006 305(b) Report (<http://www.dem.ri.gov/pubs/305b/index.htm>). There is a variety of data generated by programs outside of the Water Monitoring Strategy framework. This includes data generated by special projects, research, volunteer efforts, and the federal government. DEM is interested in all such data and gives it consideration but the applicability to the assessment process may be limited by the sampling design and data quality objectives of those projects. That data, because it generally has not been collected for assessment purposes, may be limited for application in assessments due to the frequency of sampling, indicators collected, number of samples, etc. The data quality objectives outlined in the CALM are used to allow DEM to determine, in a consistent manner, whether this data can be used to make determinations about the water quality attainment status.

DEM actively solicited submittal of such data and information for consideration in developing the 2008 Integrated Report. In addition to the monitoring programs described within the 2006 305(b) Report, DEM only received data from the Providence Water Supply Board for consideration in the development of the 2008 water quality assessments. The data used to generate the information for this report are generally from 2002 through 2006, however, some data collected in 2007 was available for incorporation as well.

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.

In addition to the changes DEM made in its methodology to accommodate EPA's Integrated Report format, EPA notes that DEM made other changes to its listing methodology.

1. DEM made changes to several classes of impairments/causes used in earlier 303(d) lists, incorporating more specificity into their terminology to better characterize the actual cause or impairment. As identified on pages v-vi of the listing document (Appendix G), changes were made to the terminology to represent the following causes/impairments: biodiversity impacts, nutrients, pathogens, mercury, total toxicity, and unknown toxicity.
2. DEM has simplified their listing methodology and reclassified a number of terms used in the past to denote causes of pollution as "observed effects." For instance, a number of these observed effects (see pages vii – viii of the listing document) have been associated in the past as causes with nutrient impairments, and were generally delisted with approved TMDLs for phosphorus or nitrogen, or when the water body met WQS for one of those nutrient pollutants.

In order to prepare the 2008 Section 303(d) list, the State established a date by which data would be considered for this listing cycle. Data collected from the public (the solicitation of which was published on February 15, 2007) through April 15, 2007 are relied upon for these assessments. Assessment data are maintained by the State in the EPA Section 305(b) Assessment Database (ADB).

EPA has reviewed Rhode Island's description of the data and information considered in development of the Section 303(d) list, including but not limited to the State's methodology for identifying waters, data in ADB, and the Rhode Island water quality standards. 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 Section 130.7(b)(5).

The State provided its rationale for not relying on particular existing and readily available water quality-related data and information as a basis for listing waters. Waters included in Category 5 of the 2008 Section 303(d) list were assessed using the RI CALM. Based upon that assessment, a total of 141 water body segments have been assigned to Category 5 of the impaired waters list.

New Impairments

The State added 10 water body segments to Category 5 in 2008 that had not previously been listed for any impairment, as indicated in Table 1, below.

Table 1 - New water body segments added to Rhode Island's 2008 Section 303(d) List

<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Cause of Impairment</u>
Blackamore Pond	RI0006018L-06	total phosphorus
Canob Brook	RI0008040R-23	iron
East Passage, segment O	RI0007029E-01O	dissolved oxygen
Melville Ponds	RI0007029L-01	total phosphorus
Mud Brook	RI0008039R-39	enterococcus bacteria
Parsonage (Knowles) Brook	RI0007024R-02	fecal coliform & enterococcus bacteria
Pawcatuck River & Tribs, segment C	RI0008039R-18C	enterococcus bacteria
Unnamed Tribs to Slack Reservoir	RI0002007R-15	enterococcus bacteria
West Passage, segment J	RI0007027E-03J	dissolved oxygen
White Brook Pond	RI0008038L-26	total phosphorus

Five water body segments identified in Table 2a remain on the list from 2006 and have had a new impairment added in 2006.

Table 2a - Waters listed as impaired on the 2006 List with a new impairment added in 2008

<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Cause of Impairment Added</u>
Bailey's Brook & Tribs	RI0007035R-01	enterococcus bacteria
Blackstone River, segment A	RI0001003R-01A	PCBs & Mercury in fish tissue
Blackstone River, segment B	RI0001003R-01B	PCBs & Mercury in fish tissue
Mill River	RI0001003R-03	fecal coliform bacteria
Pawcatuck River & Tribs, segment D	RI0008039R-18D	enterococcus bacteria

Bailey's Brook & Tribs, the Blackstone River segments, and Pawcatuck River and Tribs have existing listings for biodiversity impacts. In addition, Bailey's Brook & Tribs and Mill River have existing listings for lead (Pb). The Blackstone segments and Mill River have existing fecal coliform listings, and the Blackstone segments have additional listings for copper (Cu), phosphorus, and dissolved oxygen. Finally, the Blackstone River B segment's aquatic plant listings have been placed in Category 4C.

In addition, the State added two water bodies, identified in Table 2b, whose other, previously listed impairments have been moved to Category 4 (impaired but does not require development of a TMDL).

Table 2b - Waters with existing listings in Category 4, with a new impairment added in 2008

<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Cause of Impairment Added</u>
Chickasheen Brook	RI0008039R-05A	enterococcus bacteria
Lake Washington	RI0005047L-04	total phosphorus

Chickasheen Brook has an approved TMDL for total phosphorus (Category 4A) and Lake Washington has an existing impairment for non-native aquatic plants that has been moved to Category 4B (not due to a pollutant loading).

Two water body segments identified in Table 3 were redefined for the 2008 assessment. The Pocasset River and Tribs was split into multiple segments as described. The new water body segments are the result of the refinements made to more accurately portray the areas that are impaired. For the Pocasset River and Tribs, the newly defined impaired segment is separated from the unassessed reach of the water body segment as it was listed on the 2006 Section 303(d) list. For the Great Salt Pond segments, two existing segments were redefined.

Table 3 - Waters in Category 5 on the 2006 List that have been redefined in 2008

- Pocasset River & Tribs (RI0006018R-03) has been split into Pocasset River & Tribs segments A and B (RI0006018R-03A and -03B). The A segment has been placed into Category 3 (use attainment not assessed) and the B segment is listed with impairments for lead (Pb) and fecal coliform bacteria.
- Great Salt Pond/Trim's Pond (RI001046E-01C): In the 2006 cycle, the western portion of Trim's Pond, a cove area in the Great Salt Pond on Block Island, was broken off into its own assessment unit (01C). For the 2008 cycle, the rest of Trim's Pond and all of Harbor Pond, another cove in the Great Salt Pond, were added to the this unit. Those regions were removed from the Great Salt Pond unit, 01B.

While EPA is not acting to approve or disapprove Rhode Island's listing methodology, we have reviewed the material and we conclude that the methodology DEM used to develop the impaired waters list is reasonable and consistent with Rhode Island's water quality standards, and with the Clean Water Act and EPA Section 303(d) regulations and guidelines.

Delistings

For the 2008 Section 303(d) list cycle, the State has, in its April 1, 2008 submittal, delisted some or all of the impairments in eight water body segments included on the 2006 Section 303(d) list because they are now meeting water quality standards. The following tables provide a summary of water body segments partially or fully delisted from 2006 to 2008. These segments were listed as impaired in 2006 and are being completely or partially moved off the Section 303(d) list in this assessment cycle. DEM supplied up-to-date information on all the State's waters as part of this assessment cycle.

Full Delistings

Four water body segments, previously listed as impaired for pathogens, are meeting all their designated uses and water quality criteria and are therefore being completely delisted and placed in Category 1 (see Table 4, below).

Robin Hollow Pond was listed for total coliform bacteria impairments in 1998. DEM stopped collecting total coliform data soon after this listing as it was no longer considered an effective bacterial indicator. DEM has since proposed to remove it as an indicator in its last triennial review of its water quality standards. EPA approved that removal. The Pawtucket Water Supply Board collected several years of E coli. data for the Pond which suggest that the water body is meeting EPA's recommended E coli criteria. In the absence of adopted E coli criteria, DEM may use EPA's recommended criteria to delist the water body. The E coli. data for Robin

Hollow Pond show that the Pond is meeting the geomean criteria, and although there is one sample in the three years of sampling which does not meet the single sample maximum value for infrequent swimming use, this sample was taken during the non-swimming season. DEM documented in a separate communication that the water body receives only infrequent swimming use based on the ownership of the pond’s entire shoreline by the Pawtucket Water Supply Board and the restricted access it imposes. EPA therefore finds that the preponderance of evidence shows that the Pond is supporting its designated use for swimming, and EPA therefore approves the removal of this water body from the 303(d) list.

Gilbert Stuart Stream meets RI’s Class A criteria for fecal coliform, and EPA approves its delisting. The Great Salt Pond segment D and Potter Pond Channel (Point Judith Pond segment H) meet RI’s shellfishing criteria for fecal coliform and EPA approves their delistings.

Table 4 - Waters fully delisted – moved to Category 1		
<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Reason for Full Delisting</u>
Robin Hollow Pond	RI0001006L-04	meets WQS, for E coli. bacteria
Gilbert Stuart Brook	RI0010044R-01	meets WQS, for fecal coliform bacteria
Great Salt Pond	RI0010046E-01D	meets WQS, for fecal coliform bacteria
Potter Pond Channel	RI0010043E-06H	meets WQS, for fecal coliform bacteria

Partial Delistings

Four water body segments are being partially delisted (see Table 5 below). These four segments remain listed in Category 5 for other impairments. All four segments are meeting WQS for one of their impairments.

Following the completion of required upgrades to its three POTWs, the Pawtuxet River Main Stem is now meeting water quality standards for dissolved oxygen. It remains listed in Category 5 for benthic-macroinvertebrate bioassessments (biodiversity impacts), cadmium (Cd), mercury in fish tissue, phosphorus, and fecal coliform, and its non-native aquatic plant impairment has been placed in Category 4C.

The Peters River now meets water quality standards for lead, but remains on the list for copper and fecal coliform bacteria. The Blackstone River, segments A and B now meet water quality standards for lead and ammonia (unionized). Both segments remain listed as explained above (on page 7, under Table 2a).

For each of the full and partial delistings described below, EPA agrees that the State has reasonably concluded that the waters no longer need to be on the 303(d) list because they are now meeting WQS for the identified impairment, and EPA approves their delisting.

Table 5 - Waters partially delisted – remaining in Category 5 for another impairment

<u>Waterbody Name</u>	<u>Water Segment ID #</u>	<u>Reason for Partial Delisting</u>
Pawtuxet River Main Stem	RI0006017R-03	meets WQS, for dissolved oxygen
Peters River	RI0001003R-04	meets WQS, for lead
Blackstone River, segment A	RI0001003R-01A	meets WQS, for lead and ammonia
Blackstone River, segment B	RI0001003R-01B	meets WQS, for lead and ammonia

Category 4

The following tables show a summary of previously Section 303(d)-listed water bodies that are not listed in Category 5 of this 2008 Section 303(d) list, and those other impaired water bodies, not previously listed, that are not listed now. These segments are impaired for one or more designated uses, but do not need a TMDL for one of three reasons specified. Water body segments in Category 4A (Table 6 below) have a State developed TMDL which has been approved by EPA during the 2008 listing cycle. Segments listed in Category 4B (Table 7 below) have other required control measures which are expected to result in attainment of an applicable water quality standard in a reasonable period of time. Category 4C (Tables 8a-c below) contains water body segments for which the State has demonstrated that the failure to meet water quality standards is not caused by a pollutant, but rather by other types of pollution.

Category 4A

For the water bodies removed from the 2008 Section 303(d) list to Category 4A, TMDLs for the pollutant of concern have been completed and approved by EPA. In all, 86 water body-pollutant combinations were placed in Category 4A, as this is RI's first integrated report and the first opportunity to move waters with approved TMDLs into that category. The 40 TMDLs approved during the 2008 listing cycle are identified in Table 6.

Table 6 - Waters fully or partially moved to Category 4A – TMDL completed

<u>Water Body Name</u>	<u>Water Body Segment ID</u>	<u>Water Body Towns</u>	<u>EPA Approved</u>	<u>TMDL Parameter(s)</u>
Almy Pond	RI0010047L-01	Newport	9/27/07	Total Phosphorus
Alton Pond*	RI0008040L-01	Hopkinton	12/20/07	Mercury in fish tissue
Ashville Pond*	RI0008040L-04	Hopkinton	12/20/07	Mercury in fish tissue
Assapumpset Brook & Tribs	RI0002007R-01	Johnston	7/03/07	Fecal coliform
Boone Lake*	RI0008040L-14	Exeter	12/20/07	Mercury in fish tissue
Brickyard Pond	RI0007020L-02	Barrington	9/27/07	Total phosphorus

Browning Mill (Arcadia) Pond*	RI0008040L-13	Exeter, Richmond	12/20/07	Mercury in fish tissue
Eisenhower Lake*	RI0008040L-16	West Greenwich	12/20/07	Mercury in fish tissue
Gorton Pond	RI0007025L-01	Warwick	9/27/07	Total phosphorus
Hundred Acre Pond*	RI0008039L-13	South Kingston	12/20/07	Mercury in fish tissue
Indian Lake*	RI0010045L-04	South Kingston	12/20/07	Mercury in fish tissue
J.L. Curran (Fiskeville) Reservoir*	RI0006016L-02	Cranston	12/20/07	Mercury in fish tissue
Kickemuit Reservoir (Warren Reservoir)	RI0007034L-10	Warren	9/28/06	Total Phosphorus, Fecal coliform
Larkin Pond*	RI0008039L-11	South Kingstown	12/20/07	Mercury in fish tissue
Locustville Pond*	RI0008040L-10	Hopkinton	12/20/07	Mercury in fish tissue
Mashapaug Pond	RI0006017L-06	Cranston and Providence	9/27/07	Total Phosphorus
Meadowbrook Pond* (Sandy Pond)	RI0008039L-05	Richmond	12/20/07	Mercury in fish tissue
North Easton Pond (Green End Pond)	RI0007035L-03	Middletown, Newport	9/27/07	Total Phosphorus
Quidnick Reservoir*	RI0006013L-04	Coventry	12/20/07	Mercury in fish tissue
Roger Williams Park Ponds	RI0006017L-05	Providence	9/27/07	Total Phosphorus
Sand Pond (N. of Airport)	RI0006017L-09	Warwick	9/27/07	Total Phosphorus
Spectacle Pond	RI0006017L-07	Cranston	9/27/07	Total Phosphorus
Tiogue Lake*	RI0006014L-02	Coventry	12/20/07	Mercury in fish tissue
Tucker Pond*	RI0008039L-08	South Kingstown	12/20/07	Mercury in fish tissue
Upper Dam Pond	RI0006014L-04	Coventry	9/27/07	Total Phosphorus
Upper Kickemuit River	RI0007034R-01	Warren	9/28/06	Fecal coliform

Warwick Pond	RI0007034L-02	Warwick	9/27/07	Total Phosphorus
Watchaug Pond*	RI0008039L-02	Charlestown	12/20/07	Mercury in fish tissue
Wincheck Pond*	RI0008040L-06	Hopkinton	12/20/07	Mercury in fish tissue
Woonasquatucket River & Tribs, segment A	RI0002007R-10A	Smithfield, N. Smithfield	7/03/07	Zinc
Woonasquatucket River & Tribs, segment B	RI0002007R-10B	Smithfield	7/03/07	Fecal coliform
Woonasquatucket River & Tribs, segment C	RI0002007R-10C	Smithfield, Johnston, N. Providence, Providence	7/03/07	Zinc, Fecal coliform
Woonasquatucket River, segment D	RI0002007R-10D	Providence	7/03/07	Lead, copper, zinc
Wyoming Pond*	RI0008040L-11	Hopkinton	12/20/07	Mercury in fish tissue
Yawgoo Pond*	RI0008039L-15	Exeter, South Kingstown	12/20/07	Mercury in fish tissue
Yawgoog Pond*	RI0008040L-07	Hopkinton	12/20/07	Mercury in fish tissue

*These water bodies were placed in Category 4A by the approval of the NE Regional Mercury TMDL, on December 20, 2007

Category 4B

The State's decision to include waters in Category 4B rather than on its 2008 Section 303(d) list is consistent with EPA regulations at 40 CFR Section 130.7(b)(1). These waters were previously identified on the State's 2006 Section 303(d) list. Under 40 CFR Section 130.7(b)(1), states are not required to list impaired waters where effluent limitations required by the CWA, more stringent effluent limitations required by state or local authority, or other pollution control requirements required by state, local, or federal authority, are stringent enough to implement applicable water quality standards. The regulation does not specify the time frame in which these various requirements must implement applicable water quality standards to support a state's decision not to list particular waters. EPA guidance states that water quality standards must be attained within the near future (U.S. EPA, 2005).

Monitoring should be scheduled for these waters to verify that the water quality standard is attained as expected in a reasonable time frame. Where standards will not be attained through implementation of the requirements listed in 40 CFR Section 130.7(b)(1) in a reasonable time, it is appropriate for the water to be placed on the Section 303(d) list to ensure that implementation of the required controls and progress towards compliance with applicable standards is tracked. If it is determined that the water is meeting applicable standards when the next Section 303(d) list is developed, it would be appropriate for the State to remove the water from the list at that time.

In this case, the State has placed 4 segments into Category 4B pursuant to 40 CFR Section 130.7(b)(1)(ii). To support this decision, the state must demonstrate, consistent with the regulation and EPA guidance (U.S. EPA, 2005), that there are more stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the [Clean Water] Act, or Federal authority (law, regulation, or treaty) sufficient to achieve applicable water quality standards for the pollutants of concern within a reasonable period of time. DEM and EPA will evaluate waters listed in Category 4B during subsequent listing cycles to ensure that they continue to meet the criteria and do not warrant placement in Category 5.

Four water body segments were moved to Category 4B in the 2008 listing cycle (see Table 7 below). The estuarine segments of Mt. Hope Bay (RI0007032E-01A, 01B, 01C, 01D) have been impaired by thermal modifications and biodiversity impacts by the cooling water discharges from the Brayton Point Power Station in Somerset, MA. The plant withdraws nearly one billion gallons of water per day for cooling water, then discharges it back to the Bay, raising bay temperatures approximately 1.5 degrees F. The elevated temperatures have degraded normal aquatic habitats, disrupted fish migration, and made the bay inhospitable to native species. The withdrawal itself is responsible for killing aquatic organisms directly in the plant. The elevated temperatures also violate water quality standards for temperatures.

EPA renewed the Brayton Point NPDES permit (No. MA0003654) on October 6, 2003 with strict limits to reduce total heat discharge and reduce water withdrawals. The limits were established to ensure that water quality standards would be met. Once compliance is achieved habitat quality will improve and annual fishery losses are expected to be reduced by 94%. The permit was appealed, and subsequently resolved, with the permit limits effective December 18, 2007. As part of its December 17, 2007 agreement to end all permit litigation, the owner of the power station, Dominion Energy, is planning to install natural draft cooling towers as part of its compliance with the permit. EPA has issued an administrative order which contains a schedule for compliance with the permit limits within 36 months of obtaining all construction and operating permits.

EPA has determined that the four Mt. Hope Bay water body segments are appropriate for listing in Category 4B. The State will continue to assess the Bay segments in subsequent listing cycles to determine if they remain appropriate for listing in Category 4B or if they warrant placement into Category 5 again.

Table 7 - Waters moved from to Category 4B – other pollution control in place		
<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Other requirements in place</u>
Mt Hope Bay, segment A	RI0007032E-01A	Brayton Point NPDES discharge permit
Mt Hope Bay, segment B	RI0007032E-01B	Brayton Point NPDES discharge permit
Mt Hope Bay, segment C	RI0007032E-01C	Brayton Point NPDES discharge permit
Mt Hope Bay, segment D	RI0007032E-01D	Brayton Point NPDES discharge permit

Category 4C

The State has demonstrated that the water body segments moved into Category 4C are not attaining water quality standards as the result of pollution rather than the presence of a pollutant (Table 8, below). The Clean Water Act defines pollution as “the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.”

The six Newport water supply reservoirs, Gardiner, Nelson Paradise, North Easton, Saint Mary’s, and Sisson Ponds, and Lawton Valley Reservoir, were all listed due to observed water level fluctuations, although there were no data showing aquatic life use impairments. Since water level fluctuations are a physical impairment and not considered to be pollutants, these water bodies are appropriately classified under Category 4C.

Table 8a – 2006 listed waters moved to Category 4C – not impaired by a pollutant

<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Cause of impairment</u>
Gardiner Pond	RI0007035L-01	Other flow regime alterations
Nelson Paradise Pond	RI0007035L-02	Other flow regime alterations
North Easton Pond (Green End Pond)	RI0007035L-03	Other flow regime alterations
Saint Mary’s Pond	RI0007035L-05	Other flow regime alterations
Lawton Valley Reservoir	RI0007035L-06	Other flow regime alterations
Sisson Pond	RI0007035L-10	Other flow regime alterations
Bowdish Reservoir	RI0005047L-03	Non-native aquatic plants

In summary, EPA recognizes that Rhode Island’s delisting in 2008 of these previously Section 303(d)-listed water bodies has been done in accordance with Rhode Island’s 2007 listing methodology (RI CALM) and consistent with Rhode Island’s water quality standards. As provided in 40 CFR Section 130.7(b)(6)(iv), EPA requested that the State demonstrate good cause for not including these waters on its Section 303(d) list. The text of the 2008 list, and the data that DEM enters into EPA’s ADB present good cause for the State to include these waters in Category 4C of its 2008 integrated report.

DEM also identified new impairments not caused by a pollutant loading to both water bodies already on the 303(d) list for other causes (Table 8b) and to water bodies not previously listed for any impairment (Table 8c), below.

EPA notes that states have taken different approaches regarding identification of waters that may be impaired by aquatic nuisance species (ANS; also known as invasive or exotic species.) The different approaches taken by the states may reflect the fact that EPA has not determined whether aquatic nuisance species are pollutants within the definition of CWA 502(6) and has not provided guidance to the states on how to address waters that may be impaired by ANS. In addition, some states may not have appropriate methodologies for assessing ANS impairments. EPA intends to include clarification in the 2010 listing guidance on how monitoring and assessment methodologies should address the negative impacts of ANS on states' waters.

EPA concurs that the placement of these water bodies into Category 4C is appropriate, and has been done in accordance with Rhode Island's 2007 listing methodology (RI CALM) and consistent with Rhode Island's water quality standards.

Table 8b – Waters newly placed into Category 4C – not impaired by a pollutant – and with other listed impairments

<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Cause of impairment</u>
Slatersville Reservoir	RI0001002L-09	Non-native aquatic plants
Clear River, D segment	RI0001002R-05D	Non-native aquatic plants
Blackstone River, B segment	RI0001003R-01B	Non-native aquatic plants, Milfoil
Lily Pond	RI0010047L-02	Non-native aquatic plants
Barney Pond	RI0003008L-02	Non-native aquatic plants
Belleville Ponds	RI0007027L-02	Non-native aquatic plants
Chapman Pond	RI0008039L-01	Non-native aquatic plants, Milfoil
Three Ponds	RI0006017L-02	Non-native aquatic plants
Roger Williams Ponds	RI0006017L-05	Non-native aquatic plants
Pawtuxet River Main Stem	RI0006017R-03	Non-native aquatic plants
Ten Mile River & Tribs, A segment	RI0004009R-01A	Non-native aquatic plants
Lake Washington	RI0005047L-04	Non-native aquatic plants

Table 8c – Waters newly placed into Category 4C – not impaired by a pollutant – and with no other listed impairments

<u>Water Body Name</u>	<u>Water Segment ID #</u>	<u>Cause of impairment</u>
Carls Pond	RI0001006L-08	Non-native aquatic plants
Clear River, C segment	RI0001002R-05C	Non-native aquatic plants
Echo Lake (Pascoag Reservoir)	RI0001002L-03	Non-native aquatic plants
Keech Pond	RI0001002L-11	Non-native aquatic plants
Smith & Sayles Reservoir	RI0001002L-07	Non-native aquatic plants
Spring Lake (Herring Pond)	RI0001002L-04	Non-native aquatic plants
Tarkiln Pond	RI0001002L-08	Non-native aquatic plants
Asa Pond	RI0010045L-02	Non-native aquatic plants
Long Ponds	RI0010043L-07	Non-native aquatic plants
Quicksand Pond	RI0010048L-02	Non-native aquatic plants
Silver Spring Lake	RI0010044L-02	Non-native aquatic plants
Trustom Pond	RI0010043E-03	Non-native aquatic plants
Olney Pond	RI0003008L-01	Non-native aquatic plants
Echo Lake	RI0007020L-07	Non-native aquatic plants
Breakheart Pond	RI0008040L-15	Non-native aquatic plants
Pawcatuck River & Trib, E segment	RI0008039R-18E	Non-native aquatic plants
Worden Pond	RI0008039L-07	Non-native fish, shellfish, or zooplankton
Flat River Reservoir (Johnson Pond)	RI0006013L-01	Non-native aquatic plants
Maple Root Pond	RI0006013L-12	Non-native aquatic plants

Mishnock Lake	RI0006014L-01	Non-native aquatic plants, Non-native fish, shellfish, or zooplankton
Reynolds Pond	RI0006012L-05	Non-native aquatic plants
Tarbox Pond	RI0006012L-02	Non-native aquatic plants
Beach Pond	RI0005010L-01	Non-native aquatic plants
Wakefield Pond	RI0005047L-01	Non-native aquatic plants
Georgiaville Pond	RI0002007L-02	Non-native aquatic plants
Hawkin Ponds	RI0002007L-01	Non-native aquatic plants
Primrose Pond	RI0002007L-11	Non-native aquatic plants
Slack Reservoir	RI0002007L-03	Non-native aquatic plants

Priority Ranking

EPA also reviewed the State’s priority ranking of listed waters for TMDL development. DEM has prioritized its list through its establishment of a schedule from 2008 to 2022 for completing TMDLs for waters on the list. According to the State’s 2007 Consolidated Assessment and Listing Methodology for 305(b) and 303(d) Integrated Water Quality Monitoring and Assessment Reporting (CALM), 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.” In addition, EPA reviewed the State’s identification of WQLSs targeted for TMDL development in the next two years, and concludes that the targeted waters are appropriate for TMDL development in this time frame.

Combinations of water body segments and impairment are given a priority for TMDL development based on their place in DEM’s schedule. There are 141 water body segments in Category 5 with 282 (water body segment × impairment cause) combinations. DEM’s TMDL development schedule is as follows, with the number of combinations due for development by the date shown:

2008: 43
2010: 35
2012: 88
2016: 101
2022: 15

DEM recognizes that changes in priorities may take place as new waters are added to the list and as other information becomes available. Overall, Rhode Island is committed to completing TMDL development for all currently listed waters by the year 2022.

EPA concludes that Rhode Island’s water body prioritization and identification of waters targeted for TMDL study and/or development is reasonable and sufficient for the purposes of Section 303(d). DEM properly examined and considered the severity of pollution and uses of the listed waters, as well as other relevant factors identified in EPA’s regulations. Further, EPA has

determined that DEM priority ranking ensures reasonable progress in addressing high priority waters with challenging water quality problems (Memo from Geoffrey H. Grubbs, Supplemental Guidance on Section 303(d) Implementation, August 13, 1992). EPA and DEM assess yearly the pace of TMDL development versus the universe of impaired waters in the State.

Water bodies on tribal lands

EPA's approval of Rhode Island's Section 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. Section 1151. EPA is taking no action to approve or disapprove the State's list with respect to waters within Indian country at this time. EPA, or eligible Indian Tribe, as appropriate, will retain responsibilities under Section 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.C.A. 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 guidance (U.S. EPA, 2005). Waters identified by the State as impaired or threatened by nonpoint sources of pollution (NPS) were appropriately considered for inclusion on Rhode Island's 2008 Section 303(d) list. Rhode Island properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) regulations and EPA guidance.

EPA concludes that 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 2008 Section 303(d) list.