



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912**

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

Dear Ms. Good:

Thank you for submitting the final *Updates to the Rhode Island Statewide Bacteria TMDL* (Total Maximum Daily Load) document. The purpose of these TMDLs is to address the impaired recreational use in freshwaters in Rhode Island. These updates were developed with the intention of adding them to the State's approved 2011 Statewide Bacteria TMDLs, the documentation for which this submission appropriately references. The 2014 report covers five (5) bacteria-impaired water bodies on Rhode Island's 2012 303(d) list for *Enterococcus* bacteria, and one as yet unlisted, bacteria-impaired water body.

The U.S. Environmental Protection Agency hereby approves Rhode Island's August 2014 Updates to the Statewide Bacteria TMDLs, submitted with a cover letter dated August 27, 2014. EPA has determined that these TMDLs meet the requirements of Section 303(d) of the Clean Water Act (CWA), and of EPA's implementing regulations (40 CFR Part 130). Attached is a copy of our approval documentation.

We commend your staff's efforts and involvement with our office to develop and finalize these TMDLs. We believe the information, maps, data and references provided in the main TMDL document and appendices will educate, motivate, and assist stakeholders in tackling bacteria impairments at the local level. My staff and I look forward to continued cooperation with the Rhode Island DEM in exercising our shared responsibility of implementing the requirements under Section 303(d) of the CWA.

If you have any questions, please contact Ralph Abele (617-918-1629) or Steven Winnett (617-918-1687) of my staff.

Sincerely,

/S/

Ken Moraff, Director  
Office of Ecosystem Protection

cc: Angelo Liberti, RI DEM  
Elizabeth Scott, RI DEM  
Heidi Travers, RI DEM  
Ralph Abele, EPA  
Steven Winnett, EPA

## EPA NEW ENGLAND'S TMDL REVIEW

**TMDL:** Updates to the Rhode Island Statewide Bacteria TMDL

**STATUS:** Final

**IMPAIRMENT/POLLUTANT:** These six (6) water body segments are not meeting their designated uses of recreational use based on violations of the State's water quality criteria for freshwater Classes A, and B, and B1. Sources include both point and nonpoint sources. TMDLs are established in terms of concentrations and daily loads for *Enterococcus* bacteria.

**BACKGROUND:** On September 22, 2011, EPA Region 1 approved Rhode Island's Statewide Bacteria TMDL for 57 bacteria-impaired water bodies. The Rhode Island Department of Environmental Management (DEM) submitted draft TMDLs for additional bacteria-impaired rivers and streams to EPA Region 1 and the public on May 2, 2014. A public comment period was held from May 2 to June 20, 2014. DEM submitted to EPA Region 1 the final *Updates to the Rhode Island Statewide Bacteria TMDL* with a transmittal letter dated August 27, 2014. In addition to referencing appropriate sections of their approved 2011 TMDL document, DEM submitted updates to Sections 1 and 2 of the main TMDL report itself ("Core" document), and documentation of public participation in a new section 3. The submittal also included the following documents:

- TMDL report Appendices B and K, Water Body Reports (segment-specific information and bacteria data).
- TMDL report Appendix A, Response to Comments Received During the Public Comment Period.

The following review explains how the TMDL submission meets the statutory and regulatory requirements of TMDLs in accordance with § 303(d) of the Clean Water Act and EPA's implementing regulations in 40 CFR Part 130.

**REVIEWER:** Steven Winnett (617-918-1687) e-mail: winnett.steven@epa.gov

## REVIEW ELEMENTS OF TMDLs

*Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 C.F.R. § 130 describe the statutory and regulatory requirements for approvable TMDLs. The following information is generally necessary for EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and EPA regulations, and should be included in the submittal package. Use of the verb "must" below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation.*

### **1. Description of Waterbody, Pollutant of Concern, Pollutant Sources and Priority Ranking**

*The TMDL analytical document must identify the waterbody as it appears on the State/Tribe's 303(d) list, the pollutant of concern and the priority ranking of the waterbody. The TMDL submittal must include a description of the point and nonpoint sources of the pollutant of concern, including the magnitude and location of the sources. Where it is possible to separate natural background from nonpoint sources, a description of the natural background must be provided, including the magnitude and location of the source(s). Such information is necessary for EPA's review of the load and wasteload allocations which are required by regulation. The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as: (1) the assumed distribution of land use in the watershed; (2) population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources; (3) present and future growth trends, if taken into consideration in preparing the TMDL; and, (4) explanation and analytical basis for expressing the TMDL through surrogate measures, if applicable. Surrogate measures are parameters such as percent fines and turbidity for sediment impairments, or chlorophyll *a* and phosphorus loadings for excess algae.*

#### **A. Description of Waterbody, Priority Ranking, and Background Information**

The TMDL document addresses a total of five (5) bacteria-impaired river and stream segments listed in Rhode Island's 2012 303(d) list, and one, Spring Brook, that is impaired but has not yet appeared on a 303(d) list. These six segments are located in 2 of Rhode Island's 17 Watershed Planning Areas (TMDL, Figure 1.1 and Table 1.1). Table 1-2 of the TMDL document lists each impaired water segment (organized by watershed planning area), including each waterbody's name and assessment unit identifier, classification, location, and type of impairment.

A state-wide map as well as the lists of impaired waterbodies and locations are presented in the main body of the TMDL report, and site-specific maps and data are provided in the appendices (appendices are organized by Watershed Planning Area). Rhode Island's 2012 303(d) list indicates priority dates for development of TMDLs for these water bodies in 2014.

#### **B. Pollutant of Concern**

The bacteria impairment listings are based on monitoring data for various indicator organisms, depending on the resource type, and classification of the waterbody. The segments are listed for the presence of *Enterococci* bacteria.

#### **C. Pollutant Sources**

Bacteria impairments in these water bodies arise from both dry and wet weather events, year round. Potential point sources of bacterial pollution include: RIPDES-regulated stormwater runoff (including stormwater discharges authorized by the State's MS4 permits and RIDOT permit), and illicit discharges. Potential non-point sources of bacterial pollution include stormwater not regulated under the RIPDES program, septic and onsite systems, pet waste,

wildlife wastes, and agriculture. Actual segment-specific sources of bacterial pollution are identified in the watershed appendices when these sources are known.

**Assessment:** EPA Region 1 concludes that the TMDL document meets the requirements for describing the TMDL waterbody segments, pollutants of concern, and priority ranking, and identifying and characterizing sources of impairment.

## **2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target**

*The TMDL submittal must include a description of the applicable State/Tribe water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy. Such information is necessary for EPA's review of the load and wasteload allocations which are required by regulation. A numeric water quality target for the TMDL (a quantitative value used to measure whether or not the applicable water quality standard is attained) must be identified. If the TMDL is based on a target other than a numeric water quality criterion, then a numeric expression, usually site specific, must be developed from a narrative criterion and a description of the process used to derive the target must be included in the submittal.*

The TMDL report defines the appropriate water quality criteria for reducing public health risk from waterborne disease-causing organisms, for protecting designated recreation uses, and for implementing the antidegradation policy (2011 TMDL document, pp. 13-21). Water quality classification and water quality standards of all surface waters of the State of Rhode Island have been established by the Rhode Island Legislature in General Laws Chapter 46-12 and the Rhode Island Water Quality Regulations Rule 8.B.

According to Rhode Island's water classification program, bacteria-impaired waters are classified as AA, A, B, B1, and B1{a} for fresh waters, and SA, SA{b}, SB, SB1, SB{a}, and SB1{a} for salt waters. *Enterococcus* bacteria is the indicator organism for fresh water and for recreational use in salt waters, and fecal coliform is the indicator organism for shellfish growing and harvesting areas (tidal waters) following the standards developed under the National Shellfishing Sanitation Program (NSSP) by the United States Food and Drug Administration.

Rhode Island's water quality criteria for bacteria are used as the numeric water quality targets for the bacteria TMDLs (2011 TMDL document, p. 21). The numeric targets vary depending on the specific waterbody's use (e.g., recreation or shellfish consumption), waterbody classification (AA, A, B, B1, SA, SB), whether it has a designated beach, and whether it is fresh or salt water. The criteria used as water quality targets are listed in Table 2-2 of the 2011 TMDL report. The waters in these 2014 TMDL reports are freshwaters, so the saltwater classifications are not used.

**Assessment:** EPA concludes that, including references to the relevant sections of the original 2011 TMDL Core document, DEM has properly described and interpreted the applicable water quality standards (2011 TMDL document, pp. 11-21) to set the TMDL targets. Rhode Island DEM is directly applying the numeric criteria in its water quality standards as the TMDL targets.

### 3. Loading Capacity - Linking Water Quality and Pollutant Sources

*As described in EPA guidance, a TMDL identifies the loading capacity of a waterbody for a particular pollutant. EPA regulations define loading capacity as the greatest amount of loading that a water can receive without violating water quality standards (40 C.F.R. § 130.2(f)). The loadings are required to be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. § 130.2(i)). The TMDL submittal must identify the waterbody's loading capacity for the applicable pollutant and describe the rationale for the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In most instances, this method will be a water quality model. Supporting documentation for the TMDL analysis must also be contained in the submittal, including the basis for assumptions, strengths and weaknesses in the analytical process, results from water quality modeling, etc. Such information is necessary for EPA's review of the load and wasteload allocations which are required by regulation.*

*In many circumstances, a critical condition must be described and related to physical conditions in the waterbody as part of the analysis of loading capacity (40 C.F.R. § 130.7(c)(1)). The critical condition can be thought of as the "worst case" scenario of environmental conditions in the waterbody in which the loading expressed in the TMDL for the pollutant of concern will continue to meet water quality standards. Critical conditions are the combination of environmental factors (e.g., flow, temperature, etc.) that results in attaining and maintaining the water quality criterion and has an acceptably low frequency of occurrence. Critical conditions are important because they describe the factors that combine to cause a violation of water quality standards and will help in identifying the actions that may have to be undertaken to meet water quality standards.*

Rhode Island's bacteria TMDLs consist of two formats of targets for allowable levels of bacteria: (1) concentrations of bacteria, expressed as bacteria counts/100 ml of water, and (2) loads of bacteria, expressed as billions of bacteria/day (2011 TMDL document, pp. 32-34 and Appendix M). DEM considers both formats to be daily targets because the targets apply on any given day whenever the water quality standards are in effect in order to assure achievement of bacteria water quality criteria. Both formats express targets designed to attain the designated uses of recreation, and to meet the associated criteria in Rhode Island's water quality standards. Rhode Island DEM considers the concentration-based TMDL targets to be most useful for guiding implementation of bacteria controls because those targets are easy to understand, and achievement of those targets is more readily assessed by groups with limited resources (2011 TMDL document, pp. 33-34).

DEM compared the current conditions for each of the water bodies to the appropriate criteria components (geomean component for the *Enterococcus*). The station data-component combination with the largest violation of the criteria were used to conservatively estimate the current conditions for each segment, and percent pollution reductions necessary to meet the TMDL targets.

Rhode Island's water quality criteria for bacteria apply year round at all times. By setting the TMDL targets equal to the bacteria criteria, the TMDLs are applicable at all times and are therefore protective of water quality under all conditions and seasons. Achievement of those water quality goals will be assessed by ambient water quality monitoring.

**Assessment:** There is nothing in EPA's regulations that forbids expression of a TMDL in terms of multiple TMDL targets. TMDLs can be expressed in various ways, including in terms of toxicity, which is a characteristic of one or more pollutants, or by some "other appropriate measure" (40 C.F.R. §130.2(i)). The target loading capacities expressed in the TMDL document are set at levels which assure WQS will be met (criteria concentration and loading based on meeting ambient water quality criteria). The concentration loading capacity is based on the concentration criteria for each water body.

Both formats (concentration and load) express targets designed to attain the designated use of each waterbody segment based on a straightforward derivation of TMDL targets from the water quality criteria adopted by Rhode Island. Both formats will achieve water quality criteria for both dry and wet weather and for all storm events whenever they occur (i.e., on any given day). These approaches have been used by states for TMDL development and approved by EPA in the past.

EPA's November 15, 2006 guidance entitled "Establishing TMDL 'Daily' Loads in Light of the Decision by the U.S. Court of Appeals for the D.C. Circuit in Friends of the Earth, Inc. v. EPA, et al., No.05-5015, (April 25, 2006) and Implications for NPDES Permits," recommends that TMDL submittals express allocations in terms of daily time increments. In this case, the daily maximum mass loads were calculated by multiplying the concentration criterion by stream flow or waterbody daily water outflow volume (lakes and estuaries) and are expressed in terms of billions of organisms per day.

In summary, the loading capacity targets (both concentration and load-based) are directly linked to Rhode Island's water quality standards' bacteria criteria to achieve the designated uses of the waterbodies addressed by this TMDL report.

#### **4. Load Allocations (LAs)**

*EPA regulations require that a TMDL include LAs, which identify the portion of the loading capacity allocated to existing and future nonpoint sources and to natural background (40 C.F.R. § 130.2(g)). Load allocations may range from reasonably accurate estimates to gross allotments (40 C.F.R. § 130.2(g)). Where it is possible to separate natural background from nonpoint sources, load allocations should be described separately for background and for nonpoint sources.*

*If the TMDL concludes that there are no nonpoint sources and/or natural background, or the TMDL recommends a zero load allocation, the LA must be expressed as zero. If the TMDL recommends a zero LA after considering all pollutant sources, there must be a discussion of the reasoning behind this decision, since a zero LA implies an allocation only to point sources will result in attainment of the applicable water quality standard, and all nonpoint and background sources will be removed.*

The load allocation (LA) relates to existing and future nonpoint sources, natural background, and stormwater runoff not subject to RIPDES permitting. LAs are allocated based on the criteria established by Rhode Island's water quality standards, or are set at zero for prohibited discharges (2011 TMDL document, Tables 5-1, 5-2, and 5-3).

**Assessment:** As discussed in Section 3 of the 2011 TMDL document (under loading capacity), DEM used the applicable numeric water quality criteria directly related to the use-impairment which the TMDL is designed to address. Rhode Island DEM set water quality targets based on meeting criteria in each water body; the aggregate mass load allocation is derived from the applicable criteria and flow. EPA concludes that the load allocations for bacteria are adequately specified in the TMDLs at levels necessary to attain and maintain water quality standards.

## 5. Wasteload Allocations (WLAs)

*EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to existing and future point sources (40 C.F.R. § 130.2(h)). If no point sources are present or if the TMDL recommends a zero WLA for point sources, the WLA must be expressed as zero. If the TMDL recommends a zero WLA after considering all pollutant sources, there must be a discussion of the reasoning behind this decision, since a zero WLA implies an allocation only to nonpoint sources and background will result in attainment of the applicable water quality standard, and all point sources will be removed.*

*In preparing the wasteload allocations, it is not necessary that each individual point source be assigned a portion of the allocation of pollutant loading capacity. When the source is a minor discharger of the pollutant of concern or if the source is contained within an aggregated general permit, an aggregated WLA can be assigned to the group of facilities. But it is necessary to allocate the loading capacity among individual point sources as necessary to meet the water quality standard.*

*The TMDL submittal should also discuss whether a point source is given a less stringent wasteload allocation based on an assumption that nonpoint source load reductions will occur. In such cases, the State/Tribe will need to demonstrate reasonable assurance that the nonpoint source reductions will occur within a reasonable time.*

As with the load allocations (LAs), the wasteload allocations (WLAs) are allocated based on the criteria established by Rhode Island's water quality standards (2011 TMDL document, Tables 5-1, 5-2, and 5-3). As is its policy, DEM does not specify end of pipe limits for regulated stormwater. Rather, it relies on meeting water quality criteria instream, and uses the RIPDES general stormwater permitting process with its six minimum measures and additional authorities to implement the reductions that will lead to water quality restoration. Applicable general permits are identified in the waterbody reports in Appendices B and K. Specific TMDL end points are listed for each impaired waterbody in Appendices B and K of the TMDL document, and percent reduction for each waterbody are listed in Table 2-1 of the updated Core TMDL document.

**Assessment:** DEM established concentration-based WLAs by applying the numeric criteria directly to each water body. Aggregate mass WLAs were established for the stormwater sources because it is impossible to determine with any precision or certainty the actual and projected loadings for individual discharges or groups of discharges. EPA's November 22, 2002 TMDL guidance suggests that it is acceptable in such cases to allocate stormwater by gross allotments. EPA concludes that the wasteload allocation components of the TMDLs are adequately specified at levels necessary to attain and maintain water quality standards in all the waterbodies.

## 6. Margin of Safety (MOS)

*The statute and regulations require that a TMDL include a margin of safety to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA § 303(d)(1)(C), 40 C.F.R. § 130.7(c)(1)). EPA guidance explains that the MOS may be implicit, i.e., incorporated into the TMDL through conservative assumptions in the analysis, or explicit, i.e., expressed in the TMDL as loadings set aside for the MOS. If the MOS is implicit, the conservative assumptions in the analysis that account for the MOS must be described. If the MOS is explicit, the loading set aside for the MOS must be identified.*

The margin of safety accounts for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality. The Rhode Island bacteria TMDLs expressed as concentrations set the TMDL wasteload allocation and load allocation at the applicable instream water quality criteria, so there is no uncertainty between the water quality standard and its translation to a wasteload allocation and/or load. DEM, as guidance but not an approvable



wasteload allocation or load allocation, provided an estimate of the percent reduction necessary to achieve the TMDL target. DEM chose to add a 5% margin of safety to this estimate. However, this percent reduction is only included for information purposes.

The TMDLs expressed in terms of daily loads include an explicit 5% MOS which is applied to the appropriate state water quality criteria (SWQC) before calculating the allowable daily load and wasteload allocations for bacteria. The mass-per-unit-time bacteria TMDLs are expressed in terms of billions of bacteria per day as a function of flow (for freshwater streams) or daily water outflow volume (for freshwater lakes, and estuarine and marine waters). This 5% MOS is incorporated into the TMDLs in order to account for any uncertainty involved in measurements or estimations of waterbody flow or volume exchange used in the daily load calculations.

**Assessment:** EPA concludes that the approach used in developing the concentration-based TMDLs provides for an adequate MOS. There is not a lack of knowledge concerning the relationship between allocations and water quality in this case, where the TMDL applies the criteria as allocations for each source. EPA also concludes that the approach used in developing the load-based TMDLs provides for an adequate explicit MOS in order to account for any uncertainty associated with measuring flows or estimating volume exchanges.

## 7. Seasonal Variation

*The statute and regulations require that a TMDL be established with consideration of seasonal variations. The method chosen for including seasonal variations in the TMDL must be described (CWA § 303(d)(1)(C), 40 C.F.R. § 130.7(c)(1)).*

Rhode Island DEM considered seasonal variations when developing the TMDL document. Because the TMDLs are set equal to the bacteria criteria, and the criteria are applicable at all times of year, the TMDLs are also applicable at all times of year and protective during all conditions (2011 TMDL document, p. 41).

**Assessment:** The bacteria TMDLs apply over the entire time that the bacteria criteria apply, which is year round in Rhode Island. The TMDL targets will reduce bacteria concentrations to water quality criteria levels in all seasons. EPA concludes that the TMDLs have adequately addressed seasonal variability.

## 8. Monitoring Plan

*EPA's 1991 document, Guidance for Water Quality-Based Decisions: The TMDL Process (EPA 440/4-91-001), and EPA's 2006 guidance, Clarification Regarding "Phased" Total Maximum Daily Loads, recommend a monitoring plan when a TMDL is developed using the phased approach. The guidance indicates that a State may use the phased approach for situations where TMDLs need to be developed despite significant data uncertainty and where the State expects that the loading capacity and allocation scheme will be revised in the near future. EPA's guidance provides that a TMDL developed under the phased approach should include, in addition to the other TMDL elements, a monitoring plan that describes the additional data to be collected, and a scheduled timeframe for revision of the TMDL.*

The Rhode Island statewide bacteria TMDL report is not a phased TMDL document, but the document includes a description of a monitoring plan designed to measure attainment of water quality standards (2011 TMDL document, pp. 42-43). DEM will continue to monitor rivers and

streams through its Rotating Basin Assessment Program, and will continue the HEALTH Bathing Beach Inspection Program, which collects bacteria samples from recreational beaches to determine safe swimming conditions. The DEM Shellfish Growing Area Monitoring Program will continue year-round monitoring of shellfish areas to assure their proper classification. DEM will also continue to investigate complaints and inspect potential sources of bacteria. To supplement these efforts, DEM will continue to make use of the substantial bacteria data from quality assured volunteer monitoring programs to indicate problems and to evaluate progress towards attainment of standards.

**Assessment:** EPA concludes that the anticipated monitoring by and in cooperation with DEM is sufficient to evaluate the adequacy of the TMDL and attainment of water quality standards, although this is not a required element of EPA's TMDL approval process.

## 9. Implementation Plans

*On August 8, 1997, Bob Perciasepe (EPA Assistant Administrator for the Office of Water) issued a memorandum, "New Policies for Establishing and Implementing Total Maximum Daily Loads (TMDLs)," that directs Regions to work in partnership with States/Tribes to achieve nonpoint source load allocations established for 303(d)-listed waters impaired solely or primarily by nonpoint sources. To this end, the memorandum asks that Regions assist States/Tribes in developing implementation plans that include reasonable assurances that the nonpoint source load allocations established in TMDLs for waters impaired solely or primarily by nonpoint sources will in fact be achieved. The memorandum also includes a discussion of renewed focus on the public participation process and recognition of other relevant watershed management processes used in the TMDL process. Although implementation plans are not approved by EPA, they help establish the basis for EPA's approval of TMDLs.*

The TMDL report provides implementation guidance and identifies existing informational resources on BMPs for the various sources of bacteria (2011 TMDL document, pp. 44-70). It also includes an overall description of the implementation process, and information about the stormwater management program. Maps, waterbody-specific data summary tables, and other information specific to each water body are presented in Appendices B and K to inform stakeholders on the location of known impairments. Data were used to calculate percent reductions needed to meet the concentration-based target, and to present wet weather and dry weather bacteria counts (where sufficient precipitation information was available). This wet/dry data analysis provides valuable indications of the sources of bacteria in order to guide implementation efforts to fix the problem.

**Assessment:** Although implementation plans are not a required element for TMDL approval, DEM has included implementation guidance and identified many resources to aid implementation. EPA is taking no action on the implementation plan.

## 10. Reasonable Assurances

*EPA guidance calls for reasonable assurances when TMDLs are developed for waters impaired by both point and nonpoint sources. In a water impaired by both point and nonpoint sources, where a point source is given a less stringent wasteload allocation based on an assumption that nonpoint source load reductions will occur, reasonable assurance that the nonpoint source reductions will happen must be explained in order for the TMDL to be approvable. This information is necessary for EPA to determine that the load and wasteload allocations will achieve water quality standards.*

*In a water impaired solely by nonpoint sources, reasonable assurances that load reductions will be achieved are*

*not required in order for a TMDL to be approvable. However, for such nonpoint source-only waters, States/Tribes are strongly encouraged to provide reasonable assurances regarding achievement of load allocations in the implementation plans described in section 9, above. As described in the August 8, 1997 Perciasepe memorandum, such reasonable assurances should be included in State/Tribe implementation plans and “may be non-regulatory, regulatory, or incentive-based, consistent with applicable laws and programs.”*

The TMDL targets for point sources in these TMDLs are not less stringent based on any assumed nonpoint source reductions, so documentation of reasonable assurance in the TMDLs is not a requirement. Nonetheless, Rhode Island DEM explains that a combination of regulatory and non-regulatory program support in Rhode Island will provide reasonable assurances that both point and non-point allocations will be achieved, including regulatory enforcement, technical assistance, availability of financial incentives, and state, and federal programs for pollution control (2011 TMDL document, p. 43).

**Assessment:** Although not required, because DEM did not increase WLAs based on expected LA reductions, DEM has nevertheless described a number of programs that provide reasonable assurance that WQS will be met.

## **11. Public Participation**

*EPA policy is that there must be full and meaningful public participation in the TMDL development process. Each State/Tribe must, therefore, provide for public participation consistent with its own continuing planning process and public participation requirements (40 C.F.R. § 130.7(c)(1)(ii)). In guidance, EPA has explained that final TMDLs submitted to EPA for review and approval must describe the State/Tribe’s public participation process, including a summary of significant comments and the State/Tribe’s responses to those comments. When EPA establishes a TMDL, EPA regulations require EPA to publish a notice seeking public comment (40 C.F.R. § 130.7(d)(2)).*

*Inadequate public participation could be a basis for disapproving a TMDL; however, where EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.*

The public participation process for the bacteria TMDLs is described on page 10 of the updated Core TMDL report. On May 2, 2014, a public notice announcing the availability of the draft TMDL for public review and comment was posted on the DEM website, and emails were sent to a list of agencies, towns, and stakeholders. DEM held two public meetings on May 14 and May 29, 2014 to present the draft TMDLs to the public, and begin the public comment period. The public comment period ended on June 20, 2014. Comments were received from Save the Bay. A complete list of all comments received and the DEM responses to those comments can be found in Appendix A of the updated Core TMDL report.

**Assessment:** EPA concludes that DEM has provided sufficient opportunities for the public to comment on the TMDL, and has provided reasonable responses to the public comments.

## **12. Submittal Letter**

*A submittal letter should be included with the TMDL analytical document, and should specify whether the TMDL is being submitted for a technical review or is a final submittal. Each final TMDL submitted to EPA must be accompanied by a submittal letter that explicitly states that the submittal is a final TMDL submitted under Section 303(d) of the Clean Water Act for EPA review and approval. This clearly establishes the State/Tribe’s intent to*

*submit, and EPA's duty to review, the TMDL under the statute. The submittal letter, whether for technical review or final submittal, should contain such information as the name and location of the waterbody, the pollutant(s) of concern, and the priority ranking of the waterbody.*

**Assessment:** On August 27, 2014, DEM submitted Rhode Island's final Updates to the Statewide Bacteria TMDL and associated appendices for EPA approval. The final documents, and those referenced from the approved 2011 TMDL documents, contained all of the elements necessary to approve the TMDL.

<b>Data for entry in EPA's National TMDL Tracking System</b>							
TMDL Name		<b>Updates to the RI Statewide Bacteria TMDLs (6 segments)</b>					
Number of TMDLs*		6					
Type of TMDLs*		Bacteria					
Number of listed causes (from 303(d) list)		5					
Lead State		Rhode Island (RI)					
TMDL Status		Final					
<b>Individual TMDLs listed below</b>							
TMDL Segment name	TMDL Segment ID #	TMDL Pollutant ID# & name	TMDL Impairment Cause(s)	Pollutant endpoint	Unlisted?	RIPDES Point Source & ID#	Listed for anything else?
Pawcatuck River, segment 18D	RI0008039R-18D	605 (Enterococci bacteria)	Pathogens (41)	B1: 54 colonies/100 ml, geomean		RIPDES RIDOT Stormwater permit RIR040036 & RIPDES permit RI0000043	Benthic Macro-invertebrate Bioassessments
Pawcatuck River, segment 18E	RI0008039R-18E	605 (Enterococci bacteria)	Pathogens (41)	B: 54 colonies/100 ml, geomean		RIPDES RIDOT Stormwater permit RIR040036 & Waverly Gen. MS4 permit RIR044014	Iron Lead
Spring Brook	RI0008039R-41	605 (Enterococci bacteria)	Pathogens (41)	B: 54 colonies/100 ml, geomean	<b>YES</b>	RIPDES RIDOT Stormwater permit RIR040036 & Waverly Gen. MS4 permit RIR044014	
Acid Factory Brook	RI0008040R-01	605 (Enterococci bacteria)	Pathogens (41)	A: 54 colonies/100 ml, geomean		RIPDES RIDOT Stormwater permit RIR040036	
Pierce Brook	RI0007028R-07	605 (Enterococci bacteria)	Pathogens (41)	B: 54 colonies/100 ml, geomean		RIPDES RIDOT Stormwater permit RIR040036, Warwick Gen. MS4 permit RIR040031, East Greenwich Gen. MS4 permit RIR040002	

Baker Brook	RI0008040R-18	605 (Enterococci bacteria)	Pathogens (41)	B: 54 colonies/100 ml, geomean		RIPDES RIDOT Stormwater permit RIR040036	
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TMDL Type	Point & Nonpoint Sources
Establishment Date (approval)*	Sep 17, 2014
EPA Developed	No
Towns affected*	East Greenwich, Hopkinton, Richmond, Warwick, Westerly, and West Greenwich, Rhode Island