

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

June 16, 2011

Kenneth L. Kimmell, Commissioner Department of Environmental Protection 1 Winter Street Boston, MA 02108

Re: Approval of the Pathogen TMDL for the Taunton River Watershed

Dear Commissioner Kimmell:

Thank you for submitting the Final Pathogen TMDL for the Taunton River Watershed on June 3, 2011. We appreciate your efforts and involvement with our office to finalize this TMDL. We believe this TMDL combined with the other pathogen watershed TMDLs in various stages of development within the Commonwealth will be a catalyst in the restoration of this and other watersheds.

The U.S. Environmental Protection Agency (EPA) has reviewed the document entitled "Final Pathogen TMDL for the Taunton River Watershed," June 2011 (Control Number 256.0) and it is my pleasure to approve the twenty TMDLs. EPA has determined, as set forth in the enclosed review document, that these TMDLs meet the requirements of Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 Code of Federal Regulations (CFR) Part 130.

Once again, please pass on to your staff in the Division of Watershed Management our appreciation for their work in developing these TMDLs.

Sincerely,

/s/

Stephen S. Perkins, Director Office of Ecosystem Protection

Enclosure

cc:

Ann Lowery, MassDEP Rick Dunn, MassDEP Kim Groff, MassDEP Steve Silva, EPA Steven Winnett, EPA Mary Garren, EPA

#### EPA NEW ENGLAND'S TMDL REVIEW

#### **TMDL:** Taunton River Watershed

Salisbury Brook	(Class B)	MA62-08
Trout Brook	(Class B)	MA62-07
Salisbury Plain River	(Class B)	MA62-05
Salisbury Plain River	(Class B)	MA62-06
Beaver Brook	(Class B)	MA62-09
Meadow Brook	(Class B)	MA62-38
Shumatuscacant River	(Class B)	MA62-33
Matfield River	(Class B)	MA62-32
Rumford River	(Class B)	MA62-39
Wading River	(Class A)	MA62-47
Wading River	(Class B)	MA62-49
Threemile River	(Class B)	MA62-56
Threemile River	(Class SB)	MA62-57
Assonet River	(Class SA)	MA62-20
Muddy Cove Brook	(Class SA)	MA62-51
Broad Cove	(Class SA)	MA62-50
Taunton River	(Class SB)	MA62-02
Taunton River	(Class SB)	MA62-03
Taunton River	(Class SB)	MA62-04
Segreganset River	(Class SA)	MA62-55

**Location:** Towns of Abington, Avon, Berkeley, Bridgewater, Brockton, Attleboro, Dighton,

East Bridgewater, Easton, Foxborough, Freetown, Halifax, Hanson, Lakeville, Mansfield, Middleboro, Norton, Plainville, Plympton, Raynham, Seekonk, Sharon, Somerset, Stoughton, Taunton, West Bridgewater, Westport, Whitman,

Wrentham, and City of Fall River (MA).

**STATUS:** Final

**IMPAIRMENT/POLLUTANT**: These twenty water body segments are not meeting criteria for fecal coliform and e. coli bacteria concentrations, and are not supporting the designated uses of shellfishing and primary and secondary contact recreation. The segments are classified as shown in the list, above. A year-around TMDL submission is presented for e. coli and fecal coliform bacteria.

**BACKGROUND:** The Massachusetts Department of Environmental Protection (DEP) submitted to EPA New England the final Total Maximum Daily Load Analysis for *Taunton River Watershed* (the "TMDL," "submission," or "Report") with a transmittal letter and response to EPA comments dated May 9, 2011, and resubmitted a revised final version on June 3, 2011 following conversations with EPA in May and June 2011. EPA commented on earlier

drafts of all or parts of the TMDL sent by DEP in March 2011 on April 12, 2011. The submission included:

- Final TMDL report for pathogens in Taunton River Watershed;
- Implementation plan for achieving TMDL reductions, Chapter 8, pp. 56-70;
- References set out in Chapter 12, pp. 81-83;
- Final meeting notes, public comments, and the State's response: Appendix A, pp. 84-102.
- Mitigation Measures to Address Pathogen Pollution in Surface Waters: A TMDL Implementation Guidance Manual for Massachusetts.

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.

**REVIEWERS:** Steven Winnett (617-918-1687) E-mail: <u>winnett.steven@epa.gov</u>

### **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 Water Body, Pollutant of Concern, Pollutant Sources and Priority Ranking

The TMDL analytical document must identify the water body as it appears on the State/Tribe's 303(d) list, the pollutant of concern and the priority ranking of the water body. 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.

The Taunton River watershed is located in the southeast corner of Massachusetts, encompassing the towns of Abington, Avon, Berkeley, Bridgewater, Brockton, Attleboro, Dighton, East Bridgewater, Easton, Foxborough, Freetown, Halifax, Hanson, Lakeville, Mansfield, Middleboro, Norton, Plainville, Plympton, Raynham, Seekonk, Sharon, Somerset, Stoughton, Taunton, West Bridgewater, Westport, Whitman, Wrentham, and City of Fall River, Massachusetts (Figure 2-2, p. 11). The Report describes the pollutants of concern, fecal coliform and e. coli bacteria, indicators of pathogen-caused impairment of the designated uses for shellfish consumption, and primary and secondary contact recreation, respectively (TMDL Table

ES-2). It lists the water bodies as they appear on the State's 2008 303(d) list (TMDL Table ES-1). The document also describes the TMDL study area and its land uses (TMDL pp. 8-11).

Bacteria impairments in these water bodies arise from dry and wet weather events, year round. The most important sources are stormwater runoff, illicit discharges to storm sewers, and sanitary waste and septic system failure, but also include CSO discharges, vessel discharges, agriculture, and animal waste especially from waterfowl.

The submission includes a detailed discussion of the point and nonpoint sources that contribute to the water quality impairments (TMDL pp. 32-36), as well as in-depth discussions of the data showing the impairments (TMDL pp. 21-31), and what the sources are likely to be for each impaired segment (TMDL Table 6-1, pp. 37-40). DEP also identifies individual facility permits, and holders of NPDES Multi-Sector General Permits (MSGPs) and Municipal General Permits (MS4s) whose stormwater discharges will have to be in compliance with the approved TMDLs.

Assessment: DEP has adequately identified the water bodies, the pollutant of concern, the magnitude and location of the sources of pollution.

# 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 water body, 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 designations of the twenty water body segments are detailed above (also, TMDL Table 4-3 p. 18). The numeric water quality target is set for all waters at the appropriate numeric water quality standard for fecal coliform and e-coli bacteria for their classification.

The fecal coliform shellfishing criteria for Class SA waters (salt waters) is a geometric mean value of 14 fc/100 ml, with not more than 10% of the samples exceeding a value of 28 fc/100 ml; for Class SB shell fishing waters (salt waters) the criteria are a geometric mean value of 88 fc/100 ml, with not more than 10% of the samples exceeding a value of 260 fc/100 ml. The e. coli freshwater Class A and B criteria are a geometric mean value of 126 colonies/100 ml, with a single sample maximum value of 235 colonies/100 ml. Although the State has separate enterococcus criteria for salt water recreation uses, DEP considers shellfishing to be the more sensitive use, and is applying the salt water shellfishing criteria, above, to those waters which are designated for both uses. This includes all the salt water segments in this TMDL package.

In these TMDLs, no impaired downstream waters have a higher classification than an adjacent upstream segment. Consequently, it was not necessary to impose a more stringent standard on any impaired upstream waters to ensure the protection of those segments immediately downstream.

Assessment: EPA New England concludes that DEP has properly presented its water quality standards and designated uses when setting a numeric water quality target. No deviations from that designation and classification system, designed to ensure protection of higher quality waters downstream, are required.

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

As described in EPA guidance, a TMDL identifies the loading capacity of a water body 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 massper-time, toxicity or other appropriate measure (40 C.F.R. § 130.2(i)). The TMDL submittal must identify the water body'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 water body 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 water body 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.

DEP sets the numeric TMDL water quality targets at the applicable water quality standard criteria for each of the segments in the TMDL study area, depending on each water segment's classification, as outlined in the TMDL report.

DEP describes the rationale for the methods used to establish the cause-and-effect relationship between the numeric targets (WQS) and the identified pollutant sources (TMDL pp. 35-51). The water quality standards for fecal coliform specify geometric means and 90<sup>th</sup> percentile criteria, and for e. coli specify geometric means and a single sample maximum value.

For the most part, the data presented to demonstrate impairments do not include geometric mean or 10% percentile statistics, but clearly show that the single sample maximum values for either or both of the enterococcus and e. coli criteria are violated in these water body segments.

For all but one of the salt water segments (Class SA and SB), data are not presented showing the impairments. The State's Division of Marine Fisheries (DMF) has classified these water bodies as "prohibited" for shellfishing. The State's assessment and listing methodology indicates that waters classified as prohibited for shellfishing are to be automatically assessed as impaired for that designated use, and listed on the 303(d) list of impaired water bodies (TMDL pp. 13-15).

The DMF has said that in the Taunton watershed, the prohibited status stems from a variety of reasons, including the presence of Wastewater Treatment Facilities, storm water runoff, CSO's, numbers of brooks which have elevated fecal counts and a large watershed which meanders

through numerous towns. In addition, according to State rules, shellfish growing areas must be classified as "Prohibited" for shellfishing if there is insufficient information available to make a classification decision.

For the Prohibited water bodies in these TMDLs, DMF has indicated that the designations were due to elevated bacteria counts, though these data were not available for the TMDL report. EPA is satisfied that the water bodies are appropriately listed on the State's 303(d) list as impaired for shellfishing use due to existing bacteria impairments. The TMDLs for these water bodies are appropriately set at their adopted water quality criteria concentrations.

DEP has said that it considers the pollutant concentration targets in these TMDLs to apply daily. The allowable daily load is the criteria concentration times the daily flow in the receiving water. The State has included mass based daily loads in the TMDL document (TMDL pp. 48-52, and Table 7-3, p.53), and explained their derivation.

Assessment: EPA New England concludes that the loading capacities, having been set equal to the WQSs, have been appropriately set at levels necessary to attain and maintain applicable water quality standards. The TMDL is based on a reasonable approach for establishing the relationship between pollutant loading and water quality in the bays and estuaries.

EPA New England also concurs with expressing the bacteria TMDLs as concentrations in lieu of mass-per time because these units are the same as the state water quality standards. In addition, concentration is mathematically related to per time loading (concentration multiplied by flow volume per time results in mass per time), so that the daily load is the daily concentration times the flow volume per time.

#### 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.

Information to support the development of separate allocations for load and wasteload allocations for wet weather discharges does not exist. Consequently, the LA is included in the WLA (TMDL p. 44). Note that this approach does not affect the regulation of storm water that is subject to Phases I or II of EPA's storm water program.

Assessment: EPA New England concludes that it is unnecessary to include specific load allocations as the information to support separate load and wasteload allocations does not exist. Consequently, the load allocation is included in the wasteload allocation, below.

#### 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.

The submission contains wasteload allocations that are expressed as the fecal coliform bacteria (salt waters) and e. coli bacteria (fresh waters) criteria of the Massachusetts water quality standards (TMDL, pp. 46-47). As mentioned in the LA review (above), because information to support the development of separate allocations for load and wasteload allocations doesn't exist, the LA is included in the WLA for each segment.

Regulated and unregulated stormwater sources, other permitted effluents, and nonpoint sources are given 100% of the WLA, while other sources such as illicit discharges of wastewater, failing septic systems, leaking sanitary sewer lines, and marine vessel discharges are given a WLA of zero (0) as they are illegal. DEP identifies all NPDES permit holders (TMDL pp. 21-31), including those with NPDES Multi-Sector General Permits (MSGPs), Municipal General Permits (MS4s), and Combined Sewer Overflows (CSOs) to address their stormwater discharges.

**Assessment:** EPA New England concludes that the WLAs for this submission are acceptable and reasonable, and have sufficiently addressed all sources of pollution in Massachusetts.

#### 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.

MA DEP employs an implicit MOS in these TMDLs using conservative assumptions in the calculation of bacteria loads (TMDL pp. 54-55). Primarily, the state sets its limits at the end of the discharge pipe, which allows for no dilution or mixing in the receiving waters. As there will be mixing and dilution in measured ambient waters, that assumption creates a margin of safety.

Second, the TMDL accounts for no bacteria losses due to dieoff, which will take place in ambient waters.

**Assessment**: EPA New England concurs that an adequate MOS is provided by the combination of conservative assumptions which embody the implicit MOS for bacteria.

#### 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).

This TMDL addresses seasonal variation through WLAs and LAs set for all known conditions and potential sources independent of season and climate. The sampling data underlying the TMDL calculations spanned wet and dry weather, and different times of the year. The water quality criteria concentrations are applied year round, and the TMDLs should therefore be protective for all seasons and all weather events.

**Assessment:** EPA New England concludes that seasonal variations have been adequately accounted for in the TMDLs because the TMDLs were developed to be protective year round.

#### 8. Monitoring Plan for TMDLs Developed Under the Phased Approach

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.

This is not a phased TMDL. The document includes a description of the ongoing and new monitoring that will take place to monitor changes in the water quality of the impaired segments. The State discusses its plans for monitoring as and after the TMDL is implemented (TMDL p. 71).

Assessment: EPA concludes that the anticipated monitoring by DEP is sufficient to evaluate the adequacy of progress toward attainment of WQS, although 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.

An implementation plan is provided in the submission (TMDL pp. 56-70), which includes discussion of water quality improvement activities going on within the Taunton River watershed. DEP describes an implementation program which includes the abatement of CSO discharges, management of stormwater from municipal and industrial activities, eliminating illicit discharges from sanitary systems, reducing wastewater from leaking sewers and septic systems, and minimizing contamination from domestic and farm animals.

The TMDL discusses CSO activities in both the cities of Fall River and Taunton.

In the plan, DEP discusses the Stormwater Phase II requirements that will likely be part of its implementation plan, including required amendments to municipal stormwater management program plans (SWMPPs), the six minimum measures, site-specific structural BMP requirements, and MS4-specific requirements. The plan discusses specific stormwater abatement activities in the towns and cities of the watershed.

Assessment: Addressed, though not required.

#### 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 body 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."

Reasonable assurance is not required because point sources are not given less stringent wasteload allocations based on the assumption of future nonpoint source load reductions. However, DEP addresses reasonable assurances (Chapter 10, pp. 72-79) that pollution reductions will occur by providing information about its programs and policies, and the tools it has to combat the various pollution types and sources. The report offers recommendations for future work needed in its implementation section (TMDL pp. 56-70).

Assessment: Addressed, though not required.

#### 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.

DEP held two public meetings on August 10, 2005 to present the draft TMDL to stakeholders and the public. DEP provided a comment period from July 23, 2005 to August 26, 2005. Notice of the public meeting and the comment period were sent by email to key stakeholders in the affected communities, and through public notices posted in prominent public places. The draft TMDL was posted on DEP's website. DEP has provided EPA with copies of all submitted comments and the Department's responses as an attachment to the final TMDL submission.

Assessment: EPA New England has reviewed all comments and DEP's responses to comments. EPA concludes that DEP involved the public during the development of the TMDL for *Taunton River Watershed* has provided adequate opportunities for the public to comment on the TMDL, and has provided reasonable responses to the comments received.

#### 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 water body, the pollutant(s) of concern, and the priority ranking of the water body.

**Comment:** A letter with appropriate information was included with the final submission.

Data for entry in EPA's National TMDL Tracking System				
TMDL Name	Taunton River Watershed (20 segments)			
Number of TMDLs*	20			
Type of TMDLs*	Bacteria^			
Number of listed causes (from 303(d) list)	20			
Lead State	Massachusetts (MA)			

## **Individual TMDLs listed below**

TMDL Segment	TMDL Segment	TMDL Pollutant	TMDL	Pollutant endpoint	Unliste	RIPDES Point Source & ID#	Listed for
name	ID#	ID# & name	Impairment Cause(s)	(Class: geometric mean; 10% or SSM <sup>+</sup> )	d?		anything else?
Salisbury Brook	MA62-08	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		Brockton MS4 MAR041098	Sediment
Trout Brook	MA62-07	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		Avon Custom Mixing MA0026883 Brockton MS4 MAR041098	DO, turbid, TSS
Salisbury Plain River	MA62-05	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		Brockton Advanced Water Reclam. Facil. MA0101010 Brockton MS4 MAR041098	DO, sediment
Salisbury Plain River	MA62-06	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		Brockton Advanced Water Reclam. Facil. MA0101010 Brockton MS4 MAR041098 E.Bridgewater MS4 MAR041109	bioassess., DO, turbid, P, algal, T&O, debris
Beaver Brook	MA62-09	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		Brockton MS4 MAR041098 E.Bridgewater MS4 permit MAR041109 Abington MS4 MAR041026	
Meadow Brook	MA62-38	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		E.Bridgewater MS4 MAR041109 Whitman MS4 MAR04071	
Shumatuscacant River	MA62-33	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		Abington/Rockland Joint Water Works MAG640009 Abington MAR041026 Whitman MS4 MAR04071 Hanson MS4 MAR041037	DO, sediment
Matfield River	MA62-32	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml		E.Bridgewater Public Schools MA0022446	P, algal, DO, T&O,

					E.Bridgewater MS4 MAR041109 Bridgewater MS4 MAR041097	bioassess.
Rumford River	MA62-39	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml	Gorham Silver Co. MA0035700 Mansfield MS4 MAR041126	Sediment, toxics, bioassess.
Wading River	MA62-47	227 (E.coli bacteria)	Pathogens (41)	A: 126 col/100 ml; 235 col/100 ml	Mansfield MS4 MAR041126 Foxboro MAR041115	DO
Wading River	MA62-49	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml	Sinclair Manufacturing Co. MAG250030 Tweave Inc. MAG250244 Sun Chemical Corp/GPI MAG250244 Mansfield MS4 MAR041126 Norton MS4 MAR041145	
Threemile River	MA62-56	227 (E.coli bacteria)	Pathogens (41)	B: 126 col/100 ml; 235 col/100 ml	Mansfield POTW MA0101737 BIW Cable Systems MA0028649 Harodite Finishing Co. MAG250032 Norton MS4 MAR041145 Taunton MS4 MAR041164	
Threemile River	MA62-57	259 (Fecal coliform bacteria)	Pathogens (41)	SB: 88 fc /100 ml; 260 fc /100 ml	Norton MS4 MAR041145 Taunton MS4 MAR041164	
Assonet River	MA62-20	259 (Fecal coliform bacteria)	Pathogens (41)	SA: 14 fc /100 ml; 28 fc /100 ml	Freetown MS4 MAR0100382	
Muddy Cove Brook	MA62-51	259 (Fecal coliform bacteria)	Pathogens (41)	SA: 14 fc /100 ml; 28 fc /100 ml	Zeneca Inc. MAR05B053 Dighton MS4 MAR041105	
Broad Cove	MA62-50	259 (Fecal coliform bacteria)	Pathogens (41)	SA: 14 fc /100 ml; 28 fc /100 ml	Somerset MS4 MAR041159	
Taunton River	MA62-02	259 (Fecal coliform	Pathogens (41)	SB: 88 fc /100 ml; 260 fc /100 ml	Taunton WWTF &CSOs MA0100897	

		bacteria)			Taunton Municipal Lighting Plant MA0002241 Taunton MS4 MAR041164 Dighton MS4 MAR041105			
					Berkeley MS4 MAR041092			
Taunton River	MA62-03	259 (Fecal coliform bacteria)	Pathogens (41)	SB: 88 fc /100 ml; 260 fc /100 ml	Dighton MS4 MAR041105 Berkeley MS4 MAR041092	DO		
Taunton River	MA62-04	259 (Fecal coliform bacteria)	Pathogens (41)	SB: 88 fc /100 ml; 260 fc /100 ml	Somerset Power/Somerset Operations MA0001856 Fall River Marine Terminal MA0004871 Somerset WWTF MA0100676 Fall River CSOs MA0100382 Somerset MS4 MAR041159 Fall River MS4 MAR041113	DO, fish bioassess.		
Segreganset River	MA62-55	259 (Fecal coliform bacteria)	Pathogens (41)	SA: 14 fc /100 ml; 28 fc /100 ml	Dighton MS4 MAR041105			
TMDL Type		Point & Nonpoint Sources						
Establishment Date	stablishment Date (approval)* Jun 16, 2011							
EPA Developed No								
Towns affected*		River, Foxbor Plympton, Ra	Abington, Avon, Berkeley, Bridgewater, Brockton, Attleboro, Dighton, East Bridgewater, Easton, Fall River, Foxborough, Freetown, Halifax, Hanson, Lakeville, Mansfield, Middleboro, Norton, Plainville, Plympton, Raynham, Seekonk, Sharon, Somerset, Stoughton, Taunton, West Bridgewater, Westport, Whitman, and Wrentham, MA					

<sup>&</sup>lt;sup>+</sup>Class = Water Body Classification: 10% = no more than 10% of the samples shall exceed statistic; SSM = Single Sample Maximum