STATE OF RHODE ISLAND

2010 303(d) LIST

LIST OF IMPAIRED WATERS

FINAL

July 2011

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OVERVIEW AND EXPLANATION

Clean Water Act Requirements

This list of impaired waters is developed by the Rhode Island Department of Environmental Management (DEM) in response to requirements of Section 303(d) of the federal Clean Water Act (CWA). The 303(d) list is part of a process laid out in the CWA, which requires all states to do the following:

1. Establish water quality standards (WQS) (including Water Use Classifications and class-specific water quality criteria) for the state's surface waters;
2. Monitor water quality conditions of the state's waters (i.e. lakes, ponds, rivers, streams, estuaries and other marine waters);
3. Assess water quality conditions of the state's waters and develop biennial reports describing the water quality conditions (CWA section 305(b));
4. Identify and list impaired waters (that is those waters that do not meet WQS with existing required technology-based pollution controls alone) in the state's 303(d) list;
5. Set priority rankings (a schedule for development of total maximum daily loads (TMDLs)) for all impaired waters included on the 303(d) list;
6. Determine TMDLs that establish acceptable pollutant loads from both point and non point sources of pollution which allow the impaired water body to meet WQS - for each listed water body and each cause of impairment;
7. Submit the 303(d) list and all TMDLs to U.S. Environmental Protection Agency for approval; and
8. Incorporate TMDLs into the state's continuing planning process.

305(b) Water Quality Assessment Process

In accordance with Section 305(b) of the CWA, states are required to survey their water quality for attainment of the fishable/swimmable goals of the Act, and to report the water quality assessments biennially (every even year). The attainment of the CWA goals is measured by determining how well waters support their designated uses (defined as the most sensitive and therefore governing water uses which the class is intended to protect). For the purposes of the 305(b) water quality assessments, seven designated uses are evaluated:

- fish and wildlife habitat (aquatic life use),
- drinking water supply,
- shellfish consumption,
- shellfish controlled relay and depuration,
- fish consumption,
- primary contact recreation and,
- secondary contact recreation.

In the assessments, use support status is determined by comparing available water quality information to the water quality standards established in the Rhode Island Water Quality Regulations. The methodology for this assessment process is outlined in RI's Consolidated

Assessment and Listing Methodology (CALM), June 2009: http://www.dem.ri.gov/programs/benviron/water/quality/pdf/finlcalm.pdf). The results of this comparison are then used to categorize each water body's specific designated uses as "Fully Supporting", or "Not Supporting". If data is not available to evaluate a designated use, it is considered "Not Assessed". Waterbodies that are Not Supporting their criteria or designated uses as determined during the 305(b) assessment process, are placed on the state's List of Impaired Waters which is developed in accordance with Section 303(d) of the CWA.

Integrated Water Quality Monitoring and Assessment

Beginning in 2008, DEM integrated the state's Section 305(b) water assessment report and Section 303(d) Impaired Waters List into one document, the Integrated Water Quality Monitoring and Assessment Report. Following US EPA issued guidance[1], the Integrated Report (IR) provides a streamlined approach to assessing and reporting on water quality. The report format provides five lists/categories of water quality assessment information.

The Integrated Report Guidance emphasizes the importance of monitoring and assessing waterbodies in each category to obtain the information needed to evaluate progress toward attainment of water quality standards, to address data gaps, and to ensure that waterbodies which currently meet water quality standards, continue to do so. While each water body is placed into only one of the five reporting categories, the attainment status of each designated use for each water body is documented to facilitate tracking of information and to assist in addressing data gaps and directing water quality monitoring efforts. For example, a water body may be Fully Supporting swimming use, but there may be insufficient data to develop an aquatic life use support status.

The Integrated Report Categories are presented below with a description of how the results of the individual assessments for each designated use on a water body are integrated to determine the final Integrated Reporting Category for each water body. In general, the integration of assessment determinations follows a hierarchical approach where a determination of impairment for any cause (pollutant), for any of the water body's designated uses will result in placement of the water body in Category 5. Similarly, there is a hierarchical approach to placement of a water body into Category 4A over 4B over 4C.

Each water body or water body segment is assigned a water body identification (WBID) number for purposes of tracking - for example, to assist with water quality assessments, mapping, reporting, or ultimately, trend analysis. The waterbodies are organized according to Rhode Island's ten major drainage basins. Based on the state's consolidated assessment and listing methodology (CALM), each surface water body of the state will be placed into <u>one</u> of the following five assessment categories:

Category 1 **Attaining all designated uses.** Waterbodies will be placed into this Category if, in accordance with the requirements of the CALM, the

[1] Memorandum from Suzanne Schwartz. Information Concerning 2010 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions. May 5, 2009. (http://www.epa.gov/owow/tmdl/guidance/final52009.html)

assessment results indicate that the water body is attaining all water quality standards for all designated uses.

Category 2 **Attaining some of the designated uses; and insufficient or no data and information is available to determine if the remaining uses are attained.** Waterbodies will be placed in this Category if there are data and information which, in accordance with the CALM, support a determination that some, but not all, uses are attained and attainment status of the remaining uses is unknown because there is insufficient or no data or information.

Category 3 **Insufficient or no data and information are available to determine if any designated use is attained or impaired.** Waterbodies will be placed in this Category where the data or information to support an attainment determination for all uses are not sufficient, consistent with the requirements of the CALM. In general, these uses and waterbodies are considered Not Assessed.

Category 4 **Impaired or threatened for one or more designated uses but does not require development of a TMDL**. (Three subcategories):

- **A. TMDL has been completed.** Waterbodies will be placed in this subcategory once all TMDLs for the water body have been developed and approved by EPA.
- **B. Other pollution control requirements are reasonably expected to result in attainment of the water quality standard in the near future**. Waterbodies will be placed in this subcategory where other pollution control requirements are stringent enough to attain applicable water quality standards.
- **C. Impairment is not caused by a pollutant.** Waterbodies will be placed in this subcategory if pollution (e.g., flow) rather than a pollutant causes the impairment.

Category 5 **Impaired or threatened for one or more designated uses by a pollutant(s), and requires a TMDL.** This Category constitutes the 303(d) List of waters impaired or threatened by a pollutant(s) for which one or more TMDL(s) are needed.

Waterbodies can be moved from Category 5, and Category 4, to Category 1 if, in accordance with the CALM, recent data indicates that the water body is now meeting all water quality standards for all uses, or Category 2 if, in accordance with the CALM, recent data indicates that the water body is now meeting water quality standards for some designated uses and is not assessed for other designated uses.

As described above, the five Integrated Report Categories represent assessment status under Section 305(b) and Category 5 represents the reporting requirements under Section 303(d) of the Clean Water Act. Only Category 5 (Impaired Waters List) of the Integrated Report is subject to

US EPA approval and public participation requirements. Therefore, while all the lists (Categories 1-5) are made available for public information and education purposes, RIDEM seeks comments only on the Category 5 list (303(d) List of Impaired Waters).

As noted in the CALM, DEM strives to consider all readily available water quality data and related information in developing the 305(b) water quality assessments and 303(d) impaired waters list. The primary source of data generated for assessments is developed from programs that fall under the umbrella of Rhode Island's Water Monitoring Strategy (http://www.ci.uri.edu/Projects/RI-Monitoring/Docs/DEM_WQ_Oct_14_05.pdf). The RIDEM Office of Water Resources has a primary role in implementing the strategy by both conducting monitoring programs and supporting monitoring by other entities. Collectively, the monitoring programs are aimed at gathering the ambient water quality data needed to assess water quality conditions and support management decision-making.

In 2004, to address large data gaps and in response to EPA's requirement that states increase the percentage of assessed waters, RIDEM/OWR adopted a rotating basin approach to sampling rivers and streams (http://www.dem.ri.gov/pubs/qapp/ambirivr2.pdf). This approach integrates biological, chemical and physical monitoring and involves an intensive data collection effort using a geometric design of locating stations in addition to targeted sampling stations to bracket known or suspected pollution sources.

Quality assurance (QA) is an important component of the major monitoring programs relied upon by state water protection programs. It is important to ensure that the data generated by monitoring and used to support decision-making in water protection programs is valid and appropriate. DEM maintains a goal of generating and compiling data of acceptable quality for use in the water quality assessment program. To achieve this goal, certain data quality assurance and quality control procedures must be met. QA is defined as the overall management system of a project including the organization, planning, data collection, quality control, documentation, evaluation, and reporting activities. QA provides the information needed to determine the data's quality and whether it meets the project's requirements. Quality control (QC) is defined as the routine technical activities intended primarily to control errors. Since errors can occur in either the field, the laboratory, or in the office, QC must be a part of each of these activities.

To comply with EPA regulations, monitoring projects funded by federal money are required to develop, submit, and implement an EPA approved Quality Assurance Project Plan (QAPP). QAPPs define the scope of work for the project, including the data quality objectives (DQOs), and QA/QC. Not all monitoring programs, however, operate with QAPPs oriented to EPA guidance. DEM may receive and use data from such programs, but is obligated to document quality assurance if the data is relied upon for making decisions in the assessment of water quality, most notably, for development of the category 5 list of impaired waters. Water quality monitoring data and information must follow EPA's Quality Assurance/Quality Control (QA/QC) guidelines as documented in EPA New England's *Quality Assurance Project Plan Program Guidance* (USEPA 2005b), to be utilized in the development of RI's Impaired Waters List (category 5).

There is a variety of other data generated by programs outside of the Water Monitoring Strategy framework that are also used in the assessment process. With each 305(b) assessment cycle, the RIDEM Office of Water Resources actively solicits submittal of such data and information for consideration in developing the Integrated Report. With release of the draft 2010 Integrated Lists for public review, the Department considers the 2010 assessment cycle to be completed. Any new data or information made available to the Department during the public comment period will be considered for inclusion in this cycle on a case by case basis. In general, data and information made available at this time will be evaluated for use during the 2012 assessment cycle and development of the 2012 Integrated Report.

Terminology

A general explanation of the terminology used to describe impairments/causes is described below:

- Biodiversity Impairments are characterized according to the type of biological data and evaluation that led to the listing. The cause terms used include: *Aquatic Macroinvertebrate Bioassessment*; *Benthic Macroinvertebrate Bioassessment; Sediment Toxicity Tests; Whole Effluent Toxicity (WET) Tests*. The two macroinvertebrate bioassessment terms are differentiated according to the evaluation that led to the listing: Benthic Macroinvertebrate Bioassessment is determined by sampling of riffles in wadeable streams/rivers, using the Rapid Bioassessment Protocol (RBP) whereas, Aquatic Macroinvertebrate Bioassessment is determined in deeper/non-wadeable rivers from the deployment of artificial substrates.
- Nutrient Impairments are specified according to the element causing the impairment. For freshwaters, *Total Phosphorus* is listed as the cause of the impairment and for saltwaters, *Total Nitrogen* is listed as the cause of the impairment.
- Pathogen Impairments are listed as *Enterococcus, fecal coliform* or *E. coli* to reflect the actual bacteria indicator that led to the listing.
- Mercury Impairments are characterized according to the media impacted as either fish tissue (*mercury in fish tissue*), water column (*mercury in water column*) or sediments (*mercury*).
- Total Toxics and Unknown Toxicity Impairments are characterized according to the type of biological data and evaluation that led to the listing. The cause terms used include: *Sediment Bioassays for Estuarine and Marine Waters, WET Tests, Ambient Bioassays – Chronic Aquatic Toxicity.*

Observed Effects

The Integrated Report format and ADB allow for tracking monitoring observations that may indicate a decline in water quality. These monitoring observations, called Observed Effects, represent responses to pollutants or other stressors causing an impairment. Such Observed Effects can include excess algal growth, chlorophyll a, taste and odor, color, sedimentation/ siltation, and noxious aquatic plants. In 303(d) Lists prepared prior to 2008, these terms were shown as causes of impairment. In general, on the 2008 303(d) List, these terms were moved from causes of impairment to Observed Effects for a number of waterbodies. Two deviations to

this general rule exist: (1) for waterbodies where the TMDL has been approved by US EPA or has been completed (though not yet approved by US EPA) for this cause, it is maintained as a cause to represent that the TMDL has or will address the effect; (2) for some waterbodies the impairment is not related to a pollutant (for example, non-native aquatic plants and organisms, and flow); such effects are listed as Impairments Not Caused by a Pollutant (Category 4C) as outlined below.

Many of the observed effects are responses to stressors associated with nutrient enrichment. In all cases, where the response term has been redefined as an Observed Effect, the nutrient related cause (Total Phosphorus or Total Nitrogen) has been maintained as a cause of impairment for the water body.

Impairments Not Caused by a Pollutant

In some instances a water body may be considered impaired for causes that are not pollutants and therefore do not require a TMDL to address the impairment. Such causes include flow, aquatic plants – native and non-native aquatic plants, non-native fish, shellfish or zooplankton. These impairments have been identified for tracking purposes and will be addressed by other programs. Waters that have one of the observed impairments described above and no other causes of impairment are placed in Category 4C (Waters impaired but not by a pollutant).

303(d) List Overview

The 303(d) List identifies waterbodies within the State, which are not currently meeting Rhode Island Water Quality Standards. This list has been compiled by RIDEM's Office of Water Resources (OWR) and is based upon the most recent comprehensive assessment of water quality conditions, as described above. The 303(d) list also establishes a scheduled time frame for development of TMDLs. As such, the 303(d) list is used to help prioritize the State's water quality monitoring and restoration planning activities. It is important to note that the scheduling is not necessarily representative of the severity of water quality impacts, but rather reflective of the priority given for TMDL development with consideration to shellfishing waters, drinking water supplies and other priority areas identified by partner agencies and organizations, or the public.

The 303(d) list reflects the dynamic process of managing the quality of the state’s waters. As data gaps have been filled and the geographic coverage and/or scope of monitoring efforts expanded, both the number of new waterbodies and new impairments (for waterbodies previously listed for other pollutants) on the 303d list has increased. Concurrently, actual water quality improvements in response to upgrades at wastewater treatment facilities or other pollution control efforts as well as refinements in sampling and analytical techniques, and assessment protocol have resulted in removing or de-listing of water body impairments. Because many of the state’s waterbodies are impaired for multiple parameters, waterbodies may still appear on the 303d list despite these improvements. Additions to and deletions from the 303(d) list are made as new monitoring data become available - revealing whether water quality standards are being met or not.

Broad Observations on the 2010 303(d) list

Assessments were completed on a total of 881 assessment units (WBIDs) in the 2010 assessment cycle. Of these, 162 assessment units or 133 named waterbodies have at least one water body impairment, and are included on the state's 2010 303(d) list. This compares with 112 named waterbodies identified on the 2008 303(d) list. The majority of the impaired waters are rivers (100 WBID), followed by estuarine waters (34 WBID) and lakes (28 WBID).

As mentioned above, the 303d list reflects ongoing water quality management activities. One area of significant investment in recent years has been in refinements to the state's ambient monitoring programs. Beginning in the fall of 2004 and ending in the summer of 2009, the Office of Water Resources has completed the first statewide assessment of rivers and streams utilizing the rotating basin approach. Almost 200 stations have been sampled via this program providing a statewide dataset that supported a more complete assessment of water quality conditions in rivers and streams during the 2010 assessment cycle than has ever been possible before. The significant jump in the number of impaired waters from 2008 to 2010 is a reflection of this monitoring effort.

Consistent with RIDEM's Quality Management Plan and EPA requirements, the Office of Water Resources has prepared a QAPP for the ambient river monitoring program which implements clean sampling techniques using trained personnel (including clean metals sampling protocol). The Office has also contracted with the RI HEALTH State Laboratories (HEALTH) to conduct the analyses which are performed in accordance with strict scientific standards set by the U.S. Environmental Protection Agency (EPA) and Food and Drug Administration (FDA). RIDEM/OWR and HEALTH have coordinated to obtain extremely low detection limits, especially for dissolved metals, to allow for a comprehensive review of data results. A number of water body impairments have been de-listed as a result of new data indicating compliance with applicable criteria.

Another area of considerable investment has been in the state's biological monitoring program. With EPA assistance and outside contractor support, a review of the Office of Water Resources' biological monitoring programs was completed in 2008. This review, which produced a number of recommendations, has prompted the Office of Water Resources to accelerate action to advance its biological monitoring approach by moving from a reference station approach to a biological condition gradient approach to assess the biological conditions of the state's rivers and streams. As part of the 2010 assessment cycle, a systematic review of all biological monitoring data (collected between 2001 and 2008) along with habitat, flow, and watershed size information, was conducted to more accurately assess the biological (macroinvertebrate) conditions of RI rivers and streams. As a result of this comprehensive evaluation of available data, a number of Benthic- Macroinvertebrate Bioassessment impairments will be de-listed, as detailed in tables presented in the following section.

Revisions to Rhode Island's Water Quality Regulations (July 2006, as amended) included adoption of site specific dissolved copper criteria for the Blackstone, Ten Mile (including the run-of-the-river ponds and reservoirs), and Woonasquatucket Rivers. A re-assessment of available data on the Blackstone and Ten Mile Rivers, Omega Pond and Turner Reservoir

indicates that copper levels are in compliance with the new site specific copper criteria and thus, these impairments have been de-listed.

The 2010 TMDL schedules reflect ongoing water pollution control strategies; shifts in timing from the 2008 TMDL reflect these activities as well as the state's current resource capacity.

De-listed Impairments

The reasons for "de-listing" a water body impairment and removing it from the 303(d) list (Category 5) include:

- TMDL for the impairment has been completed and approved by EPA.
- Other pollution control requirements are reasonably expected to result in attainment of the water quality standard associated with the impairment.
- The impairment is not caused by a pollutant.
- Water quality standard for the impairment is now being met.
- Original basis for listing was incorrect.

As described previously, if other impairments exist, the water body will continue to appear on the 303(d) list (Category 5), and any approved TMDLs and/or pollution control requirements in place which address the water body's other identified impairments are noted. The following tables list the water body impairments de-listed during the 2010 assessment cycle.

Impairments De-Listed Because Water Quality Standard Is Now Being Met		
Water body Name	**Water body ID #**	**Cause of Impairment**
Blackstone River	RI0001003R-01A	Dissolved Copper
Blackstone River	RI0001003R-01B	Dissolved Copper
Mill River	RI0001003R-03	Dissolved Lead
Abbott Run Brook North	RI0001006R-01A	Dissolved Copper
		Dissolved Lead
Abbott Run Brook South	RI0001006R-01B	Dissolved Lead
Woonasquatucket River	RI0002007R-10C	Dissolved Zinc
Turner Reservoir	RI0004009L-01A	Dissolved Copper
		Dissolved Lead
		Fecal Coliform
Turner Reservoir	RI0004009L-01B	Dissolved Copper
		Dissolved Lead
		Fecal Coliform
Omega Pond	RI0004009L-03	Dissolved Copper
		Dissolved Lead
Ten Mile River	RI0004009R-01A	Dissolved Copper
Ten Mile River	RI0004009R-01B	Dissolved Copper
		Dissolved Lead

Impairments De-Listed Because Water Quality Standard Is Now Being Met (continued)		
Water body Name	**Water body ID #**	**Cause of Impairment**
Pocasset River	RI0006018R-03B	Dissolved Lead
Maskerchugg River	RI0007025R-03	Dissolved Copper
		Dissolved Lead
Ashaway River	RI0008039R-02A	Dissolved Copper
		Dissolved Lead
Chipuxet River	RI0008039R-06B	Dissolved Lead
Mud Brook	RI0008039R-39	Enterococci
Indian Run Brook	RI0010045R-02	Dissolved Lead

Impairments De-Listed Because Water Quality Standard Is Now Being Met According to New Assessment Method		
Water body Name	**Water body ID #**	**Cause of Impairment**
Abbott Run Brook North & Tribs	RI0001006R-01A	Aquatic Macroinvertebrate Bioassessment
Abbott Run Brook South & Tribs	RI0001006R-01B	Aquatic Macroinvertebrate Bioassessment
Tarkiln Brook & Tribs	RI0001002R-13B	Benthic-Macroinvertebrate Bioassessment
Canonchet Brook & Tribs	RI0008040R-04B	Benthic-Macroinvertebrate Bioassessment
Nine Foot Brook & Tribs	RI0002007R-11	Benthic-Macroinvertebrate Bioassessment

Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect		
Water body Name	**Water body ID #**	**Cause of Impairment**
Ash Swamp Brook & Tribs	RI0001006R-04	Escherichia coli
Hardig Brook & Tribs	RI0007025R-01	Benthic-Macroinvertebrate Bioassessment
Keach Brook & Tribs	RI0005047R-02	Benthic-Macroinvertebrate Bioassessment
Silver Creek	RI0007026R-01	Benthic-Macroinvertebrate Bioassessment
Jamestown Brook	RI0007036R-01	Benthic-Macroinvertebrate Bioassessment
Upper Kickemuit River	RI0007034R-01	Benthic-Macroinvertebrate Bioassessment
Chipuxet River & Tribs	RI0008039R-06B	Benthic-Macroinvertebrate Bioassessment

Progress in Water Quality Restoration - Rhode Island's TMDL Program

To date, the Office of Water Resources has completed TMDLs addressing a total of 141 impairments/causes on 106 assessment units (WBIDs) which account for 86 named waterbodies. Since 2008, TMDLs have been completed for a total of 38 impairment/causes on 27 assessment units (WBIDs) accounting for 17 named waterbodies. Current TMDL development activities are focused on water quality impairments on the Blackstone River (and Mill River, Peters River, Cherry Brook, and Scott Pond), Ten Mile River (and Slaters Park Pond, Central Pond, Turner Reservoir, and Omega Pond), Buckeye Brook, and a statewide Bacteria TMDL addressing 59 bacteria impaired waters. All of these TMDLs are scheduled for completion in either 2011 or 2012.

The goal of RIDEM's TMDL program is to develop and implement studies aimed at restoring impaired waterbodies to an acceptable condition that meets water quality standards and supports their designated uses (e.g., shellfish harvesting, primary contact (swimming) and aquatic life support). There are several steps that are common to the development of most TMDLs:

- Identify the impaired waterbodies and pollutant(s) not meeting water quality standards.
- Assemble and review available data and information on the water body and its watershed.
- Identify stakeholders having an interest in the water body and/or watershed.
- Identify data gaps that need to be addressed to satisfactorily characterize water quality conditions and pollution sources causing the identified impairment, and other factors affecting the extent and severity of the impairment.
- If needed, develop and implement a monitoring plan (and Quality Assurance Project Plan [QAPP]) to collect additional data to further characterize water quality and pollution sources. As part of the assessment process, pollution sources are identified and their significance assessed including point sources, such as wastewater treatment facility discharges and stormwater outfalls, and non-point sources, such as septic systems and un-channelized runoff from agricultural and urbanized areas.
- Estimate the current amount of point and non-point sources entering the water body.
- Establish the TMDL water quality target (typically the applicable water quality standard) and estimate the allowable load of the pollutant that the water body can receive and still meet water quality standards (i.e., the total maximum daily load). A water quality model, based on either computer simulations or empirical equations, may be used. For bacteria TMDLs, a concentration -based approach may be applied whereby a percentage reduction in fecal coliform concentrations is determined to represent necessary pollutant reductions.
- Allocate allowable loads between point and non-point sources, and a margin of safety.
- Develop an implementation plan identifying the specific actions necessary to achieve the TMDL water quality target(s).
- Conduct public meeting(s) and formally solicit and respond to public comments.
- Submit the draft TMDL to EPA for formal approval.

Public participation is vital to making the TMDL process a success. Wherever possible, DEM utilizes a "watershed approach" in developing TMDLs - evaluating watersheds as a whole, and partnering with local officials and environmental organizations to identify problem areas, collect relevant water quality data, and identify potential pollution sources and solutions. DEM seeks input from stakeholders at key points in the TMDL development process. In the initial stages of

developing the TMDL, stakeholders can play an important role by contributing both water quality data and their in-depth local knowledge of the watershed. This information helps DEM to better characterize conditions in the water body and more easily identify pollution sources in the watershed. At the midpoint of the process, typically after supplemental water quality monitoring has been completed, DEM may host a meeting to discuss the monitoring results and to identify potential pollution sources and possible solutions. Finally, once a draft TMDL document is completed, it is made available for public review and comment for a 30-day period, and a public meeting is held to present the TMDL report and to seek public input on the report's findings and implementation plan.

The following table shows the impairments de-listed from the 2008 303(d) List/Category 5 list (and moved to Category 4A), because a TMDL for the impairment has been completed and approved by EPA.

Impairments De-Listed Due to TMDL Approval by EPA (Category 4A)			
Water body Name	**Water body ID #**	**Cause of Impairment**	**TMDL Approval Date**
Old Mill Creek	RI0007024E -02	Enterococcus	12/23/2008
		Fecal Coliform	12/23/2008
Buckeye Brook & Tribs	RI0007024R-01	Enterococcus	12/23/2008
		Fecal Coliform	12/23/2008
Parsonage (Knowles Brook	RI0007024R-02	Enterococcus	12/23/2008
		Fecal Coliform	12/23/2008
Lockwood Brook & Tribs	RI0007024R-03	Enterococcus	12/23/2008
		Fecal Coliform	12/23/2008
Warner Brook & Tribs	RI0007024R-04	Enterococcus	12/23/2008
		Fecal Coliform	12/23/2008
Tribs to Warwick Pond	RI0007024R-05	Enterococcus	12/23/2008
		Fecal Coliform	12/23/2008
Point Judith Pond	RI0010043E-06B	Fecal Coliform	6/28/2008
Point Judith Pond	RI0010043E-06C	Fecal Coliform	6/28/2008
Point Judith Pond	RI0010043E-06D	Fecal Coliform	6/28/2008
Point Judith Pond	RI0010043E-06K	Fecal Coliform	6/28/2008
Indian Run Brook & Tribs	RI0010045R-02	Zinc	6/2/2008
		Copper	6/2/2008
Saugatucket River	RI0010045R-05C	Fecal Coliform	6/26/2008
Sands Pond	RI0010046L-01	Turbidity	6/2/2008
		Chlorophyll a	6/2/2008
		Total Phosphorus	6/2/2008
		Excess Algal growth	6/2/2008
Mt. Hope Bay	RI0007032E-01A	Fecal Coliform	1/14/2010
Mt. Hope Bay	RI0007032E-01B	Fecal Coliform	1/14/2010
Mt. Hope Bay	RI0007032E-01C	Fecal Coliform	1/14/2010
Mt. Hope Bay	RI0007032E-01D	Fecal Coliform	1/14/2010
Kickemuit River	RI0007033E-01A	Fecal Coliform	1/14/2010
Kickemuit River	RI0007033E-01B	Fecal Coliform	1/14/2010
Kickemuit River	RI0007033E-01C	Fecal Coliform	1/14/2010
Tidal Pawcatuck River	RI0008038E-01A	Fecal Coliform	12/1/2010
Tidal Pawcatuck River	RI0008038E-01B	Fecal Coliform	12/1/2010
Mastuxet River & Trib	RI0008039R-11	Enterococcus	12/1/2010
		Fecal Coliform	12/1/2010
Little Narragansett Bay	RI0008038E-02A	Fecal Coliform	12/1/2010
Little Narragansett Bay	RI0008038E-02B	Fecal Coliform	12/1/2010
Belleville Ponds	RI0007027L-02	Total Phosphorus	12/28/2010
Belleville Upper Pond Inlet	RI0007027R-02	Total Phosphorus	12/28/2010

New Impairments

As described previously, expansion of the geographic extent of monitoring efforts has resulted in the identification of new waterbodies impaired for at least one pollutant. The list also includes new impairments for certain waterbodies previously listed for another cause. The number of new water body impairments (by water body assessment units) can be summarized as follows:

Summary of New Impairments on 2010 303(d) list					
Water body Type	Cause of Impairment				
	Bacteria	Metals	Nutrients/DO	Biodiversity	Chloride or Turbidity
Estuary	5				
Freshwater Lake	1	11	3		
River	51	24	1	11	2

The more detailed listing of new impairments is provided below:

New Impairments included on the 2010 303(d) List		
Water body Name	**Water body ID number**	**Cause of Impairment**
Acid Factory Brook & Tribs	RI0008040R-01	Enterococcus
Alewife Brook	RI0008039R-01	Iron
Alewife Brook	RI0008039R-01	Lead
Alewife Brook	RI0008039R-01	Copper
Ashaway River & Tribs	RI0008039R-02A	Enterococcus
Belleville Upper Pond Inlet	RI0007027R-02	Phosphorus (Total)
Belleville Upper Pond Inlet	RI0007027R-02	Enterococcus
Blackstone River	RI0001003R-01A	Cadmium
Blackstone River	RI0001003R-01A	Enterococcus
Blackstone River	RI0001003R-01A	Lead
Blackstone River	RI0001003R-01B	Enterococcus
Blackstone River	RI0001003R-01B	Cadmium
Boyd Brook	RI0006013R-01	Enterococcus
Branch River & Tribs	RI0001002R-01A	Enterococcus
Branch River & Tribs	RI0001002R-01B	Copper
Breakheart Brook & Tribs	RI0008040R-02	Enterococcus
Burnt Swamp Brook & Tribs	RI0001006R-06	Enterococcus
Chepachet River & Tribs	RI0001002R-03	Enterococcus
Cherry Brook & Tribs	RI0001003R-02	Copper
Cherry Brook & Tribs	RI0001003R-02	Fecal Coliform
Cherry Brook & Tribs	RI0001003R-02	Enterococcus
Chipuxet River & Tribs	RI0008039R-06B	Iron
Clear River	RI0001002R-05D	Enterococcus
Clear River	RI0001002R-05D	Benthic-Macroinvertebrate Bioassessments
Clear River & Tribs	RI0001002R-05C	Enterococcus
Crookfall Brook & Tribs	RI0001004R-01	Enterococcus
Cutler Brook & Tribs	RI0002007R-02	Enterococcus
Dry Brook & Tribs	RI0006018R-02A	Enterococcus
Dundery Brook	RI0010048R-02C	Benthic-Macroinvertebrate Bioassessments
Dutemple Brook	RI0008039R-30	Enterococcus

New Impairments included on the 2010 303(d) List (continued**)**		
Water body Name	**Water body ID number**	**Cause of Impairment**
Fresh Meadow Brook & Tribs	RI0010045R-01	Enterococcus
Hunt River	RI0007028R-03D	Enterococcus
Huntinghouse Brook	RI0006015R-11	Enterococcus
Latham Brook & Tribs	RI0002007R-05	Lead
Latham Brook & Tribs	RI0002007R-05	Enterococcus
Mastuxet Brook & Tribs	RI0008039R-11	Fecal Coliform
Mastuxet Brook & Tribs	RI0008039R-11	Enterococcus
Meshanticut Brook & Tribs	RI0006017R-02	Enterococcus
Mile Brook	RI0008039R-14	Iron
Mile Brook	RI0008039R-14	Enterococcus
Mill River	RI0001003R-03	Enterococcus
Moosup River & Tribs	RI0005011R-03	Enterococcus
Moshassuck River & Tribs	RI0003008R-01A	Enterococcus
Moshassuck River & Tribs	RI0003008R-01B	Enterococcus
Moshassuck River & Tribs	RI0003008R-01B	Benthic-Macroinvertebrate Bioassessments
Moshassuck River & Tribs	RI0003008R-01C	Benthic-Macroinvertebrate Bioassessments
Mt. Hope Bay	RI0007032E-01A	Fecal Coliform
Nooseneck River & Tribs	RI0006012R-05	Enterococcus
Old Mill Creek	RI0007024E-02	Enterococcus
Omega Pond	RI0004009L-03	Fecal Coliform
Omega Pond	RI0004009L-03	Oxygen, Dissolved
Omega Pond	RI0004009L-03	Cadmium
Omega Pond	RI0004009L-03	Aluminum
Parmenter Brook & Tribs	RI0008039R-37	Enterococcus
Pascoag River	RI0001002R-09	Benthic-Macroinvertebrate Bioassessments
Pascoag River	RI0001002R-09	Enterococcus
Pawcatuck River & Tribs	RI0008039R-18B	Enterococcus
Pawcatuck River & Tribs	RI0008039R-18E	Iron
Pawcatuck River & Tribs	RI0008039R-18E	Enterococcus
Pawcatuck River & Tribs	RI0008039R-18E	Lead
Pawtuxet River South Branch	RI0006014R-04B	Enterococcus
Perry Healy Brook & Tribs	RI0008039R-19	Lead
Perry Healy Brook & Tribs	RI0008039R-19	Copper
Peters River	RI0001003R-04	Enterococcus
Phillips Brook & Tribs	RI0008040R-14	Enterococcus
Pocasset River & Tribs	RI0006018R-03A	Enterococcus
Pocasset River & Tribs	RI0006018R-03A	Copper
Pocasset River & Tribs	RI0006018R-03A	Chloride
Pocasset River & Tribs	RI0006018R-03A	Benthic-Macroinvertebrate Bioassessments
Pocasset River & Tribs	RI0006018R-03B	Benthic-Macroinvertebrate Bioassessments
Potowomut River	RI0007028E-01A	Fecal Coliform
Queens Fort Brook & Tribs	RI0008039R-31B	Turbidity
Queens Fort Brook & Tribs	RI0008039R-31B	Lead
Queens Fort Brook & Tribs	RI0008039R-31B	Iron
Scott Pond	RI0001003L-01	Copper
Silver Lake	RI0010045L-05	Phosphorus (Total)

New Impairments included on the 2010 303(d) List (continued)		
Water body Name	**Water body ID number**	**Cause of Impairment**
Silver Spring Lake	RI0010044L-02	Phosphorus (Total)
Simmons Brook & Tribs	RI0006018R-04	Benthic-Macroinvertebrate Bioassessments
Slater Park Pond	RI0004009L-02	Cadmium
Slater Park Pond	RI0004009L-02	Iron
Slater Park Pond	RI0004009L-02	Lead
Slater Park Pond	RI0004009L-02	Aluminum
Stillwater River & Tribs	RI0002007R-09	Enterococcus
Sucker Brook	RI0007037R-01	Enterococcus
Taney Brook	RI0008039R-23	Enterococcus
Tarkiln Brook & Tribs	RI0001002R-13B	Enterococcus
Ten Mile River & Tribs	RI0004009R-01A	Aluminum
Ten Mile River & Tribs	RI0004009R-01A	Enterococcus
Ten Mile River & Tribs	RI0004009R-01A	Iron
Ten Mile River & Tribs	RI0004009R-01B	Cadmium
Ten Mile River & Tribs	RI0004009R-01B	Aluminum
Tribs to Tiogue Lake	RI0006014R-05	Enterococcus
Tribs to Warwick Pond	RI0007024R-05	Fecal Coliform
Tribs to Warwick Pond	RI0007024R-05	Enterococcus
Turner Reservoir	RI0004009L-01A	Aluminum
Turner Reservoir	RI0004009L-01A	Cadmium
Turner Reservoir	RI0004009L-01B	Cadmium
Turner Reservoir	RI0004009L-01B	Aluminum
Unnamed Trib #3 to South Branch Pawtuxet River	RI0006014R-08	Lead
West Passage	RI0007027E-03K	Fecal Coliform
West Passage	RI0007027E-03L	Fecal Coliform
West River & Tribs	RI0003008R-03B	Benthic-Macroinvertebrate Bioassessments
West River & Tribs	RI0003008R-03C	Benthic-Macroinvertebrate Bioassessments
White Horn Brook & Tribs	RI0008039R-27B	Enterococcus
Windsor Brook & Tribs	RI0006015R-30	Enterococcus
Wood River & Tribs	RI0008040R-16A	Enterococcus
Wood River & Tribs	RI0008040R-16D	Copper
Woonasquatucket River & Tribs	RI0002007R-10C	Benthic-Macroinvertebrate Bioassessments

Re-assessment of impairments listed in Category 4B

In the 2008 assessment cycle, the Office of Water Resources moved two impairments associated with four water body segments in Mt. Hope Bay from Category 5 (303(d) list) to Category 4B (Other pollution control requirements are reasonably expected to result in attainment of the water quality standard associated with the impairment). The impairments and associated water body segments are listed below. Note, while these impairments are considered Category 4B, these four water body segments are listed in Category 5 due to other impairments needing a TMDL.

Impairments De-listed in 2008 because Attainment of Water Quality Standards is Expected with Implementation of Other Pollution Control Requirements (4B)		
Water body Name	**Water body ID number**	**Cause of Impairment**
Mt. Hope Bay	RI0007032E-01A	Water Temperature, Fishes bioassessments
Mt. Hope Bay	RI0007032E-01B	Water Temperature, Fishes bioassessments
Mt. Hope Bay	RI0007032E-01C	Water Temperature, Fishes bioassessments
Mt. Hope Bay	RI0007032E-01D	Water Temperature, Fishes bioassessments

As described in detail in the 4B documentation provided with the 2008 Integrated Report, various water quality studies and trawling surveys conducted in Mt. Hope Bay documented the cause and effect relationship between Brayton Point Station's operations and thermal modifications and biodiversity impairments in Mt. Hope Bay.

On Oct. 6, 2003, Region I renewed Brayton Point Station's CWA permit. The permit set strict limits for the facility's withdrawal of cooling water from, and its discharges of heated wastewater to, Mount Hope Bay. The permit was appealed to EPA's Environmental Appeals Board (EAB) and on September 27, 2007, the EAB issued its decision upholding EPA's final permit. The company subsequently appealed the EAB ruling to the Federal Court in the Fourth Circuit, but on December 17, 2007 Dominion Power withdrew its legal challenges to the final permit issued in 2003 by EPA and the Commonwealth of Massachusetts. The Brayton Point NPDES Permit (No. MA0003654) specifically requires Brayton Point Station to:

- reduce total annual heat discharge to the bay by 96%, from 42 trillion BTUs/year to 1.7 trillion BTUs/year, and
- reduce water withdrawal from the bay by approximately 94%, from nearly 1 billion gallons/day to 56 million gallons/day.

Compliance with these permit limits will eliminate annual fishery losses by an estimated 94% and improve habitat quality.

EPA has issued an administrative order containing a schedule for meeting all NPDES permit limits within 36 months of obtaining all of the required construction and operating permits and approvals. Under this schedule, Brayton Point Station may comply with its NPDES permit limits as early as the spring of 2012. The administrative order sets interim effluent limits and milestones that the company will be responsible for meeting until full permit compliance is achieved. According to EPA Region 1 NPDES Permit Branch (e-mail communications with Damien Houlihan, March 30, 2011), Dominion is currently on schedule to be operating completing in the closed cycle mode by the Spring of 2012, and is in compliance with their administrative order.

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2010 Category 5 Waters
303(d) List of Impaired Waters

Blackstone River Basin

Slatersville Reservoir

RI0001002L-09 Waterbody Size: 219 A Waterbody Classification B

Slatersville Reservoir. Burrillville, North Smithfield

Use Description	*Use Attainment Status*	*Cause/Impairment*	*TMDL Schedule*	*TMDL Approval Date*	*Comment*
Fish and Wildlife habitat	Not Supporting	Copper	2018		
		Lead	2018		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Branch River & Tribs

RI0001002R-01A Waterbody Size: 6.7 M Waterbody Classification B

Branch River and tributaries from the confluence of the Clear River and Chepachet River at Oakland to the inlet of Slatersville Reservoir. Burrillville

Use Description	*Use Attainment Status*	*Cause/Impairment*	*TMDL Schedule*	*TMDL Approval Date*	*Comment*
Fish and Wildlife habitat	Not Supporting	Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Branch River & Tribs

RI0001002R-01B

Waterbody Size: 4.06 M

Waterbody Classification B

Branch River and tributaries from the outlet of the Slatersville Reservoir to the confluence with the Blackstone River.
North Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aquatic Macroinvertebrate Bioassessments	2018		
		Copper	2018		
		Lead	2018		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Chepachet River & Tribs

RI0001002R-03

Waterbody Size: 6.61 M

Waterbody Classification B

Chepachet River and tributaries. Glocester, Burrillville

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Clear River & Tribs

RI0001002R-05C

Waterbody Size: 9.74 M

Waterbody Classification B

Clear River and tributaries from 1/2 mile upstream of Wilson Reservoir to 1 mile upstream of confluence with the Chepachet River (upstream of the Burrillville WWTF discharge point). Glocester, Burrillville

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Clear River

RI0001002R-05D

Waterbody Size: 0.89 M

Waterbody Classification B1

Clear River from the Burrillville WWTF discharge point to the confluence with the Chepachet River. Glocester, Burrillville

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2018		
		Cadmium	2018		
		Copper	2018		
		Lead	2018		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pascoag River

RI0001002R-09

Waterbody Size: 0.85 M

Waterbody Classification B

Pascoag River. Burrillville

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2018		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Tarkiln Brook & Tribs

RI0001002R-13B

Waterbody Size: 0.76 M

Waterbody Classification B

Tarkiln Brook and tributaries from Route 7 crossing to Slatersville Reservoir. Burrillville, North Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Scott Pond

RI0001003L-01 Waterbody Size: 42.1 A Waterbody Classification B

Scott Pond. Lincoln

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2011		
		Oxygen, Dissolved	2011		
		Phosphorus (Total)	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Valley Falls Pond

RI0001003L-02 Waterbody Size: 38 A Waterbody Classification B1

Valley Falls Pond. Cumberland

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aquatic Macroinvertebrate Bioassessments	2018		Determine need for TMDL post WWTF upgrades.
		Lead	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
		Oxygen, Dissolved	2018		Determine need for TMDL post WWTF upgrades.
		Phosphorus (Total)	2018		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

Blackstone River

RI0001003R-01A

Waterbody Size: 18.1 M

Waterbody Classification B1

Blackstone River from the MA-RI border to the CSO outfall located at River and Samoset Streets in Central Falls. Woonsocket, North Smithfield, Cumberland, Lincoln and Central Falls.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2018		Determine need for TMDL post WWTF upgrades.
		Cadmium	2011		
		Eurasian Water Milfoil, Myriophyllum spicatum			No TMDL required. Impairment is not a pollutant.
		Lead	2011		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved	2018		Determine need for TMDL post WWTF upgrades.
		Phosphorus (Total)	2018		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Not Supporting	Mercury in Fish Tissue	2022		
		PCB in Fish Tissue	2022		
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		

Blackstone River

RI0001003R-01B

Waterbody Size: 1.64 M

Waterbody Classification B1{a}

Blackstone River from the CSO outfall located at River and Samoset streets in Central Falls to the Slater Mill Dam. Central Falls, Pawtucket.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2018		Determine need for TMDL post WWTF upgrades.
		Cadmium	2011		
		Oxygen, Dissolved	2018		Determine need for TMDL post WWTF upgrades.
		Phosphorus (Total)	2018		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Not Supporting	Mercury in Fish Tissue	2022		
		PCB in Fish Tissue	2022		
Primary Contact Recreation	Not Supporting	Enterococcus	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
		Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Enterococcus	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
		Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

Cherry Brook & Tribs

RI0001003R-02

Waterbody Size: 3.13 M

Waterbody Classification B

Cherry Brook and tributaries. North Smithfield, Woonsocket

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		

Mill River

RI0001003R-03 Waterbody Size: 0.92 M Waterbody Classification B

Mill River. Woonsocket

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		

Peters River

RI0001003R-04 Waterbody Size: 0.78 M Waterbody Classification B

Peters River. Woonsocket

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		
		Fecal Coliform	2011		

Crookfall Brook & Tribs

RI0001004R-01 Waterbody Size: 6.08 M Waterbody Classification AA

Crookfall Brook and tributaries. North Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Fully Supporting				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Abbott Run Brook North & Tribs

RI0001006R-01A

Waterbody Size: 4.35 M

Waterbody Classification AA

Abbott Run Brook North and tributaries. Cumberland

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Fully Supporting				

Abbott Run Brook South & Tribs

RI0001006R-01B

Waterbody Size: 1.75 M

Waterbody Classification AA

Abbott Run Brook South and tributaries. Cumberland

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Fully Supporting				

Long Brook & Tribs

RI0001006R-02

Waterbody Size: 4.94 M

Waterbody Classification AA

Long Brook and tributaries. Cumberland

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

East Sneech Brook

RI0001006R-03 Waterbody Size: 2.66 M Waterbody Classification AA

East Sneech Brook. Cumberland

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Burnt Swamp Brook & Tribs

RI0001006R-06 Waterbody Size: 1.35 M Waterbody Classification AA

Burnt Swamp Brook and tributaries. Cumberland

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Greenhill Pond

RI0010043E-02 Waterbody Size: 0.66 S Waterbody Classification SA

Green Hill Pond. South Kingstown and Charlestown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2018		
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		2/16/2006	

Silver Spring Lake

RI0010044L-02 Waterbody Size: 18.7 A Waterbody Classification B

Silver Spring Lake. North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Saugatucket Pond

RI0010045L-01 Waterbody Size: 40.7 A Waterbody Classification B

Saugatucket Pond. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		Record of Decision in place for Rosehill Landfill.
		Phosphorus (Total)	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Silver Lake

RI0010045L-05 Waterbody Size: 44.8 A Waterbody Classification B

Silver Lake. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Fresh Meadow Brook & Tribs

RI0010045R-01 Waterbody Size: 6.01 M Waterbody Classification B

Fresh Meadow Brook & tributaries. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Mitchell Brook

RI0010045R-03B Waterbody Size: 0.68 M Waterbody Classification B

Mitchell Brook from the Rose Hill Landfill to the confluence with the Saugatucket River. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		Record of Decision in place for Rosehill Landfill.
		Iron	2016		Record of Decision in place for Rosehill Landfill.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform		7/31/2003	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		7/31/2003	

Saugatucket River & Tribs

RI0010045R-05B

Waterbody Size: 4.01 M

Waterbody Classification B

Saugatucket River and Tributaries from the Rose Hill Landfill property to the dam at Main Street in Wakefield. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		Record of Decision in place for Rosehill Landfill.
		Iron	2016		Record of Decision in place for Rosehill Landfill.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		7/31/2003	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		7/31/2003	

Great Salt Pond, Trim's Pond and Harbor Pond

RI0010046E-01C

Waterbody Size: 0.11 S

Waterbody Classification SA{b}

Trim's Pond and Harbor Pond. New Shoreham

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform	2018		

Lily Pond

RI0010047L-02

Waterbody Size: 29.1 A

Waterbody Classification A

Lily Pond. Newport

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Round Pond (Little Compton) RI0010048L-02

Waterbody Size: 34.2 A Waterbody Classification A

Round Pond. Little Compton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Dundery Brook RI0010048R-02C

Waterbody Size: 1.07 M Waterbody Classification B

Dundery Brook from 1 mile downstream of Meetinghouse Lane to Briggs Marsh Pond. Little Compton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Barney Pond

RI0003008L-02 Waterbody Size: 23.8 A Waterbody Classification B

Barney Pond. Lincoln

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Moshassuck River & Tribs

RI0003008R-01A Waterbody Size: 12.6 M Waterbody Classification B

Moshassuck River headwaters including tributaries, to inlet of Barney Pond. Lincoln

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Moshassuck River & Tribs

RI0003008R-01B Waterbody Size: 2.14 M Waterbody Classification B

Moshassuck River and tributaries from Barney Pond outlet to first CSO discharge point at Weeden Street Bridge. Lincoln, Central Falls, Pawtucket.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Moshassuck River & Tribs

RI0003008R-01C

Waterbody Size: 4.56 M

Waterbody Classification B{a}

Moshassuck River and tributaries from the first CSO discharge point at Weeden Street Bridge to the confluence with the Woonasquatucket River. Central Falls, Pawtucket, Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2022		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Enterococcus	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

West River & Tribs

RI0003008R-03B

Waterbody Size: 9.04 M

Waterbody Classification B

West River and tributaries from the outlet of Wenscott Reservoir, including Geneva and Whipple ponds, to the first CSO discharge point located south of the Branch Avenue crossing, off of Vandewater Street. North Providence, Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

West River & Tribs

RI0003008R-03C

Waterbody Size: 3.41 M

Waterbody Classification B{a}

West River and tributaries from the first CSO discharge point located south of the Branch Avenue crossing, off of Vandewater Street to the confluence with the Moshassuck River. Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2022		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Enterococcus	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

Seekonk River

RI0007019E-01 Waterbody Size: 1.01 S Waterbody Classification SB1{a}

Seekonk River from the Slater Mill Dam at Main Street in Pawtucket to India Point in Providence. Pawtucket, Providence and East Providence.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

Providence River

RI0007020E-01A Waterbody Size: 4.73 S Waterbody Classification SB{a}

Providence River south of a line from a point on shore due east of Naushon Avenue in Warwick to the western terminus of Beach Road in East Providence and north of a line from Conimicut Point in Warwick to Old Tower at Nayatt Point in Barrington. East Providence, Warwick, Barrington

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Shellfish Controlled Relay and Depuration	Fully Supporting				

Providence River

RI0007020E-01B

Waterbody Size: 3.61 S

Waterbody Classification SB1{a}

Providence River from its confluence with the Moshassuck and Woonasquatucket Rivers in Providence south and south of a line from India Point to Bold Point (across the mouth of the Seekonk River), to a line extending from a point on shore due east of Naushon Avenue in Warwick to the western terminus of Beach Road in East Providence, including Watchemoket Cove. East Providence, Providence, Cranston and Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

Prince's Pond (Tiffany Pond)

RI0007020E-02

Waterbody Size: 0.01 S

Waterbody Classification SA

Prince's Pond (Tiffany Pond). Barrington

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2018		Re-classified with a saltwater classification. Previously identified as WBID# RI0007020L-06.
		Phosphorus (Total)	2018		Re-classified with a saltwater classification. Previously identified as WBID# RI0007020L-06.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Assessed				

Runnins River & Tribs

RI0007021R-01 Waterbody Size: 5.18 M Waterbody Classification B

Runnins River and tributaries from the MA-RI border to the Mobil Dam in East Providence. Providence, East Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Lead	2016		
		Oxygen, Dissolved	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform		9/30/2002	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		9/30/2002	

Palmer River

RI0007022E-01A Waterbody Size: 0.73 S Waterbody Classification SA

Palmer River from the MA-RI border to the East Bay Bike Path trestle in Warren, approximately 2500 feet north of the confluence with the Barrington River. Warren, Barrington

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		5/15/2002	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		5/15/2002	
Shellfish Consumption	Not Supporting	Fecal Coliform		5/15/2002	

Upper Narragansett Bay RI0007024E-01

Waterbody Size: 14.9 S Waterbody Classification SA

Upper Narra. Bay from Conimicut Pt-Nayatt Pt boundary south, including waters south of a line from Adams Pt, Barrington to Jacobs Pt, Warren, to a line from Warwick Point in Warwick through Providence Point on Prudence Island, to Popasquash Point in Bristol. Warwick, Barrington, Bristol, Portsmouth, Warren

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform	2022		Compliance with Consent Agreement for CSO abatement expected to negate need for TMDL.

Sandy Pond (S. of Airport) (Little Pond) RI0007024L-01

Waterbody Size: 28.3 A Waterbody Classification B

Sandy Pond (Little Pond, south of airport). Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2014		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2014		

Buckeye Brook & Tribs RI0007024R-01

Waterbody Size: 3.69 M Waterbody Classification B

Buckeye Brook and tributaries. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2012		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus		12/23/2008	
		Fecal Coliform		12/23/2008	
Secondary Contact Recreation	Not Supporting	Enterococcus		12/23/2008	
		Fecal Coliform		12/23/2008	

Apponaug Cove

RI0007025E-01 Waterbody Size: 0.32 S Waterbody Classification SB

Apponaug Cove waters north and west of a line from the RIDEM range marker located at the end of Neptune Lane in Chepiwanoxet to the RIDEM range marker located at Cedar Tree Point. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Shellfish Controlled Relay and Depuration	Fully Supporting				

Brushneck Cove

RI0007025E-02 Waterbody Size: 0.12 S Waterbody Classification SA

Brushneck Cove. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		2/16/2006	

Buttonwoods Cove

RI0007025E-03 Waterbody Size: 0.08 S Waterbody Classification SA

Buttonwoods Cove. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		2/16/2006	

Greenwich Bay

RI0007025E-04A Waterbody Size: 3.04 S Waterbody Classification SA

Greenwich Bay waters north and west of a line from the eastern extremity of Sandy Pt. on Potowomut Neck, East Greenwich, to the flag pole located at the Warwick Country Club on Warwick Neck, east of a line from the northerly point of Long Point to the southerly point of Chepiwanoxet Point, and east of a line from the northern extremity of Chepiwanoxet Point to the extension of Cooper Road located in the Buttonwoods section of Warwick. Warwick, East Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		2/16/2006	

Greenwich Bay

RI0007025E-04B

Waterbody Size: 0.46 S

Waterbody Classification SA

Greenwich Bay waters west of a line from the northern extremity of Chepiwanoxet Point to the extension of Cooper Road located in the Buttonwoods section of Warwick, and east of a line from the RIDEM range marker located at the end of Neptune Lane in Chepiwanoxet to the RIDEM range marker located at Cedar Tree Point. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		2/16/2006	

Greenwich Cove

RI0007025E-05A

Waterbody Size: 0.3 S

Waterbody Classification SB1

Greenwich Cove south of Long Point. East Greenwich, Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	

Greenwich Cove

RI0007025E-05B

Waterbody Size: 0.15 S

Waterbody Classification SB

Greenwich Cove north of Long Point and west of a line extending from the northerly point of Long Point to the southerly point of Chepiwanoxet Peninsula. East Greenwich, Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Controlled Relay and Depuration	Fully Supporting				

Warwick Cove

RI0007025E-06A

Waterbody Size: 0.2 S

Waterbody Classification SB

Warwick Cove north of a line from the easternmost extension of Burr Avenue on Horse Neck to the westernmost extension of Meadow Avenue on the east shore. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Shellfish Controlled Relay and Depuration	Fully Supporting				

Warwick Cove

RI0007025E-06B

Waterbody Size: 0.03 S

Waterbody Classification SA

Warwick Cove south of a line from the easternmost extension of Burr Avenue on Horse Neck to the southernmost point of the Harbor Light marina parking lot on the east shore and north of a line from the southeastern most riprap jetty at the entrance of Warwick Cove, located at the southeastern end of Oakland Beach to the southern (landward) end of Dorr's Dock on Warwick Neck, excluding the waters noted in RI0007025E-06C. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Nitrogen (Total)	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
		Oxygen, Dissolved	2016		Determine need for TMDL post SAM Plan implementation and WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		2/16/2006	

Hardig Brook & Tribs

RI0007025R-01

Waterbody Size: 5.48 M

Waterbody Classification B

Hardig Brook and tributaries. West Warwick, Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	

Maskerchugg River

RI0007025R-03

Waterbody Size: 4.00 M

Waterbody Classification B

Maskerchugg River. Warwick, East Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		2/16/2006	

Allen's Harbor

RI0007027E-01A

Waterbody Size: 0.09 S

Waterbody Classification SA{b}

Allen's Harbor waters north of a line extending from the westernmost indentation of the cove which is immediately north of the easternmost curve of Westcott Road to the northernmost point of land on the south side of the mouth of Allen's Harbor. North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2022		

Bissel Cove

RI0007027E-02A

Waterbody Size: 0.11 S

Waterbody Classification SA

Bissel Cove waters west of a line from the RIDEM Range marker on the north shore of Bissel Cove in the vicinity of 'The Homestead", to the range marker on the southern shore of Bissel Cove. North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				
Shellfish Consumption	Not Supporting	Fecal Coliform	2018		

West Passage

RI0007027E-03J

Waterbody Size: 6.05 S

Waterbody Classification SA

West Passage waters south of a line from the eastern extremity of Sandy Point on Potowomut Neck, East Greenwich, to the flagpole located at the Warwick Country club on Warwick Neck; south of a line from the southernmost extremity of Warwick Point on Warwick Neck, to the northernmost point on Prudence Island (Providence Point); north of a line extending from the shore in the vicinity of High Bank Ave, North Kingstown, running due east through buoy N"6" and terminating at the shoreline of Prudence Island. Warwick, East Greenwich, North Kingstown, Portsmouth.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Fully Supporting				

West Passage

RI0007027E-03K

Waterbody Size: 0.02 S

Waterbody Classification SA

Fox Hill Pond in its entirety. Jamestown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform	2018		

West Passage

RI0007027E-03L

Waterbody Size: 0.08 S

Waterbody Classification SA

Sheffield Cove waters in Jamestown south of a line from the range marker located at the western extension of Maple Avenue to the range marker located at the northernmost point of land on the opposite western shore at the entrance to the cove. Jamestown.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform	2018		

Wickford Harbor

RI0007027E-04B

Waterbody Size: 0.34 S

Waterbody Classification SB

Wickford Harbor including Mill Cove and the estuarine portion of Mill Creek, west of a line extending from the northern extremity of Big Rock Point to the southern extremity of Cornelius Island, and west and south of a line extending from the northern extremity of Cornelius Island, to a point 1000 feet north of Calf Neck. North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2018		
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Controlled Relay and Depuration	Fully Supporting				

Belleville Upper Pond Inlet

RI0007027R-02 Waterbody Size: 2.99 M Waterbody Classification B

Belleville Upper Pond Inlet. North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)		12/28/2010	
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Potowomut River

RI0007028E-01A Waterbody Size: 0.19 S Waterbody Classification SA

The waters of the Potowomut River west of a line from the RIDEM range marker (41 39.364' N and 71 24.947' W) on the northern shoreline to the southwestern landward end of the stone jetty and CRMC Dock #1971 on the opposite southern shoreline at 51 Pojac Point Road North Kingstown. East Greenwich, North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform	2018		

Frenchtown Brook & Tribs

RI0007028R-01 Waterbody Size: 8.55 M Waterbody Classification A

Frenchtown Brook and tributaries. West Greenwich, East Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Hunt River

RI0007028R-03D

Waterbody Size: 0.97 M

Waterbody Classification B

Hunt River, excluding Potowomut Pond, from Austin Road to the tidal waters of the Potowomut River approximately 1000 feet south of the Forge Bridge. East Greenwich, North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Sandhill Brook & Tribs

RI0007028R-05

Waterbody Size: 5.15 M

Waterbody Classification B

Sandhill Brook and tributaries. North Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Pierce Brook

RI0007028R-07

Waterbody Size: 1.69 M

Waterbody Classification B

Pierce Brook. East Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2014		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2014		

East Passage

RI0007029E-01C

Waterbody Size: 0.03 S

Waterbody Classification SA

East Passage waters in the vicinity of McAlister Point. Middletown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2016		Remedial Action dredging of highly contaminated sediments completed for McAlister Point landfill. ROD in place which requires long term monitoring.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2016		Remedial Action dredging of highly contaminated sediments completed for McAllister Point landfill. ROD in place which requires long term monitoring.
Secondary Contact Recreation	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2016		Remedial Action dredging of highly contaminated sediments completed for McAllister Point landfill. ROD in place which requires long term monitoring.
Shellfish Consumption	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2016		Remedial Action dredging of highly contaminated sediments completed for McAllister Point landfill. ROD in place which requires long term monitoring.

East Passage

RI0007029E-01O

Waterbody Size: 1.57 S

Waterbody Classification SA

East Passage waters south of a line from the northern tip of Prudence Island to the southernmost tip of Popasquash Point, Bristol; north of a line extending from the southernmost tip of Popasquash Point to the southernmost tip of Gull Point, Prudence Island. Portsmouth, Bristol.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Fully Supporting				

Potter Cove

RI0007029E-03 Waterbody Size: 0.15 S Waterbody Classification SA{b}

Potter Cove. Prudence Island, Portsmouth

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Fully Supporting				

Melville Ponds

RI0007029L-01 Waterbody Size: 13.6 A Waterbody Classification A

Melville Ponds. Portsmouth

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Newport Harbor/Coddington Cove

RI0007030E-01A Waterbody Size: 0.75 S Waterbody Classification SB

Coddington Cove waters north of a line from buoy (FLR) bell 14 to Bishop Rock and southeast of a line from buoy (FLR) bell 14 through Nun buoy 16 at Coddington point and its extension to the end of the Coddington Cove breakwater. Newport, Middletown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2016		Hazardous waste site remediation underway. ROD expected fall 2014.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Controlled Relay and Depuration	Fully Supporting				

Newport Harbor/Coddington Cove

RI0007030E-01D

Waterbody Size: 0.15 S

Waterbody Classification SB

Coaster's Harbor waters east of a line from Bishop Rock to the northernmost point of Coaster's Harbor Island and north of the Training Station Road bridge. Newport

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Sediment Bioassays for Estuarine and Marine Water	2016		Hazardous waste site remediation underway. ROD established fall 2010 requires monitoring of sediments.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Controlled Relay and Depuration	Fully Supporting				

Mt. Hope Bay

RI0007032E-01A

Waterbody Size: 4.28 S

Waterbody Classification SA

Mt. Hope Bay south and west of the MA/RI border, and east of a line from Touisset Point to the channel marker buoy R "4" and south and east of a line from buoy R "4" to the southernmost landward end of Bristol Point and south of a line from Bristol Point to the Hog Island shoal light, to the southwestern extremity of Arnold Point in Portsmouth where a RIDEM range marker has been established; and west of a line from the end of Gardiner's Neck Road, Swansea to buoy N"2, through buoy C"3" to Common Fence Point, Portsmouth, excluding the waters defined in RI0007032E-01E. Warren, Portsmouth

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Fishes Bioassessments			NPDES permit for Brayton Point issued. Category 4B.
		Nitrogen (Total)	2014		Pending EPA/MA action.
		Oxygen, Dissolved	2014		Pending EPA/MA action.
		Temperature, water			NPDES permit for Brayton Point issued. Category 4B.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		1/14/2010	

Mt. Hope Bay

RI0007032E-01B

Waterbody Size: 2.01 S

Waterbody Classification SA

Mt. Hope Bay waters north and west of a line from the southernmost landward end of Bristol Point to buoy R "4" and west of a line from buoy R "4" to the DEM range marker on Touisset Point, and south of the Bristol Narrows. Bristol, Warren

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Fishes Bioassessments			NPDES permit for Brayton Point issued. Category 4B.
		Nitrogen (Total)	2014		Pending EPA/MA action.
		Oxygen, Dissolved	2014		Pending EPA/MA action.
		Temperature, water			NPDES permit for Brayton Point issued. Category 4B.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				
Shellfish Consumption	Not Supporting	Fecal Coliform		1/14/2010	

Mt. Hope Bay

RI0007032E-01C

Waterbody Size: 3.05 S

Waterbody Classification SB

Mt. Hope Bay waters south of a line from Borden's Wharf,Tiverton, to buoy R "4" and west of a line from buoy R "4" to Brayton Point, Somerset, MA., and east of a line from the end of Gardiner's Neck Road in Swansea to buoy N "2", through buoy C "3" to Common Fence Point, Portsmouth, and north of a line from Portsmouth to Tiverton at the railroad bridge at "The Hummocks" on the northeast point of Portsmouth. Portsmouth, Tiverton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Fishes Bioassessments			NPDES permit for Brayton Point issued. Category 4B
		Nitrogen (Total)	2014		Pending EPA/MA action.
		Oxygen, Dissolved	2014		Pending EPA/MA action.
		Temperature, water			NPDES permit for Brayton Point issued. Category 4B.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		1/14/2010	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		1/14/2010	
Shellfish Controlled Relay and Depuration	Fully Supporting				

Mt. Hope Bay

RI0007032E-01D

Waterbody Size: 0.48 S

Waterbody Classification SB1

Mt. Hope Bay waters south and west of the MA-RI border and north of a line from Borden's Wharf, Tiverton to buoy R "4" and east of a line from buoy R "4" to Brayton Point in Somerset, MA. Tiverton.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Fishes Bioassessments			NPDES permit for Brayton Point issued. Category 4B.
		Nitrogen (Total)	2014		Pending EPA/MA action.
		Oxygen, Dissolved	2014		Pending EPA/MA action.
		Temperature, water			NPDES permit for Brayton Point issued. Category 4B.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		1/14/2010	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		1/14/2010	

Bailey's Brook & Tribs

RI0007035R-01

Waterbody Size: 4.75 M

Waterbody Classification AA

Bailey's Brook and tributaries. Middletown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Maidford River

RI0007035R-02A Waterbody Size: 3.21 M Waterbody Classification AA

Maidford River from the headwaters to the confluence with Paradise Brook. Middletown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Maidford River

RI0007035R-02B Waterbody Size: 1.09 M Waterbody Classification AA

Maidford River from the confluence with Paradise Brook to the end of the river at Third Beach, Middletown.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Paradise Brook

RI0007035R-03 Waterbody Size: 2.52 M Waterbody Classification AA

Paradise Brook. Middletown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Lawton Brook

RI0007035R-04 Waterbody Size: 0.38 M Waterbody Classification A

Lawton Brook. Portsmouth

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Jamestown Brook

RI0007036R-01 Waterbody Size: 1.43 M Waterbody Classification AA

Jamestown Brook. Jamestown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2016		
		Iron	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Sucker Brook

RI0007037R-01 Waterbody Size: 0.87 M Waterbody Classification A

Sucker Brook. Tiverton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Tidal Pawcatuck River

RI0008038E-01A

Waterbody Size: 0.32 S

Waterbody Classification SB1

Tidal Pawcatuck River from Route 1 highway bridge to Pawcatuck Rock. Westerly

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2018		
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Supporting	Fecal Coliform		12/1/2010	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		12/1/2010	

Chapman Pond

RI0008039L-01

Waterbody Size: 173 A

Waterbody Classification B

Chapman Pond. Westerly

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Eurasian Water Milfoil, Myriophyllum spicatum			No TMDL required. Impairment is not a pollutant.
		Lead	2016		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Hundred Acre Pond

RI0008039L-13

Waterbody Size: 84.2 A

Waterbody Classification B

Hundred Acre Pond. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved	2014		
Fish Consumption	Not Supporting	Mercury in Fish Tissue		12/20/2007	
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

White Brook Pond

RI0008039L-26 Waterbody Size: 6.4 A Waterbody Classification B

White Brook Pond. Richmond

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Alewife Brook

RI0008039R-01 Waterbody Size: 1.08 M Waterbody Classification B

Alewife Brook. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2016		
		Iron	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Ashaway River & Tribs

RI0008039R-02A Waterbody Size: 1.77 M Waterbody Classification A

Ashaway River headwaters including tributaries, south to the Ashaway Road highway bridge. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Chickasheen Brook RI0008039R-05A

Waterbody Size: 1.59 M Waterbody Classification A

Chickasheen Brook headwaters to Yawgoo Pond. Exeter

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aquatic Plants - Native		6/26/2004	
		Phosphorus (Total)		6/26/2004	
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Chipuxet River & Tribs RI0008039R-06B

Waterbody Size: 8.16 M Waterbody Classification B

Chipuxet River and tributaries from outlet of Yawgoo Mill Pond to the entrance of Hundred Acre Pond. Exeter, South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
		Copper	2016		
		Iron	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Meadow Brook & Tribs RI0008039R-13

Waterbody Size: 9.96 M Waterbody Classification A

Meadow Brook and tributaries from the headwaters to the confluence with the Pawcatuck River. Richmond

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Mile Brook

RI0008039R-14 Waterbody Size: 1.97 M Waterbody Classification B

Mile Brook. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Iron	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pawcatuck River & Tribs

RI0008039R-18B Waterbody Size: 2.16 M Waterbody Classification B1

Pawcatuck River and tributaries from the dam at Kenyon to the beginning of the Carolina Mill Pond in Carolina. Richmond, Charlestown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Whole Effluent Toxicity (WET)	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pawcatuck River & Tribs

RI0008039R-18C Waterbody Size: 14.2 M Waterbody Classification B

Pawcatuck River and tributaries from the entrance to the Carolina Mill Pond to the Bradford Dyeing Associates WWTF discharge point. Richmond, Charlestown, Hopkinton, Westerly

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pawcatuck River & Tribs RI0008039R-18D

Waterbody Size: 5.53 M Waterbody Classification B1

Pawcatuck River and tributaries from the Bradford Dyeing Associates WWTF discharge point to the Route 3 bridge crossing. Hopkinton, Westerly

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2014		
Secondary Contact Recreation	Not Supporting	Enterococcus	2014		

Pawcatuck River & Tribs RI0008039R-18E

Waterbody Size: 13.8 M Waterbody Classification B

Pawcatuck River and tributaries from the Route 3 bridge crossing to the Route 1 highway bridge at the junction of Main Street and Broad Street in Westerly. Westerly

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Iron	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2014		
Secondary Contact Recreation	Not Supporting	Enterococcus	2014		

Perry Healy Brook & Tribs RI0008039R-19

Waterbody Size: 4.82 M Waterbody Classification B

Perry Healy Brook and tributaries. Westerly, Charlestown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Taney Brook

RI0008039R-23 Waterbody Size: 1.66 M Waterbody Classification B

Taney Brook. Richmond

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Tomaquag Brook & Tribs

RI0008039R-24 Waterbody Size: 13.6 M Waterbody Classification A

Tomaquag Brook and tributaries. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

White Horn Brook & Tribs

RI0008039R-27B Waterbody Size: 4.69 M Waterbody Classification B

White Horn Brook and tributaries from Route 138 to the wetlands associated with and due east of, Worden Pond. South Kingstown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Dutemple Brook

RI0008039R-30 Waterbody Size: 1.83 M Waterbody Classification A

Dutemple Brook. Exeter

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Queens Fort Brook & Tribs

RI0008039R-31B Waterbody Size: 4.22 M Waterbody Classification B

Queens Fort Brook and tributaries from 3/4 mile south of Victory Highway (Route 102) to the confluence with the Queens River. Exeter

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Iron	2016		
		Lead	2016		
		Turbidity	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Parmenter Brook & Tribs

RI0008039R-37 Waterbody Size: 5.05 M Waterbody Classification A

Parmenter Brook and tributaries. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Deep Pond (Exeter)

RI0008040L-12 Waterbody Size: 17.4 A Waterbody Classification A

Deep Pond. Exeter

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Oxygen, Dissolved	2014		
		Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Acid Factory Brook & Tribs

RI0008040R-01 Waterbody Size: 4.3 M Waterbody Classification A

Acid Factory Brook and tributaries. West Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Breakheart Brook & Tribs

RI0008040R-02 Waterbody Size: 5.86 M Waterbody Classification A

Breakheart Brook and tributaries. West Greenwich, Exeter

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Brushy Brook & Tribs RI0008040R-03B

Waterbody Size: 2.61 M Waterbody Classification B

Brushy Brook and tributaries from Sawmill Road to the entrance of Locustville Pond. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Canonchet Brook & Tribs RI0008040R-04A

Waterbody Size: 5.31 M Waterbody Classification B

Canonchet Brook headwaters including tributaries, excluding all ponds, to Route 3 in Hopkinton. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2016		
		Iron	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Canonchet Brook & Tribs RI0008040R-04B

Waterbody Size: 4.56 M Waterbody Classification B

Canonchet Brook and tributaries from Route 3 in Hopkinton to the confluence with the Wood River. Hopkinton

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
		Copper	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Coney Brook & Tribs

RI0008040R-05 Waterbody Size: 3.91 M Waterbody Classification A

Coney Brook and tributaries. West Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Phillips Brook & Tribs

RI0008040R-14 Waterbody Size: 4.04 M Waterbody Classification A

Phillips Brook and tributaries. West Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Wood River & Tribs

RI0008040R-16A Waterbody Size: 6.49 M Waterbody Classification A

Wood River and tributaries from the headwaters starting at confluence of Flat and Falls Rivers, to the confluence with Roaring Brook. Exeter, Hopkinton, Richmond.

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Wood River & Tribs

RI0008040R-16D

Waterbody Size: 0.72 M

Waterbody Classification B

Wood River and tributaries from the Alton Pond dam to the confluence with the Pawcatuck River. Richmond, Hopkinton, Charlestown

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Ambient Bioassays -- Chronic Aquatic Toxicity	2016		
		Benthic-Macroinvertebrate Bioassessments	2016		
		Copper	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Baker Brook

RI0008040R-18

Waterbody Size: 1.36 M

Waterbody Classification B

Baker Brook. Richmond

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Canob Brook

RI0008040R-23

Waterbody Size: 0.29 M

Waterbody Classification B

Canob Brook. Richmond

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Iron	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Nooseneck River & Tribs RI0006012R-05

Waterbody Size: 9.03 M Waterbody Classification A

Nooseneck River and tributaries. West Greenwich

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Boyd Brook RI0006013R-01

Waterbody Size: 2.7 M Waterbody Classification B

Boyd Brook. Scituate, Coventry

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pawtuxet River South Branch RI0006014R-04B

Waterbody Size: 5.17 M Waterbody Classification B1

Pawtuxet River South Branch from the Quidnick Dye Mill dam to its confluence with the North Branch of the Pawtuxet River. Coventry, West Warwick, Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Tribs to Tiogue Lake

RI0006014R-05

Waterbody Size: 1.35 M

Waterbody Classification B

Tributaries to Tiogue Lake. Coventry

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Unnamed Trib #3 to South Branch Pawtuxet River

RI0006014R-08

Waterbody Size: 0.62 M

Waterbody Classification B

Unnamed Tributary #3 to South Branch Pawtuxet River. Coventry

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Huntinghouse Brook

RI0006015R-11

Waterbody Size: 4.03 M

Waterbody Classification AA

Huntinghouse Brook. Glocester, Scituate

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Moswansicut Stream RI0006015R-16

Waterbody Size: 0.09 M Waterbody Classification AA

Moswansicut Stream. Scituate

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Escherichia coli	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Escherichia coli	2011		

Windsor Brook & Tribs RI0006015R-30

Waterbody Size: 3.54 M Waterbody Classification AA

Windsor Brook and tributaries. Glocester, Foster

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Public Drinking Water Supply	Not Assessed				
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pawtuxet River North Branch RI0006016R-06A

Waterbody Size: 0.49 M Waterbody Classification A

Pawtuxet River North Branch from Gainer Memorial Dam to 0.5 mile downstream. Scituate

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Assessed				
Fish Consumption	Not Supporting	Mercury in Fish Tissue	2022		
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Pawtuxet River North Branch RI0006016R-06B

Waterbody Size: 3.73 M Waterbody Classification B

Pawtuxet River North Branch from 0.5 mile downstream of the Gainer Memorial Dam to the Arkwright Dam. Scituate, Cranston, Coventry

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Lead	2016		
Fish Consumption	Not Supporting	Mercury in Fish Tissue	2022		
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Three Ponds RI0006017L-02

Waterbody Size: 21.4 A Waterbody Classification B

Three Ponds. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Copper	2016		
		Lead	2016		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved	2014		
		Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Roger Williams Park Ponds RI0006017L-05

Waterbody Size: 114 A Waterbody Classification B

Roger Williams Park Ponds. Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Excess Algal Growth		9/27/2007	
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved		9/27/2007	
		Phosphorus (Total)		9/27/2007	
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Mashapaug Pond RI0006017L-06

Waterbody Size: 76.7 A Waterbody Classification B

Mashapaug Pond. Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Excess Algal Growth		9/27/2007	
		Oxygen, Dissolved		9/27/2007	
		Phosphorus (Total)		9/27/2007	
Fish Consumption	Not Supporting	PCB in Fish Tissue	2022		
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Fenner Pond RI0006017L-08

Waterbody Size: 19.5 A Waterbody Classification B

Fenner Pond. Cranston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Meshanticut Brook & Tribs RI0006017R-02

Waterbody Size: 12.3 M Waterbody Classification B

Meshanticut Brook and tributaries. Cranston, Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pawtuxet River Main Stem

RI0006017R-03

Waterbody Size: 11.0 M

Waterbody Classification B1

Pawtuxet River from the confluence of the North and South Branches at Riverpoint to the Pawtuxet Cove Dam at Pawtuxet. West Warwick, Warwick, Cranston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Cadmium	2016		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Phosphorus (Total)	2016		Determine need for TMDL post WWTF upgrades.
Fish Consumption	Not Supporting	Mercury in Fish Tissue	2022		
Primary Contact Recreation	Not Supporting	Enterococcus	2016		
Secondary Contact Recreation	Not Supporting	Enterococcus	2016		

Three Pond Brook

RI0006017R-04

Waterbody Size: 2.04 M

Waterbody Classification B

Three Pond Brook. Warwick

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Simmons Reservoir

RI0006018L-03

Waterbody Size: 109 A

Waterbody Classification B

Simmons Reservoir. Johnston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2018		
		Turbidity	2018		
Fish Consumption	Fully Supporting				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Print Works Pond

RI0006018L-05 Waterbody Size: 26.3 A Waterbody Classification B

Print Works Pond. Cranston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Chloride	2016		
		Lead	2016		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Total Suspended Solids (TSS)	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2016		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2016		

Blackamore Pond

RI0006018L-06 Waterbody Size: 20.4 A Waterbody Classification B

Blackamore Pond. Cranston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Cedar Swamp Brook & Tribs

RI0006018R-01 Waterbody Size: 3.47 M Waterbody Classification B

Cedar Swamp Brook and tributaries. Johnston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Iron	2018		
		Oxygen, Dissolved	2018		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2018		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2018		

Dry Brook & Tribs

RI0006018R-02A

Waterbody Size: 1.59 M

Waterbody Classification B

Dry Brook and tributaries from the outlet of Oak Swamp Reservoir to a point 0.3 miles below Almy Reservoir at the discharge point of Medical Homes of R.I., excluding Almy Reservoir. Johnston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Pocasset River & Tribs

RI0006018R-03A

Waterbody Size: 17.4 M

Waterbody Classification B

Pocasset River and tributaries from the headwaters to the inlet of Printworks Pond. Cranston, Johnston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Chloride	2016		
		Copper	2016		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2016		
Secondary Contact Recreation	Not Supporting	Enterococcus	2016		

Pocasset River & Tribs

RI0006018R-03B

Waterbody Size: 4.46 M

Waterbody Classification B

Pocasset River and tributaries from the outlet of Printworks Pond to the confluence with the Pawtuxet River. Cranston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2016		
Secondary Contact Recreation	Not Supporting	Enterococcus	2016		

Simmons Brook & Tribs

RI0006018R-04

Waterbody Size: 2.79 M

Waterbody Classification B

Simmons Brook and tributaries. Johnston

Use Description	*Use Attainment Status*	*Cause/Impairment*	*TMDL Schedule*	*TMDL Approval Date*	*Comment*
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2018		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Turner Reservoir RI0004009L-01A

Waterbody Size: 130 A Waterbody Classification B1

Turner Reservoir North of Newman Avenue Dam. East Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aluminum	2011		
		Cadmium	2011		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved	2011		
		Phosphorus (Total)	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Turner Reservoir RI0004009L-01B

Waterbody Size: 85.1 A Waterbody Classification B

Turner Reservoir South of Newman Avenue Dam. East Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aluminum	2011		
		Cadmium	2011		
		Oxygen, Dissolved	2011		
		Phosphorus (Total)	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Slater Park Pond

RI0004009L-02 Waterbody Size: 21.4 A Waterbody Classification B1

Slater Park Pond. Pawtucket

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aluminum	2011		
		Cadmium	2011		
		Iron	2011		
		Lead	2011		
		Phosphorus (Total)	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Omega Pond

RI0004009L-03 Waterbody Size: 30.2 A Waterbody Classification B

Omega Pond. East Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aluminum	2011		
		Cadmium	2011		
		Oxygen, Dissolved	2011		
		Phosphorus (Total)	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform	2011		
Secondary Contact Recreation	Not Supporting	Fecal Coliform	2011		

Ten Mile River & Tribs RI0004009R-01A

Waterbody Size: 3.09 M Waterbody Classification B1

Ten Mile River and tributaries from the MA-RI border to the inlet to Turner Reservoir North, excluding Slater Park Pond. Pawtucket

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aluminum	2011		
		Cadmium	2011		
		Iron	2011		
		Lead	2011		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Ten Mile River & Tribs RI0004009R-01B

Waterbody Size: 3.15 M Waterbody Classification B

Ten Mile River and tributaries downstream of Turner Reservoir South to the Omega Pond inlet. East Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Aluminum	2011		
		Benthic-Macroinvertebrate Bioassessments	2016		
		Cadmium	2011		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Moosup River & Tribs

RI0005011R-03 Waterbody Size: 30.3 M Waterbody Classification A

Moosup River and tributaries. Foster, Coventry

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Lake Washington

RI0005047L-04 Waterbody Size: 40.9 A Waterbody Classification B

Lake Washington. Glocester

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Fully Supporting				
Secondary Contact Recreation	Fully Supporting				

Keach Brook & Tribs

RI0005047R-02 Waterbody Size: 5.23 M Waterbody Classification B

Keach Brook and tributaries. Burrillville

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Cadmium	2016		
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Lower Sprague Reservoir

RI0002007L-06 Waterbody Size: 25.1 A Waterbody Classification B

Lower Sprague Reservoir. Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Phosphorus (Total)	2014		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Assessed				
Secondary Contact Recreation	Not Assessed				

Cutler Brook & Tribs

RI0002007R-02 Waterbody Size: 3.21 M Waterbody Classification B

Cutler Brook and tributaries. Glocester

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Latham Brook & Tribs

RI0002007R-05 Waterbody Size: 3.97 M Waterbody Classification B

Latham Brook and tributaries. Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Ambient Bioassays -- Chronic Aquatic Toxicity	2016		ROD in place and remedial action underway for Davis Industrial landfill. ROD amended fall 2010 for groundwater remediation.
		Benthic-Macroinvertebrate Bioassessments	2016		ROD in place and remedial action underway for Davis Industrial landfill. ROD amended fall 2010 for groundwater remediation.
		Lead	2016		
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Stillwater River & Tribs

RI0002007R-09 Waterbody Size: 6.11 M Waterbody Classification B

Stillwater River and tributaries. Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2011		
Secondary Contact Recreation	Not Supporting	Enterococcus	2011		

Woonasquatucket River & Tribs

RI0002007R-10B Waterbody Size: 4.60 M Waterbody Classification B

Woonasquatucket River including tributaries from the Georgiaville Pond outlet to the Smithfield WWTF discharge point at Esmond Mill Drive. Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Mercury in Water Column	2022		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Fecal Coliform		7/3/2007	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		7/3/2007	

Woonasquatucket River & Tribs

RI0002007R-10C

Waterbody Size: 5.16 M

Waterbody Classification B1

Woonasquatucket River and tributaries from the Smithfield WWTF discharge point at Esmond Mill Drive to the CSO outfall at Glenbridge Avenue in Providence. Smithfield, North Providence, Providence, Johnston

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Dioxin (including 2,3,7,8-TCDD)	2022		
		Mercury	2022		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved	2016		
		Polychlorinated biphenyls	2022		
Fish Consumption	Not Supporting	Dioxin (including 2,3,7,8-TCDD)	2022		
		Mercury in Fish Tissue	2022		
		PCB in Fish Tissue	2022		
Primary Contact Recreation	Not Supporting	Fecal Coliform		7/3/2007	
Secondary Contact Recreation	Not Supporting	Fecal Coliform		7/3/2007	

Woonasquatucket River

RI0002007R-10D

Waterbody Size: 3.57 M

Waterbody Classification B1{a}

Woonasquatucket River from the CSO outfall at Glenbridge Avenue to the confluence with the Moshassuck River. Providence

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Not Supporting	Benthic-Macroinvertebrate Bioassessments	2016		
		Copper		7/3/2007	
		Dioxin (including 2,3,7,8-TCDD)	2022		
		Lead		7/3/2007	
		Mercury	2022		
		Non-Native Aquatic Plants			No TMDL required. Impairment is not a pollutant.
		Oxygen, Dissolved	2016		
		Polychlorinated biphenyls	2022		
		Zinc		7/3/2007	
Fish Consumption	Not Supporting	Dioxin (including 2,3,7,8-TCDD)	2022		
		Mercury in Fish Tissue	2022		
		PCB in Fish Tissue	2022		
Primary Contact Recreation	Not Supporting	Enterococcus	2022		
Secondary Contact Recreation	Not Supporting	Enterococcus	2022		

Unnamed Tribs to Slack Reservoir

RI0002007R-15

Waterbody Size: 1.21 M

Waterbody Classification B

Unnamed Tributaries to Slack Reservoir. Johnston, Smithfield

Use Description	Use Attainment Status	Cause/Impairment	TMDL Schedule	TMDL Approval Date	Comment
Fish and Wildlife habitat	Fully Supporting				
Fish Consumption	Not Assessed				
Primary Contact Recreation	Not Supporting	Enterococcus	2014		
Secondary Contact Recreation	Not Supporting	Enterococcus	2014		

Final 2010 Delisting Document

1. Blackstone River (RI0001003R-01A)

- Dissolved Copper – This segment of the Blackstone River was first listed as impaired for dissolved copper in 1992 using data collected at the USGS gaging stations and the 1991 Blackstone River Initiative Project. Recent data collected and analyzed by the USGS under contract to RIDEM, indicates the water quality is meeting the site specific dissolved copper criteria for the Blackstone River.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
3/20/2007	1.92	0.2	1.92	20.41	14.45
4/17/2007	4.72	0.2	4.72	20.41	14.45
10/23/2007	4.01	0.5	4.01	20.41	14.45
4/22/2008	2.98	0.5	2.98	20.41	14.45
8/19/2008	3.78	0.5	3.78	20.41	14.45
12/16/2008	2.81	0.5	2.81	20.41	14.45
3/24/2009	2.24	0.5	2.24	20.41	14.45

2. Blackstone River (RI0001003R-01B)

- Dissolved Copper – This segment of the Blackstone River was first listed as impaired for dissolved copper in 1992 using data collected at the USGS gaging stations and the 1991 Blackstone River Initiative Project. Recent data collected and analyzed by the USGS under contract to RIDEM, indicates the water quality is meeting the site specific dissolved copper criteria for the Blackstone River.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
3/20/2007	1.85	0.2	1.85	20.41	14.45
4/18/2007	4.31	0.2	4.31	20.41	14.45
10/24/2007	3.72	0.5	3.72	20.41	14.45
4/23/2008	2.90	0.5	2.90	20.41	14.45
8/19/2008	3.45	0.5	3.45	20.41	14.45
12/16/2008	3.01	0.5	3.01	20.41	14.45
3/24/2009	2.45	0.5	2.45	20.41	14.45

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

3. Mill River (RI0001003R-03)

- Dissolved Lead – This segment of the Mill River was first listed as impaired for lead in 1994 using data collected during the 1991 Blackstone River Initiative Project. As part of the Blackstone River TMDL field investigations (The Louis Berger Group, February 2008), both dry and wet weather survey samples were collected from July to December 2005 at two locations on the Rhode Island portion of the Mill River (and one in Massachusetts).

  To evaluate the dry weather data, the average hardness of the stations by survey date on a waterbody was used to calculate the dry weather acute and chronic criteria. Each data point collected was then compared to both the acute and chronic criteria to evaluate for compliance. The dry weather data, presented below, indicate that for four of six days sampled, the dissolved lead criteria was attained.

  The October 22, 2005 dry weather survey occurred during a time when the flows in the Blackstone watershed were significantly higher than what was normally observed in the Blackstone River. The mean daily flow for October at the Blackstone USGS Woonsocket gauge is 450 ft3/sec. On the day of the survey, the mean daily flow in the Blackstone River was 2,236 ft3/sec, nearly 5 times the norm for October. The high water level of the Blackstone River on Oct 22, 2005 led to backwatering of the Blackstone River into the Mill River. A screen shot from Bing Maps of the confluence of the Mill River (left culvert) and Peters River (right culvert) with the Blackstone River is provided below. Figure 3-1 from the Berger report describes the sampling location (Station W-13) as follows: "Located at the confluence of Mill River with the Blackstone River, approximately 300 feet to the south of Clinton Street. This station can be sampled only at low stage height of the Blackstone River." Given the high water level of the Blackstone River on Oct 22, 2005, the sample of the Mill River collected on that day at the confluence with the Blackstone River is not considered representative of the Mill River and has been excluded from the data set.

The other slight exceedances were all observed during the single December 22, 2005 survey which shows a decreasing lead concentration from the State Line to the confluence with the Blackstone River.

Dry Weather Survey Sample Date	***400 ft N of Social St. (Pre-culvert entry)***	***Confluence with Blackstone River***	***Mean Hardness (mg/l)***	***Acute Criteria (µg/l)***	***Chronic Criteria (µg/l)***
	Numeric/Reported Result Dissolved Lead (µg/l)				
7/21/2005	0.66	0.80	37	21.6	0.84
8/11/2005	0.11	0.31	45	26.8	1.05
9/14/2005	0.24	0.29	52	31.5	1.23
10/07/2005	0.50	0.25	41	24.2	0.94
10/22/2005	0.43	**0.71***	27	15.4	0.59
12/22/2005	**0.95**	**0.86**	36	20.9	0.81

* - Sample likely affected by entrained water/backwater from the Blackstone River

Wet weather surveys were conducted on the RI portion of the Mill River in September and October 2005. A number of sampling runs were conducted for each storm event. For wet weather, chronic criteria were calculated using the average hardness of each station for all samples taken during a storm event. The average of all wet weather survey results for each storm by station is then compared to the chronic criteria for that station. Acute criteria were calculated using the average hardness for all stations by run collected during the survey. Each data point, by run, was compared to the acute criteria calculated for that run. The wet weather data, presented below, indicate that there were no exceedances of the acute or chronic water quality criteria for dissolved lead within any segment of the Mill River.

In summary, the available dry and wet weather data for the Mill River indicate one exceedance of the chronic criteria and thus, the river is found to be meeting the dissolved lead criteria which allows for one exceedance in three years.

Storm WW-02 September 15, 2005	***Dissolved Lead (Pb) in µg/l***								***Mean Hardness (mg/l)***	***Chronic Criteria (µg/l)***
Run No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Mean***		
400 ft N of Social St. (Pre-culvert entry)	0.75	0.48	0.24	0.13	0.21	0.19	0.48	0.35	39	0.89
Confluence with Blackstone River	1.28	0.21	0.43	0.29	0.17	0.26	0.30	0.42	36	0.81

Wet weather samples collected between 1030 and 1830 hours on September 15, 2005.

Acute Criteria for Dissolved Lead (Pb) by Waterbody and Run Mill River - Storm WW-02 - September 15, 2005							
Run No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Mean Hardness (mg/l)	22	33	41	43	43	42	41
Acute Criteria (µg/l)	11.9	19.0	24.2	25.5	25.5	24.8	24.2

Storm WW-03 October 8-11, 2005	**Dissolved Lead (Pb) in µg/l**					***Mean Hardness (mg/l)***	***Chronic Criteria (µg/l)***
Run No.	**2**	**3**	**5**	**7**	**Mean***		
Elm Street (Pre-culvert entry)	0.22	0.14	0.12	0.61	0.27	40	0.92
Confluence with Blackstone River	0.55	0.39	0.73	0.63	0.58	38	0.87

Wet weather samples collected between 0340 hours on October 8 and 1240 hours on October 11, 2005.

Acute Criteria for Dissolved Lead (Pb) by Waterbody and Run Mill River - Storm WW-03 – October 8-11, 2005				
Run No.	**2**	**3**	**5**	**7**
Mean Hardness (mg/l)	39	39	43	37
Acute Criteria (µg/l)	22.9	22.9	25.5	21.6

Storm WW-04 October 22-25, 2005	**Dissolved Lead (Pb) in µg/l**			***Mean Hardness (mg/l)***	***Chronic Criteria (µg/l)***
Run No.	**2**	**4**	**Mean***		
Elm Street (Pre-culvert entry)	0.30	0.41	0.36	28	0.62
Confluence with Blackstone River	0.41	0.65	0.53	26	0.57

Wet weather samples collected between 2110 hours on October 22nd and 1100 hours on October 25, 2005.

Acute Criteria for Dissolved Lead (Pb) by Waterbody and Run Mill River - Storm WW-04 – October 22-25, 2005		
Run No.	**2**	**3**
Mean Hardness (mg/l)	28	26
Acute Criteria (µg/l)	15.8	14.5

Detection Limit = 0.04 µg/l
Quantitation Level = 0.10 µg/l

4. Abbott Run Brook North (RI0001006R-01A)

- Dissolved Copper – This segment of Abbott Run Brook was first listed as impaired for dissolved copper in 2006 based upon ambient baseline data collected periodically from 1991 through 2003 at one station on this segment. The impairments were very low level metal exceedances of extremely low criteria. Prior to the 2008-2009 sampling conducted under the ambient rotating basin program, 2003 was the last time metals data were collected on this waterbody. Recent (collected within the past 5 years) data were collected in 2008-2009 under a range of flow conditions at two stations on this waterbody segment and analyzed under the quality assured ambient rotating basin program. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program. The water hardness for this segment of Abbott Run Brook results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. The original impairment was most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. Furthermore, Abbott Run Brook flows from the Pawtucket Water Supply Board drinking water supply reservoirs, its riparian zone is largely intact and mostly forested, with no municipal wastewater or industrial point sources of pollution. The more accurately obtained data results indicate the water quality is meeting the dissolved copper criteria.

Station BSN02

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.8497	0.30	0.85	24.0	3.50	2.65
5/13/2009	1.114	0.35	1.11	27.1	3.93	2.93
8/18/2009	1.168	0.35	1.17	30.6	4.40	3.26

Station MLL06

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.6954	0.30	0.70	28.0	4.05	3.02
5/13/2009	0.774	0.35	0.77	29.7	4.28	3.17
8/18/2009	1.031	0.35	1.03	29.2	4.21	3.13

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

- Dissolved Lead - This segment of Abbott Run Brook was first listed as impaired for dissolved lead in 1994 based upon ambient baseline data collected periodically from 1991 through 2003 at one station on this segment. Prior to the 2008-2009 sampling conducted under the ambient rotating basin program, 2003 was the last time metals data were collected on this waterbody. Recent (collected within the past 5 years) data were collected in 2008-2009 under a range of flow conditions at two stations on this waterbody segment and analyzed under the quality assured ambient rotating basin program. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program. The water hardness for this segment of Abbott Run Brook results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. The original impairment was most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. Furthermore, Abbott Run Brook flows from the Pawtucket Water Supply Board drinking water supply reservoirs, its riparian zone is largely intact and mostly forested, with no municipal wastewater or industrial point sources of pollution. The more accurately obtained data results indicate the water quality is meeting the dissolved lead criteria.

Station BSN02

Date	*Numeric Result	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.00	0.07	0.00	24.0	13.26	0.52
5/13/2009	0.102	0.33	0.00	27.1	15.2	0.59
8/18/2009	0.382	0.33	0.38	30.6	17.42	0.68

Station MLL06

Date	*Numeric Result	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.121	0.07	0.12	28.0	15.8	0.61
5/13/2009	0.111	0.33	0.00	29.7	16.85	0.66
8/18/2009	0.326	0.33	0.00	29.2	16.53	0.64

- Aquatic Macroinvertebrate Bioassessments – This segment of Abbott Run Brook was originally listed as impaired for bioassessments in 1994 based on very coarse macroinvertebrate data collected at one station in the segment. More recent detailed data collected in 2002 and 2003 and in 2007 and 2008 under an EPA-approved QAPP show very healthy habitat available to support aquatic life use (greater than 90% comparable to reference). Following the refined macroinvertebrate assessment methodology described in the 2010 CALM, although the biological index scores indicate a macroinvertebrate community reflective of the large impoundment (Arnold Mills Reservoir) upstream of the site (approximately 375 meters north), there is not an indication of water quality impairment. The effect of this impoundment on the biological community is clear given the large abundance of EPT comprised mostly of

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* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

hydropsychid caddisflies. This taxa group is also the most dominant taxa in each sample (2002-2008) with high values for "Percent Dominant." This indicates Hydropsychid filter feeders dominate this community and reduce diversity at this site, which is expected downstream of an impoundment. Although found to be satisfactorily comparable to the reference site, the community also appears highly affected by fluctuating flow rates/drought demonstrated by a range of flow values, mid-range HBI values and relatively low Total Taxa richness. In addition, recent samples collected from further downstream on this river (Abbott Run Brook South RI0001006R-01B) which is less influenced by the impoundment, show the biological condition of this stream segment is fully supporting aquatic life uses.

Station Name -	RWU01							ESS01		BSN02	
Metric	**1991**	**1992**	**1996**	**1997**	**1998**	**1999**	**2001**	**2002**	**2003**	**2007**	**2008**
Flow (cfs)	NR	NR	NR	NR	NR	NR	NR	6.2	39	14	36.7
Basin Size (sq. mi)	10	10	10	10	10	10	10	10	10	10	10
Normalized flow(cfsm)	NR	NR	NR	NR	NR	NR	NR	0.62	3.9	1.40	3.67
Total Taxa	9	8	8	5	8	7	8	15	8	13	13
Insect Taxa	7	5	6	4	6	4	6	9	5	12	11
% Insect Taxa	78	63	75	80	75	57	75	60	63	92	85
EPT Taxa	3	4	3	3	3	3	4	5	3	4	4
% EPT abundance	77	40	82	80	82	91	80	83	92	91	89
% EPT (no hydro)	7	31	22	40	22	25	5	11	2	18	20
HBI	5.65	6.82	5.24	5.14	5.24	3.32	3.42	4.66	5.32	4.99	4.7
% Dominant	71	28.6	60	40	60	45	75	62	46	53	38
% Bio Reference	31	75	88	50	88	88	44	56	25	44	50
% Habitat Ref	NR	NR	NR	NR	NR	NR	NR	NA	89	99	128
*NR = not recorded											

5. Abbott Run Brook South (RI0001006R-01B)

- Dissolved Lead - This segment of Abbott Run Brook was first listed as impaired for dissolved lead in 1994 based upon ambient baseline data collected periodically from 1991 through 2003 at one station on this segment. Prior to the 2008-2009 sampling conducted under the ambient rotating basin program, 2003 was the last time metals data were collected on this waterbody. Recent (collected within the past 5 years) data were collected in 2008-2009 under a range of flow conditions at three stations on this waterbody segment and analyzed under the quality assured ambient rotating basin program. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program. The water hardness for this segment of Abbott Run Brook results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. The original impairment was most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. Furthermore, Abbott Run Brook flows from the Pawtucket Water Supply Board drinking water supply reservoirs, its riparian zone is largely intact and mostly forested, with no municipal wastewater or industrial point sources of pollution. The more accurately obtained data results indicate the water quality is meeting the dissolved lead standard which allows for one exceedance in three years.

Station BSN01

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.00	0.07	0.00	28.0	15.77	0.61
5/13/2009	0.169	0.33	0.00	32.1	18.38	0.72
8/18/2009	0.718	0.33	**0.72**	30.1	17.10	0.67

Station MLL03

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.00	0.07	0.00	27.0	15.14	0.59
5/13/2009	0.168	0.33	0.00	31.1	17.74	0.69
8/18/2009	0.229	0.33	0.00	32.4	18.58	0.72

Station MLL05

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.00	0.07	0.00	32.0	18.32	0.71
6/2/2009	0.23	0.33	0.00	47.4	28.4	1.11
8/18/2009	0.512	0.33	0.51	31.1	17.74	0.69

- Aquatic Macroinvertebrate Bioassessments – This segment of Abbott Run Brook was originally listed as impaired for bioassessments in 1994 based on very coarse macroinvertebrate data. More recent detailed data collected in 2007 and 2008 (at stations BSN01 and MLL03, see table below) under an EPA-approved QAPP and analyzed following a refined macroinvertebrate assessment methodology, show a very healthy habitat is available to support aquatic life uses (greater than 84% comparable to reference). Although there were low flows at BSN01 in 2007 which seemed to slightly affect the biological community, the 2008 macroinvertebrate data collected demonstrates that the benthic communities fully support aquatic life uses. Compared to the earlier data, species diversity has notably improved as shown by increases in total taxa values and decreased "Percent Dominant" values. Several pollution sensitive taxa are also present (Brachycentrus, Glossosoma and Nigronia) indicating Abbott Run Brook South fully supports aquatic life uses.

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

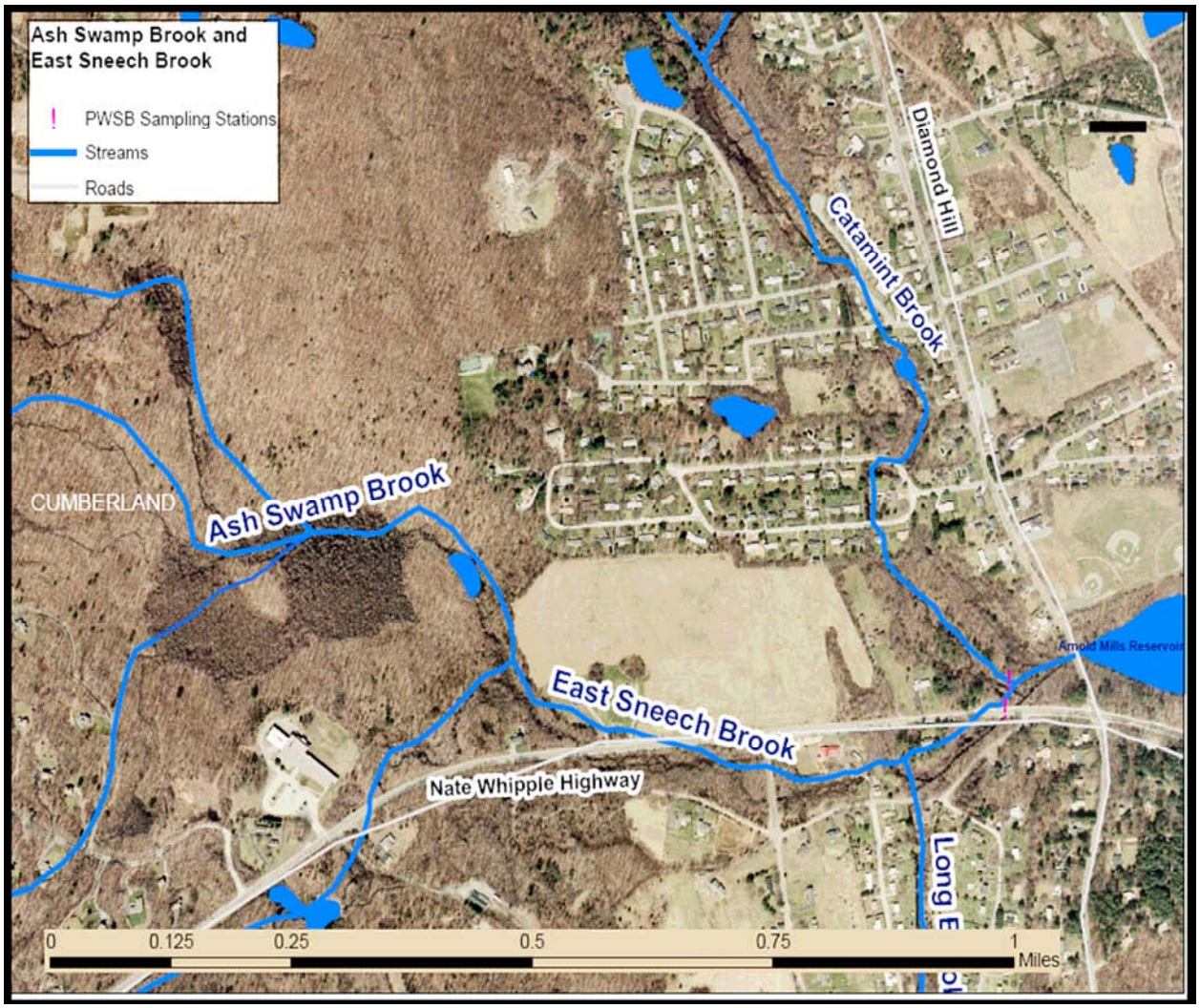
* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

Abbot Run Brook South (drainage size: MLL03 22.7 and RWU BSN01 23.9 sq. miles) Stations: MLL03 (Hunt's Bridge) and RWU02/BSN02 (Mendon Road)											
Station Name	RWU02								MLL03	BSN01	
Metric	**1991**	**1992**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2008**	**2007**	**2008**
Flow (cfs)	NR	NR	NR	NR	NR	NR	NR	NR	40.6	16.0	52.9
Basin Size (sq. mi)	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	22.7	23.9	23.9
Normalized flow (cfsm)	NR	NR	NR	NR	NR	NR	NR	NR	1.8	0.7	2.2
Total Taxa	9	5	7	5	2	5	5	9	23	20	24
Insect Taxa	8	5	5	5	2	3	5	7	23	20	23
% Insect Taxa	89	100	71	100	100	60	100	78	100	100	96
EPT Taxa	5	5	2	3	2	3	4	4	6	5	6
% EPT abundance	95	100	92	97	100	98	89	74	77	77	70
% EPT (no hydro)	90	46	75	94	90	36	55	15	27	44	51
HBI	4.92	4.78	5.22	3.05	5.00	4.56	5.16	3.17	4.78	4.39	3.56
% Dominant	83	54	75	47	90	62	42	59	54	36	27
% Bio Reference	50	81	81	75	56	63	75	50	81	69	87
% Habitat Ref	NR	NR	NR	NR	NR	NR	NR	NR	99	84	107
*NR = not recorded											

6. <u>Ash Swamp Brook (RI0001006R-04)</u>

- <u>E. Coli</u> – Ash Swamp Brook was listed for Recreational/swimming use impairment due to E. coli in 2000 using data submitted by the Pawtucket Water Supply Board (PWSB). For the 2010 assessments, DEM received more recent E.coli data (2004-2008) from the PWSB and conducted reconnaissance of the sampling locations. The reconnaissance showed that the sampling station is actually located on Catamint Brook as it enters East Sneech Brook and not Ash Swamp Brook which is inaccessible (see map below). East Sneech Brook is sampled by the PWSB in this area as well. Ash Swamp Brook, located further to the west and upstream on East Sneech Brook, has never been sampled by the PWSB. A map depicting the area is provided below. E. coli is being delisted from Ash Swamp Brook due to the fact that the basis of the original listing was incorrect. Ash Swamp Brook is now considered unassessed for Recreation/swimming use. Review of the more recent (2004-2008) E. coli data for Catamint Brook shows that the brook is fully supporting recreational uses.



7. <u>Woonasquatucket River (RI0002007R-10C)</u>

- <u>Dissolved Zinc</u> – This segment of the Woonasquatucket River, located just downstream of the Smithfield WWTF discharge, was first listed as impaired for dissolved zinc on the 2006 303(d) Impaired Waters List. Data was collected in 2001 at 6 stations as part of the TMDL investigation for zinc in this segment of the Woonasquatucket River. Review of the TMDL data indicated that there was only a single violation of the dissolved zinc criteria which occurred under low flow, dry weather conditions at only one (Allendale Avenue) of the six stations. The TMDL for zinc in this segment of the Woonasquatucket River was approved 7/3/2007. Recent monitoring (2008-2009) conducted by the Ambient Rotating Monitoring Program sampled 5 of the 6 TMDL stations within this waterbody segment during similar low flow, dry weather conditions. One of these 5 stations included Allendale Avenue. As shown below, dissolved zinc criteria was met on all dates, at all stations during this recent sampling. (stations are presented in order from the upstream to the downstream station) Furthermore, RIPDES and TMDL staff conducted fieldwork and researched permitted and non-permitted facilities located upstream of Allendale Avenue to determine the source of zinc. Staff found no sources of zinc responsible for the single previously observed zinc violation.

9/18/2008

Station	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
WON03	9.416	6.46	9.42	34	46.98	47.36
WON09	6.212	6.46	0.00	33	45.80	46.18
WON04	8.362	6.46	8.36	35	48.14	48.54
WON08	10.645	6.46	10.6	35	48.14	48.54

6/1/2009

Station	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
WONWR5	5.208	3.31	5.21	38.23	51.88	52.31
WON03	7.628	3.31	7.63	39.5	53.34	53.78
WON09	11.068	3.31	11.10	41.7	55.85	56.30
WON04	7.323	3.31	7.32	42.5	56.75	57.22
WON08	3.399	3.31	3.4	41.9	56.07	56.53

6/17/2009

Station	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
WONWR5	15.755	3.31	15.8	38.23	51.88	52.31
WON03	7.876	3.31	7.88	38.23	51.88	52.31

8/4/2009

Station	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
WONWR5	7.226	3.31	7.23	38.23	51.88	52.31
WON03	5.547	3.31	5.55	38.23	51.88	52.31

8/25/2009

Station	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
WONWR5	5.356	3.31	5.36	38.23	51.88	52.31
WON03	5.418	3.31	5.42	41.2	55.28	55.73
WON09	6.604	3.31	6.60	40.8	54.52	55.27
WON04	5.822	3.31	5.82	40.9	54.94	55.39
WON08	3.825	3.31	3.83	59.3	75.26	75.88

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

8. Turner Reservoir (RI0004009L-01A)

- Dissolved Lead – This segment of Turner Reservoir was first listed as impaired for lead in 1994 based upon data collected on two days (2 grab samples) by the USGS in 1988. Recent data collected as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment is meeting the dissolved lead criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
5/22/2007	1.00	0.2	1.00	47.8	28.67	1.12
6/19/2007	1.3	0.2	1.30	59.8	36.74	1.43
7/2/2007	0.49	0.2	0.49	70.2	43.84	1.71
7/31/2007	ND	0.2	0.00	67.3	41.86	1.63
8/21/2007	ND	0.2	0.00	72.7	45.56	1.78
9/4/2007	0.25	0.5	0.00	87.2	55.62	2.17
9/12/2007	0.24	0.2	0.24	91.8	58.83	2.29
3/6/2008	0.71	0.5	0.71	54.8	33.36	1.3
8/1/2008	1.20	0.2	1.20	53.6	32.55	1.27

ND = Non-Detect

- Dissolved Copper – This segment of Turner Reservoir was first listed as impaired for copper in 1994 based upon data collected on two days (2 grab samples) by the USGS in 1988. Recent data collected as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment is meeting the site specific dissolved copper criteria for Turner Reservoir.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.0	0.2	6.0	20.41	14.45
6/19/2007	6.1	0.2	6.1	20.41	14.45
7/2/2007	6.1	0.2	6.1	20.41	14.45
7/31/2007	4.9	0.2	4.9	20.41	14.45
8/21/2007	4.3	0.2	4.3	20.41	14.45
9/4/2007	3.9	0.2	3.9	20.41	14.45
9/12/2007	4.7	0.2	4.7	20.41	14.45
3/6/2008	5.0	0.5	5.0	20.41	14.45
8/1/2008	7.4	0.5	7.4	20.41	14.45

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

- Fecal Coliform – This segment of Turner Reservoir was first listed as impaired for fecal coliform in 1994 based upon data collected on two days (2 grab samples) by the USGS in 1988. Recent data collected as part of the RIDEM TMDL investigation indicates that this segment is meeting fecal coliform swimming use geometric mean criteria of 200 MPN/100 ml and not more than 10% of the samples exceed 400 MPN/100 ml.

Date	Reported Result (MPN/100 ml)
5/22/2007	200
6/19/2007	11
7/2/2007	160
7/31/2007	20
8/21/2007	10
9/4/2007	16
9/12/2007	220
3/6/2008	22
8/1/2008	69
All data Geometric Mean	**42**
All data 90th Percentile	**204**
2007 annual Geometric Mean	**42.4**
2007 annual 90th Percentile	**208**

9. Turner Reservoir (RI0004009L-01B)

- Dissolved Lead - This segment of Turner Reservoir was first listed as impaired for lead in 1994 based upon data collected on two days (2 grab samples) by the USGS in 1988. Recent data collected as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment is meeting the dissolved lead criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
5/22/2007	0.89	0.2	0.89	50.7	30.60	1.19
6/19/2007	0.96	0.2	0.96	48.9	29.40	1.15
7/2/2007	0.46	0.2	0.46	67.7	42.13	1.64
7/31/2007	ND	0.2	0.00	67.3	41.86	1.63
8/21/2007	ND	0.2	0.00	70.2	43.84	1.71
9/4/2007	0.25	0.5	0.00	84.7	53.88	2.10
9/12/2007	0.26	0.2	0.26	80.6	51.03	1.99
3/6/2008	0.71	0.5	0.71	54.8	33.36	1.30
8/1/2008	0.39	0.2	0.39	50.2	30.27	1.18

ND = Non-Detect

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

- Dissolved Copper - This segment of Turner Reservoir was first listed as impaired for copper in 1994 based upon data collected on two days (2 grab samples) by the USGS in 1988. Recent data collected as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment is meeting the site specific dissolved copper criteria for Turner Reservoir.

Date	*Numeric Result (ug/l)	Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.3	0.2	6.3	20.41	14.45
6/19/2007	6.0	0.2	6.0	20.41	14.45
7/2/2007	6.2	0.2	6.2	20.41	14.45
7/31/2007	5.2	0.2	5.2	20.41	14.45
8/21/2007	4.3	0.2	4.3	20.41	14.45
9/4/2007	3.5	0.2	3.5	20.41	14.45
9/12/2007	3.9	0.2	3.9	20.41	14.45
3/6/2008	5.1	0.5	5.1	20.41	14.45
8/1/2008	6.4	0.5	6.4	20.41	14.45

- Fecal Coliform - This segment of Turner Reservoir was first listed as impaired for fecal coliform in 1994 based upon data collected on two days (2 grab samples) by the USGS in 1988. Recent data collected as part of the RIDEM TMDL investigation indicates that this segment is meeting fecal coliform swimming use geometric mean criteria of 200 MPN/100 ml and not more than 10% of the samples exceed 400 MPN/100 ml.

Date	Reported Result (MPN/100 ml)
5/22/2007	100
6/19/2007	17
7/2/2007	57
7/31/2007	1
8/21/2007	16
9/4/2007	19
9/12/2007	19
3/6/2008	15
8/1/2008	1
All data Geometric Mean	**13**
All data 90th Percentile	**66**
2007 annual Geometric Mean	**18**
2007 annual 90th Percentile	**74**

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

10. Omega Pond (RI0004009L-03)

- Dissolved Lead – Omega Pond was first listed as impaired for dissolved lead in 2002 based upon data collected during 5 sampling events in 2000-2001 by the Narragansett Bay Commission (NBC). Recent data collected as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that the pond is meeting the dissolved lead criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
5/22/2007	0.87	0.2	0.87	53.2	32.28	1.26
6/19/2007	0.90	0.2	0.90	59.4	36.47	1.42
7/2/2007	ND	0.2	0.00	68.1	42.40	1.65
7/31/2007	ND	0.2	0.00	68.5	42.68	1.66
8/21/2007	ND	0.2	0.00	80.6	51.03	1.99
9/4/2007	0.25	0.5	0.00	92.6	59.39	2.31
9/12/2007	0.33	0.2	0.33	79.4	50.19	1.96
3/6/2008	0.69	0.5	0.69	57.7	35.32	1.38
8/1/2008	0.28	0.2	0.28	53.6	32.55	1.27

ND = Non-Detect

- Dissolved Copper – Omega Pond was first listed as impaired for dissolved copper in 2002 based upon data collected during 5 sampling events in 2000-2001 by NBC. Recent data collected as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that the pond is meeting the site specific dissolved copper criteria for Omega Pond.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.2	0.2	6.2	20.41	14.45
6/19/2007	6.1	0.2	6.1	20.41	14.45
7/2/2007	5.8	0.2	5.8	20.41	14.45
7/31/2007	4.9	0.2	4.9	20.41	14.45
8/21/2007	2.9	0.2	2.9	20.41	14.45
9/4/2007	3.3	0.2	3.3	20.41	14.45
9/12/2007	3.8	0.2	3.8	20.41	14.45
3/6/2008	5.2	0.5	5.2	20.41	14.45
8/1/2008	6.3	0.5	6.3	20.41	14.45

11. Ten Mile River (RI0004009R-01A)

- Dissolved Copper – This segment of the Ten Mile River was first listed as impaired for dissolved copper in 2002 based upon data collected in 2000-2001 by NBC. Recent data collected at two stations as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment of the river is meeting the site specific dissolved copper criteria for the Ten Mile River.

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* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

Station TM1

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.3	0.2	6.3	20.41	14.45
6/19/2007	6.9	0.2	6.9	20.41	14.45
7/2/2007	6.5	0.2	6.5	20.41	14.45
7/31/2007	7.6	0.2	7.6	20.41	14.45
8/21/2007	5.8	0.2	5.8	20.41	14.45
9/4/2007	6.0	0.2	6.0	20.41	14.45
9/12/2007	9.7	0.2	9.7	20.41	14.45
3/6/2008	5.5	0.5	5.5	20.41	14.45
8/1/2008	9.9	0.5	9.9	20.41	14.45

Station TM3

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	5.5	0.2	5.5	20.41	14.45
6/19/2007	5.6	0.2	5.6	20.41	14.45
7/2/2007	5.9	0.2	5.9	20.41	14.45
7/31/2007	6.8	0.2	6.8	20.41	14.45
8/21/2007	5.2	0.2	5.2	20.41	14.45
9/4/2007	5.7	0.2	5.7	20.41	14.45
9/12/2007	7.6	0.2	7.6	20.41	14.45
3/6/2008	4.4	0.5	4.4	20.41	14.45
8/1/2008	8.3	0.5	8.3	20.41	14.45

12. Ten Mile River (RI0004009R-01B)

- Dissolved Lead – This segment of the Ten Mile River was first listed as impaired for lead in 1994 based upon limited data collected in 1992 by the River Rescue Program and data collected in 1993 by RIDEM supplemental sampling. Recent data collected at three stations as part of the RIDEM TMDL investigation and analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment of the river is meeting the dissolved lead criteria.

Station TM5

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
5/22/2007	0.89	0.2	0.89	50.7	30.6	1.19
6/19/2007	0.96	0.2	0.96	48.9	29.40	1.15
7/2/2007	0.46	0.2	0.46	67.7	42.13	1.64
7/31/2007	ND	0.2	0.00	67.3	41.86	1.63
8/21/2007	ND	0.2	0.00	70.2	43.84	1.71
9/4/2007	0.25	0.2	0.25	84.7	53.88	2.10
9/12/2007	0.26	0.2	0.26	80.6	51.03	1.99
3/6/2008	0.71	0.5	0.71	54.8	33.36	1.30
8/1/2008	0.39	0.5	0.00	50.2	30.27	1.18

ND = Non-Detect

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

Station TM6

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
5/22/2007	1.00	0.2	1.00	50.7	30.6	1.19
6/19/2007	1.00	0.2	1.00	59.8	36.74	1.43
7/2/2007	0.38	0.2	0.38	68.1	42.40	1.65
7/31/2007	ND	0.2	0.00	67.3	41.86	1.63
8/21/2007	ND	0.2	0.00	75.6	47.56	1.85
9/4/2007	0.25	0.2	0.25	84.7	53.88	2.10
9/12/2007	0.29	0.2	0.29	81.0	51.3	2.00
3/6/2008	0.67	0.5	0.67	54.8	33.36	1.30
8/1/2008	0.47	0.5	0.00	50.7	30.6	1.19

ND = Non-Detect

Station TM7

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
5/22/2007	1.10	0.2	1.10	53.2	32.28	1.26
6/19/2007	0.97	0.2	0.97	61.9	38.17	1.49
7/2/2007	ND	0.2	0.00	72.7	45.56	1.78
7/31/2007	ND	0.2	0.00	72.3	45.29	1.76
8/21/2007	ND	0.2	0.00	83.1	52.76	2.06
9/4/2007	0.25	0.2	0.25	94.7	60.86	2.37
9/12/2007	0.28	0.2	0.28	83.5	53.04	2.07
3/6/2008	0.66	0.5	0.66	57.7	35.32	1.38
8/1/2008	0.57	0.5	0.57	56.1	34.24	1.33

ND = Non-Detect

- Dissolved Copper – This segment of the Ten Mile River was first listed as impaired for copper in 1992 based upon data collected by the USGS during 2 sampling events (2 grab samples) in 1988. Recent data collected at three stations as part of the RIDEM TMDL investigation analyzed by the EPA Region 1 North Chelmsford Laboratory, indicates that this segment of the river is meeting the site specific dissolved copper criteria for the Ten Mile River.

Station TM5

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.3	0.2	6.3	20.41	14.45
6/19/2007	6.0	0.2	6.0	20.41	14.45
7/2/2007	6.2	0.2	6.2	20.41	14.45
7/31/2007	5.2	0.2	5.2	20.41	14.45
8/21/2007	4.3	0.2	4.3	20.41	14.45
9/4/2007	3.5	0.2	3.5	20.41	14.45
9/12/2007	3.9	0.2	3.9	20.41	14.45
3/6/2008	5.1	0.5	5.1	20.41	14.45
8/1/2008	6.4	0.5	6.4	20.41	14.45

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

Station TM6

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.3	0.2	6.3	20.41	14.45
6/19/2007	6.0	0.2	6.0	20.41	14.45
7/2/2007	6.0	0.2	6.0	20.41	14.45
7/31/2007	5.3	0.2	5.3	20.41	14.45
8/21/2007	3.7	0.2	3.7	20.41	14.45
9/4/2007	3.3	0.2	3.3	20.41	14.45
9/12/2007	4.1	0.2	4.1	20.41	14.45
3/6/2008	5.1	0.5	5.1	20.41	14.45
8/1/2008	6.3	0.5	6.3	20.41	14.45

Station TM7

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Criteria (ug/l)	
				Acute	Chronic
5/22/2007	6.4	0.2	6.4	20.41	14.45
6/19/2007	5.9	0.2	5.9	20.41	14.45
7/2/2007	6.2	0.2	6.2	20.41	14.45
7/31/2007	5.0	0.2	5.0	20.41	14.45
8/21/2007	3.4	0.2	3.4	20.41	14.45
9/4/2007	3.3	0.2	3.3	20.41	14.45
9/12/2007	4.1	0.2	4.1	20.41	14.45
3/6/2008	5.1	0.5	5.1	20.41	14.45
8/1/2008	6.2	0.5	6.2	20.41	14.45

13. Pocasset River (RI0006018R-03B)

- Dissolved Lead - This segment of the Pocasset River was first listed as impaired for dissolved lead in 1994 based upon data collected by the River Rescue Pawtuxet River Study. This was a non-quality assured, volunteer based sampling program. Supplemental data collected by the TMDL program during 5 sampling events (5 grab samples) in 1998-1999, indicted that levels of dissolved lead exceeded chronic criteria. The dissolved lead impairments in the 1998-1999 data were for very low level metal violations (2 out of 5 exceeded). The monitoring and analytical techniques utilized for the recent sampling events (2007-2008 at 3 stations) follow much more rigorous quality assurance and quality control than the earlier sampling. The three recent surveys were conducted under a range of flow conditions with no violations in any of the eight sampling results. There are no municipal wastewater or industrial point sources of pollution discharging to this segment of the Pocasset River. The more recent and accurately obtained data results indicate the water quality is meeting the dissolved lead criteria.

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* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

Station PCT05

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/21/2008	0.00	0.07	0.00	69.03	43.04	1.68
5/14/2008	0.52	0.07	0.52	67.00	41.65	1.62
11/2/2007	0.598	0.35	0.60	67.5	41.99	1.64

Station PCT06

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/21/2008	0.4309	0.07	0.43	70.20	43.84	1.71
5/14/2008	0.7444	0.07	0.74	70.28	43.90	1.71

Station PCT07

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/21/2008	0.0736	0.07	0.07	73.90	46.39	1.81
5/14/2008	0.7202	0.07	0.72	74.28	46.65	1.82
11/2/2007	0.9224	0.35	0.92	67.6	42.06	1.64

14. Maskerchugg River (RI0007025R-03)

- Dissolved Copper - The Maskerchugg River was first listed as impaired for dissolved copper in 2002 from data collected in 2000-2001. The impairments were very low level metal exceedances of extremely low criteria. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program and involve the rotating basin approach to data collection. The water hardness for the Maskerchugg River results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. While limited data are available, the samples were collected under a range of flow conditions and there are no municipal wastewater or industrial point source discharges to the river. The original impairments were most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. The more recent (collected within the past 5 years) data collected and analyzed under the quality assured ambient rotating basin program indicates the water quality is meeting the dissolved copper criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/23/2008	1.1577	0.30	1.16	35.0	5.00	3.65
5/14/2009	1.119	0.35	1.12	34.1	4.88	3.57
8/20/2009	1.426	0.35	1.43	32.8	4.70	3.45

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

- Dissolved Lead - The Maskerchugg River was first listed as impaired for dissolved lead in 2002from data collected in 2000-2001. The impairments were very low level metal exceedances of extremely low criteria. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program and involve the rotating basin approach to data collection. The water hardness for the Maskerchugg River results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. While limited data are available, the samples were collected under a range of flow conditions and there are no municipal wastewater or industrial point source discharges to the river. The original impairments were most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. The more recent (collected within the past 5 years) data collected and analyzed under the quality assured ambient rotating basin program indicates the water quality is meeting the dissolved lead criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/23/2008	0.1021	0.07	0.10	35.0	20.25	0.79
5/14/2009	0.153	0.33	0.00	34.1	19.67	0.77
8/20/2009	0.397	0.33	0.40	32.8	18.83	0.73

15. Ashaway River (RI0008039R-02A

- Dissolved Copper – This segment of the Ashaway River was first listed as impaired for dissolved copper in 2006 from data collected in 2003. Metals data were not collected again on this segment until the 2005-2006 ambient rotating basin monitoring program. The low water hardness for the Ashaway River results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. While limited data are available, the samples were collected under a range of flow conditions and there are no municipal wastewater or industrial point sources of pollution to the river. The original impairments were most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program. The more recent (collected within the past 5 years) data collected and analyzed under the quality assured ambient rotating basin program, indicates the water quality is meeting the dissolved copper criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/9/2006	0.00	0.9	0.00	35.83	5.11	3.73
5/31/2006	0.00	0.9	0.00	21.23	3.12	2.38
9/21/2005	2.09	0.9	2.09	38.46	5.46	3.96

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

- Dissolved Lead - This segment of the Ashaway River was first listed as impaired for lead in 1998. Low level dissolved lead exceedances were observed in the 2000-2003 sampling data. Metals data were not collected again on this segment until the 2005-2006 ambient rotating basin monitoring program. The low water hardness for the Ashaway River results in extremely low/stringent chronic aquatic life criteria. Therefore, clean sampling and analytical techniques are important to produce accurate low level results given the stringent criteria they must be evaluated against. While limited data are available, the samples were collected under a range of flow conditions and there are no municipal wastewater or industrial point sources of pollution to the river. The original impairments were most likely a result of less precise monitoring and analytical techniques as opposed to real pollution in the waterbody. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program. The more recent (collected within the past 5 years) data collected and analyzed under the quality assured ambient rotating basin program, indicates the water quality is meeting the dissolved lead criteria.

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/9/2006	0.00	0.2	0.00	35.83	20.79	0.81
5/31/2006	0.00	0.2	0.00	21.23	11.54	0.45
9/21/2005	0.00	0.2	0.00	38.46	22.5	0.88

16. Chipuxet River (RI0008039R-06B

- Dissolved Lead - This segment of the Chipuxet River was first listed as impaired for total lead in 1998 using limited data collected in 1996. In 2002 the impairment was re-defined as dissolved lead from data collected in 1999-2000 for dissolved metals. Data was then collected in 2005-2006 under the Ambient Rotating Basin monitoring program, under a range of flows. The six data points indicated no exceedances of criteria. There are no municipal wastewater or industrial point sources of pollution to the river. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control than the earlier program. The more recent (collected within the past 5 years) data collected at two stations on this waterbody segment and analyzed under the quality assured ambient rotating basin program indicates the water quality is meeting the dissolved lead criteria.

Station PAW05

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/9/2006	0.00	0.2	0.00	28.73	16.23	0.63
5/31/2006	0.00	0.2	0.00	19.33	10.38	0.40
9/21/2005	0.00	0.2	0.00	15.84	8.29	0.32

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

Station PAW36

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
8/9/2006	0.00	0.2	0.00	28.41	16.03	0.62
5/31/2006	0.00	0.2	0.00	20.46	11.07	0.43
9/21/2005	0.00	0.2	0.00	20.79	11.27	0.44

- Benthic-Macroinvertebrate Bioassessments – See #27 below.

17. Mud Brook (RI0008039R-39)

- Enterococcus – Mud Brook was first listed as impaired for Enterococcus on the 2008 303(d) List using data available from 2006. Review of recent data collected by the URI Watershed Watch Program indicates that Enterococcus is now meeting the swimming use geometric mean criteria of 54 colonies/100.

Date	Reported Result (colonies/100 ml)	Date	Reported Result (colonies/100 ml)	Date	Reported Result (colonies/100 ml)
5/15/2007	3.1	5/12/2008	2	5/4/2009	3.1
6/22/2007	8.7	6/6/2008	200.5	6/10/2009	28.8
7/20/2007	54.4	7/11/2008	14.2	7/9/2009	241.5
9/14/2007	36.8	8/15/2008	325.5	8/20/2009	67.7
10/19/2007	802	9/20/2008	65.7	10/17/2009	32.3
Annual Geometric mean	**34**	10/30/2008	6.2	**Annual Geometric mean**	**34**
		Annual Geometric mean	**30**		

18. Canonchet Brook (RI0008040R-04B)

- Benthic – Macroinvertebrate Bioassessments – This segment of Canonchet Brook was first listed as impaired for bioassessments in 1994 based upon data collected under contract with Roger Williams University. More recent data collected in 2004 and 2007 (see table below) and evaluated following the refined 2010 macroinvertebrate assessment methodology show healthy insect diversity (favorable Total Taxa and Percent Insect Taxa values) and presence of pollution-sensitive taxa (Number and Percent EPT). The poorer metric values in 2007 are most likely due to drought conditions, as noted by the reduced flow, and marginal values for habitat parameters associated with flow (low scores for epifaunal substrate (9/20) and riffle (11/20) parameters). Data from this year may be omitted from review because the Normalized Flow does not meet the RI Aquatic Base Flow criteria. However, despite the lower metric scores in 2007, the habitat score (76% comparable to reference) is categorized as supporting aquatic life use and the biological score (69% comparable to reference) is

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

supporting aquatic life uses per the 2010 CALM. Over both years, presence of intolerant taxa (Brachycentrus, Nigronia, Ophiogomphus, Rhyacophila, Attenella and Leuctra) demonstrates a healthy macroinvertebrate community and stream habitat as evidenced by the 2004 habitat and biological scores both scoring 94% comparable to reference conditions.

Metric	WRB05	
	2004	**2007**
Flow (cfs)	3.8	1.6
Basin Size (sq. mi)	5.7	5.7
Normalized flow (cfsm)	0.7	0.3
Total Taxa	33	24
Insect Taxa	29	23
% Insect Taxa	88	96
EPT Taxa	7	5
% EPT abundance	43	65
% EPT (no hydro)	18	33
HBI	5.14	4.23
% Dominant	34	46
% Bio Reference	94	69
% Habitat Ref	94	76
*NR = not recorded		

19. Indian Run Brook (RI0010045R-02)

- Dissolved Lead – Indian Run Brook was first listed for lead in 2000 from data collected by the Saugatucket River Water Quality Investigation and DO Modeling, conducted by URI-CVE. Data was then collected during the TMDL development in 1996-1997 which indicated dissolved lead chronic criterion was exceeded 3 times during dry weather between March 1996 and September 1997. Whereas no exceedances of the lead criteria were observed during any of the three wet weather surveys (30 samples) conducted in 1997. The TMDL was approved by EPA on June 2, 2008 and listed in Category 4A of the 2008 303(d) List. Additional dry weather data collected during the 2008-2009 rotating basin monitoring showed that the dissolved lead data is meeting criteria. The monitoring and analytical techniques utilized for the recent sampling events follow much more rigorous quality assurance and quality control. The more recent data collected and analyzed under the quality assured ambient rotating basin program, during dry weather conditions, indicates the water quality is meeting the dissolved lead criteria.

Station SAU04

Date	*Numeric Result (ug/l)	*Detection Limit (ug/l)	*Reported Result (ug/l)	Hardness (mg/l)	Criteria (ug/l)	
					Acute	Chronic
9/22/2008	0.068	0.07	0.00	33.0	18.96	0.74
6/3/2009	0.641	0.33	0.64	39.4	23.12	0.90
8/27/2009	0.133	0.33	0.00	40.9	24.10	0.94

20. Improper Biodiversity/Bioassessment Impairment Listings

Through the efforts of NEIWPCC contractor assistance (Katie Degoosh) and other EPA contract assistance (Susan Davies and Chris Yoder), the Office of Water Resources recently underwent a review of the state's biological monitoring program in relation to the critical elements used as guidance to evaluate such programs. This review, which produced a number of recommendations, has prompted DEM to re-evaluate its biological monitoring approach and commit to moving from a reference station approach to a biological condition gradient approach to assess the biological conditions of the state's rivers and streams. We also are evaluating whether the Rapid Bioassessment Protocol (RBP) reference station approach developed for use on high gradient streams, which entails the sampling of riffles, is appropriate statewide. As part of our 305(b) mandated water quality assessments, a systematic review of all biological monitoring data (collected between 2001 and 2008) along with habitat, flow, and watershed size information, was conducted to more accurately assess the biological (macroinvertebrate) conditions of RI rivers and streams.

This review has revealed that there are a number of established monitoring sites that have characteristics unlike their ecoregional reference station, limiting the proper use of the RBP reference station approach for these sites. Specifically, these include stations located where there are no riffles or riffles were observed to be poor or sited directly downstream and under the influence of a dam. In addition, DEM has determined that stations located on streams with extremely small watersheds (<5 square miles) are often not flowing and frequently dry up. Biological condition of these sites is not appropriately evaluated via quantitative comparison of these sites against a reference station with inherently different ambient conditions.

We are now aware that rivers located in many parts of the state are considered low gradient streams and typically do not have many riffles. In order to assess these waterbodies using macroinvertebrates, the non-riffle habitat types found in these low gradient streams must be taken into consideration. Often different macroinvertebrate communities are present in different habitat types reflecting a difference in high gradient versus low gradient streams, which has lead to the separation of high and low gradient stream multi-metric indexes (MMI) in other states. It may be necessary to consider use of alternative data analyses via a biocondition gradient to avoid comparison of the biological communities found in low gradient streams, to those at a high gradient reference station. In the future, RIDEM plans to obtain contract assistance to further advance the state's biological monitoring of low gradient streams to develop a more appropriate protocol or

* Numeric Result –Value reported by the laboratory instrument used to measure the analyte.

* Detection Limit - The lowest concentration of a substance that can be measured with 99% confidence that the substance is present in the sample, i.e., greater than zero, as reported by the laboratory. Numeric Results below the Detection Limit are Reported as 0.00.

* Reported Result - Final data results/values after consideration of Detection Limit.

multi-metric index following work conducted in the mid-Atlantic and other regions of the country with similar conditions.

As a result of our current comprehensive evaluation of available data, we are proposing to de-list the Benthic- Macroinvertebrate Bioassessment impairments on five waterbodies. These five waterbodies were previously identified as having biodiversity impairments based upon RBP sampling techniques and reference station based analyses. Because riffle habitats at these locations are dissimilar to the reference location habitat, it is inappropriate to assess these sites using the RBP reference station approach. Therefore we wish to reclassify the following four waterbodies as having Insufficient Data to conduct Benthic Macroinvertebrate assessments:

- **Silver Creek (RI0007026R-01)** – waterbody lacks riffles, no flow or habitat data available and may be saltwater influenced; not suited to RBP reference station techniques.
- **Chipuxet River (RI0008039R-06B)** – waterbody lacks riffles, drains a wetland, and has extremely low flow; not suited to RBP reference station techniques (Cu and Fe impairment).
- **Jamestown Brook (RI0007036R-01)** – intermittently flowing stream, not suited to RBP reference station techniques (Cu, Fe, Pb impairment).
- **Keach Brook (RI0005047R-02)** – small watershed size, low flow, not suited to RBP reference station techniques (Cd, Pb impairment, hardness < 5 mg/l).

It is noted that none of the waterbodies have point source discharges to them. Where metals impairments are noted, the waterbody would still be identified as impaired for aquatic life use support and listed for these impairments.

21. Upper Kickemuit River (RI0007034R-01)

- Benthic - Macroinvertebrates Bioassessment – This small stretch of river in Rhode Island was first listed for macroinvertebrate impairment in 1996. Subsequently, data was collected yearly at this station until 2001 and the resulting data indicated an improved biological community at this station over the six year period. However, until the 2010 assessments, either the annual data had not been reviewed by a DEM biologist and/or concerns over low flow at the site lead to the continued impairment listing. Recent review of the data by the biologist who now coordinates RIDEM's macroinvertebrate sampling program, revealed that the sampling station for this impairment was not located in Rhode Island but off Bushee Road in Swansea, Massachusetts. Reconnaissance of the Rhode Island portion of the Upper Kickemuit River and the station at Bushee Road in Massachusetts by DEM staff revealed that the entire area is more of a wetland with phragmites and low flow as opposed to a wadeable river – not conducive to RBP sampling protocol. Given this new information, RIDEM proposes to delist the Benthic – Macroinvertebrate Bioassessment impairment for the Upper Kickemuit River in Rhode Island due to an incorrect original listing. The Upper Kickemuit River Aquatic Life Use will now be considered unassessed.

22. Tarkiln Brook (RI0001002R-13B)

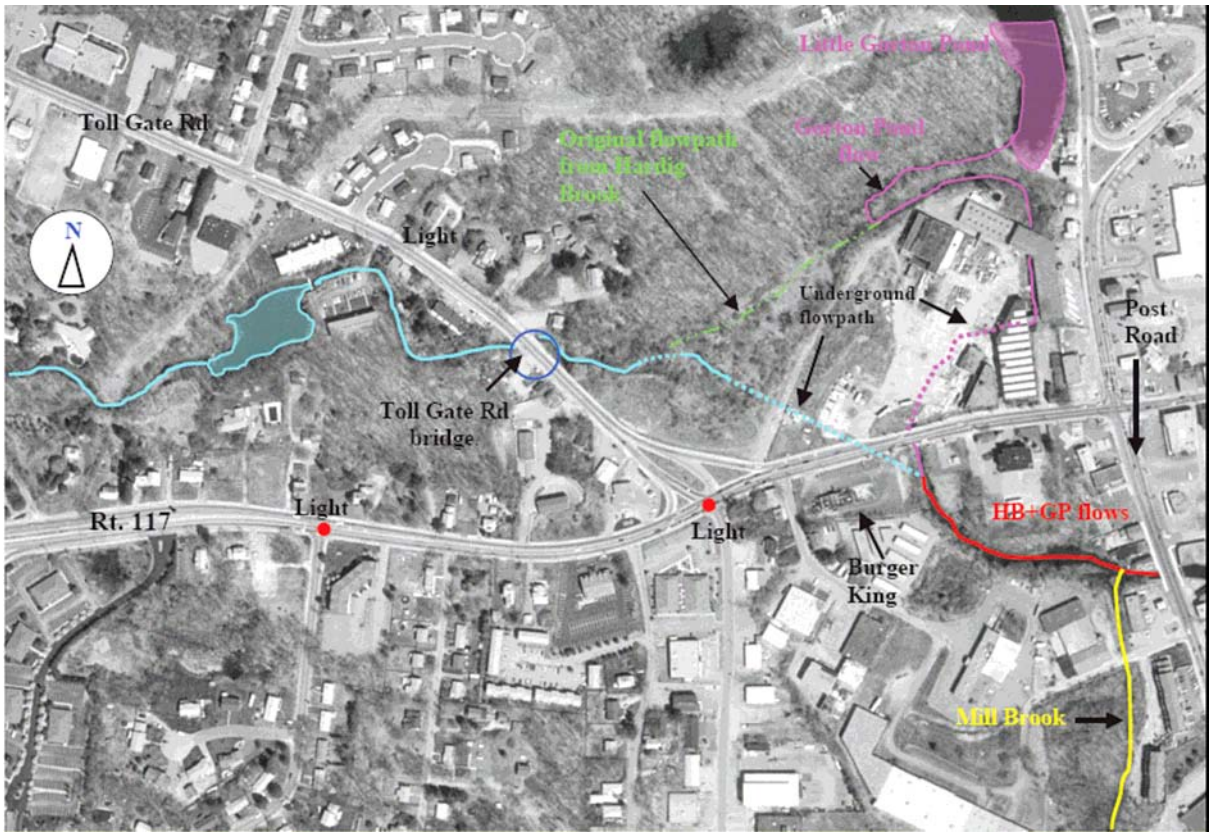
- Benthic – Macroinvertebrates Bioassessments – This segment of Tarkiln Brook was first listed for biodiversity impairment in 2000. The available information for that impairment assessment was associated with the Western Sand and Gravel CERCLA site remediation work which actually began in 1980. Recent macroinvertebrate data collected by RIDEM between 2002 and 2008 (at least 18 years after the EPA ROD was published) show habitat scores are greater than 75% comparable to reference and the

biological community is >54 % comparable to reference. Following the refined 2010 macroinvertebrate assessment methodology, the macroinvertebrate data demonstrate a diverse community of insects with a notable number and abundance of sensitive EPT taxa. Low HBI tolerance values indicate presence of pollution sensitive taxa (Acroneuria, Nigronia, Rhyacophila, Stylogomphus, Brachycentrus, and Glossosoma) indicating water quality at Tarkiln Brook fully supports aquatic life uses.

Station Number -	ESS10		BNC03	
Metric	**2002**	**2003**	**2007**	**2008**
Flow (cfs)	1.0	12.4	1.44	8.5
Basin Size (sq. mi)	9.2	9.2	9.2	9.2
Normalized flow (cfsm)	0.11	1.35	0.16	0.92
Total Taxa	21	26	26	27
Insect Taxa	19	23	26	25
% Insect Taxa	90	88	100	93
EPT Taxa	6	6	6	5
% EPT abundance	31	56	50	33
% EPT (no hydro)	17	24	28	19
HBI	4.34	4.48	4.5	4.41
% Dominant	40	30	26	49
% Bio Reference	88	88	82	69
% Habitat Ref	101	94	75	87
*NR=not recorded				

23. Hardig Brook (RI0007025R-01)

- Benthic – Macroinvertebrate Bioassessments –Hardig Brook was first listed for biodiversity impairments in 1998. The station was sampled for macroinvertebrates through 2003. Review of the data for the 2010 assessments revealed that the station was actually located on a tributary from Gorton Pond (pink line on map below) just south of Route 117 bridge and upstream of the confluence with Hardig Brook (blue line on map). Hardig Brook, which flows under Route 117 via a large drainage pipe, has never been sampled for macroinvertebrates. South of Route 117 both Gorton Pond Tributary and Hardig Brook are tidally influenced and therefore, not appropriate to sample and analyze using RBP reference station protocol.



24. <u>Nine Foot Brook (RI0002007R-11)</u>

- <u>Benthic – Macroinvertebrate Bioassessments</u> – Nine Foot Brook was first listed for biodiversity impairment in 1998. The available information for that impairment assessment was associated with the Davis (GSR) Landfill CERCLA project. The Davis (GSR) Landfill was added to the Superfund National Priority List in 1986. Wastes were removed, and macroinvertebrate data collected in 1993 showed moderate impairment of the biological community although it was not determined if this was due to sediment contamination or to drought conditions at the time (USEPA ROD, 1997). The Davis GSR Landfill waste site was capped in the early 1990's, and private well sampling conducted in 1998 found non-detects for the pollutants of concern. In 1997 EPA announced its decision that no further cleanup action was needed, deleting the site from the National Priority list in 1999.

  Macroinvertebrate data were again collected on Nine-Foot Brook at the most upstream accessible station (WON10), in 2008 by RIDEM under an EPA-approved QAPP (see table below). The data were evaluated in accordance with the refined macroinvertebrate assessment methodology documented in the 2010 CALM. The habitat score, 85% comparable to the reference location, is categorized as supporting aquatic life uses. Macroinvertebrate data collected was 69% comparable to the reference location which may be less an indicator of water quality and more an artifact of the disparity in drainage area between the reference site (~45 square miles) and WON10 (1.87 square miles). The macroinvertebrate community shows a high percentage of the taxa collected are insects, and sensitive EPT taxa are present including Rhyacophila. Based on the individual macroinvertebrate metrics, the data indicate water quality fully supports aquatic life uses.

Metric	Station WON10
Flow (cfs)	3.88
Basin Size (sq. mi)	1.87
Normalized flow (cfsm)	2.06
Total Taxa	17
Insect Taxa	15
% Insect Taxa	88
EPT Taxa	5
% EPT abundance	72
% EPT (no hydro)	16
HBI	5.12
% Dominant	55
% Bio Reference	69
% Habitat Ref	85

The following impairments are being delisted from the 2008 Category 5, 303(d) Impaired Waters List, and moved to Category 4A, TMDL has been completed and approved by EPA.

1. Old Mill Creek (RI0007024E-02)
   - Enterococcus TMDL approved 12/23/2008
   - Fecal Coliform TMDL approved 12/23/2008

2. Buckeye Brook & Tribs (RI0007024R-01)
   - Enterococcus TMDL approved 12/23/2008
   - Fecal Coliform TMDL approved 12/23/2008

3. Parsonage (Knowles) Brook (RI0007024R-02)
   - Enterococcus TMDL approved 12/23/2008
   - Fecal Coliform TMDL approved 12/23/2008

4. Lockwood Brook & Tribs (RI0007024R-03
   - Enterococcus TMDL approved 12/23/2008
   - Fecal Coliform TMDL approved 12/23/2008

5. Warner Brook & Tribs (RI0007024R-04)
   - Enterococcus TMDL approved 12/23/2008
   - Fecal Coliform TMDL approved 12/23/2008

6. Tribs to Warwick Pond (RI0007024R-05)
   - Enterococcus TMDL approved 12/23/2008
   - Fecal Coliform TMDL approved 12/23/2008

7. Point Judith Pond (RI0010043E-06B)
   - Fecal Coliform TMDL approved 6/28/2008

8. Point Judith Pond (RI0010043E-06C)
   - Fecal Coliform TMDL approved 6/28/2008

9. Point Judith Pond (RI0010043E-06D)
   - Fecal Coliform TMDL approved 6/28/2008

10. Point Judith Pond (RI0010043E-06K)
    - Fecal Coliform TMDL approved 6/28/2008

11. Indian Run Brook & Tribs (RI0010045R-02)
    - Zinc TMDL approved 6/2/2008
    - Copper TMDL approved 6/2/2008

12. Saugatucket River (RI0010045R-05C)
    - Fecal Coliform TMDL approved 6/26/2008

13. Sands Pond (RI0010046L-01)
    - Turbidity TMDL approved 6/2/2008
    - Chlorophyll-a TMDL approved 6/2/2008
    - Phosphorus (Total) TMDL approved 6/2/2008
    - Excess algal growth TMDL approved 6/2/2008

14. Mt. Hope Bay (RI0007032E-01A)
    - Fecal Coliform TMDL approved 1/14/2010

15. Mt. Hope Bay (RI0007032E-01B)
    - Fecal Coliform TMDL approved 1/14/2010

16. Mt. Hope Bay (RI0007032E-01C)
    - Fecal Coliform TMDL approved 1/14/2010

17. Mt. Hope Bay (RI0007032E-01D)
    - Fecal Coliform TMDL approved 1/14/2010

18. Kickemuit River (RI0007033E-01A)
    - Fecal Coliform TMDL approved 1/14/2010

19. Kickemuit River (RI0007033E-01B)
    - Fecal Coliform TMDL approved 1/14/2010

20. Kickemuit River (RI0007033E-01C)
    - Fecal Coliform TMDL approved 1/14/2010

21. Tidal Pawcatuck River (RI0008038E-01A)
    - Fecal Coliform TMDL approved 12/1/2010

22. Tidal Pawcatuck River (RI0008038E-01B)
    - Fecal Coliform TMDL approved 12/1/2010

23. Mastuxet Brook and Tribs (RI0008039R-11)
    - Enterococcus TMDL approved 12/1/2010
    - Fecal Coliform TMDL approved 12/1/2010

24. Little Narragansett Bay (RI0008038E-02A)
    - Fecal Coliform TMDL approved 12/1/2010

25. Little Narragansett Bay (RI0008038E-02B)
    - Fecal Coliform TMDL approved 12/1/2010

26. Belleville Ponds (RI0007027L-02)
    - Total Phosphorus TMDL approved 12/28/2010

27. Belleville Upper Pond Inlet (RI0007027R-02)
    - Total Phosphorus TMDL approved 12/28/2010

Response to Comments Received on the Draft 2010 303(d) List

(Note that in the interest of document brevity, comments may have been paraphrased and/or excerpted from original comments.)

Comments from Steve Winnett, US EPA Region 1

1. In the table on page viii, "Impairments De-Listed Because Water Quality Standard Is Now Being Met," DEM has included Ash Swamp Brook, which is also listed in the second table on page ix, "Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect," where it appears to properly belong based on its improper listing.

   DEM Response: Ash Swamp Brook (E. Coli impairment) was inadvertently included in the first delisting table (Impairments De-Listed Because Water Quality Standard Is Now Being Met) on page viii and should have appeared only in the third delisting table on page ix - Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect. The tables have been corrected.

2. In the continuation on page ix of the table, "Impairments De-Listed Because Water Quality Standard Is Now Being Met," DEM has included Hardig Brook, which may be improperly placed in this table according to its delisting justification which states its listing was incorrect. It also appears, apparently correctly, in the last table on page ix, "Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect."

   DEM Response: Hardig Brook (Benthic – Macroinvertebrate Bioassessment impairment) was inadvertently included in the first delisting table (Impairments De-Listed Because Water Quality Standard Is Now Being Met) on page viii and should have appeared only in the third delisting table on page ix - Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect. The tables have been corrected.

3. The Abbot Run Brooks, Tarkiln Brook, Canonchet Brook, and Nine Foot Brooks appear in both the first and second delisting tables on pages viii-ix. The only difference between the tables appears to be that those in the second are now meeting standards according to a new assessment methodology, although there is no discussion of the use of a new assessment methodology in their delisting justifications later in the document.

   DEM Response: The Macroinvertebrate Bioassessment impairment for these 5 waterbody IDs should only appear in the second delisting table – Impairments De-Listed Because Water Quality Standard Is Now Being Met According To New Assessment Method. The use of a new assessment methodology for

macroinvertebrate data is detailed on page 4 of the 2010 CALM. More recent data and the implementation of a refined assessment methodology were used to assess these waterbodies for the 2010 IR. In accordance with the updated Delisting and Water Quality Standard attainment reasons available in EPA's ADB (Assessment Database), DEM felt this delisting option (water quality standard is now being met according to a new assessment method) more closely reflected the reason for delisting these impairments. This more inclusive information will be incorporated in the final delisting document as suggested and the delisting tables have been corrected.

4. In the table on page ix, "Impairments De-Listed Because Water Quality Standard Is Now Being Met According to New Assessment Method," DEM has included the Upper Kickemuit River segment. According to the delisting document, that segment is being delisted because it was improperly listed for a biodiversity/bioassessment impairment. This segment appears to belong in the table on page ix, "Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect."

   DEM Response: The Upper Kickemuit River (Benthic – Macroinvertebrate Bioassessment impairment) was inadvertently included in the second delisting table (Impairments De-Listed Because Water Quality Standard Is Now Being Met According to New Assessment Method) on page ix and should have appeared in the third delisting table on page ix (Impairments De-Listed Because Data and/or Information Lacking to Determine Water Quality Status; Original Basis for Listing was Incorrect). The tables have been corrected.

5. In the third paragraph of the justification, during the discussion of the wet weather data and chronic criteria, it says "Each data point collected is then compared to the chronic criteria for that station." It appears that you may mean the station means are compared to the chronic criteria for each station. Had you compared each data point to the stations' chronic criteria you would show two additional exceedances, one for the for the 9/15/05 storm, Run 1, Blackstone River confluence station (1.28 compared to 0.81) and also for the for the 10/22-25/05 storm, Run 4, Blackstone River confluence station (0.65 compared to 0.57). EPA suggests DEM clarify the point.

   DEM Response: The de-listing document has been revised consistent with EPA's suggested language change.

6. For the Mill River justification, EPA feels that the aerial photo demonstrating the potential for entrainment that DEM included in its response to EPA's September 2010 comments was valuable and suggests DEM include it for clarity.

   DEM Response: The de-listing document has been revised to include the aerial photograph as suggested by EPA.

7. For several of the justifications (Abbott Run Brook North, Pocasset, Maskerchugg, Ashaway and Chipuxet Rivers, and perhaps others) DEM included useful information in its response to EPA's September 2010 comments, that included information that the segments flow out of drinking water reservoirs, had intact riparian zones, mostly forested conditions, contained no municipal waste water or industrial sources point sources, and so forth. DEM also stated that some or all of these segments had been sampled under a range of weather/flow conditions. EPA requests DEM include that information in its final delisting document to further bolster its explanation about why the water body segments in question are now meeting criteria.

   DEM Response: This information has been incorporated into the final delisting document as suggested.

8. In general, for this and for future Integrated Reports, EPA requests that DEM include all such information in its justifications for delisting water body segment-impairment combinations.

   DEM Response: DEM notes EPA's request for information justifying future de-listings and will incorporate this information in future 303(d) List documentation.

9. For the justifications for delisting Ash Swamp and Hardig Brooks, DEM included map/photos illustrating the incorrect listings in its response to EPA's September 2010 comments. EPA suggests DEM include the maps in its final delisting document to bolster the justification.

   DEM Response: The de-listing document has been revised to include the aerial photographs/maps as suggested by EPA

10. As noted in an earlier memo, EPA requests that DEM include in its justification for delisting the two Turner Reservoir segments of their bacteria impairments, the data collected in 2008 and the geomeans for those data. These data were, in fact, a key element in EPA's support for delisting these segments, and would greatly help in supporting the request to delist these segments.

    DEM Response: The fecal coliform data collected in 2008 on the two segments of the Turner Reservoir have been included in the final delisting document.

11. The status report on the Category 4B water body segment-impairments from 2008 is good.

    DEM Response: No response required

Comments from Steve Alfred, Town of South Kingstown

12. It is imperative that any surface water proposed for listing as an impaired water body has an accurate and robust dataset to substantiate the impaired water designation. Given the significant financial implications to local communities when TMDLs are promulgated for impaired waters, it is essential that an accurate and verifiable dataset be developed to support an impaired water designation.

    DEM Response: DEM agrees and has documented the data quality and quantity requirements for use in conducting water quality assessments and impaired water listings in the "Rhode Island Consolidated Assessment and Listing Methodology" (CALM). Consistent with federal requirements and guidance, the CALM documents the decision-making process used to assess attainment with the water quality standards and for reporting on the quality of the State's surface waters following the Integrated Reporting format. As noted in the CALM and in accordance with federal EPA guidance, DEM strives to consider all readily available water quality data and related information in developing the 305(b) water quality assessments and 303(d) impaired waters list. 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). Data used to make assessment decisions, especially for listing a waterbody on the state's 303(d) List, must be defensible. Therefore, consistent with the state's CALM, RIDEM only uses data that meet the data quality assurance and objectives in developing the 303(d) List (RIDEM, 2009b). A more detailed description of data requirements is provided in Section 4 of the 2010 CALM and a description of how data are used to conduct the Use Assessment Evaluations is provided in Section 5.

13. It is imperative that natural background levels of contaminants, including non-anthropogenic sources of bacteria, be considered when establishing the 303d impaired waters list. More importantly, *pollutant (elements, minerals, and non-anthropogenic bacteria) loading reductions delineated in TMDLs should be no less than the pollutant levels that existed in nature during primordial times.* Any reduction in pollutant loadings less than levels that occur naturally in the environment would be contrary to the natural order. Therefore, the Town respectfully requests that impaired waters be listed only if the contaminant of concern exceeds baseline levels of the contaminate that would occur naturally in the environment.

    DEM Response:
    Once data is evaluated for attainment of the data quality assurance and data quality objective requirements described above, the available water quality data are compared to the narrative and numeric criteria to evaluate attainment of the designated uses defined for each waterbody. Consideration may be given to natural background levels in listing decisions only as provided for in the state's water quality regulations. Rhode Island's Water Quality Regulations (July 2006, as amended) include specific numeric pollutant concentrations and/or a narrative description designed to protect the

uses that the state has set for the water – also referred to as the "designated uses". Recognizing that in some cases, a surface water may exceed the numeric criteria even though there have been no alterations to the watershed that contribute to degradation of this water, states may include a natural condition provision in their water quality standards. Rhode Island's water quality regulations allow "natural condition" exceptions to established numeric criteria for dissolved oxygen, pH, phosphorus, and taste and odor. In past years, DEM approached EPA with proposed revisions to its bacteria standards to include a natural condition clause, however was unsuccessful. Thus, for the time being, consideration of natural conditions for purposes of 303(d) listing decisions in Rhode Island may only be given for those four previously stated parameters. It should be noted that natural condition is broadly defined to occur only in pristine watersheds not altered by human activity. Absent roads and drainage structures that expedite the transport of natural sources of bacteria to surface waters, as in your primordial times example, any violations in bacteria standards would be considered naturally occurring. However, once the landscape is modified such that these natural sources of bacteria are no longer retained on the landscape, violations of bacteria standards would no longer be considered to be naturally occurring. In some cases, a load less than the load contributed by "natural sources" may be necessary since man's alterations of the landscape delivers more of the load to the receiving water and causes water quality violations. These load reductions would be expected to be achieved by practices that retain stormwater on the landscape such as infiltration practices.

It should be noted that federal/state policy does not allow for consideration of "natural conditions" in decisions related to classification of shellfishing waters or to beach closures. More specifically, the determination of whether estuarine/marine waters are suitable for shellfish harvesting/consumption is based upon National Shellfish Sanitation Program requirements which do not allow consideration of the source of bacteria (ie human or non-human). In other words, regardless of the source of bacteria (human or non-human) if either the applicable geometric mean or variability portion of the criteria is exceeded, the affected waters would be closed to the harvest of shellfish. The same is true with decisions regarding beach closures and swimming use in non-designated beach areas.

Nationally, there is much interest (and debate) as to how the natural condition provision is used and interpreted – particularly in de-listing decisions. The experience of several states indicates that there is much work needed among EPA and the states in resolving what constitutes a "natural" condition and how this provision may be utilized. As noted above, the term "natural conditions" has been defined very conservatively to occur only in pristine watersheds not altered by human activity. The term is not restricted to just non-human induced sources of pollution but also to other human modifications that may alter the delivery of these "natural" sources of pollution. A work group of states has formed and among the points of discussion is the question of the natural background and its application. Rhode Island will continue to monitor developments in EPA's policies related to the use and interpretation of

natural conditions and where possible, will participate in national workgroups to articulate the state's interests in the topic.

14. The Town is opposed to a concentration based approach for bacteria TMDLs and requests that loading based methods be used for this pollutant when developing TMDLs.

DEM Response: With a few exceptions, DEM has opted to express the allowable load or loading capacity for bacteria TMDLs as concentrations set equal to the applicable water quality standard; the allowable daily load can be determined by multiplying the criterion concentration by the flow in the receiving water. For the purposes of implementation, the concentration and percent reduction bacteria TMDL targets are used since they provide a direct link between existing water quality and the numeric water quality criteria. The TMDLs also identify actual and potential sources/inputs, providing a reasonable basis for identifying abatement actions that will lead to compliance with water quality standards. To address all factors (waterbody hydrologic variations, variability in rainfall intensity and duration, variability in watershed response across seasons, vegetative cover, source behavior) identified in your letter, it is not simply a load based TMDL, but a watershed pollutant loading model that would be needed. Even if such a model could be calibrated to reproduce observed data, it is unlikely that the approach to managing the pollution sources would be changed.

Comments from Miyoko Sakashita, Center for Biological Diversity

15. The Center requests that Rhode Island identify its coastal waters as threatened or impaired under section 303(d) of the Clean Water Act. Rhode Island should list its ocean water segment, AU RI0010042C-01, as an impaired water body as required by section 303(d) of the Clean Water Act because existing pollution controls are insufficient for ocean waters to meet Rhode Island's water quality standards. 33 U.S.C. § 1313(d).

    DEM Response: RIDEM disagrees that a listing of its ocean waters as impaired for pH due to ocean acidification is appropriate at this time. The evidence for ocean acidification does not fall within the State's listing methodology or indicate factual impairment of Rhode Island's water quality standards has occurred, or that Rhode Island's marine waters are threatened with an impairment within the listing cycle. While RIDEM agrees that ocean acidification is an issue of growing long-term and global concern, and something to be followed in years ahead, a listing according to CWA 303(d) would not be appropriate for the following reasons:

    - At this time, Rhode Island does not have data available to characterize short-term marine pH diurnal and seasonal variability or to quantify a normally occurring pH "baseline" necessary to identify variation from natural and any long term trends for the state's coastal waters (including coastal shoreline segment, RI0010042C-01).

- There has been no detected impairment of any designated use or characteristic of any classified coastal water in Rhode Island's jurisdiction due to pH. CBD provides no documentation of impairment for Rhode Island waters.
- While an inference of water quality change might be used to determine our waters are "threatened", there is no evidence presented that any impairment will occur within the next 2 year listing cycle.
- Ocean acidification is an issue of global scope, however, information from one area cannot be readily extrapolated to another. The information provided by CBD comes from areas outside of Rhode Island's jurisdictional waters, and mostly from areas quite remote from Rhode Island. Following review of the extensive list of references provided by CBD, RIDEM did not find any of the references refer to information collected off Rhode Island or northwestern Atlantic waters. While the mechanisms of ocean acidification may be similar, the effects in different ecosystems will vary. Nearshore waters may be less affected than offshore waters due to land export of buffering substances.
- A 303(d) listing is an inappropriate tool to manage the issue. 303(d) listings put a state on a course of developing TMDLs. Rhode Island has neither the information, resources, nor jurisdictional authority to address the causes and sources attributed to ocean acidification.
- RIDEM considers that a 303(d) listing could prevent the ocean acidification issue from gaining appropriate national/global attention by inferring that it is an issue of the coastal states that can be addressed through TMDLs. Even if this were the case, the result would be a patchwork of strategies of differing purpose, effect, and efficacy that could defeat the intent of reversing ocean acidification.

16. **The marine pH water quality standard** requires that the pH of all seawaters must be between "6.5 – 8.5 but not more than 0.2 units outside of the normally occurring range" (RI Water Quality Regulations Rule 8.D.(3)). This standard, however, may be insufficient to protect designated uses. Zeebe et al. (2008) highlighted the importance of addressing ocean acidification before seawater pH change exceeds the 0.2 unit water quality criterion recommended by the EPA (Zeebe et al. 2008). In light of this insufficiency and EPA's current review and possible revision of its marine pH criterion, Rhode Island should gauge the need to list waters due to ocean acidification on the 303(d) list by the impacts on water quality and marine life. It should also revise its water quality standards in light of the most recent information on ocean acidification.

    DEM Response: Rhode Island's pH criteria for estuarine and marine waters (6.5-8.5 S.U.) have been approved by USEPA. The 303(d) list or Integrated Report do not review adequacy of criteria. If evidence is shown at a later date that Rhode Island's pH standard is inadequate to protect designated uses and characteristics of its waters, the criteria would need to be changed as part of the state's review of its water quality standards. RIDEM will continue to track EPA guidance on how States can move forward to address ocean acidification, including possible revisions to the marine pH criterion.