



December 8, 2014

David Gray U.S. Environmental Protection Agency, Region 1 5 Post Office Square - Suite 100, Mail Code #OEP06-1 Boston, MA 02110

Subject: Semi Annual Submittal under MassDOT's Impaired Waters Program

Dear Mr. Gray,

As part of MassDOT's Impaired Waters Program, the attached report documents MassDOT's activities between June 2014 and December 2014. In the last six months, MassDOT's Impaired Waters Program has generated 116 assessments of impaired receiving waters (87 of the 116 are part of the original L-1 list).

This memo outlines the progress made towards the MassDOT commitment to assess the 684 impaired water bodies listed in Appendix L-1 of MassDOT's June 9, 2010 and July 23, 2010 submittals to EPA. MassDOT is completing the assessments using the methodologies outlined in BMP 7U: Impaired Waters Assessment and Mitigation Plan and/ or BMP 7R: Total Maximum Daily Load (TMDL) Watershed Review. For assessments where it is determined that further action is necessary to meet the target impervious cover (IC) or pollutant loading reductions, MassDOT forwards these assessments to design consultants for BMP design.

The measurable goal set for BMP 7R committed MassDOT to annually review 20% of the 209 impaired waters with a TMDL listed in Appendix L-1 (original L-1 list), and a June 2015 completion date. Table 1 summarizes the assessments submitted as part of this report to provide an overall view of the progress made towards performing assessments for those water bodies and towards meeting the commitments in the first four and a half years of the program. As indicated in Table 1, MassDOT has completed the assessment of 100% of the 209 TMDL waters included on the original L-1 List with those included in this submittal. Thus, MassDOT has not only met but exceeded the original BMP 7R commitment by completing all original L-1 list TMDL assessments a full six months ahead of the agreed upon deadline. MassDOT's aggressive approach to assessing these water bodies demonstrates our commitment to evaluating the effect of our stormwater discharges on impaired waters and implementing BMPs to improve the water quality of MassDOT runoff where necessary and practicable.

This submittal includes a substantial number (29) of assessments for water bodies that were not listed in Appendix L-1 but have since become applicable, further showing MassDOT's proactive approach to the Impaired Waters Program. These additional water bodies are now applicable to the MassDOT Impaired Waters Program despite being absent from the original L-1 List for one of a few reasons.

Table 1 Assessments for Water Bodies on Appendix L-1

Assessment Type	Previous Submittals (#)	Dec. 2014 Submittal (#)	Total (#)	% of Total Water Bodies
Impaired '	Water Bodies with	TMDLs*		
TMDL Method	17	0	17	
IC Method**	19	0	19	
TMDL and IC Method	11	0	11	
No Discharge	76	2	78	
Pathogen Only	33	3	36	
Nitrogen TMDL Method	13	8	21	
<9% IC**	0	1	1	
Removed from 303 (d) List	26	0	26	
${\bf Impaired\ Water\ Bodies\ (with\ TMDLs)\ Total}$	195	14	209	100%
Impaired W	ater Bodies witho	ut TMDLs*		
IC Method	116	16	132	
<9% IC	32	5	37	
No Discharge	159	6	165	
Pathogen Only Other (Includes Chloride, Pathogen with other	26	32	58	
Impairments Unrelated to Stormwater)	39	0	39	
Nitrogen Non-TMDL Groundwater Method	0	14	14	
Nitrogen TMDL Method	3	0	3	
TMDL Method***	1	0	1	
TMDL and IC Method	3	0	3	
Impaired Water Bodies (without TMDLs) Total	379	73	452	
Impaired + TMDL Total	574	87	661	97%

Note: Table 3A is the list of all Appendix L-1 assessments completed for this submittal.

Since the original L-1 List was prepared, an updated 303(d) List of Impaired Waters was issued by MassDEP, adding new impaired waters throughout the Commonwealth; some of the water bodies added to the new list receive MassDOT stormwater discharges. In addition, the US Census data that identifies urban areas was updated in 2010, which resulted in new water bodies falling within the jurisdiction of the MS4 program; some of these water bodies also receive MassDOT stormwater discharges. In addition to these two factors, since the original L-1 List was created, MassDOT has acquired control of new roadways, including the Mass Turnpike property. For all of these reasons, there are now water bodies that fall within the realm of MassDOT's Impaired Waters Program, but were not included on the original L-1 List. While

^{*}TMDL listing as included in Appendix L-1

^{**} The TMDL for these water bodies was for pathogens. Therefore, the IC method was used to address impervious cover related impairments for the water body and the assessments addressed pathogens programmatically.

^{***} TMDL has been finalized for the receiving water since the submittal of Appendix L-1. Therefore, the TMDL method was used for the assessment.

not required under the BMP 7U and 7R commitments made to EPA explicitly, MassDOT has reviewed these water bodies when identified as part of programmed projects or when reviewing larger watershed areas. In addition, MassDOT has allotted most of the remaining six months of the original five-year schedule to address these additional L-1 List water bodies. Table 2 is included below to keep track of these "additional" submittals separately to illustrate the breadth of the work being accomplished under the Impaired Waters Program.

Table 2 Assessments for Water Bodies Not Included in Appendix L-1

Assessment Type	Previous Submittals (#)	Dec. 2014 Submittal (#)	Total (#)
TMDL Method	9	0	9
<9% IC	4	0	4
No Discharge	10	9	19
IC Method	9	1	10
Pathogen	5	13	18
Chloride	3	0	3
Nitrogen Non-TMDL Groundwater	0	6	6
Total	40	29	69

Note: Table 3B is the list of all Additional Appendix L-1 assessments completed for this submittal.

In developing these assessments, MassDOT determined that the pathogen language included in assessments with pathogen related impairments was being repeated since the impairment is relatively common. Therefore, MassDOT decided to develop a standalone methodology to assess impaired water bodies that are pathogen impaired with and without a TMDL, as modified from BMP 7R and 7U of MassDOT's Storm Waterexte Management Plan (SWMP). By having the separate detailed narrative for non-TMDL and TMDL pathogen impairments, a more summarized version of the text could be included in individual assessments. The methodologies are included as Attachments 4 and 5 of this submittal. Attachment 6 includes assessments performed using these pathogen methodologies where the only impairment was pathogen related.

Also, MassDOT has been working to finalize a methodology to assess impaired water bodies that are nitrogen impaired without a TMDL in groundwater-controlled watersheds. MassDOT has now completed this methodology, as modified from BMP 7U of MassDOT's SWMP, and it is included as Attachment 7 of this submittal. For brevity, MassDOT has termed this methodology "MassDOT's Nitrogen 7U Method." This methodology relies on research performed by the United States Geological Survey (USGS) for the Massachusetts Estuaries Program and Buzzards Bay National Estuaries Program and conservatively assumes that the entire nitrogen load from MassDOT property runoff that infiltrates into the USGS determined groundwatershed contributes to the target water body without a load reduction. The methodology has been applied to numerous nitrogen impaired non-TMDL water bodies on Cape Cod and Buzzards Bay, and these assessments are included in Attachment 8.

During the process of finalizing the BMP 7R and BMP 7U nitrogen methodologies, and the 7R and 7U pathogen methodologies, MassDOT reviewed previously assessed water bodies and determined that a handful should be reassessed to use the new methodology. These assessments are included in Attachment 9, but are not included in the December 2014 column in Tables 1-3,

as these assessments were included in the table counts when the assessment was originally submitted.

Impaired Waters Assessments -- Attachments

This submittal includes the following attachments, showing impaired waters assessments in the categories identified below:

- 1. **Final Assessments:** Attachment 1 includes 17 completed assessments for impaired water bodies that required a full assessment and were completed using either the IC or TMDL methodology.
- 2. **Less Than 9% IC Assessments:** Attachment 2 includes assessments of 6 water bodies which MassDOT determined to be less than 9% IC using BMP 7U. In accordance with the BMP 7U methodology, if the watershed is less than 9% IC then the impairment is not storm water related and therefore MassDOT will not review the water body further under this program.
- 3. No Discharge from MassDOT Outfalls Assessments: Attachment 3 includes 17 assessments of water bodies where desktop review or field review of the subwatershed found that MassDOT-owned urban roads do not drain to the receiving water in question and therefore, according to BMP 7U and 7R, no further assessment is necessary. Of these 17, eight are considered No Discharge because the MassDOT roads in the subwatershed do not drain directly to the receiving water in question; only direct discharges, and not MassDOT properties that drain to other watercourses or segments upstream of the subject water body or stream segment, are included in the assessment. Seven assessments were completed for water bodies assessed using MassDOT's Nitrogen TMDL or Non-TMDL Method, and it was determined that all MassDOT property is located outside of the USGS delineated groundwatershed that contributes to the impaired water body assessed. Two assessments were completed for water bodies assessed using BMP 7U or BMP 7R Pathogen Methods, and it was determined that all MassDOT property is located outside of the USGS delineated groundwatershed that contributes to the impaired water body assessed.
- 4. **MassDOT's Pathogen TMDL Method:** Attachment 4 is MassDOT's Application of BMP 7R Pathogen TMDL Methodology.
- 5. **MassDOT's Pathogen Non-TMDL Method:** Attachment 5 is MassDOT's Application of BMP 7U Pathogen Non-TMDL Methodology.
- 6. **Pathogen Only Assessments:** Attachment 6 includes 48 assessments for water bodies impaired only for pathogens using either MassDOT's Pathogen TMDL or Non-TMDL Method.
- 7. **MassDOT's Nitrogen Non-TMDL Groundwater Method:** Attachment 7 is MassDOT's Application of Nitrogen Groundwater Method in BMP 7U.

- 8. **Nitrogen TMDL Assessments and Nitrogen Non-TMDL Groundwater Assessments:** Attachment 8 includes 28 assessments for water bodies that are nitrogen impaired and are located within a USGS delineated groundwatershed on Cape Cod or Buzzards Bay.
- 9. **Previously Submitted Assessments:** Attachment 9 includes 14 assessments for water bodies that were previously submitted, in the bi-annual submittals, but have been revised for the following reasons: 1) Nine assessments included in Attachment 9 were prepared prior to the completion of the BMP 7R Nitrogen TMDL Method and the BMP 7U Nitrogen Non-TMDL Groundwater Method, and have since been updated to reflect the new methodologies; 2) Four assessments included in Attachment 9 have been revised by adding the pathogen impairment evaluation; and 3) One assessment inadvertently included an analysis using BMP 7U, so it has since been revised using BMP 7R.

A summary of the assessments being submitted in Attachments 1 through 3, 6 and 8 are included in Table 3A (Original Appendix L-1 list) and 3B (Additional L-1 list).

BMP Design

More BMPs as part of the Impaired Waters Program are moving into the design and construction stages. As illustrated in Tables 4A and 4B, MassDOT has 61 projects in some stage of design and is utilizing all five design contractors to complete the projects. This design activity is a significant increase from just six months ago when 47 projects were under design, and a year ago when 30 projects were under design. Design can take 12 - 18 months, including identifying a designer, conducting survey, completing design and environmental permitting and advertising the project. The length of design of a project is often dependent on availability of construction funds in a given time period. Some projects are tied to programmed projects or resurfacing projects while others are stand-alone retrofit projects being solely constructed to meet the Impaired Waters Program commitments; sometimes impaired waters are addressed by a combination of the project types. Tables 4A and 4B show a summary of the progress on the design of BMPs recommended in previous assessment submittals or in this submittal.

BMP Construction

As of December 2014, MassDOT has 19 projects in the construction phase. MassDOT has completed construction of three more projects since our June 2014 submittal, for a total of 16 completed BMP projects since the beginning of the Impaired Waters Program. For the majority of BMPs constructed through the Impaired Waters Program, MassDOT has utilized Special Experimental Program (SEP-14) funding through the Federal Highway Administration. Moving forward, MassDOT has programmed federal funds through their State Transportation Improvement Plan (STIP) specifically for stormwater improvements. Through this new funding mechanism, MassDOT will bundle various BMP locations in the same general area together for construction. This new method will allow for a more streamlined design and construction

approach and more predictability in costs. MassDOT will continue to incorporate BMPs with programmed projects where possible.

MassDOT plans to move retrofit projects currently at the 100% design phase into construction over the next six months. Tables 4A and 4B show a summary of the water bodies with projects in construction or completed. MassDOT has allocated approximately \$7,250,000 in Federal Fiscal Year 2015 to begin construction of BMP projects in the next six months/year.

MassDOT welcomes any input or feedback from the EPA on the assessments and documents included in this and all future progress reports. If you have any questions or concerns, or would like to meet to discuss this submittal, please feel free to contact me at (857) 368-8788.

Sincerely,

Henry Barbaro

Stormwater Program Supervisor Environmental Services Section

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cc: Kathleen Woodward, Esq., EPA Region I

Tracy W. Klay, Esq., Environmental Counsel, MassDOT

Tori Kim, Esq., MA Attorney General's Office

Table 3A Appendix L-1 Assessments included in December 2014 Submittal

Water Body ID	Water Body Name	Impairment (based on MassDEP 2012 Integrated List of Waters)	TMDL Impairment	Load Reduction Target TMDL (lb/yr)	Load Reduction Target IC (ac)	No Discharge	<9% IC	Negligible	Pathogen Only	Site Constraints	Notes
MA21-17	Southwest Branch Housatonic River	Fecal Coliform; Sedimentation/Siltation					X				
MA34-11	Manhan River	Escherichia coli					74		X		
MA34-27	Fort River	Escherichia coli							X		
MA34-28	Mill River	Escherichia coli							X		
MA34-29	Mill River	Escherichia coli							X		
MA35-08	Otter River	(Total Dissolved Solids*); Aquatic Macroinvertebrate Bioassessments; Fecal Coliform; Fishes Bioassessments; Nutrient/Eutrophication Biological Indicators; PCB in Fish Tissue; Taste and Odor; Turbidity					X		Α		
MA36-17	Quaboag River	Escherichia coli							X		
MA36-24	Chicopee River	Fecal Coliform							X		
MA36-25	Chicopee River	Escherichia coli							X		
MA41-04	Quinebaug River	Fecal Coliform							X		
MA51-11	West River	(Non-Native Aquatic Plants*); pH, Low					X				
MA52010	Lake Como	(Non-Native Aquatic Plants*); Excess Algal Growth; Turbidity			0.8					X	Limited ROW, commercial properties
MA52013	Falls Pond, North Basin	Excess Algal Growth; Nutrient/Eutrophication Biological Indicators; Oxygen, Dissolved; Phosphorus (Total)				X					
MA52-02	Ten Mile River	Excess Algal Growth; Fecal Coliform; Other; Phosphorus (Total); Turbidity			9.1					X	Limited ROW and wetlands
MA52-03	Ten Mile River	Aquatic Plants (Macrophytes); Chlordane; Dissolved oxygen saturation; Excess Algal Growth; Fecal Coliform; Organic Enrichment (Sewage) Biological Indicators; Other; Oxygen, Dissolved; Phosphorus (Total)			16.1						Move on to design
MA52032	Plain Street Pond	(Non-Native Aquatic Plants*); Excess Algal Growth				X					
MA52-08	Sevenmile River	Fecal Coliform							X		
MA52-10	Fourmile Brook	Sedimentation/Siltation			4.1						Move on to design
MA53-04	Palmer River	(Low flow alterations*); Fecal Coliform [182.0]; Nutrient/Eutrophication Biological Indicators	Pathogen				X			X	Wetlands, limited ROW (bridge)
MA62-03	Taunton River	Fecal Coliform [256.0]; Oxygen, Dissolved	Pathogen				X				
MA62-49	Wading River	Fecal Coliform [256.0]	Pathogen						X		
MA70-10	Winthrop Bay	Enterococcus; Fecal Coliform; Other; PCB in Fish Tissue				X					
MA71-07	Mill Brook	(Physical substrate habitat alterations*); Escherichia coli									Impairments unrelated to Stormwater
MA73009	Cobbs Pond	(Non-Native Aquatic Plants*); Nutrient/Eutrophication Biological Indicators; Oxygen, Dissolved; Secchi disk transparency				X					
MA73-33	Unnamed Tributary	Color; Escherichia coli; Phosphorus (Total); Taste and Odor			3.4					X	Limited ROW and existing utilities

Water Body ID	Water Body Name	Impairment (based on MassDEP 2012 Integrated List of Waters)	TMDL Impairment	Load Reduction Target TMDL (lb/yr)	Load Reduction Target IC (ac)	No Discharge	<9% Negligible	Pathogen Only	Site Constraints	Notes
MA74-03	Old Swamp River	Fecal Coliform						X		
MA74-11	Weir River	Fecal Coliform; Other; PCB in Fish Tissue			6.1				X	Steep slopes, ACEC and Limited ROW
MA74-13	Weymouth Back River	Fecal Coliform; Other; PCB in Fish Tissue			9.7				X	Steep slopes, ACEC and Limited ROW
MA74-14	Weymouth Fore River North Nashua	Fecal Coliform; Other; PCB in Fish Tissue			14.1				X	Steep slopes, limited ROW, and wetlands
MA81-01	River	Escherichia coli						X		
MA81-03	North Nashua River	Escherichia coli						X		
MA81-04	North Nashua River	Escherichia coli; Taste and Odor			0.0					Existing BMPs meet target reduction
MA81-24	Gates Brook	Fecal Coliform						X		
MA93-01	Waters River	Fecal Coliform						X		
MA93-04	Porter River	Fecal Coliform						X		
MA93-09	Danvers River	Fecal Coliform						X		
MA93-12	Annisquam River	Fecal Coliform						X		
MA93-15	Pines River Manchester	Fecal Coliform						X		
MA93-19	Harbor	Fecal Coliform						X		
MA93-20	Beverly Harbor	Fecal Coliform						X		
MA93-29	Cat Brook	Fecal Coliform; pH, Low					X			
MA94-03	French Stream	Fecal Coliform; Fishes Bioassessments; Oxygen, Dissolved; Phosphorus (Total); Whole Effluent Toxicity (WET)			1.8				X	Limited ROW
MA94-06	North River	Fecal Coliform						X		
MA94-07	Herring River	Fecal Coliform						X		
MA94-09	South River	Fecal Coliform						X		
MA94113	Old Oaken Bucket Pond	(Non-Native Aquatic Plants*); Phosphorus (Total)				X				
MA94-14	Jones River	Fecal Coliform						X		
MA94-15	Duxbury Bay	Fecal Coliform						X		
MA94151	Studleys Pond	Fecal Coliform						X		
MA94-21	Drinkwater River	Excess Algal Growth; Fecal Coliform; Mercury in Fish Tissue; Oxygen, Dissolved; Phosphorus (Total); Secchi disk transparency			0.8				X	Limited ROW and wetlands
MA94-24	Iron Mine Brook	Fecal Coliform						X		
MA94-27	Third Herring Brook	Fecal Coliform						X		
MA94-30	Bluefish River	Fecal Coliform						X		

Water Body ID	Water Body Name	Impairment (based on MassDEP 2012 Integrated List of Waters)	TMDL Impairment	Load Reduction Target TMDL (lb/yr)	Load Reduction Target IC (ac)	No Discharge	<9% IC	Negligible	Pathogen Only	Site Constraints	Notes
MA94-34	Ellisville Harbor	Fecal Coliform							X		
MA95-01	Buttermilk Bay	Estuarine Bioassessments; Fecal Coliform [251.1]	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-02	Onset Bay	Estuarine Bioassessments; Fecal Coliform [251.1]	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-03	Wareham River	Estuarine Bioassessments; Fecal Coliform [251.1]; Nitrogen (Total)	Pathogen				X				Nitrogen Non-TMDL Groundwater Method
MA95-05	Weweantic River	Estuarine Bioassessments; Fecal Coliform [251.1]; Nitrogen (Total)	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-17	Pocasset Harbor	Estuarine Bioassessments; Fecal Coliform [251.1]	Pathogen			X					N. Then a
MA95-21	Herring Brook	Chlorophyll-a; Fecal Coliform [251.1]; Nitrogen (Total)	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-23	Great Sippewisset Creek	Fecal Coliform [251.1]	Pathogen			X					
MA95-29	Agawam River	Ammonia (Un-ionized); Excess Algal Growth; Fecal Coliform [251.1]; Nitrogen (Total); Whole Effluent Toxicity (WET)	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-53	Beaverdam Creek	Estuarine Bioassessments; Fecal Coliform [251.1]; Nitrogen (Total)	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-55	Squeteague Harbor	Nutrient/Eutrophication Biological Indicators						X			Nitrogen Non-TMDL Groundwater Method
MA95-56	Hammett Cove	Estuarine Bioassessments; Fecal Coliform [251.1]; Nitrogen (Total)	Pathogen		1.3					X	Limited ROW
MA95-61	Eel Pond	Fecal Coliform [251.1]; Nutrient/Eutrophication Biological Indicators	Pathogen		1.4					X	Limited ROW
MA95-63	Outer New Bedford Harbor	Estuarine Bioassessments; Fecal Coliform [251.1]; Nitrogen (Total); Other; Oxygen, Dissolved; PCB in Fish Tissue	Pathogen		2.5					X	Limited ROW
MA95-67	Nasketucket River	Nitrogen (Total)	Ü		7.8						Move on to design
MA95-68	Wild Harbor River	Fecal Coliform [251.1]; Nutrient/Eutrophication Biological Indicators	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA95-70	"Inner" Sippican Harbor	Fecal Coliform [251.1]; Nitrogen (Total); Nutrient/Eutrophication Biological Indicators	Pathogen		2.8					X	Limited ROW and wetlands
MA95927	Oyster Pond	Estuarine Bioassessments [243.0]; Oxygen, Dissolved [243.0]	Nitrogen							X	Nitrogen TMDL Method
MA96-12	Bass River	Estuarine Bioassessments; Fecal Coliform [252.0]	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA96-14	Swan Pond River	Estuarine Bioassessments; Fecal Coliform [252.0]	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA96-18	Great Harbor	Fecal Coliform [252.0]	Pathogen						X		
MA96-20	Quashnet River	Fecal Coliform [252.0]; Nitrogen (Total) [218.0]; Oxygen, Dissolved [218.0]	Nitrogen					X			Nitrogen TMDL Method
MA96-21	Waquoit Bay	Estuarine Bioassessments; Oxygen, Dissolved	<u> </u>					X			Nitrogen Non-TMDL Groundwater Method
MA96-27	Namskaket Creek	Fecal Coliform [252.0]							X		
MA96-35	Chase Garden Creek	Fecal Coliform [252.0]	Pathogen			X					

Water Body ID	Water Body Name	Impairment (based on MassDEP 2012 Integrated List of Waters)	TMDL Impairment	Load Reduction Target TMDL (lb/yr)	Load Reduction Target IC (ac)	No Discharge	<9% IC	Negligible	Pathogen Only	Site Constraints	Notes
MA96-36	Lewis Bay	Estuarine Bioassessments; Fecal Coliform [252.0]	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA96-37	Mill Creek	Fecal Coliform [252.0]	Pathogen						X		Nitrogen Non-TMDL Groundwater Method
MA96-62	Oyster Pond	Estuarine Bioassessments [245.0]; Fecal Coliform [252.0]; Oxygen, Dissolved [245.0]	Pathogen and Nitrogen					X			Nitrogen TMDL Method
MA96-63	Cotuit Bay	Fecal Coliform [309.0]; Nitrogen (Total) [242.0]	Pathogen and Nitrogen					X			Nitrogen TMDL Method
MA96-65	West Bay	Estuarine Bioassessments [242.0]	Pathogen and Nitrogen					X			Nitrogen TMDL Method
MA96-66	North Bay	Estuarine Bioassessments [242.0]; Fecal Coliform [309.0]	Pathogen and Nitrogen					X			Nitrogen TMDL Method
MA96-68	Town Cove	Estuarine Bioassessments; Fecal Coliform [252.0]	Pathogen					X			Nitrogen Non-TMDL Groundwater Method
MA96-76	The River	Estuarine Bioassessments [244.0]; Fecal Coliform [252.5]; Nitrogen (Total) [244.0]	Pathogen and Nitrogen					X			Nitrogen TMDL Method
MA96-78	Little Pleasant Bay	Fecal Coliform [252.5]; Nitrogen (Total) [244.0]	Pathogen and Nitrogen					X			Nitrogen TMDL Method

Table 3B Assessments Not Included on the Appendix L-1 included in December 2014 Submittal

Water Body ID	Water Body Name	Impairment (based on MassDEP 2012 Integrated List of Waters)	TMDL Impairment	Load Reduction Target TMDL (lb/yr)	Load Reduction Target IC (ac)	No Discharge	<9% IC	Negligible	Pathogen Only	Site Constraints	Notes
		(Non-Native Aquatic Plants*); Excess Algal Growth [112.0]; Oxygen, Dissolved [112.0]; Phosphorus (Total) [112.0]; Turbidity									
MA34098	Lake Warner	[112.0]	Phosphorous			X					
MA71-14	Belle Isle Inlet	Fecal Coliform; Other; PCB in Fish Tissue			2.3					X	Limited ROW
MA72078	Mirror Lake	(Non-Native Aquatic Plants*); Nutrient/Eutrophication Biological Indicators [272.0]; Phosphorus (Total) [272.0]; Secchi disk transparency [272.0	Nutrients (Phosphorous)			X					
MA91-09	Mill River	Fecal Coliform							X		
MA91-12	Plum Island Sound	Fecal Coliform							X		
MA91-15	Plum Island River	Fecal Coliform							X		
MA94037	Forge Pond	(Debris/Floatables/Trash*); (Non-Native Aquatic Plants*); Chlorophyll-a; Dissolved oxygen saturation; Excess Algal Growth; Fecal Coliform; Phosphorus (Total); Secchi disk transparency				X					
MA95-76	Little Buttermilk Bay	Estuarine Bioassessments						X			Nitrogen Non-TMDL Groundwater Method
MA95-77	Butler Cove	Estuarine Bioassessments						X			Nitrogen Non-TMDL Groundwater Method
MA95-78	Rands Harbor	Nutrient/Eutrophication Biological Indicators						X			Nitrogen Non-TMDL Groundwater Method
MA95-79	Fiddlers Cove	Nutrient/Eutrophication Biological Indicators						X			Nitrogen Non-TMDL Groundwater Method
MA96185	Lovells Pond	Chlorophyll-a; Excess Algal Growth; Oxygen, Dissolved; Phosphorus (Total); Secchi disk transparency				X					
MA96186	Lovers Lake	Secchi disk transparency				X					
MA96198	Middle Pond	Oxygen, Dissolved				X					
MA96218	Mystic Lake	(Non-Native Aquatic Plants*); Oxygen, Dissolved				X					
MA96309	Stillwater Pond	Secchi disk transparency				X					
MA96-32	Duck Creek	Fecal Coliform [252.0]	Pathogen						X		
MA96-64	Seapuit River	Fecal Coliform [309.0]	Pathogen			X					
MA96-79	Cockle Cove Creek	Enterococcus [252.5]; Fecal Coliform [252.5]	Pathogen						X		
MA96-80	Mill Creek	Fecal Coliform [252.5]; Nitrogen (Total)	Pathogen and Nitrogen					X			Nitrogen Non-TMDL Groundwater Method
MA96-81	Snows Creek	Fecal Coliform [252.5]	Pathogen						X		
MA96-82	Hyannis Inner Harbor	Fecal Coliform [252.5]; Nitrogen (Total)	Pathogen and Nitrogen					X			Nitrogen Non-TMDL Groundwater Method
MA96-84	Old Harbor Creek	Fecal Coliform [252.5]	Pathogen						X		
MA96-85	Mill Creek	Fecal Coliform [252.5]	Pathogen						X		
MA96-86	Dock Creek	Fecal Coliform [252.5]	Pathogen						X		
MA96-87	Springhill Creek	Fecal Coliform [252.5]	Pathogen						X		
MA96-92	Santuit River	Fecal Coliform [252.5]	Pathogen						X		
MA96-93	Halls Creek	Fecal Coliform [252.5]	Pathogen						X		
MA96-94	Stewarts Creek	Fecal Coliform [252.5]	Pathogen						X		

Table 4A Status of Assessments for Design and Construction (Sorted By Water Body ID)

Semi- Annual Submittal Date	Water Body ID	Water Body Name			% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
6/8/2012	MA32-05	Westfield River	Design	100% Design complete; under District review	100%	2014	CEI
6/8/2012	MA34040	Leaping Well Reservoir		Pre-design – Identifying Proposed BMPs	Pre-25/75%	2017	BSC
12/8/2013	MA34-05	Connecticut River (A, B)	Design	25/75% Design on- going, survey on- going	Pre-25/75%		AECOM
12/6/2013	MA34-05	Connecticut River (Subbasin C&D)	Design	Design	100%	Complete	Tetra Tech
6/8/2012	MA34-19	Stony Brook	Design	100% design complete; awaiting construction	100%	Complete	CEI
6/8/2012	MA35026	Greenwood Pond	Construction	100% design complete; awaiting construction	Complete	Complete	CEI
12/8/2013	MA35056	Parker Pond	Design	25/75% Design on- going	Pre-25/75%	2015	BSC
3/8/2011	MA36-16	Quaboag River	Construction	Construction	Complete	Complete	VHB
6/8/2013	MA41-02	Quinebaug River	Design	25/75% design complete; under District review	25/75%	2014	CEI
6/8/2012	MA41-05	Cady Brook	Design	25/75% Design complete	25/75%	2015	BSC
6/8/2012	MA42-03	French River	Design	Design	25/75%	2015	CEI
3/8/2011	MA42034	Lowes Pond	Complete	Complete	Complete	Complete	Tetra Tech
12/8/2011	MA51-01	Kettle Brook	Construction	Construction	Complete	Complete	VHB

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Pro	Progress		Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
12/8/2010	MA51012	Burncoat Park Pond	Complete	Complete	Complete	Complete	Tetra Tech
6/8/2013	MA51-02	Middle River	Proposal	Proposed BMPs identified, survey requested	Pre-25/75%	2017	Tetra Tech
12/8/2010	MA51-03	Blackstone River	Complete	Complete	Complete	Complete	VHB
12/8/2012	MA51039	Dorothy Pond	Pre-design	Proposed BMPs identified, survey on- going	Pre-25/75%	2015	VHB
6/8/2013	MA51-05	Blackstone River	Design	Survey complete; 25/75% Design on- going	Pre-25/75%	2017	Tetra Tech
6/8/2012	MA51073	Indian Lake	Design	25/75% Design ongoing	Pre-25/75%	2016	VHB
6/8/2012	MA51-08	Unnamed Tributary - Resurfacing	Design	25/75% Design ongoing	Pre-25/75%	2016	VHB
6/8/2012	MA51-08	Unnamed Tributary - Retrofit	Pre-Design	100% Construction docs being Completed; Ad date end of December 2014	100%	2014	VHB
12/8/2011	MA51087	Leesville Pond	Construction	Construction	Complete	Complete	VHB
6/8/2013	MA51093	Marble Pond	Pre-Proposal	Pre-Proposal		2016	BSC
6/8/2013	MA51-10 (includes MA51-35 and MA51-36)	Mill River	Pre-design	Conceptual design on- going; preparing survey request	Pre-25/75%	2016	BSC/CEI
6/8/2013	MA51125	Lake Quinsigamond	Design	Survey complete; 25%/75% Design on- going	Pre-25/75%	2016	Tetra Tech
6/8/2013	MA51135	Lake Ripple	Design	25/75% design complete; under District review.	25/75%	2016	CEI

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Pr	ogress	% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
6/8/2013	MA51-14	Mumford River	Design	100% Design on- going	25/75%	2015	BSC
6/8/2013	MA51-15	Tatnuck Brook	Design	100% Design on- going	25/75%	2015	BSC
12/8/2011	MA51-16	Dark Brook (I- 290)	Construction	Construction	Complete	Complete	VHB
6/8/2013	MA51-17	Poor Farm Brook	Design	Survey Complete, 25%/75% Design on- going	Pre-25/75%	2016	BSC
6/8/2013	MA51196	Shirley Street Pond	Design	Survey complete; 25%/75% Design on- going	Pre-25/75%	2016	Tetra Tech
12/7/2012	MA53-01	Runnins River	Design	Survey on-going; 25/75% Design on- going	25/75%	2018	CEI
12/8/2011	MA61-02	Lee River	Design	Design	100%	Complete	Tetra Tech
12/8/2011	MA61-04	Cole River	Construction	Construction	Complete	Complete	MassDOT
6/8/2013	MA61-06	Mount Hope Bay	Pre-Design	Identifying Proposed BMPs	Pre-25/75%	2019	VHB
6/8/2013	MA62-04	Taunton River	Pre-Design	Identifying Proposed BMPs	Pre-25/75%	2019	VHB
12/7/2012	MA62-06	Salisbury Plain River	Pre-Design	Design-survey on- going	Pre-25/75%	2015	FST
6/8/2012	MA62134	Norton Reservoir	Construction	Construction	Complete	Complete	MassDOT
6/8/2012	MA62-14	Robinson Brook	Construction	Construction	Complete	Complete	MassDOT
6/8/2012	MA62-39	Rumford River	Design	Design	25/75%	2015	Tetra Tech
6/8/2012	MA62-47	Wading River°°	Complete	Complete	Complete	Complete	VHB
6/8/2012	MA62-47	Wading River - Resurfacing		Proposed BMPs Identified, Survey on- going	Pre-25/75%	2015	VHB
12/8/2011	MA71-01	Aberjona River	Complete	Complete	Complete	Complete	Tetra Tech

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Pro	gress	% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
6/8/2012	MA71-02	Mystic River	Design	Design	100%	Complete	Tetra Tech
12/8/2012	MA71-04	Alewife Brook	Design	Design	100%	Complete	VHB
12/8/2011	MA71040	Spy Pond	Complete	Complete	Complete	Complete	VHB
12/8/2013	MA71-05	Malden River	Pre-Design	BMP's included in programmed project			BSC
6/8/2012	MA72-07	Charles River - Tolls Project	Design	Design	100%	Complete	VHB
12/8/2011	MA72-14	Mine Brook - Resurfacing Project 607179	Construction	Construction	Complete	Complete	VHB
12/8/2011	MA72-14	Mine Brook - Resurfacing Project FY18	Design	Design	Pre-25/75%	2018	Green/ VHB
6/8/2012	MA72-25	Rosemary Brook	Construction	Construction	Complete	Complete	BSC
6/8/2013	MA72-28	Beaver Brook- Lexington	Pre-design (survey)	Survey Complete, 25%/75% Design on- going	Pre-25/75%	2018	VHB
6/8/2012	MA72-29	Cheese Cake Brook	Design	Design	100%	Complete	VHB
6/8/2012	MA72-36	Charles River - Tolls Project	Design	Design	100%	Complete	VHB
6/8/2012	MA73-01	Neponset River	Pre-design (survey)	Survey Complete	Pre-25/75%	2019	VHB
6/8/2012	MA73-02	Neponset River	Pre-design (survey)	Survey Complete	Pre-25/75%	2019	VHB
12/8/2013	MA73-04	Neponset River	Design	Design; 100% Design on-going	25/75%	2015	AECOM
12/8/2013	MA74-02	Weir River	Pre-design	Design-survey on- going		2015	FST
6/8/2013	MA74-04	Mill River	Design	Design; 100% Design on-going	25/75%	2015	AECOM
12/8/2011	MA74-08	Monatiquot River	Construction	Construction	Complete	Complete	VHB

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Pr	ogress	% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
6/8/2013	MA74-09	Town Brook	Design	Design; 100% Design on-going	25/75%	2015	AECOM
12/8/2013	MA81-02	North Nashua River	Proposal	Proposal			Tetra Tech
12/8/2011	MA81-04	North Nashua River	Complete	Complete	Complete	Complete	VHB
12/8/2013	MA81-05	Nashua River	Design	Design	25/75%	2015	Tetra Tech
6/8/2014	MA81053	Grove Pond	Proposal	Proposed BMPs Identified; Survey Requested	Pre-25/75%	2017	Tetra Tech
12/8/2013	MA82055/MA82A- 16	Grist Pond/Unnamed Tributary	Pre-Proposal	Pre-Proposal			FST
6/8/2014	MA82127	Lake Cochituate	N/A	Identifying Proposed BMPs		2017	Tetra Tech
12/8/2013	MA82A-07	Concord River		Pre-design – Identifying Proposed BMPs	Pre-25/75%	2018	BSC
12/8/2011	MA82A-08	Concord River	Pre-Design	Identifying Proposed BMPs	Pre-25/75%	2018	VHB
6/8/2014	MA82A-26	Sudbury River	N/A	Identifying Proposed BMPs		2017	Tetra Tech
6/8/2013	MA82B-02	Assabet River	Design	25/75% Design on- going	Pre-25/75%	2015	VHB
12/8/2011	MA82B-04	Assabet River	Design	Complete	Complete	Complete	Tetra Tech
12/8/2013	MA82B-07	Assabet River	Pre-Proposal	Pre-Proposal		2017	FST
12/8/2013	MA82B-14	Nashoba River	Complete	Complete	Complete	Complete	Tetra Tech
12/8/2013	MA83-17	Shawsheen River		Pre-design – Identifying Proposed BMPs	Pre-25/75%	2018	BSC

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
6/8/2014	MA83-18	Shawsheen River		Pre-Proposal		2016	AECOM
6/8/2013	MA83-19	Shawsheen River	Design	Complete	Complete	Complete	AECOM
6/8/2011	MA84038	Mill Pond	Complete	Complete	Complete	Complete	VHB
6/8/2013	MA84046	Newfield Pond	Construction	Construction	Complete	Complete	BSC
12/8/2013	MA84A-03	Merrimack River	Design	Complete	Complete	Complete	AECOM
12/8/2013	MA84A-04	Merrimack River	Design	Complete	Complete	Complete	AECOM
6/8/2013	MA84A-10	Spicket River	Design	Design on-hold at 25/75% for design review of additional area	25/75%	2017	FST
6/8/2013	MA84A-17	Black Brook	Pre-Design	Design; survey on- going	Pre-25/75%	2015	FST
6/8/2013	MA84A-18	Bare Meadow Brook	Design	Design	25/75%	2017	FST
6/8/2011	MA84B-02	Beaver Brook	Complete	Complete	Complete	Complete	VHB
12/8/2012	MA92-03	Miles River	Complete	Complete	Complete	Complete	AECOM
12/7/2012	MA92-06	Ipswich River	Pre-design	Pre-design, survey completed	Pre-25/75%	2016	AECOM
12/8/2011	MA93032	Hawkes Pond	Construction	Construction	Complete	Complete	Tetra Tech
6/7/2013	MA93-07	Bass River	Design	Complete	Complete	Complete	Tetra Tech
12/8/2011	MA93-30	Proctor Brook		Pre-Design		2017	FST
12/8/2011	MA93-34	Saugus River	Construction	Construction	Complete	Complete	Tetra Tech/MassDOT
12/8/2011	MA93-35	Saugus River	Construction	Construction	Complete	Complete	Tetra Tech/MassDOT
6/8/2013	MA93-37	Beaver Brook- Danvers	Pre-design (survey)	Survey Complete; 25/75% Design on- going	Pre-25/75%	2015	VHB
6/8/2014	MA93-42	North River	Proposal	Proposal		2016	Tetra Tech
6/8/2013	MA93-51	Unnamed Tributary to Town	Pre-design	25%/75% Design on- going, Survey on-	Pre-25/75%	2016	BSC/CEI

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Pro	gress	% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014		_	
		Line Brook		going			
6/8/2011	MA95113	Noquochoke Lake	Construction	Construction	Complete	Complete	Tetra Tech
6/8/2011	MA95170	Noquochoke Lake	Construction	Construction	Complete	Complete	Tetra Tech
6/8/2011	MA95171	Noquochoke Lake	Construction	Construction	Complete	Complete	Tetra Tech
12/8/2012	MA95-42	Acushnet River/I- 195	Design	100% Design complete	100%	Complete	BSC
12/8/2012	MA95-42	Acushnet River/Routes 6 & 18	Pre-design	Proposed BMPs identified, 25%/75% Design on-going	Pre-25/75%	2016	BSC

Table 4B Status of Assessments for Design and Construction (Sorted By % Design Complete)

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014		_	
6/8/2012	MA35026	Greenwood Pond	Construction	100% design complete; awaiting construction	Complete	Complete	CEI
3/8/2011	MA42034	Lowes Pond	Complete	Complete	Complete	Complete	Tetra Tech
12/8/2010	MA51012	Burncoat Park Pond	Complete	Complete	Complete	Complete	Tetra Tech
12/8/2010	MA51-03	Blackstone River	Complete	Complete	Complete	Complete	VHB
6/8/2012	MA62-47	Wading River°°	Complete	Complete	Complete	Complete	VHB
12/8/2011	MA71-01	Aberjona River	Complete	Complete	Complete	Complete	Tetra Tech
12/8/2011	MA71040	Spy Pond	Complete	Complete	Complete	Complete	VHB
12/8/2011	MA81-04	North Nashua River	Complete	Complete	Complete	Complete	VHB
12/8/2011	MA82B-04	Assabet River	Design	Complete	Complete	Complete	Tetra Tech
12/8/2013	MA82B-14	Nashoba River	Complete	Complete	Complete	Complete	Tetra Tech
6/8/2013	MA83-19	Shawsheen River	Design	Complete	Complete	Complete	AECOM
6/8/2011	MA84038	Mill Pond	Complete	Complete	Complete	Complete	VHB
12/8/2013	MA84A-03	Merrimack River	Design	Complete	Complete	Complete	AECOM
12/8/2013	MA84A-04	Merrimack River	Design	Complete	Complete	Complete	AECOM
6/8/2011	MA84B-02	Beaver Brook	Complete	Complete	Complete	Complete	VHB
12/8/2012	MA92-03	Miles River	Complete	Complete	Complete	Complete	AECOM
6/7/2013	MA93-07	Bass River	Design	Complete	Complete	Complete	Tetra Tech
3/8/2011	MA36-16	Quaboag River	Construction	Construction	Complete	Complete	VHB

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
12/8/2011	MA51-01	Kettle Brook	Construction	Construction	Complete	Complete	VHB
12/8/2011	MA51087	Leesville Pond	Construction	Construction	Complete	Complete	VHB
12/8/2011	MA51-16	Dark Brook (I-290)	Construction	Construction	Complete	Complete	VHB
12/8/2011	MA61-04	Cole River	Construction	Construction	Complete	Complete	MassDOT
6/8/2012	MA62134	Norton Reservoir	Construction	Construction	Complete	Complete	MassDOT
6/8/2012	MA62-14	Robinson Brook	Construction	Construction	Complete	Complete	MassDOT
12/8/2011	MA72-14	Mine Brook - Resurfacing Project 607179	Construction	Construction	Complete	Complete	VHB
6/8/2012	MA72-25	Rosemary Brook	Construction	Construction	Complete	Complete	BSC
12/8/2011	MA74-08	Monatiquot River	Construction	Construction	Complete	Complete	VHB
6/8/2013	MA84046	Newfield Pond	Construction	Construction	Complete	Complete	BSC
12/8/2011	MA93032	Hawkes Pond	Construction	Construction	Complete	Complete	Tetra Tech
12/8/2011	MA93-34	Saugus River	Construction	Construction	Complete	Complete	Tetra Tech/MassDOT
12/8/2011	MA93-35	Saugus River	Construction	Construction	Complete	Complete	Tetra Tech/MassDOT
6/8/2011	MA95113	Noquochoke Lake	Construction	Construction	Complete	Complete	Tetra Tech
6/8/2011	MA95170	Noquochoke Lake	Construction	Construction	Complete	Complete	Tetra Tech
6/8/2011	MA95171	Noquochoke Lake	Construction	Construction	Complete	Complete	Tetra Tech
12/8/2012	MA95-42	Acushnet River/I- 195	Design	100% Design complete	100%	Complete	BSC
6/8/2012	MA34-19	Stony Brook	Design	100% design complete; awaiting construction	100%	Complete	CEI
6/8/2012	MA32-05	Westfield River	Design	100% Design complete; under District review	100%	2014	CEI
6/8/2012	MA51-08	Unnamed Tributary - Retrofit	Pre-Design	100% Construction docs being completed; ad date end of December 2014	100%	2014	VHB

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
12/6/2013	MA34-05	Connecticut River (Subbasin C&D)	Design	Design	100%	Complete	Tetra Tech
12/8/2011	MA61-02	Lee River	Design	Design	100%	Complete	Tetra Tech
6/8/2012	MA71-02	Mystic River	Design	Design	100%	Complete	Tetra Tech
12/8/2012	MA71-04	Alewife Brook	Design	Design	100%	Complete	VHB
6/8/2012	MA72-07	Charles River - Tolls Project	Design	Design	100%	Complete	VHB
6/8/2012	MA72-29	Cheese Cake Brook	Design	Design	100%	Complete	VHB
6/8/2012	MA72-36	Charles River - Tolls Project	Design	Design	100%	Complete	VHB
6/8/2013	MA51-14	Mumford River	Design	100% Design on- going	25/75%	2015	BSC
6/8/2013	MA51-15	Tatnuck Brook	Design	100% Design on- going	25/75%	2015	BSC
6/8/2012	MA41-05	Cady Brook	Design	25/75% Design complete	25/75%	2015	BSC
6/8/2013	MA41-02	Quinebaug River	Design	25/75% design complete; under District review	25/75%	2014	CEI
6/8/2013	MA51135	Lake Ripple	Design	25/75% design complete; under District review.	25/75%	2016	CEI
6/8/2012	MA42-03	French River	Design	Design	25/75%	2015	CEI
6/8/2012	MA62-39	Rumford River	Design	Design	25/75%	2015	Tetra Tech
12/8/2013	MA81-05	Nashua River	Design	Design	25/75%	2015	Tetra Tech
6/8/2013	MA84A-18	Bare Meadow Brook	Design	Design	25/75%	2017	FST
6/8/2013	MA84A-10	Spicket River	Design	Design on-hold at 25/75% for design review of additional area	25/75%	2017	FST

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014		_	
12/8/2013	MA73-04	Neponset River	Design	Design; 100% Design on-going	25/75%	2015	AECOM
6/8/2013	MA74-04	Mill River	Design	Design; 100% Design on-going	25/75%	2015	AECOM
6/8/2013	MA74-09	Town Brook	Design	Design; 100% Design on-going	25/75%	2015	AECOM
12/7/2012	MA53-01	Runnins River	Design	Survey on-going; 25/75% Design on- going	25/75%	2018	CEI
6/8/2013	MA93-51	Unnamed Tributary to Town Line Brook	Pre-design	25%/75% Design ongoing, Survey ongoing	Pre-25/75%	2016	BSC/CEI
12/8/2013	MA35056	Parker Pond	Design	25/75% Design on- going	Pre-25/75%	2015	BSC
6/8/2012	MA51073	Indian Lake	Design	25/75% Design on- going	Pre-25/75%	2016	VHB
6/8/2012	MA51-08	Unnamed Tributary - Resurfacing	Design	25/75% Design on- going	Pre-25/75%	2016	VHB
6/8/2013	MA82B-02	Assabet River	Design	25/75% Design on- going	Pre-25/75%	2015	VHB
12/8/2013	MA34-05	Connecticut River (A, B)	Design	25/75% Design on- going, survey on- going	Pre-25/75%		AECOM
6/8/2013	MA51-10 (includes MA51-35 and MA51-36)	Mill River	Pre-design	Conceptual design on-going; preparing survey request	Pre-25/75%	2016	BSC/CEI
12/8/2011	MA72-14	Mine Brook - Resurfacing Project FY18	Design	Design	Pre-25/75%	2018	Green/ VHB
6/8/2013	MA84A-17	Black Brook	Pre-Design	Design; survey on- going	Pre-25/75%	2015	FST
12/7/2012	MA62-06	Salisbury Plain River	Pre-Design	Design-survey on- going	Pre-25/75%	2015	FST

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014		_	
6/8/2013	MA61-06	Mount Hope Bay	Pre-Design	Identifying Proposed BMPs	Pre-25/75%	2019	VHB
6/8/2013	MA62-04	Taunton River	Pre-Design	Identifying Proposed BMPs	Pre-25/75%	2019	VHB
12/8/2011	MA82A-08	Concord River	Pre-Design	Identifying Proposed BMPs	Pre-25/75%	2018	VHB
6/8/2012	MA34040	Leaping Well Reservoir		Pre-design – Identifying Proposed BMPs	Pre-25/75%	2017	BSC
12/8/2013	MA82A-07	Concord River		Pre-design – Identifying Proposed BMPs	Pre-25/75%	2018	BSC
12/8/2013	MA83-17	Shawsheen River		Pre-design – Identifying Proposed BMPs	Pre-25/75%	2018	BSC
12/7/2012	MA92-06	Ipswich River	Pre-design	Pre-design, survey completed	Pre-25/75%	2016	AECOM
12/8/2012	MA95-42	Acushnet River/Routes 6 & 18	Pre-design	Proposed BMPs identified, 25%/75% Design on-going	Pre-25/75%	2016	BSC
12/8/2012	MA51039	Dorothy Pond	Pre-design	Proposed BMPs identified, survey on- going	Pre-25/75%	2015	VHB
6/8/2012	MA62-47	Wading River - Resurfacing		Proposed BMPs Identified, Survey on-going	Pre-25/75%	2015	VHB
6/8/2013	MA51-02	Middle River	Proposal	Proposed BMPs identified, survey requested	Pre-25/75%	2017	Tetra Tech
6/8/2014	MA81053	Grove Pond	Proposal	Proposed BMPs Identified; Survey Requested	Pre-25/75%	2017	Tetra Tech
6/8/2012	MA73-01	Neponset River	Pre-design (survey)	Survey Complete	Pre-25/75%	2019	VHB
6/8/2012	MA73-02	Neponset River	Pre-design (survey)	Survey Complete	Pre-25/75%	2019	VHB

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
6/8/2013	MA51-17	Poor Farm Brook	Design	Survey Complete, 25%/75% Design on- going	Pre-25/75%	2016	BSC
6/8/2013	MA72-28	Beaver Brook- Lexington	Pre-design (survey)	Survey Complete, 25%/75% Design on- going	Pre-25/75%	2018	VHB
6/8/2013	MA51125	Lake Quinsigamond	Design	Survey complete; 25%/75% Design on- going	Pre-25/75%	2016	Tetra Tech
6/8/2013	MA51196	Shirley Street Pond	Design	Survey complete; 25%/75% Design on- going	Pre-25/75%	2016	Tetra Tech
6/8/2013	MA51-05	Blackstone River	Design	Survey complete; 25/75% Design on- going	Pre-25/75%	2017	Tetra Tech
6/8/2013	MA93-37	Beaver Brook- Danvers	Pre-design (survey)	Survey Complete; 25/75% Design on- going	Pre-25/75%	2015	VHB
12/8/2013	MA71-05	Malden River	Pre-Design	BMP's included in programmed project			BSC
12/8/2013	MA74-02	Weir River	Pre-design	Design-survey on- going		2015	FST
6/8/2014	MA82127	Lake Cochituate	N/A	Identifying Proposed BMPs		2017	Tetra Tech
6/8/2014	MA82A-26	Sudbury River	N/A	Identifying Proposed BMPs		2017	Tetra Tech
12/8/2011	MA93-30	Proctor Brook		Pre-Design		2017	FST
12/8/2013	MA81-02	North Nashua River	Proposal	Proposal			Tetra Tech
6/8/2014	MA93-42	North River	Proposal	Proposal		2016	Tetra Tech
6/8/2013	MA51093	Marble Pond	Pre-Proposal	Pre-Proposal		2016	BSC
12/8/2013	MA82055/MA82A- 16	Grist Pond/Unnamed Tributary	Pre-Proposal	Pre-Proposal			FST

Semi- Annual Submittal Date	Water Body ID	Water Body Name	Progress		% Design Complete	Anticipated Date of 100% Design Completion	Design Consultant
			June 8, 2014	Dec. 8, 2014			
12/8/2013	MA82B-07	Assabet River	Pre-Proposal	Pre-Proposal		2017	FST
6/8/2014	MA83-18	Shawsheen River		Pre-Proposal		2016	AECOM

List of Attachments

Attachment 1 Impaired Waters Assessments Final Reports (IC/TMDL)

Attachment 2 Less Than 9% Assessments

Attachment 3 No Discharges from MassDOT Outfalls Assessments

Attachment 4 MassDOT's BMP 7R Pathogen Method

Attachment 5 MassDOT's BMP 7U Pathogen Method

Attachment 6 Pathogen Only Assessments

Attachment 7 MassDOT's Nitrogen Non-TMDL Groundwater Method

Attachment 8 Nitrogen TMDL Assessments and Nitrogen Non-TMDL Groundwater Assessments

Attachment 9 Previously Submitted Assessments