

Deval L. Patrick, Governor Timothy P. Murray, Lt. Governor Richard A. Davey, Secretary & CEO Frank DePaola, Administrator

June 8, 2012



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,

The attached report documents MassDOT's semi-annual report on the Impaired Waters Program. As part of MassDOT's June 9, 2010 and July 23, 2010 submittals to EPA, MassDOT committed to assess the 684 impaired water bodies listed in Appendix L-1 of the June 8, 2010 court submittal. The assessments will be completed using the processes outlined in BMP 7U: Impaired Waters Assessment and Mitigation Plan and/ or BMP 7R: TMDL Watershed Review. In BMP 7R, MassDOT commits to review 20% of the 209 impaired waters with a TMDL annually. The table below numerically summarizes our progress towards meeting the commitments in these first two years of the program (June 8, 2010 – June 8, 2012).

Assessment Type	Previous	June 2012	Total (#)	Total
	Submittals (#)	Submittal (#)		(%)
Impaired Water	rbodies (with TMI	DLs)		
TMDL Method	8	4	12	
IC Method*	2	0	2	
TMDL and IC Method	1	5	6	
No Discharge	43	21	64	
Other (non-stormwater)	2	1	3	
Impaired Waterbodies (with TMDL) Total	56	31	87	42%
Impaired Waterb	odies (without TM	(IDLs)		
IC Method	16	16	32	
<9 % IC	14	14	28	
No Discharge	52	72	124	
Other (non-stormwater)	1	1	2	
Impaired Waterbodies (without TMDLs) Total	83	103	186	
Impaired + TMDL Total	139	134	273	40%

#### Table 1 Assessment Submittals Summary for Waterbodies on Appendix L-1

\* The TMDL for these waterbodies is for pathogens which is not applicable to MassDOT's TMDL methodology. Therefore, the IC method was used to address the other listed impairments for the water body and the assessments addressed pathogens programmatically

Assessments have been included in previous submittals for waterbodies that were not included on Appendix L-1. MassDOT identified these additional water bodies with MassDOT drainage during resurfacing projects or the impaired waters receive runoff from MassPike drainage which was not part of the MS4 at the time the receiving waters list was developed. Although we are not including any in this submittal, we are including the table below to keep track of these "additional" submittals separately since they are outside of the BMP 7U and 7R commitments.

Assessment Type	Previous Submittals (#)	June 2012 Submittal (#)	Total (#)
Impa	red Waterbodies (with TMDLs)		
TMDL Method	3	0	3
Impair	d Waterbodies (without TMDLs)		
Other (non-stormwater)	2	0	2
Impaired + TMDL Total	5	0	5

## Table 2 Assessment Submittals for Waterbodies Not Included in Appendix L-1

MassDOT also includes progress reports in this submittal. These reports include an evaluation of the potential contribution of stormwater from MassDOT to the impaired water body and a calculation of the targeted reduction of effective impervious area and/or pollutant loading reduction. The assessment is completed once the proposed BMPs are designed based on site specific information. Since there can be a lag between assessment and design, the progress reports are included in the submittal to document the activity completed in the last six months. Table 3 summarizes the progress reports that have been included in the submittals.

#### Table 3 In-Progress Assessment Submittals

Assessment Type	Previous Submittals (#)	June 2012 Submittal (#)	Total (#)
Appendix L-1 Sub	mittals		
TMDL Method	1	2	3
IC Method	11	9	20
Assessment Submittals for Waterbodies N	Not Included in App	endix L-1	
TMDL Method	1	0	1

During the last six months, both the proposed 2010 Final Integrated Waters List ("303d list") and the proposed 2012 Final Integrated Waters List were finalized and issued. In the final 2010 and proposed 2012 list, many of the pollutants were revised to provide more detail regarding the impairment type (e.g. waters previously listed as impaired for "metals" are listed as impaired for "mercury"). For the assessments that were complete at the time of the final list being issued, we did not include changes from the updated list. However, the approach used for assessing these waters (the IC method) addresses a range of impairments and therefore, any changes to the list of impairments is unlikely to impact the conclusion of the assessment. For assessments performed after the list was issued, the most up to date information was used.

## **Complete Impaired Waters Assessments**

This submittal includes the following categories of completed assessments:

1. **Impaired Waters Assessments:** Attachment 1 includes 25 completed assessments for impaired waterbodies (9 with TMDLs) that required a full assessment. A list of the impaired waters is included in Table 4 at the end of this letter.

The completed assessments include assessments for water bodies within the Charles River Watershed which fall within MassDOT's District 6. Assessments for the remaining water bodies of the Upper/Middle Charles River Watershed will be included in a subsequent submittal.

The segments of the Charles River included in this submittal are in highly urban areas and present unique challenges regarding retrofit stormwater management. MassDOT rights-of-way that directly discharge to the Charles River in District 6 are often limited to roadways (sometimes elevated) and sidewalks only. Areas where open space exists adjacent to MassDOT property and outfalls are often owned by other public and private entities and are designated open space or used for recreation.

In addition, as part of the transportation agency consolidation which created MassDOT in 2010, many bridges were transferred from the Department of Conservation and Recreation (DCR) to MassDOT. This transfer involved roadways only, and did not include adjacent land or infrastructure.

Because of the complex character of MassDOT's properties discharging to these segments of the Charles River, MassDOT is taking a watershed approach to assessing the Charles River watershed impaired water body segments. Where applicable, MassDOT will advance designs for BMPs where practicable in the watershed in excess of the target mitigation to compensate for areas where site constraints prohibit retrofit BMPs.

- 2. Less than 9% Impervious Cover Assessments: Attachment 2 includes 14 assessments where desktop/GIS analysis of the subbasin indicated that the subwatershed includes less than 9% impervious cover. These water bodies' impairments are not stormwater related. No further assessment is necessary.
- 3. Unrelated Impairments Assessments: Attachment 3 includes 2 assessments (1 for a water body with a TMDL) where the impairment is not stormwater related and therefore according to BMP 7U and 7R no further assessment is necessary.
- 4. No Discharge from MassDOT Outfalls Assessments: Attachment 4 includes 93 assessments (21 within TMDL watersheds) where desktop review or field review of the subbasin found that MassDOT urban roads do not drain directly to the receiving water in question or the discharge is de minimus and therefore according to BMP 7U and 7R no further assessment is necessary. 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.

## **Progress Reports/Updates**

This submittal includes 7 completed assessments that were included as progress reports in the December 2011 EPA submittal. The progress reports included an evaluation of the potential contribution of stormwater from MassDOT to the impaired water body and a calculation of the targeted reduction of effective impervious area and/or pollutant loading reduction. The assessment is completed once the proposed BMPs are designed based on site specific information.

#### **Impaired Waters Assessments - Progress Reports**

Attachment 5 includes 11 progress reports for the impaired waters listed in Table 3 including two with a TMDL. These progress reports include target reductions in pollutant loading and impervious cover. These assessments will now be forwarded to MassDOT design contractors for design and permitting of BMPs to meet the target reductions to the maximum extent practicable. A list of the impaired waters with progress reports is included in Table 5 at the end of this letter. These progress reports represent a significant amount of work towards completing the assessment.

## **BMP** Design and Construction

MassDOT's design contractors are developing design and construction documents for BMPs proposed in previously submitted assessments and progress reports. MassDOT's district-specific retrofit contracts have been awarded and provide for construction of the proposed BMPs. Table 6 at the end of this letter is a summary of the progress on design of BMPs recommended in previous submittal assessments or in this submittal.

## **Methodology Documentation**

As the Impaired Waters Program moves forward, MassDOT has continued to refine and expand upon our assessment methods that are included in the latest SWMP. This submittal includes two documents that further explain refinement of our methods – the TMDL method and the Long Term Continuous Simulation method. MassDOT hereby provides written notification to EPA regarding the addition of these methodologies to BMP 7U and 7R of the SWMP, pursuant to Part V.D.2.a. of the Permit.

# **TMDL Method**

The MassDOT TMDL Method (Attachment 6) provides greater detail of how assessments are completed under BMP 7R, just as the MassDOT Application of IC Method (MassDOT, 2011) document created in April 2011 provides detail on the approach used for assessments completed under BMP 7U. MassDOT's TMDL Method has been developed exclusively for assessing discharges to impaired waterbodies with TMDLs for pollutants typically found in highway stormwater runoff as part of MassDOT's Impaired Waters Program. These pollutants include, but are not limited to, total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), and zinc (Zn). The methodology provides guidance for completing the TMDL Method assessment both with and without the use of the supplementary TMDL worksheet.

## Long Term Continuous Simulation Method

Mass DOT has developed a supplemental approach to estimate pollutant loads and BMP treatment for BMP 7U and 7R. Documentation describing this approach is included in this submittal as Attachment 7, Long-Term Continuous Simulation for Pollutant Loading and Treatment for MassDOT Impaired Waters Program. This supplemental approach was used for the Charles River assessments included in this submittal.

As described in Attachment 7, MassDOT developed a site-specific, continuous, long-term hydrologic and pollutant simulation modeling approach (the assessment model) for use in watershed assessment and BMP design in support of current BMP7U and 7R methods. The assessment model estimates annual pollutant loads for a 10-year simulation period from MassDOT property and treatment through both existing and proposed BMPs, if present. The assessment model uses hourly Boston rainfall data to capture a range of meteorological conditions and estimate annual median pollutant loads. The pollutant loading portion of the assessment model was calibrated to match pollutant runoff data from the USGS Highway-Runoff Database (Version 1.0, September 2009). The assessment model directly evaluates BMP effects on hydrology (detention, infiltration) and pollutant loads (losses through infiltration, settling, filtration, and biological treatment).

As described in Attachment 7, the calibrated model results in estimated phosphorus loads from MassDOT property conservatively higher than the phosphorus loads predicted in the Charles River TMDLs (*Final Phosphorus TMDL Report for the Lower Charles River Basin (CN 301.0) and Final Nutrient TMDL Report for the Upper/Middle Charles River (CN 272.0)*). For these assessments, MassDOT developed the target phosphorus loads using the respective TMDL waste load allocation, not the percent reductions included in the TMDLs. As a result, the target percent reductions included in these assessments are higher than the percent reduction outlined in the TMDLs (62% for Lower Charles Basin TMDL and 65% for Upper/Middle Charles Basin TMDL). This approach is conservative and consistent with the intent of the TMDL waste load allocations.

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 (617) 973-7419.

Yours sincerely,

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cc: Kathleen Woodward, Esq., EPA Region I Al Caldarelli, Esq., MassDOT

#### Table 4 Impaired Waters Assessments

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method	Method Used		l Used Load Reductio Target		eduction get	Recommendations/ Notes
				TMDL	IC	TMDL (lb/yr)	IC (ac IC)			
MA41-05	Cady Brook	(Flow alteration*), Pathogens	-		Х		0.6	Installation of infiltration swale recommended; Assigned to Design Contractor for Final Design		
MA42-03	French River	Phosphorus (Total), Mercury in Fish Tissue, Turbidity, Aquatic Plants (Macrophytes)			х		2.8**	Installation of one infiltration swale recommended**		
MA42058	Texas Pond	Metals, Noxious aquatic plants (but now considered part of French River)	Phosphorus	х		0	0	No discharge to Texas Pond although proposed BMPs upstream will have positive impact.		
MA42059	Thayers Pond	Metals, Nutrients, Turbidity (but now considered part of French River)	-		х		0**	Installation of one infiltration swale recommended**		
MA61-04	Cole River	Nutrients, Organic enrichment/low DO, Pathogens	-		х		8.6	Progress report in 12/8/11 submittal; 4 infiltration swales currently in design		
MA61-02	Lee River	Pathogens, Taste, odor and color, Noxious aquatic plants, (Objectionable deposits*)	-		х		16	Progress report in 12/8/11 submittal; 6 infiltrations swales and 2 infiltration basins currently in design		
MA62134	Norton Reservoir	Pesticides, Nutrients, Noxious aquatic plants, Turbidity	-		х		2.9	Installation of 2 vegetated filter strips recommended; Assigned to Design Contractor for Final Design		
MA62-47	Wading River	Organic enrichment/low DO, Pathogens	-		х		3.8	4 infiltration swales currently in design		
MA71-01	Aberjona River	Cause unknown, Metals, Unionized ammonia, Nutrients, Organic enrichment/low DO, (Other habitat alterations*), Pathogens	-		Х		40	Progress report in 12/8/11 submittal; 6 infiltration swales and 5 infiltration basins currently in design		

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method	Used	Load Re Tar	eduction get	Recommendations/ Notes
				TMDL	IC	TMDL (lb/yr)	IC (ac IC)	
MA72055	Kendrick Street Pond	Turbidity	-		Х		1.9	Installation of 1 infiltration basin and 1 leaching catch basin proposed in assessment
MA72-07	Charles River	Escherichia coli	Pathogens	х		310 TP		Proposed installation of 40 BMPs will provide 135 lbs/ yr of phosphorus reduction.
MA72-11	Muddy River	Escherichia coli	Phosphorus and Pathogens	Х	х	34 TP	13	None recommended
MA72-24	South Meadow Brook	Escherichia coli	Nutrients and Pathogens	Х	х	5.3 TP	2	None recommended
MA72-25	Rosemary Brook	Dissolved oxygen, Phosphorus (Total)	Nutrients and Pathogens	х		26 TP		3 infiltration basins, 2 water quality swales, and 1 leaching catch basin proposed in assessment
MA72-29	Cheese Cake Brook	Escherichia coli	Nutrients and Pathogens	Х		67 TP		6 infiltration basins and pervious pavement proposed in assessment
MA72-36	Charles River	Chlorophyll-a, Escherichia coli, Secchi disk transparency, Nutrient/eutrophication biological indicators, Phosphorus (Total)	Phosphorus and Pathogens	Х	х	254 TP	99	3 infiltration basins and 4 water quality swales proposed in assessment
MA72-38	Charles River	Chlorophyll-a, Excess algal growth, Secchi disk transparency, Nutrient/eutrophication biological indicators, Taste and odor, Phosphorus (Total)	Phosphorus and Pathogens	х	х	27 TP	10	None recommended

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method	Method Used Load Reduction Target		duction get	Recommendations/ Notes
				TMDL	IC	TMDL (lb/yr)	IC (ac IC)	
MA72-31	Unnamed Tributary	Foam/flocs/scum/oil slicks, Habitat assessment (streams), Polychlorinated biphenyls (PCBs), Sedimentation/siltation, Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems), Taste and odor, (Bottom deposits*), (Other*), Petroleum Hydrocarbons	Phosphorus	x	X	14 TP	8.6	1 extended detention basin proposed in assessment
MA93032	Hawkes Pond	Turbidity	-		х		7.9	Progress report in 12/8/11 submittal; 6 infiltration basins and 1 infiltration swale currently in design
MA93060	Lake Quannapowitt	Excess algal growth, (Non- native aquatic plants*), Turbidity	-		Х		0.3	Progress Report in 12/8/11 submittal; Design Contractor investigation found lack of available space for placement of new BMP
MA93-34	Saugus River	Excess algal growth, Fish- passage barrier, (Physical substrate habitat alterations*), Fecal coliform, Turbidity, Nitrogen (Total), Phosphorus (Total), Aquatic plants (macrophytes)	-		x		5.1	Progress report in 12/8/11 submittal; 3 infiltration basins and 2 infiltration swales currently in design
MA93-35	Saugus River	(Low flow alterations*), Fecal coliform, (Alteration in stream-side or littoral vegetative covers*)	-		Х		13	Progress report in 12/8/11 submittal; 5 infiltration basins currently in design

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method Used	Load Re Tar	duction get	Recommendations/ Notes
				TMDL IC	TMDL (lb/yr)	IC (ac IC)	
MA95113	Noquochoke Lake	Priority organics, Metals, Pathogens, Noxious aquatic plants, Turbidity, (Exotic species*)	NEHg	х		0.4***	1 infiltration basin currently in design**
MA95170	Noquochoke Lake	Priority organics, Metals, Noxious aquatic plants, Turbidity, (Exotic species*)	NEHg	Х		0.4***	1 infiltration basin currently in design**
MA95171	Noquochoke Lake	Priority organics, Metals, Noxious aquatic plants, Turbidity, (Exotic species*)	NEHg	Х		0.4***	1 infiltration basin currently in design**

\*Impairments and TMDL impairments listed on MassDEP's final Massachusetts Year 2008 Integrated List of Waters.

\*\* French River (MA42-03) and Thayers Pond (MA42059) were assessed together since Thayers Pond is now considered a run of the French River and the 2.8 acre IC target was set collectively.

\*\*\*Segments MA95170, MA95171 and MA95113 of Noquochoke Lake were assessed together and collectively have a target IC reduction of 0.35 ac. There is one infiltration basin currently in design which will reduce the effective IC contributing stormwater to all three segments.

#### Table 5 Impaired Waters Assessments – Progress Reports

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method Used		Method Used		d Load Reduction Target		Recommendations/ Notes
				TMDL	IC	TMDL (lb/yr)	IC (ac IC)			
MA35026	Greenwood Pond	Noxious aquatic plants	Phosphorus	Х		0.4 TP		Assigned to Design Contractor for Final Design		
MA32-05	Westfield River	Turbidity, Taste and Odor, Excess Algal Growth, Aquatic Macroinvertebrate Bioassessments	-		х		1.6	Assigned to Design Contractor for Final Design		
MA34-19	Stony Brook	(Non-native aquatic plants*), Turbidity, Escherichia coli			х		0.2	Assigned to Design Contractor for Final Design		
MA51073	Indian Lake	Organic enrichments/low DO, Noxious aquatic plants	Phosphorus	х		6.6 TP		Assigned to Design Contractor for Final Design		
MA51-08	Unnamed Tributary	Priority Organics, Metals, Unionized ammonia, Nutrients, Organic enrichment/low DO, Other habitat alterations, Pathogens, Oil and Grease, Taste, Odor and color, Suspended solids, Turbidity, Objectionable deposits	-		Х		102	Design of 20 BMPs initiated under Programmed Project #605588, of which 7 (5 infiltration basins and 2 infiltration swales) will treat stormwater from contributing MassDOT IC area to MA 51-08 and provide an estimated 14.3 acres effective IC. MassDOT design consultants will now identify opportunities for additional BMPs to meet the remaining target of 87.7 acres of effective IC.		

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method	d Used Load Reduction Target		eduction get	Recommendations/ Notes
				TMDL	IC	TMDL (lb/yr)	IC (ac IC)	
MA62-14	Robinson Brook	Cause unknown, Other habitat alterations	-		x		25	Design of BMPs initiated under Programmed Project #605596, of which 3 (1 infiltration basin and 2 infiltration swales) will treat stormwater from contributing MassDOT IC area to MA 62-14. Proposed BMPs will achieve an estimated 15.2 acres effective IC. MassDOT design consultants will now identify opportunities for additional BMPs to meet the remaining target of 9.5 acres of effective IC.
MA62-39	Rumford River	Pesticides, Siltation, Other habitat alterations, Pathogens	-		x		8.4	Design of BMPs initiated under Programmed Project #605591, of which 2 (1 infiltration basin and 1 infiltration swale) will treat stormwater from non-urban contributing MassDOT IC area. MassDOT design consultants will now identify opportunities for additional BMPs to meet the target effective IC.
MA71-02	Mystic River	Chlordane, PCB in Fish Tissue, Phosphorus (Total), Arsenic, DDT, Fecal Coliform			Х		100	Assigned to Design Contractor for Final Design
MA71-03	Mystic River	Petroleum Hydrocarbons, Taste and Odor, Other, PCB in Fish Tissue, Fecal Coliform, Ammonia (Un-ionized), Oxygen, Dissolved, Foam/Flocs/Scum/Oil Slicks			Х		15	Assigned to Design Contractor for Final Design

Waterbody ID	Waterbody Name	Impairment*	TMDL Impairment*	Method	Used	Load Ro Tai	eduction rget	Recommendations/ Notes
				TMDL	IC	TMDL (lb/yr)	IC (ac IC)	
MA73-01	Neponset River	Suspended solids, Turbidity, Organic enrichment/low DO, Siltation, Nutrients, Noxious aquatic plants, Priority organics, Pathogens, Metals	Pathogens		x		13	Design of 7 BMPs initiated under Programmed Project #605590, of which 2 (1 infiltration basin and 1 vegetated filter strip) will treat stormwater from contributing MassDOT IC area to MA 73-01 and provide an estimated 1.2 acres effective IC. MassDOT design consultants will now identify opportunities for additional BMPs to meet the remaining target of 11.2 acres of effective IC.
MA73-02	Neponset River	Priority organics, Metals, Organic enrichment/low DO, Pathogens, Suspended solids, Noxious aquatic plants, Turbidity	-		Х		5.4	Design of 6 BMPs initiated under Programmed Project #605590, of which 2 (infiltration swales) will treat stormwater from contributing MassDOT IC to MA 73- 02

\*Impairments and TMDL impairments listed on MassDEP's final Massachusetts Year 2008 Integrated List of Waters.

Semi- Annual Submittal	emi- nnual ubmittal Waterbody			Progress (Design, Construction	% Design	Anticipated Date of 100% Design
Date	ID	Waterbody Name	Location	or Complete)	Complete	Completion
6/8/2012		Norton Reservoir	Norton and Mansfield	Pre-Design		N/A
6/8/2012MA	6343442-03	French River	Leicester and Oxford	Pre-Design		N/A
6/8/2012	MA42058	Texas Pond	Leicester and Oxford	Pre-Design		N/A
6/8/2012	MA42059	Thayers Pond	Leicester and Oxford	Pre-Design		N/A
6/8/2012	MA41-05	Cady Brook	Charlton	Pre-Design		N/A
6/8/2012	MA72-07	Charles River	Dover, Needham, Westwood, Dedham, Boston, Newton, Wellesley, Weston, Waltham, and Watertown	Pre-Design		N/A
6/8/2012	MA72-25	Rosemary Brook	Needham and Wellesley	Pre-Design		N/A
6/8/2012	MA72-29	Cheese Cake Brook	Newton	Pre-Design		N/A
6/8/2012	MA72-31	Unnamed Tributary (Millers River)	Boston and Cambridge	Pre-Design		N/A
6/8/2012		Charles River	Watertown, Newton, Boston, and Cambridge	Pre-Design		N/A
MA 12/8/2011	72-36	Smiths Pond	Leicester	Pre-Design		N/A
12/8/2011 <sup>M</sup>	A51156 MA71-04	Alewife Brook	Arlington	Pre-Design		6/1/2012
12/8/2011	MA51039	Dorothy Pond	Millbury	Pre-Design		10/1/2012
12/8/2011	MA74-08	Monatiquot River	Braintree	Pre-Design		10/1/2012
12/8/2011		Spy Pond	Arlington	Pre-Design		8/1/2012

MA71040

Semi- Annual Submittal	Waterbody			Progress (Design, Construction	% Design	Anticipated Date of 100% Design
Date	ID	Waterbody Name	e Location	or Complete)	Complete	Completion
12/8/2011		Aberjona River	Reading, Woburn, and Winchester	Design	25%	7/20/2012
6/8/2011 M	A71-01 MA84B-02	Beaver Brook	Littleton and Westford	Design	25/75%	4/1/2012
12/8/2011		Cole River	Swansea/ Somerset	Design	15%	9/21/2012
12/8/2011 <sup>M</sup>	A61-04 MA51-16	Dark Brook	Auburn	Design	Pre-25%	7/1/2012
12/8/2011	MA93032	Hawkes Pond	Lynnfield and Saugus	Design	25%	8/31/2012
12/8/2011	MA51-01	Kettle Brook	Leicester, Worcester, and Auburn	Design	N/A	6/1/2012
12/8/2011	MA61-02	Lee River	Swansea/ Somerset	Design	15%	10/5/2012
12/8/2011	MA51087	Leesville Pond	Auburn and Worcester	Design	25/75%	6/1/2012
6/8/2011	MA84038	Mill Pond	Littleton	Design	25/75%	4/1/2012
6/8/2012	MA95113	Noquochoke Lake	Dartmouth	Design	25%	7/6/2012
6/8/2012	MA95170	Noquochoke Lake	Dartmouth	Design	25%	7/6/2012
6/8/2012	MA95171	Noquochoke Lake	Dartmouth	Design	25%	7/6/2012
12/8/2011	MA93-34	Saugus River	Wakefield and Lynnfield	Design	25%	9/14/2012
12/8/2011	MA93-35	Saugus River	Wakefield, Lynnfield, and Saugus	Design	25%	9/28/2012
6/8/2012	MA62-47	Wading River	Mansfield		25/75%	4/1/2012
12/8/2010		Blackstone River	Worcester, Millbury, Sutton, Grafton, Northbridge, Uxbridge, Millville, Blackstone	Construction		Complete
MA51-03				100%		
12/8/2010	MA51012	Burncoat Park Pond	Worcester	Construction	100%	Complete

Design