

Section 9

Permits and Regulatory Requirements

9.1 Introduction

This section presents a brief summary of the applicable federal and state environmental laws, regulations, and programs to the Route 1 Transportation Improvement Project. The permits that are discussed pertain specifically to the preferred sub-alternatives A-2/A-3, B-3, and C-1, as selected in section 7.

The performance standards of each applicable regulation will be thoroughly addressed during the detailed design of the project to ensure that environmental impacts are minimized to the extent feasible and that the project is in compliance with federal, state and local requirements.

9.2 Federal Laws, Regulations, and Programs

Table 9.2-1 presents a brief summary of the applicable federal laws, regulations and programs.

**Table 9.2-1
Applicable Federal Laws, Regulations and Programs**

<i>Law, Regulation, or Program</i>	<i>Brief Description of Applicability</i>
Section 404 of Clean Water Act of 1977 (Federal Water Pollution Control Act Amendments of 1972); Section 10 of Rivers and Harbors Act of 1899	As discussed in Sections 5 and 6, two of the preferred sub-alternatives will impact several federal wetland areas. Some wetlands will be permanently altered, requiring replication, and others will be temporarily altered, requiring restoration after construction.
Section 402 of the Clean Water Act	Discharges of stormwater during and after construction require a National Pollutant Discharge Elimination System (NPDES) permit.
Section 106 of the National Historic Preservation Act of 1966	MassHighway has prepared a Section 106 "No Historic Properties Affected" finding for FHWA's concurrence and submittal to the MA SHPO.
Fish and Wildlife Coordination Act	Correspondence with USFWS- The preferred sub-alternatives are not expected to have any long-term impacts to wildlife.
Section 4(f) of the Department of Transportation Act	This project will not impact any 4(f) properties.

Table 9.2-1 (Continued)
Applicable Federal Laws, Regulations and Programs

Law, Regulation, or Program	Brief Description of Applicability
Uniform Relocation and Real Property Acquisition Act of 1970	<p>Commercial takings- 14 total takings with 4 causing significant interference with business</p> <p>Residential takings – 4 total takings with none causing significant interference with residential use</p> <p>Affected property owners will receive just compensation in compliance with the FHWA procedures under the act.</p>
Fish and Wildlife Coordination Act	Correspondence with USFWS- The preferred sub-alternatives are not expected to have any long-term impacts to wildlife.
Section 4(f) of the Department of Transportation Act	This project will not impact any 4(f) properties.
Uniform Relocation and Real Property Acquisition Act of 1970	<p>Commercial takings- 14 total takings with 4 causing significant interference with business</p> <p>Residential takings – 4 total takings with none causing significant interference with residential use</p> <p>Affected property owners will receive just compensation in compliance with the FHWA procedures under the act.</p>
Executive Order 12898; Environmental Justice (EJ)	Approximately 30 percent of the people living within 200 feet of B-3 are part of an environmental justice population, while there are no residents that belong to environmental justice populations that live within 200 feet of A-3 or C-1. Project will comply with EJ Policy through mitigation of construction impacts.
Clean Air Act (as amended), Transportation Conformity Rule: 23 U.S.C. 7521 (a), (P.L. 101-549)	The proposed highway alignment alternatives within the study area will result in a reduction in air quality impacts for ozone-causing pollutants and carbon monoxide.
National Environmental Policy Act: 42 U.S.C. 4321-4335 (P.L. 91-190) (P.I. 94-83)	This EA/Draft EIR fulfills the statutory NEPA requirements.

9.3 Massachusetts Laws, Regulations and Programs

Table 9.3-1 presents a brief summary of the applicable Massachusetts Laws, Regulations, and Programs. Details pertaining to the need for Variances from the WPA and 401 WQC regulations follow the table.

**Table 9.3-1
Applicable Massachusetts Laws, Regulations and Programs**

Law, Regulation, or Program	Brief Description of Applicability
Massachusetts Historic Commission Act: M.G.L. c. 9, §§ 26-27D and regulations at 950 CMR 71.00	Successful completion of a Section 106 review process will ordinarily fulfill the requirements of the MA law.
Massachusetts Clean Water Act M.G.L. c. 21, §§ 26-53 and regulations at 314 CMR 3.00 (Surface Water Discharge Permit Program) 314 CMR 4.00 (Surface Water Quality Standards) 314 CMR 9.00 (Water Quality Certification)	The project will comply with the Massachusetts Stormwater Performance Standards through improvements to the existing engineered drainage system and implementation of a sedimentation and erosion control program during construction. The project will not result in any exceedances of surface water quality standards. A Water Quality Certification Variance will be obtained for wetland and waterway alterations (most likely to be issued concurrently with a Variance to the Wetlands Protection Act).
Areas of Critical Environmental Concern: M.G. L. c. 21A, § 2(7) and regulations at 301 CMR 12.00	Impacts to the Rumney Marshes ACEC will be reviewed by the Department of Conservation and Recreation (DCR).
MCP: M. G. L. c. 21E and regulations at 310 CMR 40.000	Encountering or producing hazardous materials during construction will require MCP compliance, which will be addressed in construction specifications for the project.
MEPA: M.G.L. c. 30 §§61-62H and regulations at 301 CMR 11.00	This EA/DEIR is prepared to address the statutory and regulatory requirements of MEPA.
Massachusetts Wetlands Protection Act MGL c.131, §40 and regulations at 310 CMR 10.00	Impacts to wetland resource areas will be addressed in Orders of Conditions issued by the local Conservation Commissions, and will also require a Variance from the Wetlands Protection Act due to filling more than 5,000 sf of BVW.

Table 9.3-1 (Continued)
Applicable Massachusetts Laws, Regulations and Programs

<i>Law, Regulation, or Program</i>	<i>Brief Description of Applicability</i>
EJ Policy of Massachusetts EOE; October 9, 2002	Approximately 30 percent of the people living within 200 feet of B-3 are part of an environmental justice population, while there are no residents that belong to environmental justice populations that live within 200 feet of A-3 or C-1. Project will comply with EJ Policy through mitigation of construction impacts.
Massachusetts Office of Coastal Zone Management: M.G.L. c 21A, ss 2(7) and regulations at 301 CMR 12.00	Project will be designed to be consistent with CZM policies.
Massachusetts Public Waterfront Act: M.G.L. Chapter 91	Adding a lane in the southern segment of the project (segment A) will involve filling in tidelands.
Massachusetts Water Resources Authority: 8(m) Permit	Work will occur within MWRA easements/interests, therefore MWRA will review and assess potential impacts to their facilities/infrastructure

9.4 U.S. Army Corps of Engineers Highway Methodology

The Highway Methodology, originated by the New England District of the U.S. Army Corps of Engineers (Corps) in 1987, allows for integration of highway planning and design with Corps permit requirements, NEPA evaluation and FHWA approval.

It is the intent of MassHighway to follow the Highway Methodology as the project continues through design and permitting. To date, a pre-application meeting has been held with representatives from MassHighway, Corps, EPA and other agencies (September 12, 2007).

A Section 404 permit application will subsequently be filed, followed by public notice, evaluation of alternatives and 404b1 compliance (based on the analysis described in this EA/DEIR), mitigation (also based on the description provided herein), and monitoring.

9.5 Wetlands Variance

9.5.1 Introduction

One permitting issue associated with the proposed Route 1 Improvements Project (Project) is the need for a Variance from the Wetlands Protection Act (the Act) and a

Variance from the Section 401 Water Quality Certification (WQC) regulations to fill approximately 92,380 square feet of state-regulated inland wetlands, and alter approximately 50,730 square feet of wetlands for temporary construction activities as a result of the preferred sub-alternatives. The Project will also require altering approximately 1,350 square feet of coastal wetlands. Altered areas include Bordering Vegetated Wetland (BVW), Land Under Water (LUW), Bordering Land Subject to Flooding (BLSF), Coastal Bank, Coastal Beach (Tidal Flat), Salt Marsh, and Land Subject to Coastal Storm Flowage.

The Project requires a Variance from the Act because 1) more than 5,000 square feet of BVW will be lost, and 2) it does not meet the criteria for a limited project per 310 CMR 10.24(7) and 10.53(3), and from the 401 Water Quality Certification regulations because it does not qualify for coverage per the criteria for evaluation set forth in 314 CMR 9.06 or 9.07. The Variance criteria for the Act and the 401 WQC regulations are described below, along with their relevance to the Project. A formal request for Variances from the Act and the 401 WQC regulations will be submitted during final design.

9.5.2 Wetlands Protection Act

For a project to qualify for a Variance from the Wetlands Protection Act, three conditions must be met as follows per 310 CMR 10.05(10)(a):

1. There are no reasonable conditions or alternatives that would allow the project to proceed in compliance with the Massachusetts Wetland Protection Act regulations;
2. Mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the protection of the interests identified in the Wetlands Protection Act; and
3. The Variance is necessary to accommodate an overriding community, regional, state, or national public interest.

As described below, the Route 1 Improvements Project meets the Variance criteria. Therefore, a Variance from the performance standards established in 310 CMR 10.25-10.35 and 10.54-10.58 will be requested from the MassDEP Commissioner.

1. *There are no reasonable conditions or alternatives that would allow the project to proceed in compliance with the regulations.*

MassHighway conducted an exhaustive analysis of alternatives involving the balancing of numerous technical, environmental, institutional, cost, and safety considerations and incorporating input from a number of sources and which is presented in Section 3 of this EA/Draft EIR. A summary of the alternatives assessment is presented below. Please refer to Section 3 for the complete analysis.

The length of the proposed widening was divided conceptually into three sections of highway: (from south to north) A, B, and C. There are two or more sub-alternatives within each of the three roadway segments that comprise the project area. Within Segment A, there are three sub-alternatives (A-1, A-2 and A-3). Segment B has five sub-alternatives (B-1, B-2, B-3, B-4 and B-5). Segment C has two sub-alternatives (C-1 and C-2). A common element of all sub-alternatives is the widening of Route 1 from four to six lanes throughout the 2.4-mile project area. From these sub-alternatives, the preferred alternatives (A-2/A-3, B-3, and C-1) were chosen. Two sub-alternatives from segment A (A-2 and A-3) are carried forward for impact analysis as they provide different traffic solutions, although they result in similar wetland impacts.

Sub-alternatives A-2/A-3 and B-3 involve wetlands filling in excess of that which is permissible by the regulations (i.e., more than 5,000 square feet of BVW). Sub-alternative C-1 avoids all wetlands impacts. The summary below explains why each preferred sub-alternative was chosen:

Preferred Sub-alternatives A-2/A-3

- Sub-alternatives A-2 and A-3 are preferred over A-1 because they improve access from Route 1 and access on local roads, and address safety by removing conflict points.
- Sub-alternative A-3 is preferred (slightly) over A-1 and A-2 in terms of air quality impacts.
- Although sub-alternative A-1 has fewer permanent freshwater wetland impacts than A-2 and A-3, it has more temporary wetland impacts, and slightly greater impacts to coastal wetlands, floodplain and ACEC. Sub-alternatives A-2 and A-3 both also provide greater opportunities for ecological restoration by removing the existing rotary. Therefore, they are preferred over sub-alternative A-1.

In conclusion, none of these alternatives provide significant environmental benefits compared to each other when technical, operational, institutional and traffic safety factors are considered. All sub-alternatives involve wetlands impacts greater than 100,000 square feet (see Wetland Impacts by sub-alternative Figures 6.10-1 to 6.10-3 and Table 6.2-1). The greatest difference between sub-alternative A-3 and the sub-alternative with the least wetlands impacts (A-1) is that A-3 has fewer temporary impacts and more permanent wetland impacts. With the removal of the existing rotary, however, sub-alternatives A-2 and A-3 provide a better opportunity for ecological restoration than A-1.

Preferred Sub-alternative B-3

- Sub-alternatives B-2 and B-3 are preferred over the other B sub-alternatives because they 1) reduce points of conflict along Route 1, which is directly

related to highway safety, and 2) best meet transportation and traffic objectives by improving Route 1 and local arterial traffic.

- Sub-alternatives B-2 and B-3 are preferred over the other B sub-alternatives because they require fewer impacts to residential properties.
- In terms of noise impacts, sub-alternatives B-2 and B-3 are essentially equivalent and preferred over the other three sub-alternatives.
- Sub-alternative B-3 retains the existing Route 1 northbound off-ramp to Salem Street eastbound with minor changes in alignment to channelize traffic past the intersection of Salem Street/Salem Street Connector.
- Impacts to floodplains and ACEC are similar between all five B sub-alternatives.

In conclusion, sub-alternative B-3 is preferred over the other sub-alternatives due to a better ability to meet transportation and traffic demands, and causing fewer residential takings, though its overall wetlands impact is greater than the other sub-alternatives. All the wetlands impacts in segment B are permanent, and no one sub-alternative provides fewer impacts to floodplain and ACEC; therefore B-3 is the preferred sub-alternative.

Preferred Sub-alternative C-1

- Sub-alternative C-1 is preferred over C-2 in terms of 1) enhancing highway and traffic safety, and 2) improving regional mobility and reducing congestion.
- Sub-alternative C-1 is preferred to C-2 because it is less complex, and is therefore considered less costly to construct.
- Sub-alternative C-1 avoids impacts to residential properties and reduces impacts to business properties; therefore it is preferred over C-2.
- Sub-alternative C-1 has less impact on air quality than C-2. There is no measurable difference between sub-alternatives C-1 and C-2 in terms of noise impacts, thus sub-alternative C-1 is preferred in terms of air quality and noise impacts.
- Sub-alternative C-1 has no wetland-related impacts, compared to 2,280 square feet of permanent freshwater wetland impacts associated with C-2.

In conclusion, sub-alternative C-1 is preferable to C-2 in terms of transportation design, number of property takings and impact on air quality, and it avoids wetlands impacts.

2. ***Mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the protection of the interests identified in the Wetlands Protection Act.***

To mitigate for the loss of 92,380 square feet of state jurisdictional freshwater wetlands and federal vegetated wetlands, MassHighway proposes to construct 138,570 square feet of mitigation wetland to exceed the 1:1 requirement of the state wetland regulations, 401 Water Quality Certification regulations, and the ACOE requirements. The 50,730 square feet of temporary construction impacts associated with sub-alternative A-2 would be restored in place to meet all performance standards, resulting in no net loss. Sub-alternative A-3 results in 20,270 square feet of temporary construction impacts and would likewise be restored in place.

Sub-alternatives A-2, A-3 and B-3 will require altering coastal wetland resource areas: Coastal Beach/Tidal Flat, Land Under Ocean, Coastal Bank, and Salt Marsh. Combined, these sub-alternatives result in a maximum of 1,350 square feet of impact (if A-2 and B-3 are selected, see Table 6.2-1). To mitigate for coastal wetland losses along the highway toe-of-slope, MassHighway proposes to restore up to 2,025 square feet of salt marsh in the “No Man’s” Site as shown in Figure 8.10-2. This will provide greater than a 1:1 ratio of lost resource to restored salt marsh.

3. ***The Variance is necessary to accommodate an overriding regional public interest.***

MassHighway is proposing to make improvements to a 2.4-mile segment of Route 1 in Revere, Malden and Saugus. Improvements begin 1,500 feet south of the Route 1/Route 60 interchange (Copeland Circle) and continues north through the Route 1/Route 99 interchange (See Project Location Map, Figure 1.2-1). Route 1 within the project area is primarily a limited-access urban principal arterial highway that serves as the major north-south roadway for communities north of Boston. Average daily traffic is approximately 100,000 vehicles per day. This portion of Route 1 has long-standing operational and safety problems that are the result of a combination of factors:

- High traffic volumes;
- Poor ramp geometry; and
- A reduction in travel lanes from six to four throughout the 2.4-mile stretch.

The overriding public interest served by this project includes:

- Improve highway safety. Copeland Circle and the Salem Street off-ramp are two of the top 10 most dangerous (accident rate) intersections in the Commonwealth;
- Improve local and regional mobility and access;
- Reduce congestion on Route 1 between Copeland Circle and Route 99; and
- Improve traffic safety caused by vehicle conflict points between Route 1 mainline and on- and off-ramps.

MassHighway wishes to accomplish these goals and minimize environmental impacts by balancing the established public safety and transportation/traffic needs of the project with the goal of avoiding, minimizing, and mitigating impacts in and around the project site.

9.5.3 Section 401 Water Quality Certification

The Department of Environmental Protection may issue a Variance to the 401 WQC regulations if a project proposal can demonstrate that:

1. All reasonable measures have been proposed to avoid, minimize, and mitigate adverse effects on the environment; and
2. The variance is justified by an overriding public interest or necessary to avoid a certification that so restricts the use of property as to constitute an unconstitutional taking without compensation.

These criteria are essentially the same as the Wetlands Protection Act criteria 1 and 3. See above discussion for compliance with these standards.

MassHighway will request that the Commissioner of the Department of Environmental Protection find that the Route 1 Improvements Project meets the variance criteria per the Massachusetts Wetlands Protection Act regulations and the 401 Water Quality Certification regulations, and issue and consolidate the two above-mentioned Variances per 310 CMR 10.36 and 314 CMR 9.00.