

4.18 COASTAL ZONE AND CHAPTER 91

4.18.1 INTRODUCTION

This chapter identifies the potential impacts to the Massachusetts Coastal Zone regulated by 301 CMR 21.00 and filled and flowed tidelands and navigable rivers and streams subject to jurisdiction under Massachusetts General Law Chapter 91 as implemented by 310 CMR 9.00 (collectively “Chapter 91”) that may result from implementing each of the proposed South Coast Rail alternatives (including railroad or highway alignments, train or bus stations, and layover/maintenance facilities). This chapter includes descriptions of each resource, the regulatory context and significance of each and a description of the existing resources present within the project area potentially affected by the alternatives. The location of filled tidelands, Massachusetts Coastal Zone and Designated Port Areas used in this chapter were provided by MassGIS, Massachusetts DEP and Massachusetts Office of Coastal Zone Management.

The Secretary’s Certificate on the Environmental Notification form indicated the need for information on project area waterways that may be impacted by each alternative and identification of each area or project structure and uses subject to Chapter 91 jurisdiction. The Certificate identified the need for a quantitative and qualitative assessment of potential impacts to inland and tidal waters and identification of landlocked tidelands requiring a Public Benefit Review under 301 CMR 13.00. The Massachusetts Department of Environmental Protection (DEP) comment letter requested a review of all existing and proposed structures within Chapter 91 jurisdiction to determine the appropriate regulatory vehicle for approval of any required replacement, enhancement or substantial enlargement as defined by 310 CMR 9.00. DEP also requested a preliminary assessment of water dependency and compliance with applicable performance standards.

Chapter 91 is implemented by Massachusetts Regulations at 310 CMR 9.00 (Waterways Regulations). The purpose of Chapter 91 and the Waterways Regulation is to protect certain public rights that are inherent in tidal waters of the Commonwealth and certain non-tidal rivers and streams. New construction, changes in use or substantial expansions of existing structures within these jurisdictional areas require approval under these regulations.

Massachusetts General Law Chapter 21, Sections 2 and 4A establishes the Commonwealth’s authority to require a Federal Consistency Certification (Coastal Zone Consistency) for certain projects requiring federal action that can reasonably be expected to affect the resources or land or water uses of the Massachusetts Coastal Zone. Certification is obtained through agency confirmation that projects subject to review are consistent with the regulatory policies and management principles established by the approved Massachusetts Coastal Zone Management Program. State agency certification is required prior to federal actions by the Department of the Army under Section 404 of the Clean Water Act or as lead federal agency under the National Environmental Policy Act (NEPA).

The Chapter 91 and Coastal Zone Programs overlap in the case of nonwater-dependent use projects and activities proposed within Designated Port Areas (DPA) established by 301 CMR 25.00. Nonwater-dependent use projects are not permitted within DPAs except on an interim basis without significant detriment to the capacity of the DPA to accommodate water-dependent industrial uses in the future.

This chapter identifies the geographic locations and extent of potential impacts to the Massachusetts Coastal Zone, filled and flowed tidelands and jurisdictional non-tidal rivers and streams potentially affected by the project alternatives. The alternatives that are evaluated include electric and diesel options for the Attleboro, Stoughton, and Whittenton rail alternatives, the Rapid Bus alternative, and No-Build (Enhanced Bus) alternative.

4.18.2 REGULATORY CONTEXT AND DEFINITION OF IMPACT

This section describes the related jurisdictions of Massachusetts General Law Chapter 91 (Chapter 91) as implemented through 310 CMR 9.00, the Massachusetts Coastal Zone Management Program as implemented by 301 CMR 21.00 and, to the extent applicable, the Designated Port Area regulations at 301 CMR 25.00. These regulations exert jurisdiction over the coastal resources defined in the applicable regulations and summarized in Table 4.18-1.

Table 4.18-1 Jurisdictional Resources

Statute (s)	MA Regulation	Resource	Jurisdictional /Boundary
M.G.L. Chapter 91	310 CMR 9.00	Flowed Tidelands	Land subject to tidal action up to the existing mean high water mark (MHW)
M.G.L. Chapter 91	310 CMR 9.00	Filled Tidelands	Filled land between existing MHW and the historic MHW mark that existed before human alteration of the shoreline by filling.
M.G.L. Chapter 91	310 CMR 9.00	Non-Tidal Rivers and Streams	Navigable portions of any non-tidal river or stream on which public funds have been expended for stream clearance, channel improvement or flood control.
Massachusetts Session Laws Chapter 168, Acts of 2007	301 CMR 13.00	Landlocked Tidelands	Filled land located greater than 250 feet from the existing mean high water mark and separated by interconnected public ways that existing prior to January 1, 1984.
M.G.L. Chapter 21A, Sec 2, 4A	301 CMR 21.00	Coastal Zone	As defined by regulation 301 CMR 21.99 and generally including the land adjacent to Massachusetts coastal waters extending 100 feet landward of the first major transportation infrastructure.
M.G.L. Chapter 21A, Sec 2, 4A	301 CMR 25.00	Designated Port Area	As determined by the Secretary for Energy and Environmental Affairs under the procedures established by 301 CMR 25.03

4.18.2.1 REGULATORY CONTEXT

The interrelated regulatory programs addressed in this report are intended to protect capacity of coastal areas to provide unique access to water-based and water-dependent transportation, infrastructure and natural resources while protecting the traditional public rights inherent in such “trust lands” within the Commonwealth.

The Coastal Zone Management Program also protects the limited capacity to site water-based industrial and other maritime facilities within previously developed port areas. Chapter 91 is designed to protect all manner of existing and potential water-dependent uses within filled tidelands, tidal waters and non-tidal rivers and streams while maintaining or improving public access to these jurisdictional lands for the

traditional purposes of fishing, fowling, navigation, and other lawful purposes. The following narrative describes the regulatory context and significance of these programs.

Massachusetts General Law Chapter 91

Chapter 91 is the modern codification of a series of laws designed to protect the public rights in certain trust lands established by Massachusetts law beginning with the Colonial Ordinances of 1641 - 1647. These ordinances and subsequent statutes preserve and protect the public's rights in tidelands of the inhabitants of the Commonwealth by ensuring that such lands are only used for water-dependent uses or otherwise serve a proper public purpose.

Compliance with Chapter 91 is administered by the Massachusetts Department of Environmental Protection (DEP) through the Waterways Regulations at 310 CMR 9.00. These regulations establish procedures for the issuance of licenses for activities and structures located within jurisdictional areas. Maintenance, repair and minor modifications to existing, authorized structures within a jurisdictional area may be permitted without a new license or license amendment under the procedures at 310 CMR 9.22. In the case of landlocked tidelands, no license is required under 310 CMR 9.00 but the Secretary for Energy and Environmental Affairs is required to issue a Public Benefits Determination under 301 CMR 13.00.

As it relates to this project, Chapter 91 jurisdiction potentially extends to four key components:

- the placement of fill within tidal waters (flowed tidelands);
- new construction, substantial alteration or expansion of existing structures or changes in use within filled land extending to the "historic high water mark," i.e., the mean high water mark that existing prior to human alteration of the shoreline (filled tidelands);
- new construction, substantial alteration or expansion of existing structures and uses within landlocked tidelands; and
- new construction, substantial alteration or expansion of existing structures that affect navigable non-tidal rivers or streams.

The Waterways Regulations do not require a new license or license amendment for the continued use, maintenance or minor modifications to existing, authorized fill or structures within jurisdictional areas, provided that the proposed work does not include a substantial enlargement of the existing structures or fill and the structures have been in existence since January 1, 1984.

The jurisdictional resources are further described below. New nonwater-dependent use projects are permitted within Designated Port Areas (DPA), according to the waterways regulations at 310 CMR 9.32(1) (b) (4). A detailed description of DPAs is provided in section 4.18.2.1.6.

Tidal Waters (Flowed Tidelands)

The Massachusetts Waterways Regulations at 310 CMR 9.02 define Flowed Tidelands as "...present submerged lands and tidal flats which are subject to tidal action." Flowed tidelands presented in this chapter are based on GIS data provided by MassGIS and Massachusetts DEP.

Filled Tidelands

The Massachusetts Waterways Regulations at 310 CMR 9.02 define filled tidelands as “former submerged lands and tidal flats which are no longer subject to tidal action due to the presence of fill.”

The jurisdictional boundaries of filled tidelands are defined by the Historic High Water Mark, which is defined by 310 CMR 9.02 as:

the high water mark which existed prior to human alteration of the shoreline by filling, dredging, excavating, or other means. In areas where there is evidence of such alteration by fill, the Department shall presume the historic high water mark is the farthest landward former shoreline which can be ascertained with reference to topographic or hydrographic surveys...

Filled tidelands presented in this Chapter are based on GIS data provided by DEP.

Non-Tidal Rivers and Streams

The Waterways Regulations at 310 CMR 9.04(1)(e) establish Chapter 91 jurisdiction over the following:

(e) any non-tidal river or stream on which public funds have been expended for stream clearance, channel improvement, or any form of flood control or prevention work, either upstream or downstream within the river basin, except for any portion of any such river or stream which is not normally navigable during any season, by any vessel including canoe kayak, raft or rowboat; The Department [DEP] may publish, after opportunity for public comment and review, a list of navigable streams and rivers....

As stated above, this regulation potentially establishes Waterways jurisdiction over any navigable river or stream to which public funds have been expended. To date, the Massachusetts DEP has not published a list of navigable rivers and streams in the Commonwealth. For the purposes of the analysis, all river and stream crossings which pass through a culvert are presumed to be non-navigable within the meaning of the 310 CMR 9.00 because they are non-navigable under existing conditions. All bridge crossings are potentially subject to jurisdiction and have been examined further for likely navigability and past licensing history.

This section lists all bridge/open water crossings and identifies their potential for being subject to Chapter 91 jurisdiction based on initial field observations, aerial photographs, and existing survey data. Each existing and proposed bridge/open water crossing has been reviewed for existing Chapter 91 licenses. Chapter 3 of this Chapter lists each crossing potentially subject to Chapter 91 and provides a preliminary jurisdictional determination. It is assumed that a crossing-by-crossing jurisdictional review will be completed in close consultation with DEP during the preparation of the Final EIR/EIS. All jurisdictional determinations are subject to review and approval by the DEP Waterways Program.

Landlocked Tidelands

The Waterways Regulations do not require a license for construction or changes in use within landlocked tidelands, defined in 310 CMR 9.02 as:

any filled tidelands which on January 1, 1984 were entirely separated by a public way or interconnected public ways from any flowed tidelands, except for that portion of such filled tidelands which are presently located:

- (a) within 250 feet of the high water mark, or
- (b) within any Designated Port Area. Said public way or ways shall also be defined as landlocked tidelands, except for any portion thereof which is presently within 250 feet of the high water mark.

Massachusetts General Law Chapter 91, Section 18B as established by the Statute 2007, Chapter 168, Section 8 reaffirms this exception from licensing for filled tidelands and requires the Secretary for Energy and Environmental Affairs to issue a Public Benefit Determination for projects in landlocked tidelands within 30 days of the issuance of a final MEPA certificate pursuant to 301 CMR 13.00.

Coastal Zone Management Program

The Massachusetts Coastal Zone Management Program (MCZMP) is the state-delegated authority established by the Federal Coastal Zone Management Act of 1972. **Section 307(c) of the Coastal Zone Management Act of 1972**, as amended (16 U.S.C. 1456(c)), requires federal agencies conducting activities, including development projects, directly affecting a state's coastal zone, to comply to the maximum extent practicable with an approved state coastal zone management program. Indian tribes doing work on federal lands will be treated as a federal agency for the purpose of the Coastal Zone Management Act. The Act also requires any non-federal applicant for a federal license or permit to conduct an activity affecting land or water uses in the state's coastal zone to furnish a certification that the proposed activity will comply with the state's coastal zone management program. Generally, no permit will be issued until the state has concurred with the non-federal applicant's certification. This provision becomes effective upon approval by the Secretary of Commerce of the state's coastal zone management program.¹

The MCZMP has the jurisdictional mandate to review activities in accordance with the Massachusetts Coastal Zone Management Regulations at 301 CMR 21.00 for consistency with the program policies enumerated in the regulations at 301 CMR 21.98 and the MZCM Plan. The geographic scope of this program is the Massachusetts Coastal Zone established by 301 CMR 21.99.1972, as amended (16 U.S.C. 1451 *et seq.*) and 15 CFR 930, as amended.

The Massachusetts Coastal Zone includes the entire Massachusetts coastline extending from the seaward limit of state jurisdiction to point 100 feet landward of the first major transportation infrastructure adjacent to the coast. The precise boundary is defined by the regulations at 301 CMR 21.00 (Coastal Zone Management Program Federal Consistency Review Procedures). The Federal Coastal Zone Management Act requires state certification that applicable projects requiring federal actions are consistent with the approved coastal zone management plan. Federal consistency certification of the project is required prior completion of NEPA review and issuance of a Department of the Army Permit.

Coastal Zone limits presented in this Chapter were determined using GIS data provided by MassGIS.

¹ 33 CFR 320.3(b)

Designated Port Areas

The 1978 Massachusetts Coastal Zone Management Plan (MCZMP) identified twelve Designated Port Areas (DPA) within existing developed harbors in Massachusetts coastal communities. The stated purpose for identifying these areas was to establish specific developed ports that are uniquely suited to host marine-based commercial and industrial activities.

The MCZMP establishes state policies recognizing the unique characteristics of the designated port areas and seeks to protect them from pre-emption by uses that are nonwater-dependent uses through the federal consistency certification process created by the MCZMP and the standards for nonwater-dependent use projects subject to Chapter 91. The regulations at 301 CMR 25.00 formalize the boundaries of the DPAs and establish specific procedures for periodic review and adjustment. There have been several adjustments to the DPAs since 1978, including the elimination of the Plymouth Cordage DPA and other changes.

Figure 4.18-1c and Figure 4.18-2e depict the DPAs present within the study area. The limits of the DPAs listed in this Chapter were determined using preliminary GIS data provided by the Massachusetts Coastal Zone Management Program.

4.18.2.2 DEFINITION OF IMPACT

The potential for project alternatives to require construction in tidal waters, non-tidal rivers and streams and the Massachusetts Coastal Zone were identified for each alternative by contrasting the limits of work for each alternative with the existing resources.

Construction in lands or waters regulated under Chapter 91 or the Coastal Zone Management Act would include:

- Construction of new stations and layover facilities;
- Reconstructing existing track;
- Reconstructing existing bridges;
- Constructing new track infrastructure associated with electrification (overhead catenaries system, power substations, etc.).

4.18.3 IMPACTS BY ELEMENT

This chapter provides a description of each project element and outlines the known and potential jurisdictional areas subject to Massachusetts Chapter 91 and the Massachusetts Coastal Zone Management Program. The alternative alignments are shown in Figure 1.4-1.

4.18.3.1 NO-BUILD (ENHANCED BUS) ALTERNATIVE

The No-Build Alternative would consist of enhancing current bus service along existing roads and highways. Three existing Park and Ride facilities would be modified as part of the No-Build Alternative:

- West Bridgewater Park and Ride, located near the southwest corner of the intersection of Routes 106 and 24;

- Mount Pleasant Street Park and Ride, located on the northwest corner of the intersection of King’s Highway and Route 140 in New Bedford;
- Galleria Park and Ride, located adjacent to the Silver City Galleria shopping mall in Taunton.

None of the elements proposed under the No-Build Alternative are located within Chapter 91 or Coastal Zone jurisdiction.

4.18.3.2 SOUTHERN TRIANGLE STUDY AREA (COMMON TO ALL RAIL ALTERNATIVES)

All rail alternatives use existing segments of the railroad right-of-way along the New Bedford Main Line and Fall River Secondary (together referred to as the Southern Triangle). This section describes the portions of these rail lines that are located within the coastal zone. The northern elements of the rail alternatives within the coastal zone are described in subsequent sections, as are the proposed station sites and layover facilities. These resources are relative to the tidal portions of the Taunton and Acushnet Rivers, generally limited to the adjacent waters of New Bedford Inner Harbor and Mount Hope Bay.

Fall River Secondary

The existing Fall River Secondary freight track extends from Myricks Junction in Berkley to Battleship Cove in Fall River. The corridor crosses several areas of filled tidelands in Fall River, several non-tidal rivers and streams potentially subject to Chapter 91 and portions of the Massachusetts Coastal Zone in Freetown and Fall River.

Work includes reconstructing existing track, addition of a second track, ballast and culvert and bridge replacement. The electric alternative includes constructing an overhead catenary system to provide motive power that would be installed within the railroad right-of-way. Stations and Layovers for the Fall River Secondary are discussed in the Stations and Layover Facilities sections.

Chapter 91 Areas

The Fall River Secondary crosses approximately 4,100 feet of filled tidelands in seven locations (see Figures 4.18-1b-c and Table 4.18-2). Research performed in consultation with the DEP Waterways Program staff was unable to locate licenses for several locations where the track crosses filled tidelands. Because these tidelands were filled and the track was originally constructed in the 1850s, remaining in

Table 4.18-2 Project Elements in Filled Tidelands: Fall River Secondary

Location ID ¹	Length (ft)	Municipality	Authorization
FR 1	840	Fall River	License not available, therefore project element may require new waterways license.
FR 2	1270	Fall River	
FR 3	50	Fall River	
FR 4	370	Fall River	
FR 5	160	Fall River	
FR 6	900	Fall River	
FR 7	530	Fall River	

1. See Figures 4.18-1b and c.

continuous use since that time, their continued use and permitted maintenance or minor modifications may be authorized under 310 CMR 9.05 provided no unauthorized structural alteration has occurred since January 1, 1984.

The Build Alternatives do not include any work within Fall River Harbor or the tidal portions of the Taunton River. The Fall River Secondary crosses three non-tidal rivers and streams potentially subject to Chapter 91 Jurisdiction. One of these, the Assonet River (Cedar Swamp River – see Figure 4.18-1a) is potentially Chapter 91 jurisdictional because it is navigable during certain times of year by a small boat such as a canoe or kayak. The jurisdictional status of the Assonet River will be confirmed with DEP through additional consultation. The remaining crossings to the Quequechan River and an unnamed brook tributary to the Taunton River at Battleship Cove are presumed to not be subject to jurisdiction because they are not navigable in any season (see Figure 4.18-1c). Table 4.18-3 lists each of these crossings and provides a summary of the jurisdictional status and rationale for these determinations.

Table 4.18-3 Non-Tidal River and Stream Crossings – Fall River Secondary

Waterbody	Municipality	Potentially Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 approval
Assonet River (Cedar Swamp River)	Lakeville	Yes	Navigable river/stream	No	Potentially approvable as maintenance activity
Quequechan River (Brook under Braga Bridge)	Fall River	No	Non-navigable during any season	No	None
Channel near Battleship Cove	Fall River	No	Non-navigable during any season	No	None

Should the Assonet River be determined subject to Chapter 91, the proposed work may be approved, at DEP’s discretion, as a maintenance activity permitted under 310 CMR 9.22(1) because the work will improve the space available for navigation. The work could also be categorized as “restoring the functionality of the bridge without the substantial enlargement” (i.e. construction of additional tracks). While DEP may approve this work, the anticipated increase in the footprint of the bridge may require a new license because the proposed structure would be approximately twice the width of the existing structure.

Coastal Zone Areas

Approximately 6.6 miles of the Fall River Secondary (in three segments) is located within the Coastal Zone. A total of 0.5 miles of the Fall River Secondary near the southern end of the project area is located within the Mt. Hope Bay Designated Port Area (approximately 2,100 feet near Weaver’s Cove and 500 feet near Battleship Cove). The location and extent of this designated port area within the project area is shown on Figures 4.18-1b-c. The continued use and anticipated replacement/upgrade or enhancement track within the Coastal Zone and DPAs is consistent with the regulatory policies of the Massachusetts Coastal Zone Management Plan. These improvements will maintain or enhance the capacity of the affected coastal zone and DPA to support marine based industry. A more detailed review of the project’s compliance with the regulatory policies of the MCZMP is provided in section 4.14.8.

New Bedford Main Line

The existing New Bedford Main Line freight track extends from Weir Junction in Taunton to the State Pier in New Bedford. The corridor crosses several areas of filled tidelands south of Wamsutta Street in New Bedford and five potentially jurisdictional non-tidal rivers and streams.

Work includes reconstructing existing track, addition of a second track, ballast and culvert and bridge replacement. Electric alternatives include an overhead catenary system to provide motive power that would be installed within the railroad right-of-way. Stations and Layovers for the New Bedford Main Line are discussed in Section 4.18.3.2.10 and 4.18.3.2.11.

Chapter 91 Areas

The New Bedford Main Line crosses approximately 3,900 feet of filled tidelands in four locations, all located south of Wamsutta Street in New Bedford (see Figure 4.18-2e and Table 4.18-4). These jurisdictional areas include existing track and a portion of proposed Whale's Tooth Station. The New Bedford Main Line also crosses five non-tidal rivers and streams that are likely subject to Chapter 91 jurisdiction.

The construction of the New Bedford Main Line south of Wamsutta Street in New Bedford was originally authorized by Waterways License 166, issued on June 18, 1873 subsequent to Chapter 20 of the Acts of 1873. Review of DEP licensing records identified this license as authorizing the existing track from the Acushnet Street crossing to the terminus adjacent to Leonard's Wharf.

**Table 4.18-4 Project Elements in Filled Tidelands –
New Bedford Main Line**

Location ID ¹	Length (ft)	Municipality	Authorization
NB 1	790	New Bedford	License 166, June 18, 1873
NB 2	1740	New Bedford	License 166, June 18, 1873
NB 3	1370	New Bedford	License 166, June 18, 1873
NB 4	400	New Bedford	License 166, June 18, 1873

1. See Figure 4.18-2e.

The five potentially jurisdictional non-tidal rivers crossed by the New Bedford Main Line are listed in Table 4.18-5. Of these five crossings, a license has been identified for only the Taunton River although it is possible that the existing track was authorized by the Massachusetts legislature as part of any of several approvals for the original construction of the track now collectively called the New Bedford Main Line.

The Waterways Regulations do not require a new license or license amendment for the continued use, maintenance or minor modifications to existing authorized fill or structures within jurisdictional areas, provided that the proposed work does not include a substantial enlargement of the existing structures or fill and the structures have been in existence since January 1, 1984.

The following sections describe the proposed work at each crossing and provide a summary of the potential approvals necessary under Chapter 91 and the Coastal Zone Management Program.

Taunton River

The Taunton River is a major regional river, is navigable at this crossing and is presumed to have had public funds expended for stream clearance, channel improvement and flood control. Accordingly, the river is potentially subject to Chapter 91 jurisdiction.

The proposed work at this Taunton River Crossing (Figure 4.18-2a) includes replacing of the existing wooden pile supported trestle conveying a single track to single span concrete structure supporting two tracks. The work will remove the existing wooden piles and increase the width of the structure within Chapter 91 jurisdiction. The proposed work would improve navigation by removing the existing piles supporting the four spans but is also anticipated to reduce the space available for navigation by reducing the clearance by approximately 7.5 inches. These changes combined will likely require a new waterways license under Chapter 91.

Table 4.18-5 Non-Tidal River and Stream Crossings – New Bedford Main Line

Waterbody	Municipality	Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 approval	Improvements
Taunton River	Taunton	Yes	Navigable river/stream	Yes	New License for substantial enlargement of bridge	Expansion to 2 tracks, reduction of fill in river, 7.25 inch reduction in clearance below the deck.
Cotley River (1)	Berkley	Potentially	Potentially navigable, unknown public expenditure for improvements.	No	If jurisdictional, new license for expansion of bridge footprint.	Expansion to 2 tracks. Increase in footprint, increased clearance beneath deck.
Cotley River (2)	Berkley	Potentially	Potentially navigable, unknown public expenditure for improvements.	No	If jurisdictional, new license for expansion of bridge footprint.	Expansion to 2 tracks. Small improvement in navigability by raising deck. No change in abutment footprint, no new fill
Cedar Swamp	Lakeville	Potentially	Presumed navigable by 50 foot cross-section; unknown public expenditure for improvements.	No	If jurisdictional, new license in anticipated for reduction in clearance.	Expansion to 2 tracks. Reduction in clearance by 6.8 feet by lowering deck; elimination of 3 stone piers by use of single span, overall improvement in navigability.
Freetown Brook (Fall Brook)	Freetown	Potentially	Assume navigability by 50 foot span; unknown public expenditure for improvements.	No	Potentially maintenance or minor modification.	Expansion to 2 tracks. Small increase in clearance, removal of 2 stone piers by replacement with a single span and improvement in navigability.

Cotley River (1)

This Cotley River crossing (Figure 4.18-2a) is potentially subject to Chapter 91 jurisdiction because it appears to be navigable during at least part of the year. A field investigation and consultation with DEP should be conducted to confirm this assumption. In addition to the navigation requirement, public funds may have been expended on the Cotley River to trigger jurisdiction under Chapter 91. Additional consultation with DEP is required to confirm the jurisdictional status of this crossing.

Should the river be determined by DEP to be jurisdictional, the proposed work would require a new Chapter 91 license because the project includes widening the crossing from one track to two. This substantial enlargement does not typically meet the regulatory criteria for maintenance or minor modifications permitted under 310 CMR 9.22.

Cotley River (2)

This Cotley River crossing (Figure 4.18-2b) is potentially subject to Chapter 91 jurisdiction because it appears to be navigable during at least part of the year. A field investigation and consultation with DEP should be conducted to confirm this assumption. In addition to the navigation requirement, public funds may have been expended on the Cotley River to trigger jurisdiction under Chapter 91. Additional consultation with DEP is required to confirm the jurisdictional status of this crossing.

Should the river be determined by DEP to be jurisdictional, the proposed work would require a new Chapter 91 license because the project includes widening the crossing from one track to two. This substantial enlargement does not typically meet the regulatory criteria for maintenance or minor modifications permitted under 310 CMR 9.22.

Cedar Swamp River

The Cedar Swamp River crossing (Figure 4.18-2b) is potentially subject to Chapter 91 jurisdiction because it appears to be navigable during at least part of the year. A field investigation and consultation with DEP should be conducted to confirm this assumption. In addition to the navigation requirement, public funds may have been expended on the Cedar Swamp River to trigger jurisdiction under Chapter 91. Additional consultation with DEP is required to confirm the jurisdictional status of this crossing.

Should the river be determined by DEP to be jurisdictional, the proposed work would require a new Chapter 91 license because the project includes widening the crossing from one track to two and the anticipated reduction of space available for navigation by reducing of clearance beneath the bridge by an estimated 6.75 inches. This substantial enlargement does not typically meet the regulatory criteria for maintenance or minor modifications permitted under 310 CMR 9.22 and a new license may be required.

Freetown Brook

Freetown Brook, also known as Fall Brook (Figure 4.18-2c), is presumed to be jurisdictional because its approximately 50-foot cross-section would appear to make it navigable at least part of the year. A field investigation should be conducted to confirm this assumption. Should the Freetown Brook be

determined jurisdictional, the proposed work would require a new license because the project includes a second track at this location.

Coastal Zone Areas

Approximately 1,600 feet of the project is within the Coastal Zone associated with the Acushnet River and New Bedford Harbor. This jurisdictional area is all south of Wamsutta Street where the track crosses over the John F. Kennedy Highway (Route 18) and Acushnet Avenue.

Approximately 500 feet of the project near the southern end of the New Bedford Main Line is located within the New Bedford/Fairhaven DPA. The DPA boundary is approximately 70 feet east of the proposed Whale's Tooth Station. The location and extent of this DPA is shown on Figure 4.18-2e. Work proposed within the DPA is limited to reconstruct the "tail track" South of the Station, which would allow trains to access Whale's Tooth Station. These activities are consistent with the regulatory policies of the Massachusetts Coastal Zone Management Plan because they maintain or support the future use of this rail corridor as an accessory use to existing and potential water-dependent marine industrial uses within the DPA. A more detailed review of the project's compliance with the Massachusetts Coastal Zone Management Plan is presented in Section 4.18.5. Work within the Massachusetts Coastal Zone, including this DPA, will require a Federal Consistency Certification by the Massachusetts Coastal Zone Management Program.

Attleboro Electric Alternative

The Attleboro Electric Alternative is comprised of three segments: the Northeast Corridor, the Attleboro Bypass, and the Attleboro Secondary (Figure 4.18-3a-e and Figure 4.18-4a-c). The northern terminus of this alternative would be South Station in Boston, serviced by the Northeast Corridor. At the southern end, the Attleboro Secondary connects to the New Bedford Main Line at Weir Junction in Taunton, the northern end of the Southern Triangle. The Attleboro Bypass portion of this alternative consists of a new rail corridor in Attleboro that would connect the Northeast Corridor with the Attleboro Secondary. Potential impacts to filled and flowed tidelands non-tidal rivers and streams and the Massachusetts Coastal Zone resulting from constructing and using these three segments of the Attleboro Electric Alternative are described in the following sections.

The Attleboro Secondary uses an existing rail corridor connecting the new Attleboro Bypass with the New Bedford Main Line at Weir Junction (Taunton). A 2.8-mile segment of Attleboro alternatives requires a new two-track rail corridor connecting the Northeast Corridor with the existing right-of-way near Chartley Pond (the Attleboro Bypass).

Work within these sections of track includes:

- Construction of 2.8 miles of new ballast, track and drainage structures for building the Attleboro Bypass; and
- Reconstruction, ballast replacement, drainage upgrades and bridge replacement along 9.7 miles of the existing single-track Attleboro Secondary.

The Attleboro Secondary and Attleboro Bypass are located outside the Massachusetts Coastal Zone but include three non-tidal river and stream crossings that have been reviewed for potential Chapter 91 jurisdiction.

This alternative (north of the Southern Triangle) would include Barrowsville Station, Canton Junction Station, Taunton Depot Station (formerly known as “East Taunton Station”), Mansfield Station, Sharon Station, and Downtown Taunton Station (formerly known as “Taunton Depot Station”). Potential impacts to jurisdictional areas resulting from developing the new stations are considered in Section 4.18.3.2.10.

Northeast Corridor

The existing Northeast Corridor would be used for the Attleboro Electric Alternative from Boston’s South Station to a point in Mansfield just north of the Attleboro town line. The existing double-track line supports both electric- and diesel-powered regional freight and passenger service.

A third track would be added along the Northeast Corridor from Readville Station south to the Mansfield/Attleboro town line. At this point, the alignment would diverge from the Northeast Corridor and connect to the new Attleboro Bypass described in Section 4.18.3.2.3. The third track would be largely within the right-of-way for the existing rail lines, although sliver takings would be required immediately adjacent to the right-of-way in some areas. The Northeast Corridor segment of this alternative would include reconstructing three existing stations (Mansfield, Sharon, and Canton Junction). No layover facilities are planned within this segment. The Northeast Corridor does not include any present or former tidal areas and is not located within the Massachusetts Coastal Zone. The Chapter 91 resources potentially affected by the project are considered in Section 4.18.3.2.10.

Table 4.18-6 lists waterbodies crossed by the Northeast Corridor that are potentially subject to Chapter 91 and provides a summary of their jurisdictional status and anticipated approvals required for the project. These waterbodies include the Neponset River, the East Branch Neponset River (Canton River) and the Wading River. The following sections describe the potential work at these crossings.

Neponset River

The Neponset River (Figure 4.18-3a) is jurisdictional because it is navigable for most of its length, including at this existing crossing and is presumed to have had public funds expended for flood control. The Attleboro Alternative requires widening the bridge over the Neponset River to accommodate a third track at the location of the existing crossing. This work will require the substantial enlargement of the existing bridge and is presumed therefore to require a new license.

East Branch, Neponset River (Canton River)

This alternative requires the construction of a new bridge over the East Branch of the Neponset River, also known as the Canton River (Figure 4.18-3b), to accommodate a third track. The bridge has not yet been designed, however in addition to complying with the requirements of Chapter 91; it must also meet the requirements of Section 106 of the National Historic Preservation Act and avoid or minimize potential visual and other impacts to the existing Canton Viaduct. The bridge will require a new Chapter 91 license.

Table 4.18-6 Non-Tidal River and Stream Crossings – Northeast Corridor

Waterbody	Municipality	Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 approval	Improvements
Neponset River	Westwood	Yes	Navigable in any season; presumed public funds spent for flood control.	Yes	New license presumed due to need to substantially expand the existing structure.	Bridge to be replaced with new three-track bridge.
East Branch Neponset River (Canton River)	Canton	Yes	Navigable in any season; presumed public funds spent for flood control.	No	New license presumed due to need to substantially expand the existing structure.	New single-track bridge adjacent to Canton viaduct
Wading River	Mansfield	Potentially	Navigable by canoe or kayak at least part of the year.	TBD	If jurisdictional, a new license is presumed due to the need to substantially expand the existing structure.	Bridge to be replaced with new three-track bridge.

Wading River

The Wading River (Figure 4.18-3e) is potentially subject to Chapter 91 jurisdiction because it is navigable during at least part of the year. The project team has not determined if public funds have been expended for steam clearance, channel improvement or flood control. Such expenditure of funds would be required to establish jurisdiction. This alternative includes a new or expanded bridge over the Wading River to support the third track. The bridge has not yet been designed but will presumably include the substantial expansion of the existing structure to accommodate a third track. This expansion would require a new license, if jurisdictional.

Attleboro Bypass Segment

A new 2.8-mile long double track would be constructed west of the National Grid right-of-way from the Northeast Corridor near the Attleboro/Mansfield/Norton town line to the Attleboro Secondary near Chartley Pond and the Attleboro/Norton town line (Figure 4.18-4a). No new stations or layover facilities are planned within this segment. The Attleboro Bypass does not include any present or former tidal lands, non-tidal river or stream crossing and is not within the Massachusetts Coastal Zone.

Attleboro Secondary Segment

The existing Attleboro Secondary freight track would be upgraded for the Attleboro Electric Alternative (Figures 4.18.4a-c). Two new train stations would be constructed along this alignment in Norton and Taunton (Barrowsville and Downtown Taunton, respectively). Neither of these station sites is located within the coastal zone or areas subject to Chapter 91 jurisdiction. No new layover facilities would be constructed along this segment. The Attleboro Secondary does not include any present or former tidal lands and is not located within the Massachusetts Coastal Zone.

Chapter 91 Areas

The Attleboro Secondary is limited to inland communities and does not cross any areas of filled or flowed tidelands; however, this rail corridor has five crossings of four non-tidal rivers and stream that have been reviewed for potentially Chapter 91 jurisdiction. Two of these crossings as listed in Table 4.18-7, are potentially jurisdictional because they cross navigable water bodies. Each of these rivers and streams would be subject to jurisdiction if public funds have been expended for stream clearance, channel improvement or flood control, with upstream or downstream. None of the existing crossings are presently licensed under Chapter 91.

Table 4.18-7 Non-Tidal River and Stream Crossings – Attleboro Secondary

Waterbody	Municipality	Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 approval	Improvements
Chartley Pond	Norton	Yes	Navigable by canoe or kayak. Jurisdictional if public funds spent for stream clearance, channel improvement or flood control	No	Maintenance or minor modification for authorized uses, and provided the bridge replacement does not reduce the space available for navigation.	Replace bridge. No expansion of abutment, no new fill.
Goose Branch Brook	Norton	No	Not navigable during any season.	No	None	Narrow, non-navigable water body
Wading River (1)	Norton	No	Not navigable during any season.	No	None	Culvert, narrow non-navigable water body
Wading River (2)	Norton	No	Not navigable during any season.	No	None	Culvert, narrow non-navigable water body
Three Mile River	Norton	Potentially	Navigable by canoe or kayak. Jurisdictional if public funds spent for stream clearance, channel improvement or flood control	No	Maintenance or minor modification (auth. uses) and provided the bridge replacement does not reduce the space available for navigation or represent “substantial enlargement” in structure.	Replace bridge. No expansion of abutment, no new fill.

The existing bridges at each of these crossings would be replaced as part of the project. The work would be subject to review under Chapter 91. The type or review and the vehicle for regulatory approval will depend on the changes in footprint of each bridge and the resulting changes in the space available for navigation at each crossing. The following provides a summary of the work proposed at each crossing that is potentially subject to Chapter 91.

Chartley Pond

Chartley Pond (Figure 4.18-4a) is potentially subject to Chapter 91 jurisdiction because it is navigable during at least part of the year and has had public funds expended for steam clearance, channel improvement or flood control. The existing open steel girder bridge would be replaced with a single concrete span. However, DEP has determined that this is not a Great Pond subject to Chapter 91 jurisdiction. The present design contemplates reuse of the existing stone abutments and maintaining a single track cross-section. The footprint of the structure appears to increase by greater than 10 percent and could be interpreted under the Waterways Regulations as a substantial structural alteration (310 CMR 9.22(3)(a)). The Massachusetts DEP may, at its discretion, permit this work as maintenance activities under 310 CMR 9.22(1) because the work does not include substantial expansion by the construction of a second track at this location. If this work were not permitted as maintenance, a new license is anticipated if the work increases the structure by greater than 10 percent.

Three Mile River

Three Mile River (Figure 4.18-4b) is potentially subject to Chapter 91 because it is navigable during at least part of the year. If it is subsequently determined that public funds have been spent for stream clearance, channel improvement or flood control, the river would be jurisdictional.

The existing box girder supported timber deck bridge is anticipated to be replaced by a single span comprised of precast concrete box beam reusing the existing stone abutments. Work is not anticipated to require new fill within the Three Mile River. This work may, at Massachusetts DEP discretion, be permitted as maintenance or a minor modification of an authorized use under 310 CMR 9.22. The preliminary design appears to preserve to existing space available for navigation beneath the bridge and is unlikely to require a new license.

Attleboro Diesel Alternative

Coastal Zone and Chapter 91 resources affected by the Attleboro Diesel Alternative are the same as those identified for the Attleboro Electric Alternative in Tables 4.18-6 and 4.18-7. The diesel alternative follows the same route as the electric alternative and does not require traction power substations.

Stoughton Electric Alternative

The Stoughton Electric Alternative uses existing rail corridors that were previously developed connecting the Northeast Corridor with the New Bedford Mainline. The existing right-of-way extends from Canton Junction in Canton to Weir Junction in Taunton. The track from Canton Junction to Stoughton Station is presently an active passenger rail corridor. South of Stoughton Station, the railroad right-of-way remains largely intact; however, most of the track and ballast have been removed and the condition of the culverts and bridges varies. Work proposed within this corridor includes track, ballast, culvert and bridge replacement, and in the case of electric alternative, an electric centenary system within the right-of-way to provide electric motive power.

The Stoughton Line is entirely within inland communities and does not include any work within filled tidelands, flowed tidelands or the Massachusetts Coastal Zone. However, there are nine crossings of non-tidal rivers that may be subject to Ch. 91. Please see Table 4.18-8 for a listing of these crossings. The

Table 4.18-8 Non-Tidal River and Stream Crossings – Stoughton Line

Waterbody	Municipality	Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 Approval	Improvements
Kingsley Pond / Forge Pond	Canton	Potentially	This connection between two sections is technically a non-tidal river or stream.	No	Maintenance or minor modification (auth. uses) and provided the bridge replacement does not reduce the space available for navigation.	Replace bridge. No expansion of footprint or abutment, no new fill.
Beaver Meadow Brook (Mill Brook)	Canton	No	Not navigable during any season.	No	None	Non-navigable tributary to Mill Pond.
Whitman Brook	Easton	Potentially	Appears navigable by canoe or kayak. Jurisdictional if public funds spent for stream clearance, channel improvement or flood control.	No	Maintenance or minor modification (auth. uses) and provided the bridge replacement does not reduce the space available for navigation.	Replace bridge. No expansion of abutment, no new fill. Potential reduction in clearance.
Tributary to Whitman Brook	Easton	Potentially	Potentially navigable by canoe or kayak. Jurisdictional if public funds spent for stream clearance, channel improvement or flood control.	No	Maintenance or minor modification (auth. uses) and provided the bridge replacement does not reduce the space available for navigation.	Replace bridge. No expansion of abutment, no new fill. Potential reduction in clearance.
Queset Brook (Small Creek)	Easton	Potentially	Potentially navigable by canoe or kayak. Jurisdictional if public funds spent for stream clearance, channel improvement or flood control.	No	Presumed to be maintenance work allowable under 310 CMR 9.22 provided that the work is not deemed substantial enlargement.	Replace abutments, eliminate second track. Abutment footings are potentially substantial enlargement of existing structure.
Taunton River (1)	Taunton	Yes	Navigable by canoe or kayak and presumed to have public funds expended for stream clearance, channel improvement or flood control.	Lic 3118 Oct 19, 1906	Maintenance activity if net improvement in navigability is sufficient to overcome increase in structure footprint.	Replacement of pile supported two-span structure. Potentially a net improvement in navigability by removal of piles.

Table 4.18-8 (continued)

Waterbody	Municipality	Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 Approval	Improvements
Taunton River (2)	Taunton	Yes	Navigable by canoe or kayak and presumed to have public funds expended for stream clearance, channel improvement or flood control.	Lic 3118 Oct 19, 1906	Maintenance activity if net improvement in navigability is sufficient to overcome increase in structure footprint.	Replacement of pile supported two-span structure. Potentially a net improvement in navigability by removal of piles. Reduction in clearance by 1.8 feet.
Taunton River (3)	Taunton	Yes	Navigable by canoe or kayak and presumed to have public funds expended for stream clearance, channel improvement or flood control.	Lic 2909 Nov. 1, 1904	Maintenance activity if net improvement in navigability is sufficient to overcome increase in structure decrease in clearance.	Reduction of footprint, elimination of pile supported structure, reduction of clearance by 3.75 feet.
Mill River	Taunton	Yes	Navigable by canoe or kayak and presumed to have public funds expended for stream clearance, channel improvement or flood control.	Lic 3118 Oct 19, 1906	Maintenance activity if net improvement in navigability is sufficient to overcome increase in structure decrease in clearance	Small decrease in clearance, removal of substantial structure in river. Potentially a net improvement in navigability.

following section describes the work proposed at each crossing and summarizes the Chapter 91 jurisdiction.

Kingsley Pond/Forge Pond

The existing ballasted stone arch bridge spanning this hydraulic connection between Kingsley and Forge Ponds (Figure 4.18-5a) will be replaced by a single span concrete structure supporting two tracks. While the alternatives using the Stoughton Line will require a second set of tracks, the proposed work is not anticipated to substantially expand the footprint of the structure. The proposed design is expected to be completed without the placement of any new fill within the waterway and without substantially reducing the space available for navigation. If these criteria can be met within the footprint of the existing structure, the work could be approved as maintenance or a minor project modification under the regulations at 310 CMR 9.22.

Queset Brook (Small Creek)

Queset Brook (Figure 4.18-5b) is potentially subject to jurisdiction if navigation if it can be shown to be navigable at some time during year. However, it is unlikely that much of this stream is presently

navigable because of the narrow, shallow and rocky channel and the long culvert immediately downstream of the existing bridge crossing.

Proposed work at this crossing includes replacing an open timber bridge supporting two tracks with a precast box girder bridge and a single track. Existing abutments would be replaced to support the new structure. Preliminary design includes a small reduction in clearance beneath the bridge, potentially reducing space available for navigation.

Should DEP determine that this crossing be subject to Chapter 91, the net reduction in the footprint of the structure may permit DEP to approve the work as maintenance under 310 CMR 9.22(1). However, the reduction of space available for navigation could trigger the need for a minor project modification or new license. Additional consultation with DEP would be undertaken to clarify the jurisdictional status of this stream.

Taunton River

The Taunton River (Figure 4.18-5e) is subject to Chapter 91 because it is navigable and presumably public funds have been expended for flood control either upstream or downstream of the existing rail crossings. The Stoughton line crosses the Taunton River at three locations between Dean Street and Weir Junction. Each of these existing crossings contains a single track on pile-supported steel and timber structures. These bridges include a recently installed private water supply pipe maintained by Aquaria Water, Inc. to supply water to a desalination plant.

The proposed replacement bridges will each support a single track on two-span bridges within the approximate footprint of existing structures and would include a replacement water supply line for the Aquaria desalination plant. The proposed construction at each of these crossings is anticipated to result in a net improvement to navigation because the work will include demolishing and removing timber piles supporting the existing structures. The proposed Taunton River bridges will reduce the vertical clearance between the Taunton River and the underside of the structure. The proposed work could be approved, at DEP discretion, as maintenance or a minor project modification provided the final design is determined by DEP to result in a net improvement to navigation. If the DEP determines that the work does not meet the applicable standards at 310 CMR 9.22, the proposed work at one or more of these bridges would require a new license.

Mill River

The Mill River (Figure 4.18-5e) is presumed jurisdictional because it is navigable by small boat during at least part of the year. Its path through developed areas of Taunton makes it very likely that public funds have been expended for flood control, triggering Chapter 91 jurisdiction. The existing Mill River crossing is a single span open steel and timber bridge conveying a single track. The proposed replacement bridge would upgrade this crossing but retain a single track. The preliminary design includes removing existing bridge and abutments resulting in an effective widening of approximately 25 feet, a substantial increase in the space available for wildlife movement, and potentially navigation. Preliminary design shows a small decrease in the clearance beneath the bridge. This bridge replacement could, at DEP's discretion, be authorized as maintenance under 301 CMR 9.22(1) because it does not include substantial enlargement of the rail service (i.e., expansion of the number of tracks) or as a minor project modification under 310 CMR 9.22(2).

Stoughton Diesel Alternative

Coastal Zone and Chapter 91 resources affected by the Stoughton Diesel Alternative are the same as those identified for the Stoughton Electric Alternative in Table 4.18-8. The diesel alternative follows the same route as the electric alternative and does not require traction power substations.

Whittenton Electric Alternative

The Whittenton Electric Alternative utilizes an abandoned rail corridor known as the Whittenton Branch to connect the Stoughton Line and the Attleboro Secondary north of Weir Junction in order to avoid Pine Swamp. The Whittenton Branch corridor runs from Raynham Junction in Raynham to Whittenton Junction in Taunton. The Whittenton Branch is a previously developed right-of-way that is no longer in rail service. The track has been removed from the corridor, but much of the ballast and the bridge over the Mill River remain largely intact. Proposed work includes track construction and ballast and bridge replacement over the Mill River, a non-tidal river or stream potentially subject to Chapter 91 jurisdiction. There is not presently a license for this crossing.

The Whittenton Branch does not include any work within filled tidelands, flowed tidelands, or within the Massachusetts Coastal Zone.

The only area of the Whittenton Branch potentially subject to Chapter 91 is the existing crossing of the Mill River (Figure 4.18-6a) in Taunton. The Mill River is a non-tidal river navigable by canoe and kayak for at least part of the year. The river is presumed to be jurisdictional because of the likelihood that public funds have been expended for stream clearance, channel improvement or flood control either upstream, or downstream of the existing bridge. The jurisdictional status would be confirmed through additional consultation with Massachusetts DEP. No existing license has been identified for this crossing. The existing crossing consists of a four-span concrete pile-supported bridge with stone abutments. The preliminary design for the replacement bridge is a single-span concrete beam-supported bridge with new concrete abutments. The work is presumed to include removing the existing structures within the river and only a nominal change in the clearance beneath the bridge. If the Mill River is confirmed jurisdictional, this work could be approved as maintenance necessary to restore the serviceability of the existing public transportation structure under 310 CMR 9.22(1) because the work does not include adding a second track.

Whittenton Diesel Alternative

Coastal Zone and Chapter 91 resources affected by the Whittenton Diesel Alternative are the same as those identified for the Whittenton Electric in Section 4.18.3.2.7 above. The diesel alternative follows the same route as the electric alternative and does not require traction power substations.

Rapid Bus Alternative

The Rapid Bus Alternative would provide rapid express bus service to Boston from Fall River and New Bedford along a dedicated, primarily reversible bus lane to be built along Route 24 from Route 140 to I-93 and along I-93/Route 128 to the High Occupancy Vehicle (HOV) zipper lane, and a short segment through mixed traffic.

Modifications would be required along these existing highways to improve the existing highway capacity, construct new exclusive bus lanes, install zipper lanes, and reconfigure existing interchanges. A new travel lane is required in each direction along Route 24 between the Route 140 interchange and the I-495 interchange. Some combination of new exclusive bus lanes in the median or zipper lanes on off-peak travel lanes would begin on Route 24 at the I-495 interchange and extend along Route 24 to I-93/Route 128, north along I-93/Route 128 to the I-93/Route 128 interchange and connect to the existing HOV zipper lane along I-93 to South Station. This report evaluates only in those portions of this alternative where new construction is required, from Braintree to Taunton.

The reversible busway would include new construction only within inland communities and therefore not include any work within filled tidelands, flowed tidelands or the Massachusetts Coastal Zone. The construction includes work within two non-tidal rivers and streams presumed subject to Chapter 91.

This alternative includes crossings of three non-tidal rivers or streams reviewed for potential jurisdiction under Chapter 91, two of which may be jurisdictional under Chapter 91. These crossings are the Taunton River in Raynham and the Town River in East Bridgewater. Table 4.18-9 lists each crossing and provides a summary of the jurisdictional status of each.

Table 4.18-9 Non-Tidal River and Stream Crossings – Rapid Bus Alternative

Waterbody	Municipality	Jurisdictional	Rationale	Presently Licensed	Anticipated Ch. 91 approval	Improvements
Blue Hill River	Quincy	No	Not navigable during any season	No	None	Construction of new pavement within median.
Town River	East Bridgewater	Potentially	Navigable during at least part of the year	No. Presumed authorized by legislation for construction of Rt. 24	Minor project modification if the improvements do not expand the footprint of the existing structure greater than 10 percent.	Construction of new travel lanes within existing bridge footprint.
Taunton River	Raynham	Potentially	Navigable year round; presumed public funds expended for stream clearance, channel improvement or flood control	No. Presumed authorized by legislation for construction of Rt. 24	Minor project modification if the improvements do not expand the footprint of the existing structure greater than 10 percent.	Construction of new travel lanes within existing bridge footprint.

Town River

The Town River (Figure 4.18-7e) crosses Route 24 at the East Bridgewater/Bridgewater boundary. The existing structure is a modern highway overpass with a concrete deck supported by concrete abutments. The deck is a single structure accommodating the entire roadway cross section and median. The river is potentially jurisdictional because it is navigable during at least part of the year and the likelihood of public expenditure of funds for flood control upstream or downstream of Route 24. The jurisdictional status would be confirmed through consultation with DEP.

Should the river be confirmed jurisdictional, proposed work may be authorized by DEP as maintenance or a minor modification for previously authorized uses if the reversible bus way can be built within the footprint of the existing structure, or at a minimum does not require an increase in the footprint by greater than 10 percent. If the work increases the footprint by greater than 10 percent, a new license is anticipated because the work would not meet the regulatory criteria established by 310 CMR 9.22.

Taunton River

The Taunton River (Figure 4.18-7g) crosses Route 24 at the Taunton/Raynham boundary. The existing structure is a modern highway overpass with a concrete deck supported by concrete abutments. The deck is a single structure accommodating the entire roadway cross section and median. The river is potentially jurisdictional because it is navigable during at least part of the year and the likelihood of public expenditure of funds for flood control upstream or downstream of Route 24.

The proposed work may be authorized by DEP as maintenance or a minor modification if the reversible bus way can be built within the footprint of the existing structure, or at a minimum does not require an increase in the footprint by greater than 10 percent. If the work increases the footprint by greater than 10 percent, a new license is anticipated because the work would not meet the regulatory criteria established by 301 CMR 9.22.

Stations

Four of the proposed station sites are located on filled tidelands or are within the Massachusetts Coastal Zone: Battleship Cove, Fall River Depot, Freetown, and Whale’s Tooth. Table 4.18-10 lists each station and identifies the applicable jurisdiction. Figures 4.18-8 through 4.18-11 show each of the stations within the context of the project and within Chapter 91 and CZM jurisdiction.

Table 4.18-10 Project Elements in Filled Tidelands or Coastal Zone– Station Sites

Station Site	Waterbody	Municipality	Jurisdictional
Battleship Cove	Mount Hope Bay	Fall River	Landlocked Tidelands Coastal Zone
Fall River Depot	Mount Hope Bay	Fall River	Coastal Zone (partial)
Freetown	Taunton River	Freetown	Coastal Zone (partial)
Whale’s Tooth	New Bedford Harbor	New Bedford	Landlocked Tidelands Coastal Zone

The following sections describe the anticipated station work within jurisdictional areas and corresponding approvals required.

Battleship Cove Station Site

The Battleship Cove station (Figure 4.18-8) would be a new train or bus station constructed along the Fall River Secondary that would serve all rail alternatives or the Rapid Bus Alternative. It would be located on Water Street in Fall River, near the southern terminus of the Fall River Secondary. This approximately 2.2-acre site is a previously developed parcel within the Ponta Delgada Plaza. The station would be a platform-only station that would operate during peak hours only. It would serve the downtown area of Fall River and the Battleship Cove tourist area. The station would be designed to encourage walk-in and drop-off/pick-up customers. There is no dedicated parking currently planned at this station.

The Battleship Cove station would be located partially on landlocked tidelands because the station site is located greater than 250 feet from the existing mean high water of the Taunton River and the site was separated by interconnected public ways on January 1, 1984. The construction of the Battleship Cove station would therefore not require a new waterways license.

The station would be located entirely within the coastal zone, while only a portion of the station would be located within the Mount Hope Bay Designated Port Area. The proposed station construction would require a Federal Consistency Certification under the Massachusetts Coastal Zone Management Program because it includes work within the Coastal Zone. The proposed Battleship Cove station is anticipated to be consistent with the regulatory policies.

Fall River Depot Station Site

Fall River Depot station would be a new train (Figure 4.18-9) or bus station constructed along the Fall River Secondary for all rail alternatives or the Rapid Bus Alternative. It would be located near the intersection of North Davol Street and Pearce Street, approximately one mile north of downtown Fall River. Part of this approximately eight-acre site was previously developed as an historic train station. The new station is envisioned to be a multi-modal transportation center with new mixed-use development and parking facilities. The station would serve walk-in, bike-in, and drive-in customers.

Fall River Depot station would not be located within filled tidelands and would not be subject to Chapter 91. At the Fall River Depot Station site, Davol Street is the first major transportation infrastructure adjacent to the coast. As a result, the first 100 feet of the site's frontage on Davol Street are located within the coastal zone associated with the Taunton River. The majority of the station site is located landward of the coastal zone boundary.

The proposed station construction would require a Federal Consistency Certification under the Coastal Zone Management Program because it includes work within the Massachusetts Coastal Zone. The proposed station construction is anticipated to be consistent with the regulatory policies.

Freetown Station Site

Freetown station would be a new train (Figure 4.18-10) or bus station constructed to serve the Fall River Secondary for all rail alternatives or the Rapid Bus Alternative. It would be located along South Main Street in Freetown, at a site currently occupied by a U-Storage business. The approximately 18-acre site is near the Fall River Executive Park and the River Front Park. The station would serve drive-in customers and customers shuttled between the station and these nearby industrial parks.

Freetown station would not be located within filled tidelands and therefore would not be subject to Chapter 91. At the Freetown station site, South Main Street is the first major transportation infrastructure adjacent to the coast. As a result, the first 100 feet of the site's frontage are located within the coastal zone associated with the Taunton River (the entrance driveway). The majority of the station site is located landward of the coastal zone boundary.

The proposed driveway station construction would require a Federal Consistency Certification under the Coastal Zone Management Program because it includes work within the Massachusetts Coastal Zone. The proposed station construction is anticipated to be consistent with the regulatory policies.

Whale's Tooth Station Site

Whale's Tooth station would be a new train (Figure 4.18-11) or bus station constructed in New Bedford along the New Bedford Main line and would serve all rail alternatives or the Rapid Bus Alternative. It would be located near the intersection of Acushnet Avenue and Hillman Street, near the southern terminus of the New Bedford Main line. The City of New Bedford has constructed a parking lot on the approximately 14-acre site in anticipation of the South Coast Rail project. The station would include intermodal connections, potentially linking to ferry services. The station would serve walk-in, bike-in, and drive-in customers.

The majority of the Whale's Tooth station would be located on landlocked filled tidelands because the station site was entirely separated from the existing mean high water mark of New Bedford Harbor by interconnected public ways on January 1, 1984, and is at least 250 feet landward of the existing mean high water mark. Accordingly, the station would not require a Waterways license. However, the station would require a Public Benefit Determination.

The station would be located entirely within the Coastal Zone associated with New Bedford Inner Harbor but outside the New Bedford/Fairhaven DPA. The proposed station construction would require a Federal Consistency Certification under the Coastal Zone Management Program because it includes work within the Massachusetts Coastal Zone. The proposed station construction is anticipated to be consistent with the regulatory policies.

Layover Facilities

Two layover facilities are planned for the Southern Triangle: one at or near the southern end of the Fall River Secondary and another at or near the southern end of the New Bedford Main Line. Three alternative sites have been identified for the Fall River Secondary and two for the New Bedford Main Line. An additional mid-day layover facility is proposed in Braintree for the Rapid Bus Alternative. Four of the proposed sites, listed below in Table 4.18-11, require evaluation for compliance with Chapter 91 and

Coastal Zone management requirements. The Church Street and Rapid Bus (Mid-day) Logan Express layover sites are outside of the Coastal Zone and do not require work within filled tidelands. Coastal zone consistency and impacts to filled tidelands are described below for the Wamsutta, Weaver’s Cove East and West and ISP layover sites, as applicable.

Table 4.18-11 Project Elements in Filled Tidelands – Layover Sites

Facility Name	Waterbody	Municipality	Jurisdictional
Wamsutta	New Bedford Harbor	New Bedford	Landlocked Tidelands Coastal Zone
Weaver’s Cove East	Taunton River	Fall River	Filled Tidelands Coastal Zone
Weaver’s Cove West	Taunton River	Fall River	Filled Tidelands Coastal Zone
ISP	Taunton River	Fall River	Filled Tidelands Coastal Zone

The following sections describe the location, jurisdiction and proposed work required for these layover facilities.

Fall River – Weaver’s Cove East Layover Facility Site

The Weaver’s Cove East layover facility (Figure 4.18-12) would be constructed along the Fall River Secondary and would serve all rail alternatives. It would be located off of Main Street between the existing Fall River Secondary freight line and the Taunton River, approximately 2.5 miles from the southern terminus of the Fall River Secondary.

Informal consultation with DEP Waterways staff indicated that the Department presumes that the Weaver’s Cove East layover facility is located within filled tidelands. This jurisdiction was not expected because the existing site is approximately 20 feet in elevation above the shoreline of the Taunton River. This presumed jurisdictional boundary is based on the shoreline shown on two historic maps provided by the DEP prepared in 1865 and 1874. Both of these maps postdate the construction of the railroad. It is likely that the railroad impounded water in the vicinity of the proposed layover facility and this impoundment is represented on these historic maps. If the presumption is true, the construction of the proposed layover facility will require a new Chapter 91 license. The Waterways Regulations are designed to protect and promote the public’s interest in tidelands through the inclusion of provisions to conserve the capacity for water-dependent uses. The use of the site for layover needs is expected to be classified by DEP as a nonwater-dependent Infrastructure Facility (310 CMR 9.55). This classification may waive some of the above-referenced provisions, as long as feasible mitigation or compensation measures are provided such as the protection of maritime commerce or recreation and associated public access, reduction of flood and erosion-related hazards on lands subject to the 100-year flood or projected sea level rise, and the attainment of water quality goals.

The layover facility would be located entirely within the coastal zone associated with the Taunton River but outside the Mount Hope Bay DPA. Accordingly, the proposed layover facility would require a Federal

Consistency Certification under the MCZMP. The proposed facility is anticipated to be consistent with the regulatory policies of the MCZMP.

Fall River - Weaver's Cove West Layover Facility Site

The Weaver's Cove West layover facility would be constructed along the west side of the Fall River Secondary line and would serve all rail alternatives (Figure 4.18-12). The facility would be located off of Main Street between the existing Fall River Secondary freight line and the Taunton River, approximately 2.5 miles from the southern terminus of the Fall River Secondary.

There are no coastal resources existing on this upland site therefore; there are no impacts to coastal resources. Potential impacts to coastal water quality are discussed in Chapter 4.17 – Water Resources.²

Approximately 4,300 sq. ft. of land, located within the northeast section of the Weaver's Cove West layover facility area, is presumed to be located within filled tidelands, subject to Ch 91 jurisdiction. This presumed jurisdictional boundary is also based on the shoreline shown on the historic 1865 and 1874 maps. The proposed layover facility is located on a portion of the Weaver's Cove Energy, LLC Liquefied Natural Gas (LNG) Project site. The Waterways License determination for the installation and backfilling of the PiP LNG transfer system confirmed that the site includes filled tidelands. Additional cartographic research is required to determine the exact location of these tidelands and to confirm DEP's presumption.

The use of the site for a layover facility is expected to be classified by DEP as a Nonwater-dependent Infrastructure Facility (310 CMR 9.55), which may waive some of the Waterways regulatory provisions, as long as feasible mitigation or compensation measures are provided such as the protection of maritime commerce or recreation and associated public access, reduction of flood and erosion-related hazards on lands subject to the 100-year flood or projected sea level rise, and the attainment of water quality goals.

Public access to the water is limited, due to the industrial nature of the site and partial location within the Mount Hope Bay DPA. However, there are some areas of the site where informal public access seems to be achieved, namely the northernmost vegetated portion via a series of pathways off of North Main Street. This public access may be restricted upon construction of the layover facility.

The use of this area for layover is consistent with DPA temporary uses and would not affect the operations of the Mount Hope Bay DPA. Like the Weaver's Cove East site, the proposed Weaver's West facility is located entirely within the coastal zone of the Taunton River estuary. The layover facility is anticipated to be consistent with MCZM program policies based on its minimal impacts and strategies for meeting applicable coastal regulations.

Fall River – ISP Layover Facility Site

The ISP layover facility would be constructed along the west side of the Fall River Secondary line and would serve all rail alternatives (Figure 4.18-13). The facility would be located off of North Main Street

² Executive Office of Transportation and Public Works, *South Coast Rail Environmental Consequences Technical Report – Water Resources*, September 2009.

between the existing Fall River Secondary freight line and the Taunton River, north of the southern terminus of the Fall River Secondary.

The site is located in an undeveloped area that includes forested uplands and mowed grass fields. There are no coastal resources existing on this upland site therefore; there are no impacts to coastal resources. Potential impacts to coastal water quality are discussed in Chapter 4.17 – Water Resources.

Based on the former location of the shoreline, it is presumed that the ISP layover facility is located within filled tidelands. Consultation with DEP will be conducted to confirm this presumption and if confirmed, additional cartographic research will be conducted to determine the exact location of these tidelands. If the presumption is true, the construction of the proposed layover facility will require a new Chapter 91 license. The Waterways Regulations are designed to protect and promote the public's interest in tidelands through the inclusion of provisions to conserve the capacity for water-dependent uses. The use of the site for layover needs is expected to be classified by DEP as a nonwater-dependent Infrastructure Facility (310 CMR 9.55). This classification may waive some of the above-referenced provisions, as long as feasible mitigation or compensation measures are provided such as the protection of maritime commerce or recreation and associated public access, reduction of flood and erosion-related hazards on lands subject to the 100-year flood or projected sea level rise, and the attainment of water quality goals.

Public access to the water is limited, due to the industrial nature of the site and the fact that the site can only be accessed through the access road to the ISP facility. However, there are some areas of the site where informal public access seems to be achieved, namely the shoreline west of the site and the vegetated area northwest of the site. Any such public access may be restricted upon construction of the layover facility.

The ISP layover facility would be located entirely within the coastal zone associated with the Taunton River but outside the Mount Hope Bay DPA. Accordingly, the proposed layover facility would require a Federal Consistency Certification under the MCZMP. The proposed facility is anticipated to be consistent with the regulatory policies of the MCZMP based on its minimal impacts and strategies for meeting applicable coastal regulations.

New Bedford – Wamsutta Layover Facility Site

The Wamsutta layover facility (Figure 4.18-14) would be constructed along the New Bedford Main Line and would serve all rail alternatives. It would be located near the intersection of Wamsutta Street and Herman Melville Boulevard, near the southern terminus of the New Bedford Main line. This location is just north of the Whale's Tooth Station site described above. The site is currently an active CSX rail yard used for freight. The existing and proposed rail yard is located on top of a capped hazardous waste facility.

The proposed construction of the Wamsutta layover facility would be located in landlocked tidelands and would be exempt from licensing under 310 CMR 9.04(2). The construction of the Wamsutta layover facility would require a Public Benefit Determination under 301 CMR 13.00.

The layover facility would be located entirely within the coastal zone associated with New Bedford Inner Harbor but is not within the new Bedford/Fairhaven DPA. The construction would require a Federal

Consistency Certification under the Massachusetts Coastal Zone Management Program. The proposed facility is anticipated to be consistent with the regulatory policies of the MCZMP.

Braintree - Logan Express (Mid-Day) Layover Facility Site

The proposed Logan Express (Mid-Day Bus) layover facility, in Braintree, would be constructed on Forbes Road, along Interstate 93 (Exit Ramp 6). Buses would have direct access to the proposed facility from dedicated bus lanes to be placed within the median of I-93. The proposed site is a large, existing park-and-ride lot for the Logan Express service offered by Massport. There are no coastal resources located at this site and therefore, no impacts or need for associated permitting.

4.18.4 REGULATORY COMPLIANCE

4.18.4.1 INTRODUCTION

Work required within the jurisdiction of M.G.L. Chapter 91 and the Massachusetts Coastal Zone includes track and signal system upgrades, bridge and abutment replacement, construction of stations and layover facilities. Each alternative requires some approvals within each of these jurisdictions. The following sections summarize the potential regulatory approvals and describe how each alternative can be designed to comply with the applicable regulations.

4.18.4.2 CHAPTER 91 – WATERWAYS REGULATIONS

Massachusetts General Law Chapter 91 is the modern codification of a series of statutes which preserve certain rights in tidelands for the citizens of the Commonwealth. These rights date to the Massachusetts Colonial Ordinances of 1641-1647 and preserve the rights of the public to fish fowl and navigate within all tidal waters of the Commonwealth up to and including the natural high water mark. With relatively few legislative exceptions, these rights are preserved in perpetuity for the citizens of the Commonwealth. The Massachusetts Waterways Regulations at 310 CMR 9.00 establish the procedures by which the Massachusetts Department of Environmental Protection administers the statute.

4.18.4.3 LICENSING REQUIREMENTS

The waterways regulations require a license for all construction activities, placement of fill and changes in use within present and former tidelands and the navigable portions of non-tidal rivers and streams when such streams have been improved through the expenditure of public funds for stream clearance, channel improvement or flood control upstream or downstream of the proposed work. The Department may, following review of a completed application and plans and a public comment period issue licenses for proposed construction, placement of fill or changes in use. The project is regulated under Chapter 91 as an infrastructure crossing facility. The regulations at 310 CMR 9.12 require the Secretary for Energy and Environmental Affairs to make a determination of water dependency for the project. Such a finding of water dependency is anticipated for the bridges based on geography alone.

Any project element requiring a new license will be required to meet the applicable basic requirements established by 310 CMR 9.32 through 9.54. Table 4.18-12 lists the basic licensing requirements and the project's compliance with each.

A determination of water dependency is an important part of demonstrating the project's compliance with Chapter 91 because water-dependent use projects are presumed to meet the proper public purpose requirement and may allow the Department to issue individual licenses without a public hearing, if appropriate, expediting the approval process in these instances.

Many of the existing bridges and track over non-tidal rivers and streams lack existing licenses for one of three reasons:

- The water body is not subject to Chapter 91 and therefore no license is required;
- The bridge and associated fill and structures were authorized by act of the Massachusetts General Court in chartering the original railroad;
- They were built prior to the promulgation of 310 CMR 9.00 and did not require a license.

The regulations at 310 CMR 9.22 provide a regulatory mechanism to authorize several categories of maintenance, repair and minor modification to existing authorized structures since January 1, 1984. These are:

- Maintenance and Repair – defined by 310 CMR 9.22(1) as including but not limited to:
 - ... replacement of railroad track, stabilization of road or rail beds, reconstruction of culverts and catch basins, and other Maintenance or repair of existing public transportation facilities and associated drainage systems, as necessary to preserve or restore the serviceability of such facilities for the original use, provided that maintenance and repair shall not include substantial enlargement of such facilities, such as roadway widening, adding shoulders, or upgrading intersections.

This is interpreted to mean that repair, replacement and maintenance activities may be permitted to restore the serviceability of the tracks, bridges, culverts, etc. provided the work does not include addition of new tracks within the jurisdictional area not contemplated by the original license.

- Minor Project Modification – defined by 310 CMR 9.22(3) to include:
 - Structural alterations which are confined to the existing footprint of fill and structures being altered and which represent an insignificant deviation from the original license specifications in terms of size, configuration, materials or other relevant design or fabrication parameters.

In the case of authorized jurisdictional crossings that are determined by DEP to be jurisdictional, minor modifications may typically be obtained for work that a) reduces or maintains the footprint of existing fill or structures; and b) maintains or increases the space available for navigation.

Table 4.18-12 Project Compliance with Chapter 91 Basic Requirements

Regulation within 310 CMR	Requirement	Compliance
9.32(1)(b)(4)	Tidelands Within Designated Port Areas (DPAs)	Allows structures on filled tidelands [in DPAs] to accommodate the following uses, on a limited basis: <ol style="list-style-type: none"> a use to be licensed in combination with water-dependent-industrial uses within a marine industrial park, as defined in 310 CMR 9.02; or a supporting DPA use, as defined in 310 CMR 9.02; or a temporary use, as defined in 310 CMR 9.02.
9.33	Environmental Protection Standards	The project is subject to and is required to comply with the Massachusetts Environmental Policy Act and numerous other state environmental protection programs.
9.34	Conformance with Municipal Zoning and Harbor Plans	The project has been designed in coordination with the Cities of New Bedford and Fall River and is intended to comply with the recent and ongoing Municipal Harbor Planning updates for these communities.
9.35	Standards to Preserve Water-Related Public Rights	The project is anticipated to comply with this regulation by preserving or enhancing the existing capacity for navigation within jurisdictional non-tidal rivers and streams. Wherever this cannot be achieved, feasible mitigation or compensation measures would be provided such as the protection of maritime commerce or recreation and associated public access.
9.36	Standards to Protect Water-Dependent Uses	This standard is anticipated to comply with this regulation by preserving jurisdictional non-tidal rivers and streams to provide for water-dependent, primarily recreational, uses. Wherever this cannot be achieved, feasible mitigation or compensation measures would be provided such as the, reduction of flood and erosion-related hazards on lands subject to the 100-year flood or projected sea level rise, and the attainment of water quality goals.
9.37	Engineering and Construction Standards	All proposed structures will be designed and built in accordance with all applicable local, state and federal engineering and construction standards.
9.38	Use Standards for Recreational Boating Facilities	This standard is not applicable to the project because no recreational boating facilities are proposed.
9.39	Standards for Marinas, Boatyards and Boat Ramps with 10 or more berths	The project does not include any marina, boatyard, boat ramp or berths.
9.40	Standards for Dredging and Dredged Material Disposal	The Project does not include any dredging or dredged material disposal.
9.51	Conservation of Capacity for Water-Dependent Use	The project does not include any water-dependent use zones. All proposed new and replacement crossings will be designed to preserve the capacity of the jurisdictional water bodies to provide for navigation.
9.53	Activation of Commonwealth Tidelands for Public Use	This Project site does not include any Commonwealth Tidelands.
9.54	Consistency with Coastal Zone Management Program	The project's compliance with the Coastal Zone Management Plan is described in Section 4.18.5 and will be confirmed through further agency consultation and the anticipated issuance of a Federal Consistency Certification following the MEPA process.
9.55	Standards for Nonwater-dependent Infrastructure Facilities	If the project elements are determined to be nonwater-dependent, mitigation and/or compensation measures will be developed as deemed appropriate by the Department to ensure that all feasible measures are taken to avoid or minimize detriments to the water-related interests of the public.

The jurisdictional analysis conducted to date includes a preliminary assessment of non-tidal river and stream crossings. Additional field investigations and consultation with Massachusetts DEP is required to clarify the potential jurisdiction at many of these crossings. Crossing determined to be jurisdictional will be reviewed for potential approval as maintenance, repair or minor modification.

4.18.4.4 PUBLIC BENEFIT DETERMINATION

Chapter 168 of the Massachusetts Laws of 2007 required the Secretary of Environmental Affairs to review all projects subject to MEPA review that are located within filled tidelands or landlocked tidelands for adequacy of public benefits.

The regulation at 301 CMR 13.04 requires that nonwater-dependent use projects be reviewed for the potential public benefits under the following criteria:

- purpose and effect of the project;
- impact on abutters and surrounding community;
- enhancement of the property;
- benefits to the public trust rights in tidelands or other associated rights, including but not limited to, benefits provided through previously obtained municipal permits;
- community activities on the site;
- environmental protection and preservation; and
- public health and safety, and the general welfare.

The Secretary reviews the adequacy of the potential public benefits and is required to issue a determination of public benefit within thirty days of the issuance of the Secretary's Certificate completing MEPA review. The public benefit determination is part of the Department's official licensing record. The South Coast Rail alternatives would provide a public benefit from increased access to public transit and mobility.

4.18.5 COASTAL ZONE MANAGEMENT

The Massachusetts Coastal Zone Management regulations at 310 CMR 21.98 establish twenty program policies and nine management principles that projects subject to federal consistency certification must comply with. The following sections provide a summary of each of the twenty-five program policies and three management principles established by 301 CMR 21.98 and describes how the project is consistent with each applicable policy or management principle.

The program's twenty-eight policies and principles are divided into the following 9 categories:

- water quality;
- habitat;
- protected areas;
- coastal hazards;
- port and harbor infrastructure;
- public access;
- energy;
- ocean resources; and
- growth management.

This section lists each policy and management principle as contained in the regulations at 301 CMR 21.00 and demonstrates that the project can be designed and constructed consistent with them.

4.18.5.1 WATER QUALITY

Water Quality Policy #1 - Ensure that point-source discharges in or affecting the coastal zone are consistent with federally approved state effluent limitations and water quality standards.

Water Quality Policy #2 - Ensure that nonpoint pollution controls promote the attainment of state surface water quality standards in the coastal zone.

Water Quality Policy #3 - Ensure that activities in or affecting the coastal zone conform to applicable state and federal requirements governing subsurface waste discharges.

As documented in Chapter 4.17 – Water Resources, work within the Coastal Zone will be designed and constructed to comply with federal and state effluent limitations including point source discharges. Nonpoint pollution controls will promote the attainment of state surface water quality standards.

The design and construction of the project will be subject to numerous levels of local, state and federal review. This multi-layer permitting process will help ensure that the project is constructed in accordance with these standards. The Water Resources Chapter provides a description of the project's compliance with applicable water quality standards.

Layover facilities will have limited water use for sanitary facilities. Effluent from these uses will be discharged to municipal sanitary treatment facilities or discharged to state-approved subsurface systems.

4.18.5.2 HABITAT

Habitat Policy #1 - Protect coastal resource areas including salt marshes, shellfish beds, dunes, beaches, barrier beaches, salt ponds, eelgrass beds, and fresh water wetlands for their important role as natural habitats.

The proposed project will not alter any coastal resource area including salt marshes, shellfish beds, dunes, beaches, barrier beaches, salt ponds or eelgrass beds. In addition, no impacts to freshwater wetlands are proposed within the Coastal Zone.

Habitat Policy #2 - Restore degraded or former wetland resources in coastal areas and ensure that activities in coastal areas do not further wetland degradation but instead take advantage of opportunities to engage in wetland restoration.

The build alternatives would be designed to comply with this policy. A complete description of the alternatives' potential impacts to wetland resources is presented in Chapter 4.16 – Wetlands.

4.18.5.3 PROTECTED AREAS

Protected Areas Policy #1 - Preserve, restore, and enhance complexes of coastal resources of regional or statewide significance through the Areas of Critical Environmental Concern program.

None of the build alternatives includes any work within a coastal Area of Critical Environmental Concern (ACEC) nor would it affect natural coastal resources. ACECs are discussed in Chapter 4.10 - Protected Open Space and Areas of Critical Environmental Concern.

Protected Areas Policy #2 - Protect state and locally designated scenic rivers and state classified scenic rivers in the coastal zone.

The Taunton River has been designated as a “Partnership Wild and Scenic River.” The proposed work within the Taunton River will be designed to the extent practicable with the 2005 Taunton River Stewardship Plan consistent with the National Park Service requirement of the Wild and Scenic Rivers Act.

Protected Areas Policy #3 - Ensure that proposed developments in or near designated or registered historic districts or sites respect the preservation intent of the designation and that potential adverse effects are minimized.

Each build alternative would be designed to comply with applicable historic preservation standards and include efforts to avoid, minimize and mitigate potential impacts to historic resources. Chapter 4.8 – Cultural Resources provides a complete description of the potential impacts to historic resources.

4.18.5.4 COASTAL HAZARDS

Coastal Hazard Policy #1 - Preserve, protect, restore, and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes, and land under the ocean.

The Weaver’s Cove West site would include work within a small portion of Land Subject to Coastal Storm Flowage (LSCSF). Although the layover site includes work within this resource, merely a very small section of the Weaver’s Cove West layover facility impervious roadway and small track segments would be located within this zone. These elements would likely be elevated above Federal Emergency Management Agency (FEMA) base flood elevation (BFE) of 10 feet. The preliminary layout design also shows a support building located partially within the LSCSF area however; this small building can either be relocated and/or raised above the BFE. Chapter 4.16 – Wetlands provides a description of the project’s compliance with wetlands regulatory standards associated with this resource.

Coastal Hazard Policy #2 - Ensure construction in water bodies and contiguous land areas will minimize interference with water circulation and sediment transport. Approve permits for flood or erosion control projects only when it has been determined that there will be no significant adverse effects on the project site or adjacent or downcoast areas.

None of the build alternatives includes any work within any coastal water bodies and none would interfere with water circulation or sediment transport in any coastal water body.

Coastal Hazard Policy #3 - Ensure that state and federally funded public works projects proposed for location within the coastal zone will:

- not exacerbate existing hazards or damage natural buffers or other natural resources;
- be reasonably safe from flood and erosion related damage;
- not promote growth and development in hazard-prone or buffer areas, especially in Velocity zones and ACECs; and
- not be used on Coastal Barrier Resource Units for new or substantial reconstruction of structures in a manner inconsistent with the Coastal Barrier Resource/Improvement Acts.

According to the Weaver's Cove Energy LLC LNG Project resource report³ (in preparation for the project's Environmental Impact Statement), the area is located within a Zone A (2) FEMA flood zone with a BFE of 10 feet. Although the project includes work within this coastal hazard-prone/buffer area, it does not include work within a Velocity Zone or coastal ACEC. A very small section of the Weaver's Cove West layover facility impervious roadway and small track segments would be located within this zone. These elements would likely be elevated above the BFE. The preliminary layout design also shows a support building located partially within the LSCSF area however; this small building can either be relocated and/or raised above the BFE.

Coastal Hazard Policy #4 - Prioritize public funds for acquisition of hazardous coastal areas for conservation or recreation use, and relocation of structures out of coastal high hazard areas, giving due consideration to the effects of coastal hazards at the location to the use and manageability of the area.

The policy is not applicable to the alternatives.

4.18.5.5 PORT AND HARBOR INFRASTRUCTURE

Ports Policy #1 - Ensure that dredging and disposal of dredged material minimize adverse effects on water quality, physical processes, marine productivity and public health.

None of the build alternatives include any dredging or disposal of dredged material to any coastal water body and none would result in adverse effects on physical processes, marine productivity or public health.

Ports Policy #2 - Obtain the widest possible public benefit from channel dredging, ensuring that designated ports and developed harbors are given highest priority in the allocation of federal and state dredging funds. Ensure that this dredging is consistent with marine environment policies.

None of the alternatives includes any channel dredging.

Ports Policy #3 - Preserve and enhance the capacity of Designated Port Areas (DPAs) to accommodate water-dependent industrial uses, and prevent the exclusion of such uses from tidelands and any other

³ Weaver's Cove Energy, LLC, *Resource Report 2 – Water Use and Quality* (<http://www.weaverscove.com/files/ResourceReport2.pdf>)

DPA lands over which a state agency exerts control by virtue of ownership, regulatory authority, or other legal jurisdiction.

The proposed restoration of passenger rail service to Fall River will require track and ballast reconstruction and the construction of a new passenger station at Battleship Cove within the Mount Hope Bay Designated Port Area. Construction associated with the alternatives would maintain and upgrade the existing rail capacity serving the DPA. Preservation of this rail capacity as critical infrastructure would be consistent with the preservation and enhancement of Designated Port Areas.

Ports Management Principle #1 - Encourage, through technical and financial assistance, expansion of water-dependent uses in designated ports and developed harbors, re-development of urban waterfronts, and expansion of visual access.

The re-establishment of passenger rail service to Fall River and New Bedford will encourage water-dependent uses in the designated port areas and both developed harbors by use of public funds for redevelopment. In addition, the project would improve tourism access to the waterfront in both these communities. The proposed upgrade of rail facilities and development of station sites is compatible with adjacent development. The build alternatives would maintain and contribute to the improvement of the condition of abandoned, vacant land and convert it into a useful facility.

4.18.5.6 PUBLIC ACCESS

Public Access Policy #1 - Ensure that developments proposed near existing public recreation sites minimize their adverse effects.

Public Access Management Principle #1 - Improve public access to coastal recreation facilities and alleviate auto traffic and parking problems through improvements in public transportation. Link existing coastal recreation sites to each other or to nearby coastal inland facilities via trails for bicyclists, hikers, and equestrians, and via rivers for boaters.

Redevelopment of commuter rail facilities in Fall River and New Bedford will provide mass transit access to coastal recreational facilities. A station in Fall River is planned to directly service the Battleship Cove Historical Park. Commuter rail service between these coastal areas and Boston will help to alleviate commuter automobile traffic and parking problems. The developed nature of the coastal areas in the project area is not suitable for trail development. The rail embankment does not have sufficient width to incorporate a trail system, and the proximity to high speed rail traffic would raise safety questions. The use of existing, active rail segments within the Coastal Zone does not preclude development of any proposed public access paths in this area.

Public Access Management Principle #2 - Increase capacity of existing recreation areas by facilitating multiple uses and by improving management, maintenance and public support facilities. Resolve conflicting uses whenever possible through improved management rather than through exclusion of uses.

This Management Principle is not applicable to the alternatives.

Public Access Management Principle #3 - Provide technical assistance to developers of private recreational facilities and sites that increase public access to the shoreline.

This Management Principle is not applicable to the alternatives.

Public Access Management Principle #4 - Expand existing recreation facilities and acquire and develop new public areas for coastal recreational activities. Give highest priority to expansions or new acquisitions in regions of high need or limited site availability. Assure that both transportation access and the recreational facilities are compatible with social and environmental characteristics of surrounding communities.

This Management Principle is not applicable to the alternatives.

4.18.5.7 ENERGY

Energy Policy #1 - For coastally dependent energy facilities, consider siting in alternative coastal locations. For non-coastally dependent energy facilities, consider siting in areas outside of the coastal zone. Weigh the environmental and safety impacts of locating proposed energy facilities at alternative sites.

This policy is not applicable to the alternatives.

Energy Management Principle #1 - Encourage energy conservation and the use of alternative sources such as solar and wind power in order to assist in meeting the energy needs of the Commonwealth. The proposed project will support this Management Principle by encouraging the use of public transportation and reducing dependency on individual automobiles. This project will provide the opportunity to use alternative energy sources such as wind or solar power at the proposed stations or for future transit-oriented development.

4.18.5.8 OCEAN RESOURCES

Ocean Resources Policy #1 - Support the development of environmentally sustainable aquaculture, both for commercial and enhancement (public shellfish stocking) purposes. Ensure that the review process regulating aquaculture facility sites (and access routes to those areas) protects ecologically significant resources (salt marshes, dunes, beaches, barrier beaches, and salt ponds) and minimizes adverse impacts upon the coastal and marine environment.

This policy is not applicable to the alternatives.

Ocean Resources Policy #2 - Extraction of marine minerals will be considered in areas of state jurisdiction, except where prohibited by the MA Ocean Sanctuaries Act, where and when the protection of fisheries, air and marine water quality, marine resources, navigation and recreation can be assured.

This policy is not applicable to the alternatives.

Ocean Resources Policy #3 - Accommodate offshore sand and gravel mining needs in areas and in ways that will not adversely affect shorelines areas due to alteration of wave direction and dynamics, marine

resources and navigation. Mining of sand and gravel, when and where permitted, will be primarily for the purpose of beach nourishment.

This policy is not applicable to the alternatives.

4.18.5.9 GROWTH MANAGEMENT

Growth Management Principle #1- Encourage, through technical assistance and review of publicly funded development, compatibility of proposed development with local community character and scenic resources.

The proposed restoration of passenger rail service to Fall River and New Bedford is compatible with the local character and scenic resources and Harbor Master Plan. Fall River and New Bedford are preparing Master Plans that incorporate commuter rail service. Additional information on the project's smart growth corridor plan and the compatibility of the proposed development with the surrounding land uses can be found in the *South Coast Rail Economic Development and Land Use Corridor Plan*.⁴

Growth Management Principle #2 - Ensure that state and federally funded transportation and wastewater projects primarily serve existing developed areas, assigning highest priority to projects that meet the needs of urban and community development centers.

The build alternatives would improve the transportation options for the existing developed areas of Fall River and New Bedford, and link these areas with the developed urban centers of Boston and Taunton. Enhancing transportation choice is one of the sustainable development principles that is addressed in the *South Coast Rail Economic Development and Land Use Corridor Plan*.⁵

Growth Management Principle #3 - Encourage the revitalization and enhancement of existing development centers in the coastal zone through technical assistance and federal and state financial support for residential, commercial and industrial development.

The build alternatives are consistent with this is policy since improvement of transportation options serving Fall River and New Bedford will encourage residential, commercial and industrial development within these coastal communities. Transit-oriented development is specifically addressed in the *South Coast Rail Economic Development and Land Use Corridor Plan*.⁶

4.18.5.10 SUMMARY

Depending on the alternative selected, the project is expected to require several licenses for bridges, stations and layover facilities. Additional approvals will be required for bridge, track and ballast improvements at existing railroad crossings of non-tidal rivers and streams. The jurisdiction of many of these crossings will be determined during further consultation with DEP.

⁴ Commonwealth of Massachusetts. 2009. South Coast Rail Economic Development and Land Use Corridor Plan, DRAFT June 29, 2009. Executive Office of Transportation and Public Works, and Executive Office of Housing and Economic Development. Prepared by Goody Clancy: Boston.

⁵ Commonwealth of Massachusetts. 2009. South Coast Rail Economic Development and Land Use Corridor Plan, DRAFT June 29, 2009. Executive Office of Transportation and Public Works, and Executive Office of Housing and Economic Development. Prepared by Goody Clancy: Boston.

⁶ *ibid.*

The alternatives are anticipated to comply with the policies and principles of the Massachusetts Coastal Zone Management Program. The alternatives will support water-dependent industrial uses within the New Bedford and Mt. Hope Bay DPAs by maintaining a critical transportation system supporting these uses.

The Build Alternatives would require a Federal Consistency Certification under the Massachusetts Coastal Zone Management Plan. It is anticipated that the alternatives would be consistent with the applicable policies.