

CHAPTER 8

MEPA DRAFT SECTION 61 FINDINGS AND MITIGATION MEASURES

8.1 INTRODUCTION

This purpose of this chapter is to identify and present the mitigation measures and Draft Section 61 Findings as part of the DCWMP/DEIR. Draft Section 61 Findings are outlined in the Massachusetts Environmental Policy Act (MEPA) Regulations 301 CMR 11.07, in accordance with M.G.L. c. 30, section 61 for all State agency actions. These regulations require that each agency, department, board, commission and authority of the Commonwealth “review, evaluate, and determine the impact on the natural environment of all works, project or activities conducted by them and shall use all practicable means and measures to minimize damage to the environment.” The regulation also states that, “Any determination made by an agency of the Commonwealth shall include a finding describing the environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact.”

The Draft EIR (DEIR) is required as part of the Certificate of the Secretary of Energy and Environmental Affairs to include a separate chapter on mitigation measures associated with the DCWMP/DEIR and that this chapter also includes Draft Section 61 Findings for all state agency actions. The Draft Section 61 Findings shall contain a clear commitment to implement mitigation, an estimate of the individual costs of the proposed mitigation, identification of the parties responsible for implementing the mitigation, and a schedule for the implementation of mitigation.

8.2 DRAFT SECTION 61 FINDINGS FOR STATE AGENCY ACTIONS

The anticipated State agency actions are listed below. These actions summarize permits and approvals that will likely be required for implementation of the recommended plan.

- U.S. Environmental Protection Agency (USEPA), National Pollutant Discharge Elimination System (NPDES) Permitting Program (as applicable), under 40 CFR Chapter 1, Section 122.26 (15) for NPDES Stormwater Permit for Construction Activities and review of developed Stormwater Pollution Prevention Plan (SWPPP).
- Department of the Army, New England District, Corps of Engineers (as applicable), Permit requirement under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403); Permit requirement under Section 404 of the Clean Water Act; Massachusetts Programmatic General Permit (PGP) or Category II or III Individual Permit.
- Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) approval of the DCWMP/DEIR and FCWMP/FEIR.
- Massachusetts Department of Environmental Protection (MassDEP), Ground Water Discharge Permit Program, pursuant to M.G.L. c. 21 s. 43 and its regulations at 314 CMR 5.00, BRP WP 11, for facility modifications with plan approval.
- Massachusetts Department of Environmental Protection, Sewer System Extension and Connection Permit Program, pursuant to M.G.L. c. 21 s. 43 and its regulations at 314 CMR 7.00, BRP WP 13, 17, or 18.
- Massachusetts Department of Environmental Protection, Chapter 91 License (as applicable), pursuant to M.G.L. c. 91, the waterways licensing program.
- Massachusetts Department of Environmental Protection, Notice of Intent (NOI) Wetland Protection Act (WPA) Form 3 (as applicable) and Falmouth Conservation Commission approvals (as applicable) for work within the 100 foot buffer to a wetland, per the wetlands regulations at 310 CMR 10.00.
- Massachusetts Department of Environmental Protection, Air Quality Permits (as applicable), BWP AQ 04 - Asbestos Removal Notification that may be required for Asbestos Pipe removal and BWP AQ 06 Construction/Demolition Notification.
- Massachusetts Department of Environmental Protection, Emergency Engine and Emergency Turbine Compliance. The program applies to all new emergency or standby engines with a rated power output equal to or greater than 37 kW or

emergency turbine with a rated power output less than one megawatt constructed, substantially reconstructed, or altered after March 23, 2006.

- Massachusetts Department of Environmental Protection, Air Quality Permit BWP AQ 14, 15, 16, 17 Operating Permits. These are mandated for major sources of air pollution by the Clean Air Act Amendments of 1990. Massachusetts has incorporated this program in 310 CMR 7.00 Appendix D of its Air Pollution Control Regulations. In some cases, emissions from WWTFs or odor control systems trigger this requirement.
- Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup, Filing of Utility Release Abatement Plan (as applicable), for excavation within known contaminated sites.
- Office of Coastal Zone Management (CZM) Federal Consistency Review, pre-consultation to determine applicability.
- Commonwealth of Massachusetts Department of Public Works Permit for work within State Highway Layouts. These will be required for any work along Route 28 required as part of the recommended plan.
- Massachusetts Division of Fisheries & Wildlife, The Natural Heritage & Endangered Species Program (NHESP), MESA (321 CMR 10.00) and/or the WPA (310 CMR 10.00) for work below mean high water line, in a fish run, or in priority or estimated habitats.
- Massachusetts Division of Marine Fisheries (DMF) as appropriate. DMF shall include consultation on potential impacts to diadromous fish species and mitigation measures as appropriate.
- Massachusetts Historical Commission (MHC) consultation/reviews for any collection system components and pump stations to be constructed outside of road right-of-ways.
- Cape Cod Commission (CCC) approval of the FCWMP/FEIR as part of the Development of Regional Impact (DRI) approval process.
- Town of Falmouth building permits for the construction of structures as part of the recommended plan.

- Town of Falmouth Wastewater Department for sewer connection permitting.

The assessment of impacts to the environment as they pertain to the Town of Falmouth's recommended plan are discussed in Chapter 6 of this DCWMP/DEIR and the resulting planned mitigation measures are discussed in this chapter. The following section summarizes mitigation commitments, and may be used as the basis of development of Section 61 Findings for federal and/or state permits necessary for construction and operation of the recommended plan.

All mitigation measures will be funded and implemented by the Town of Falmouth, its agents, representatives, and/or contractors in addition to any state agency actions required above. The Secretary's Certificate and comments received from review of the DCWMP/DEIR will be included in the FCWMP/FEIR once received.

8.3 PLANNED MITIGATION MEASURES, IMPLEMENTATION SCHEDULE, AND ESTIMATED COSTS

As part of the EIR process outlined in 301 CMR 11.07, the following mitigation measures were identified. These measures were outlined and identified to limit negative environmental impacts and/or create positive environmental impacts during development and operation of the recommended plan. The schedule and costs for the implementation of mitigation is also discussed where appropriate.

A. Design and Construction Mitigation.

1. **General Construction Measures.** During construction, the site(s) shall be secured to prevent unauthorized entry to the construction site, and to protect existing and adjacent facilities and properties. Supplemental lighting, signs, railings, and construction barriers shall be used as necessary to provide safety to employees, construction workers, visitors, and the general public during the construction process in accordance with Occupational Safety and Health Administration (OSHA) and other applicable regulations.

Water used during the construction process, and that generated from runoff on the site, will be controlled by proper site grading, and by providing temporary berms, drains, and other means to prevent soil erosion. These means will also be used to reduce puddling and runoff on the site.

Existing and new catch basins will be protected from siltation using hay bales, siltation fence, and catch basin inserts. At no time will the pumping of silt-laden water to surface waters, stream corridors or wetlands be allowed. Pollution controls will also be provided to prevent the contamination of soils, water and the atmosphere from the discharge of noxious, toxic substances, and pollutants during the construction process.

Erosion control measures including hay bales, siltation fencing and erosion control fabric will be used to provide sedimentation barriers where required. Temporary seeding and mulching may also be used to minimize soil erosion and provide soil stabilization on slopes. Diversion trenches may also be used on the uphill side of disturbed areas to divert surface runoff. Land disturbances will be kept to a minimum to reduce impacts and erosion. All erosion and storm water control methods shall be in accordance with the USEPA National Pollution Discharge Elimination System (NPDES) General Permit requirements, Commonwealth of Massachusetts regulations and the Town of Falmouth regulations. A Storm Water Pollution Prevention Plan (SWPPP) will be required as part of the NPDES General Permit.

The site will be maintained free of waste materials, debris, and trash following each day of work. Waste and other debris will be collected and disposed of off-site periodically. At no time during construction will the dumping of spoil material, waste, trees, brush or other debris be allowed into any stream corridor, any wetland, any surface waters or any unspecified location. The permanent or unspecified alteration of stream flow lines is not allowed during construction.

Construction noise from heavy equipment will normally be limited to within normal operating hours of 7:00 am to 5:00 pm. Dust controls, including the use of street sweepers and/or watering trucks, will be used to minimize air-borne dust as necessary.

2. **Collection System Construction.** In addition to the measures identified in the general construction section, police details and other traffic controls will be necessary to minimize traffic problems during construction of collection systems. Detours and trucking routes will need to be identified prior to construction and these routes will need to be designed to minimize impacts to surrounding residential areas not accustomed to heavy construction and increased vehicle traffic. Construction of the collection system will have to allow for safe travel of both pedestrians and vehicle traffic.

Collection system extensions are planned in the road layouts to avoid impacts to animal habitats, wetlands, historic areas, or potential archeological sites. Construction in these areas will impact traffic (vehicle, pedestrian, and bicycle) in the roadways during construction. Construction procedures for traffic control, erosion protection, dust control, noise prevention, and wetland protection will be implemented as appropriate. Use of trench boxes, bracing and other shoring methods will be utilized to provide the necessary safety for workers and others at the construction site. To the extent practicable, any private property, including trees and vegetation, that is damaged during construction is to be repaired or replaced. All roads, both publicly and privately owned, impacted by construction associated with the implementation of the collection system shall be restored to condition safe and appropriate for vehicular traffic. Any collection system components and pump stations to be constructed outside of road right-of-ways will be reviewed with the Massachusetts Historical Commission.

The collection system pump stations need to be located in low-elevation areas to be able to utilize gravity pipes for collection and subsequent pumping. Wetland regulations and permitting will be followed to minimize impacts to any adjacent wetlands.

Stormwater and construction run-off will be managed through the implementation of construction SWPPPs established prior to construction and regulated under USEPA NPDES General Permits for Construction.

Areas requiring sewers located within parts of Town identified as barrier beach will have to be designed and constructed to meet specific state requirements for work within these areas (Executive Order 181), and will have the following stringent requirements for the construction of sewers on a barrier beach:

- a. All infrastructure must be protected from coastal flood hazards.
- b. The sewers cannot promote additional growth on the barrier beach that would not have otherwise been allowed.

Previous discussions held with Massachusetts Coastal Zone Management (CZM), the agency that upholds Executive Order 181, have identified that the water quality benefits provided by the collection system extensions will greatly outweigh the slight risk that a catastrophic coastal

hazard could damage some of the infrastructure. Collection system extensions will be designed to withstand reasonably expected coastal flood hazards; pump stations will be designed to withstand a 100-year storm and all pipes and equipment suitably protected from wave action. Pump stations will be located outside of flood zones when possible and protected with a system of check valves in critical areas, and generally protected from floods and natural hazards to the extent reasonable.

The Town of Falmouth Code, Chapter 180 (Sewers and Septic Systems) includes a section (Article VII) related to growth management in the New Silver Beach Sewer Service Area. This regulation (attached in Appendix 8-1) could be used as a model for a growth-neutral approach to addressing potential growth in new sewer service areas. In an effort to mitigate the growth issues that may develop from sewer extensions, the Town's Nutrient Management Group is developing a broader bylaw that meets the Environmental Bond Act requirements for zero percent loans under the State Revolving Fund (SRF) and requirements of the Ocean Sanctuaries Act

3. **Wastewater Treatment Facility Site.** In addition to those mitigation measures identified previously, the following measures will be provided at the new potential WWTF to be built at the MMR/Otis AFB site. The greatest mitigation measure is the operation of a new advanced wastewater treatment system designed for nitrogen removal to 3 mg/L total nitrogen and 3 mg/L total organic carbon (TOC), which will result in long-term improved water quality Town-wide.

This new wastewater treatment system will significantly reduce the amount of nitrogen entering the Town of Falmouth's coastal embayments in order to make substantial progress towards achievement of the TMDLs during the 20-year planning period, and will also provide very significant removal of suspended solids, BOD and TOC in the effluent. This system will increase the production of biosolids (sludge) and increase the volume of treated water recharged to the water table. The sludge will be disposed of at an approved off-site facility in accordance with MassDEP guidelines. The treated water recharge has been planned to restore and maintain hydraulic balance with the drinking water supply and surface waters. The recharge will be monitored as part of an approved groundwater monitoring plan.

Odor and noise mitigation measures will also be considered as part of the final design to minimize the impacts to adjacent properties during construction and operation.

The following mitigation measures will be observed to avoid or minimize adverse environmental impacts:

- The majority of the WWTF construction will take place on a previously developed parcel (abandoned MMR/Otis AFB wastewater recharge sand infiltration beds).
- In addition to new pumping stations, the secured concrete utility structure (aboveground) which will work in combination with the valve vault and recharge wells (below grade) for the recharge well system will have exterior façades which will compliment Cape Cod architecture and aesthetics.
- Vegetative screens will be employed if is determined that they are necessary for aesthetic reasons.
- Work will be halted if archaeological resources are uncovered during construction.
- The contractor will be required to thoroughly clean up the site before the contract is considered complete.
- Expert agencies will be contacted when a resource may be impacted.
- Proper handling and storage of possible contaminants and hazardous substances will be required of the contractor, in addition to proper notifications.
- Access roads will be dampened to minimize construction dust if required.
- Debris will not be burned as a means of disposal.
- No structures will be placed near airfield runways, approaches, and flight paths.
- No construction work will normally be performed during evening, holiday, or weekend hours.
- A resident project representative will be employed to ensure that the project area is kept clean and that mitigation measures are met.

8.4 ADDITIONAL MITIGATION MEASURES

A. **Introduction.** In the FCWMP/FEIR, this section will include a discussion of addition items specifically identified in the Secretary's Certificate once received after submission of this DCWMP/DEIR under MEPA. These mitigation measures will be implemented by the Town of

Falmouth, its agents, representatives, and/or contractors in addition to any state agency actions required in Section 8.2.

A significant additional mitigation measure will include an adaptive management approach. The Town of Falmouth's CWMP includes the implementation of an adaptive management process to monitor groundwater elevations, water quality and performance at the new well injection sites, in addition to monitoring nitrogen loading levels to coastal embayments during construction and upon completion of the phased sewerage project. This adaptive management approach will enable the CWMP to be adjusted based on the monitoring results of the environmental and economic impacts associated with the construction of the new sewers in Falmouth. Coordination with MassDEP and the CCC will also be included and key factors incorporated into the adaptive management plan.

8.5 MITIGATION SUMMARY

The mitigation measures as they apply to general construction, collection system construction and the wastewater treatment facility site also encompass the potential environmental impact categories discussed in Chapter 6. As previously discussed, the majority of the potential WWTF construction will take place on a previously developed parcel at the MMR/Otis AFB, therefore the project will have limited negative impacts on habitat areas, open space and other public recreational areas.

As discussed previously in the DCWMP/DEIR, the greatest mitigation measure for the project is the operation of a new advanced wastewater treatment system designed for nitrogen removal to 3 mg/L total nitrogen and 3 mg/L of TOC. The recommended plan cost summary is outlined in Table 7-1 and estimates a cost of \$400 million for Phase 1 and 2 wastewater improvements and an additional \$200 million for Phase 3 improvements, for a total of \$600 million. Based on the long-term benefits of improved water quality Town-wide, environmental quality improvements to estuaries, wetlands, surface waters, groundwater, etc. the entire cost of the project may be thought of a mitigative measure cost. The reduction of nitrogen in the environment will have long-term far reaching benefits locally and regionally to Cape Cod's community once fully implemented.