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To: EPA Region 1
From: Philip Weinberg, MassDEP, Office of Operations and Environmental Compliance PW
Re: South Terminal (Updated) ARARs Overview
Date: June 18, 2012

The Department of Environmental Protection is pleased to submit this updated these Applicable or Relevant and Appropriate Requirements (ARAR) in connection with the South Terminal project, which is comprehensively described in the report entitled Enhanced Remedy in New Bedford, South Terminal, January 18, 2012("SER Report" or "Report"). This Report, in turn, supplements and updates the Reports previously submitted to EPA on or about August 25, 2010 and February 10, 2012. This memorandum further reflects the Executive Office of Energy and Environment's "Response to USEPA Comments on the Commonwealth of Massachusetts January 18, 2012 Submission for the New Bedford Marine Commerce Terminal (NBMCT) (June 18, 2012) (" EPA Response Memo").

The project envisions the construction and operation of a marine terminal approximately within the Designated Port Area of the New Bedford Harbor at a site north of and proximate to the Harbor's Hurricane Barrier. The project also contemplates navigational dredging to accommodate vessels' access to the terminal. MassDEP has sent previous ARARs letters, the last being August 27, 1997, for the remedy at the New Bedford Harbor Superfund Site Operable Unit 1. The ARARs identified in this report will update the original ARARs and include ARARs relative to the South Terminal project as seen on Table 1.

The project's potential impacts associated with filling and dredging include:
Permanent Impacts

- Areas of Proposed Filling:
  - 1.94 acres of intertidal area – Recalculated Intertidal Area,
  - 4.06 acres of shallow, near-shore sub-tidal area; and
  - 0.18 acres of salt marsh will be filled during the construction of the facility.

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- 0.67 acres of area that will be dredged, partially filled with a concrete blanket along the bottom as well as piles needed to support the pile-supported section of the quay, and shaded by the concrete platform.

- Areas of Dredging (Existing Depth Between -1 and -6 MLLW):
  - 7.02 acres of near-shore, subtidal area will be dredged from between -1 and -6 MLLW to between -30 and -32 MLLW (Quayside Areas – Increased Due to the Potential Extension of the Deep-Draft Dredging Area to the South and Due to Potential Widening of Deep-Draft Channel By 50 Feet).
  - 8.46 acres of near-shore, subtidal area will be dredged from -1 MLLW to -6 MLLW to -14 MLLW (Quayside Areas and Tug Channel).
- Shellfish Impacts
  - Based upon the revised area of impact as described above, the number of shellfish anticipated to be impacted has been revised. The total shellfish anticipated to be impacted by the project is now estimated at: 9,817,121.

Temporary Impacts

- Areas of Dredging (Existing Depth Between -1 and -6 MLLW):
  - 8.76 acres of near-shore, subtidal area will be dredged to -45 MLLW, filled and capped (CAD Cell).
  - 6.17 acres of near-shore, subtidal area will be dredged from -4 to -6 MLLW to between -6 and -7 MLLW (Gifford Street Channel Re-Alignment and Mooring Mitigation Areas – Reduced due to the reduction in size of the Northern Mooring Mitigation Area).
- Areas of Dredging (Existing Depth between -20 and -30 MLLW):
  - 8.29 acres of subtidal area will be dredged from -20 to -29 MLLW to -30 MLLW (South Terminal Channel – Increased Due to the Potential Extension of the Deep-Draft Dredging Area to the North).
  - 15 acres of subtidal area will be dredged to -30 MLLW (Maintenance Dredging of Federal Navigation Project –

- Blasting Impacts – To be minimized to the extent possible as discussed herein.

- Mitigation for impacts to winter flounder, shellfish and salt marsh Including:The proposed
    - Winter Flounder spawning habitat creation will be increased by 5 acres, from 17.73 acres to 22.73 acres.

  - The OU-3 Hot-Spot Capping Mitigation Area will be increased in size such that the following increases in habitat creation or enhancement area realized:

- The intertidal portion of the OU-3 Hot-Spot Capping Mitigation Area will be increased in size by approximately 1 acre from 3.47 acres to 4.47 acres of inter-tidal area that will be either created or enhanced.
- The sub-tidal portion of the OU-3 Hot-Spot Capping Mitigation Area will be increased approximately 4 acres from 10.91 acres to 14.91 acres.
- Creation/Enhancement of up to approximately 1.9 acres of successional marsh area will still be included within the mitigation package, as outlined within the Commonwealth's January 18, 2012 submittal.
- Completion of the Tern Monitoring Program as outlined within the Commonwealth's January 18, 2012 submittal.
- Shellfish mitigation as outlined within the Commonwealth's response to Question 7E to EPA's May 21, 2012 letter.

Terminal Design and Construction

310 CMR 10:00 Wetlands Regulations

All the activities associated with the project lie within a Designated Port Area (DPA), locations dedicated to marine industrial and commercial purposes.[1] Based on currently available information, there are no inland resource areas subject to jurisdiction under the Department's Wetland Regulations, 310 CMR 10.00. The Wetland Regulations at 310 CMR 10.26 establish the performance standards for activities proposed in wetland resource areas within a DPA. The regulation designates land under the ocean in a DPA as significant to the wetland interests of marine fisheries, storm damage prevention and flood control, and presumes that such land is not significant to other interests including salt marsh, land containing shellfish, coastal beaches, and tidal flats. Therefore, the performance standards applicable to those marine resource areas are not applicable to projects within the DPA absent unique conditions not present in the site of this DPA. Moreover, impacts to these areas from filling have been compensated for through mitigation discussed below.

Projects in the DPA must be designed and constructed using best practical measures to minimize adverse effects on: (a) fisheries through changes in water circulation and water quality; and (b) storm damage prevention or flood control caused by changes in the land's ability to provide support for adjacent coastal banks or engineering structures. There is nothing unique about the construction or location of the bulkhead to suggest that it would have an adverse impact on water circulation which is driven primarily by meteorology and tides in this locale. Dredging and filling activities may cause temporary impacts to water quality, which will be addressed through

[1] A locale is established as a DPA pursuant to the Coastal Zone Management Regulations at 301 CMR 25.00.

a through development of a comprehensive Stormwater Pollution Prevention Plan (SWPPP) as discussed in further detail in Appendix A.

Given the bulkhead's location in relation to the hurricane barrier, there is no reason to conclude that the terminal will have an adverse impact from storm damage or flooding to the coastal bank, or boat ramp or marine industrial bulkhead located on adjacent parcels. The Terminal will be constructed to minimize potential flood impacts. Regarding the need to provide for compensatory flood storage for the placement of fill in the harbor to construct the containment structure, the Department finds that the need for such compensatory flood storage is not warranted. Generally, in the Wetland Regulations at 310 CMR 10.57, compensatory flood storage is regulatory required in inland riverine flood producing conditions where displacement of flood waters in a confined landscape would result in the lateral displacement of flood flows and potentially injure adjacent properties. There is no regulatory requirement to provide such compensatory flood storage in the coastal zone/open ocean flood zones. The exception is for those FEMA areas such as Coastal Flood AH zones where such as confined area of shallow over-wash ponding potentially could have flood waters displaced by fill therefore needing flood storage compensation to prevent shifting flood waters onto adjacent property. Given that the New Bedford Harbor is designated as a FEMA Coastal Flood Zone A-E with a Base Flood Elevation of 5, and is not a confined, shallow or restrictive basin, the Department is of the opinion that compensatory flood storage is not needed or required under the Wetlands Protection Act.

The potential stormwater impacts to coastal wetland resources as a result of terminal construction will be addressed through compliance with the water quality performance discussed below. Based on information currently available, there are no upland state wetland resources areas impacted by construction activities. However, as additional site resource delineations are conducted and construction management plans developed, MassDEP will require said delineations and plans are reviewed by the Department and appropriate stormwater management design and best management practices are implemented to ensure compliance with the stormwater performance standards of the Wetland Regulations. 310 CMR 10.05(6)(k) – Stormwater Management

<u>314 CMR 9.00 Water Quality Certification</u>

The South Terminal's bulkhead is to be constructed with sheetpiling and backfilled with 150,000 cubic yards of clean sand generated by navigational dredging projects undertaken in the Harbor. The bulkhead will infill approximately 6.0acres of intertidal and near shore habitat and 0.18 acres of salt marsh and .67 acres of area of terminal supporting structures. The intertidal and subtidal areas of the proposed bulkhead are currently contaminated with lower levels of PCBs. An additional 34,000 cy of clean material generated from navigational dredging will be used to

grade the upland portions of the facility for the wind blade lay down area and ancillary staging and loading uses.

The Water Quality Certification Regulations at 314 CMR 9.06(1) require an alternative analysis that demonstrates no practicable alternative to the project will have a less adverse effect on the aquatic environment. The SER Report sets out the basis for the Department's conclusion that there is no other practicable location or configuration for the project that will meet its primary purpose in serving the off-shore renewable energy. The Report satisfies the regulation's alternative analysis performance standard. Furthermore, the South Terminal project will generate additional collateral environmental benefits to the Harbor clean-up and surrounding habitat in that it provides (a) a construction-related reuse for CAD generated material, (b) a location capable of providing future means to store and reuse CAD sediment, and (c) the mechanisms by which the proposed mitigation measures will eliminate exposure of the aquatic environment to PCB contamination. The terminal also allows the project to comply with the provision of 314 CMR 9.07(1)(e), which compels reuse or recycling of dredged material rather than its disposal.

The regulation at 314 CMR 9.06(2) requires that appropriate and practicable steps be taken to avoid and minimize potential adverse impacts to land under water or the intertidal zone. The Department has developed standard protocols to regulate construction activities in shoreline areas to avoid and minimize adverse impacts to water quality and benthic habitat through the use of time of year restrictions and best management practices. In regard to the bulkhead, most of the impacts to the intertidal areas will occur behind the sheet piling. The provisions in Appendix A describe the means by which the filling associated with the Terminal construction will meet the water quality standards as enforced through the water quality certification performance standards. As noted above, construction related stormwater impacts will be addressed through the SWPPP. There is nothing unique about this project that indicates that through site-specific application of these protocols the avoidance and minimization standard cannot be achieved.

When MassDEP previously determined which MassDEP regulations apply to the project, it was contemplated that the bulkhead could potentially incorporate anthropogenic, contaminated dredge spoils. As a consequence, it was determined that the terminal would be regulated as a Confined Disposal Facility (CDF) pursuant to 314 CMR 9.07(8). In light of the representation that the bulkhead construction and lay down area grading material will be composed only of clean sand, the CDF performance standards are no longer relevant. The bulkhead construction and site grading material may be regulated as the reuse of dredged material under the appropriate reuse alternatives set out in 314 CMR 9.07(9)(a) and (b). 314 CMR 9.07(9)(a) allows for the shoreline placement of dredged material proximate to the dredging activity that lies with a flood plain and identifies placement of material behind a bulkhead as valid reuse alternative. The SER report identifies the site ass within the FEMA mapped 100-year flood plain.

The use of clean, dredged sand for the purpose of grading the upland areas of the site is regulated pursuant to 314 CMR 9.07(9)(b). This provision provides for the placement of dredged material in an upland area for fill or reuse, provided the concentration of contaminants in the material (1) do not exceed the S-1 applicable at the receiving location, as specified in 310 CMR 40.0975, (2) is not a hazardous waste, and (3) will not adversely affect a potable water supply. Additional provisions require that contaminants in the material not be significantly different or greater than the receiving location's background conditions, the reuse occur in a DPA if practicable, and the material be appropriately dewatered and otherwise managed in accordance with applicable regulations at 314 CMR 9.07. The Report's representation that only clean sand would be employed makes it reasonably likely that the material would not exceed S-1 standards or the background conditions at the proposed reuse locations. Based on historic sampling data and standard sampling protocols, MassDEP would establish an appropriate construction sampling methodology to confirm that the material designated for upland reuse met the applicable compliance standard.

In addition to the foregoing, the construction of the terminal is also subject to the following additional Regulations:

Surface Water Quality Standards, 314 CMR 4.00, et seq.:

314 CMR 4.03 Application of Standards
314 CMR 4.04 Antidegradation Provision
314 CMR 4.05 Classes and Criteria

The project proponent has committed to implementing and otherwise complying with the Water Quality performance standards and Best Management Practices more particularly described in Schedule A. MassDEP asserts that by virtue of the project proponent's implementation of these performance standards and BMP's, the terminal construction activities will comply with the substantive requirements of the Water Quality program.

310 CMR 9.00 Waterways

The terminal is also regulated under the Waterways regulations, 310 CMR 9.00. The terminal's functions classify it as a water dependent-industrial facility under the criteria at 310 CMR 9.12: a facility related to the construction and storage of marine structures, a marine terminal for transfer between ship and shore of water-borne goods, and an ancillary activity to offshore renewable energy infrastructure. As a water dependent facility, the project is presumed to serve a proper public purpose (310 CMR 9.31). There is nothing in the record to indicate that this project is displacing an established, reasonably continuous water-dependent use in contravention to 310 CMR 9.36(4). Water dependent industrial structures within the tideland area of a DPA may be

constructed with fill, provided that neither pile supported, nor floating structures are a reasonable alternative. 310 CMR 9.32(1)(b)2.

The SER Report presents convincing information that the massive weight and pounds per square inch pressure exerted by the mobile cranes used to unload and stage the turbine components establish that a pile supported or floating structure are not practicable alternatives to meet the operational design requirements of the Terminal (See, Sec. 4.3.2).[2] This section incorporates information previously provided to the Department on May 6, 2011 to further analyze the relationship between the required weight bearing capacity of the terminal and its design. The Report describes how a typical mobile crane weighing 600 metric tons can, in the course of an unloading operation, generate in excess of 12,000 psf. Those estimates are consistent with the load designs of European ports that have supported off-shore wind installations. The vibration produced as the cranes move from the unloading to the staging area can also severely impact structures with fixed point load bearing, such as pile supported structures, disrupting the connection points and causing early failure.

The need for crane mobility and their operating loads require, as a practical necessity, a crushed stone surface, rather than a concrete operating surface, to prevent the cracking of the concrete deck due to settlement and wear and tear. To avoid cracking the deck on a pile supported structure, the project requires an additional three feet of fill that will further increase the load bearing demands on a pile structure and raise its elevation 7 feet more than the current bulkhead alignment. A pile supported structure built to carry these loads would require pilings of a dimension and density that would reasonably preclude navigating or walking under the structure, thereby virtually eliminating any public access opportunities that a standard pier pile supported structure might provide, and having sufficient density as to have the effect of being fill in terms of its effect on marine resources.

These factors combine to preclude reliance on a pile supported structure as a reasonable design choice. This conclusion is further supported by the Department's records, which indicate that these cranes weigh 12 times and 6 times more than the cranes at the largest cargo marine terminals operating in Boston and New Bedford, respectively. Floating structures are also incompatible with the primary purpose of the terminal, given the foregoing load bearing constraints and the need for a stable infrastructure to transfer and stage these heavy turbines. The terminal also meets the Engineering and Construction standards at 310 CMR 9.37.

The site investigation of the upland portion of the terminal site identified that major portions of the site were underlain at relatively near surface depths with a variety of waste materials. Certain test pits also showed the presence of hydric soils and invasive plants that can propagate in

[2] The EPA Response Memo updates the SER to describe a portion of the terminal that will be supported by a concrete blanket and pilings.

anaerobic conditions. The Department does not consider those areas jurisdictional wetlands. In addition, the SER Report noted that at least one area has been identified as the site of release regulated under M.G.L. c. 21E. The Department anticipates that as the project progresses a more detailed site assessment will be conducted pursuant to Massachusetts Contingency Plan regulations, 310 CMR 40.000, and the appropriate response actions will be implemented, if required.

The proposed site development design the Department reviewed in 2010 incorporated a temporary bridge between two parcels of land that traversed an intertidal salt marsh. The current design connects those parcels through an entirely different route outside of the intertidal area and salt marsh. Therefore, the discussion in the Department's August 25th memo on the temporary impacts associated with the bridge is no longer relevant.

In addition to the foregoing, the construction of the terminal is also subject to the following Waterways Regulations, at 310 CMR 9.00, et seq.:

9.12(2)(a)(9 and 14) - Water-dependent use
9.32(1)(a and b) - Categorical Restrictions on Fill and Structures
9.34 - Conformance with Municipal Zoning and Harbor Plans
9.35 - Standards to Preserve Water-Related Public Rights
9.35(2)(a) - Navigation
9.35(3)(a) - Fishing/fowling
9.35(3)(b) - On-foot passage
9.35(4) - Compensation
9.36 - Standards to Protect Water-Dependent Uses
9.37 - Engineering Standards
9.37(1)(c) Does not unreasonably restrict the ability to dredge any channels
9.40 - Standards for Dredging and Dredged Material Disposal
9.40(2) - Resource Protection Requirements
9.40(3) - Operational Requirements for Dredging
9.40(4) - Operational Requirements for Dredged Material Disposal
9.40(5) - Supervision of Dredging and Disposal Activity

The project proponent has committed to implementing and otherwise complying with the Waterways performance standards and Best Management Practices more particularly described in Schedule A. MassDEP asserts that by virtue of the project proponent's implementation of these performance standards and BMP's, the terminal construction activities will comply with the substantive requirements of the waterways licenses program.

310 CMR 7.00 Air Quality

In accordance with MassDEP Requirements and Guidelines, the contractor will be required to develop a final Construction Management Plan that will define the measures to be taken to

minimize air quality impacts. Best management practices will be required to be implemented through the contract documents and methodologies for meeting performance standard will be set out in the formal submittals from the contractor under the CMP. Such measures could include such things as keeping exposed soil surfaces treated or wet, covering soil piles and providing enclosed areas for fine materials that could easily be entrained into the air. Said plan should also examine the options to provide short term fence line monitoring for PM2.5 along the boundary with the nearest residential area and should consider the migration of toxics into the air from soil, specifically PCBs and fugitive dust. Landside supplies of unconsolidated materials will be covered when not in use. Dust suppression and control measures will be implemented as needed and base on air quality monitoring results and the weather.

The Dust, Odor, Construction and Demolition standard of 310 CMR 7.09 will be followed. This citation contains several requirements applicable to this project including;

- A requirement to notify the Department ten days prior to conducting any demolition on site.
- A requirements that any demolition be performed in a manner so as to prevent or minimize the creation of dust or odor including use of measures designed to prevent dust such as seeding, covering, paving or wetting soil surfaces.
- A requirement that no person shall handle , transport or store materials in manner that would create dust or odor.

Diesel Engines:
Any stationary emergency or standby engine installed at the site shall comply with the requirements of 310 CMR 7.02(8)(i) and 310 CMR 7.26(40) and (44) as applicable. Any engine that is mobile in nature shall comply with federal standards with regards to limitation on the sulfur content of fuel.

Construction equipment used for this project shall comply with federal off road diesel emission standards including the use of ultra low sulfur diesel fuel (15 ppm sulfur content) in all diesel engine powered equipment. All equipment shall meet the Tier1-3 emission standards for off-road diesel equipment and to the extent practicable; all diesel powered equipment shall meet the Tier 4 emission standards (the final deadline for which is 2015), per 40 CFR Part 89.

Contractors will be encouraged to use diesel oxidation catalyst retro-fitted vehicles and equipment, and project will be directed to DEP for retrofitting guidance.
The regulations also require specific opacity limits, based on equipment type. The regulation states that no person who owns operates or controls a marine vessel, spark-ignited internal combustion engine or non-stationary diesel engine shall cause, suffer, allow or permit visible emissions including smoke, 310 CMR 7.06.

To the extent any activities may include Groundwater/ Soil venting systems, Conveyors and dry material storage silos, and rock crushing/processing as part of the construction or reconstruction of the site, they shall comply with the requirements of 310 CMR 7.03.

Air Quality Monitoring

An air monitoring program will be conducted throughout the construction process. Appropriate measures such as proper dust suppression measures will be implemented during construction activities to prevent excessive emissions of particulate matter. Four air monitoring stations will be established around the NBMCT construction project site. Daily measurements of particulate matter (dust particles) in the air will be taken and evaluated. The results will be measured in micrograms of particle per cubic meter and will be augmented with the meteorological (MET) results for the average wind speed and direction.

The EPA Response Memo proposed to use the same criteria and coding system as used for the Aerovox demolition project to determine the level of mitigation action. Using this system, information will be made available to the surrounding communities and presented in a format that will likely be familiar to those community members concerned about air quality or interested in the data. (See, EPA Response Memo, p 48). MassDEP believes the Aerovox criteria and protocol are sufficiently similar to the project to be adopted, pending review of the final CMP.

310 CMR 7.15 Asbestos:
Should the project require demolition of any structures (even as small as an equipment shed), the structure to be demolished must be inspected and tested for the presence of asbestos prior to demolition. If asbestos is found within the structure, asbestos must be removed from the structure prior to demolition. Ten day notice to the Department and the Department of Standards is required prior to removal of asbestos and the asbestos removal must be performed by a DOS licensed professional.

310 CMR 7.10 Noise: Applies to construction and demolition equipment which characteristically emit sound but which may be fitted with equipment including mufflers and enclosures to surpass sound or may be operated in a manner so as to limit sound to periods of the day when it will not be disruptive to the public. The owner/ operators of the project and their consultant should develop a sound management plan to define the construction noise sources and the mitigation measures to be taken to minimize sound impact from those sources. The plan should cover all aspects of the construction and demolition project including equipment that may not be able to be fitted with noise suppression and should propose time of day limitations for said equipment.

310 CMR 8.01 Requirement – Standards for the abatement of air pollution incident emergencies. Pollution abatement controls may be required.

Action to be Taken – Dredging and CDF construction will be implemented so as to avoid air pollution emergencies. Engineering controls will be used as necessary.

Navigational Dredging

Navigational access to the terminal requires a combination of improvement and maintenance dredging in excess of 17 acres of intertidal and subtidal areas. In addition, some blasting may be required if the necessary channel depths cannot be achieved through conventional means. The water quality regulations require a "LEDPA"-type analysis for dredge projects (314 CMR 9.07(1)(a). The SER Report and Response Memo set out a sufficient rationale for the extent of the proposed dredging. The rationale is based upon a best information available analysis of the configuration and number of primary and support vessels that will be required to implement the project, consistent with the wind turbine facility's transportation and construction predicates.

<u>314 CMR 9.00 Water Quality Certification</u>

The water quality regulations also require that appropriate and practicable steps be taken to avoid or, if avoidance is not possible, minimize and thereafter mitigate adverse impacts to land under water and the intertidal zone. 314 CMR 9.07(1)(a). Dredging performance standards at 314 CMR 9.07(3) reiterate and expand upon the need to avoid and minimize impacts, including a conditional prohibition on dredging within the migration, spawning or juvenile development of aquatic species. Although this project involves improvement dredging, as compared to the maintenance dredging conducted under the prior three phases of SER-approved dredge projects, the performance standards imposed in those previous projects would be equally appropriate and applicable to the navigational dredging associated with this project. In addition to aligning the dredging scheduling in regard to the times of the year when resident and migratory species are in their vulnerable phases of their life cycles, the establishment of mixing zones, the use of silt curtains and environmental dredge buckets, real time dredge and dewatering related turbidity monitoring and response plans, and environmental monitors' oversight will act in concert to satisfy the "avoid and minimize" standard. The Waterways regulations, at 310 CMR 9.40(2) and (3), impose more explicit dredge performance standards, such as conditionally precluding dredging between March 15th and June 15th of any year, to avoid interference with fish runs, but which can be met within the parameters of the scheduling, design and operating conditions discussed above.

The EPA Response Memo describes the blast design parameters and means by which the potential impacts to the fishery resources will be assessed and blasting impacts mitigated. MassDEP that the protocols and mitigation measures described in the Memo will meet the applicable water quality performances subject to the additional following conditions to be incorporated in an approval of the dredge management plan.

1. No blasting shall occur during periods of flounder spawning or during the alewife spawning run if so determined by NOAA or MassDMF.
2. All blasting shall be conducted using inserted delays of a fraction of a second per hole, and
3. stemming, in which rock is placed into the top of the borehole to damp the shock wave reaching the water column, thereby reducing fish mortalities from blasting.
4. All blasting operations are contingent upon using sonar, and with a fisheries observer present who is approved by the Massachusetts Division of Marine Fisheries (and National Marine Fisheries).
5. There shall be no blasting during passage of schools of fish or when a marine mammal is present as determined by the fisheries observer.
6. Blasting activities occurring from February 15 to June 15 shall be conducted with fish startle system, sonar and an approved fisheries observer to avoid impacts to anadromous fish migration.
7. There shall be no disposal during passage of schools of fish as determined by the fisheries observer.
8. The dredge contractor shall provide adequate notice to the fishermen/lobstermen on anticipated significant dredge movements.
9. The dredge contractor shall maintain a short tow while inside New Bedford Harbor to minimize disruption of vessels.

In addition to the foregoing, the dredging and filling activities associated with navigational dredging and construction of the Terminal are subject to the following additional Regulations:

<u>Water Quality Regulations, 314 CMR 4.00, et seq.:</u>

314 CMR 4.03 Application of Standards
314 CMR 4.04 Antidegradation Provision
314 CMR 4.05 Classes and Criteria

The project proponent has committed to implementing and otherwise complying with the Water Quality performance standards and Best Management Practices more particularly described in Schedule A. MassDEP asserts that by virtue of the project proponent's implementation of these performance standards and BMP's, the navigational dredging activities will comply with the substantive requirements of the Water Quality program.

<u>Waterways Regulations, 310 CMR 9.00, et seq.</u>

9.12(2)(a)(9 and 14) - Water-dependent use
9.32(1)(a and b) - Categorical Restrictions on Fill and Structures
9.34 - Conformance with Municipal Zoning and Harbor Plans
9.35 - Standards to Preserve Water-Related Public Rights
9.35(2)(a) - Navigation

9.35(3)(a) - Fishing/fowling
9.35(3)(b) - On-foot passage
9.35(4) - Compensation
9.36 - Standards to Protect Water-Dependent Uses
9.37 - Engineering Standards
9.37(1)(c) Does not unreasonably restrict the ability to dredge any channels
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9.40(2) - Resource Protection Requirements
9.40(3) - Operational Requirements for Dredging
9.40(4) – Operational Requirements for Dredged Material Disposal
9.40(5) - Supervision of Dredging and Disposal Activity

The project proponent has committed to implementing and otherwise complying with the Waterways performance standards and Best Management Practices more particularly described in Schedule A. MassDEP asserts that by virtue of the project proponent's implementation of these performance standards and BMP's, the navigational dredging activities will comply with the substantive requirements of the waterways licenses program.

The Navigational Dredging is subject to the following Wetlands Regulations, 310 CMR 10.00, et seq.:

310 CMR 10.25 - Land Under Ocean
310 CMR 10.26 - Designated Port Areas
310 CMR 10.27 - Coastal Beach
310 CMR 10.30 - Coastal Bank
310 CMR 10.32 - Salt Marsh
310 CMR 10.34 - Land Containing Shellfish
310 CMR 10.35 - Banks of Land Under the Oceans, Ponds, Rivers, Lakes, or Creeks that Underlie an Anadromous/Catadromous Fish Run

The project proponent has committed to implementing and otherwise complying with the Wetlands performance standards and Best Management Practices more particularly described in Schedule A. MassDEP asserts that by virtue of the project proponent's implementation of these performance standards and BMP's, the navigational dredging activities will comply with the substantive requirements of the Wetlands program.

Mitigation for Unavoidable Impacts

The SER Report identifies a matrix of potential mitigation projects within and proximate to the terminal that replicate or improve the resource areas impacted by the project, including salt marsh, intertidal and the subtidal areas. The proposed mitigation will result in the creation of 17.73 acres of Winter Flounder spawning habitat, creation/enhancement of 3.47 acres of inter-tidal area and enhancement of 10.91 acres of near-shore, shallow, sub-tidal areas located in the outer harbor, immediately southwest of the Hurricane Barrier, creation/enhancement of up to

approximately 1.9 acres of a combination of successional marshareas (mudflat, low marsh, high marsh, and transitional area), completion of a Tern Monitoring program to provide additional information on the utilization of New Bedford Harbor by terns, and a combination of transplanting and/or seeding of shellfish (however, no shellfish will be transplanted from Fish Closure Area 1 to areas outside of Fish Closure Area 1). The selection principles applied in identifying the prospective mitigation measure are consistent with the criteria the Department applies in reviewing compensatory mitigation measures. The Department has consulted with the Division of Marine Fisheries who has confirmed that the areas and depths identified for the creation of flounder habitat are appropriate. The sub-tidal and inter-tidal habitat mitigation area is proposed at a location that was previously an intertidal area. Thus, it constitutes restoration of inter-tidal area, is desirable as a mitigation location, and has a high degree of likelihood of success. The Mass Department of Public Health has confirmed in writing that the shellfish transfer from the contaminated areas would not meet DPH regulatory requirements because of the levels of contamination in the shellfish. Therefore, the mitigation proposal was revised to indicate this restriction. The proponent now proposes as mitigation that shellfish be re-seeded or transplanted from uncontaminated areas. None of the proposed mitigation will displace an established water dependent use.

The concept of capping contaminated areas to improve benthic water quality and, in effect, create improved habitat, as proposed in the OU3 area, is a mitigation approach the Department recognizes as an acceptable mechanism to redress impacts from hazardous waste remediation projects, including dredging and filling projects.. The salt marsh mitigation area includes an area of PCB contaminated sediments located within a drainage swale. Further review and analysis provides persuasive evidence that the PCB contamination in the drainage swale was likely from discontinued CSO discharges to the area known as OU-3, and therefore would not be likely to provide future contamination of the restored salt marsh.

There are several prospective mitigation measures that currently lack a financial commitment to conduct or complete. The Department anticipates that prior to the commencement of the project's construction, further clarification of the funding and scheduling of the selected mitigation measures will be documented and implemented. As further details of the dredging design are formalized, the Department will exercise oversight in the adoption of the final group of mitigation measures, and review the final designs, engineering controls, monitoring and contingency plans to ensure that project's impacts to essential fish habitat are adequately addressed and impacts during the construction period of the project and the selected mitigation measures are minimized.