



Commonwealth of Massachusetts
Executive Office of Environmental Affairs
**Department of
Environmental Protection**

William F. Weld
Governor
Daniel S. Greenbaum
Commissioner

New Bedford
17.07
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MEMORANDUM

To: Helen Waldorf, Section Chief, BWSC
Through: Peg Brady, Deputy Director, DWW *B*
From: Gary Gonyea, Chief of Technical Support, DWW *GG*
Date: July 8, 1992
Subject: Division of Wetlands and Waterways Applicable or Relevant and Appropriate Requirements (ARARs) for the New Bedford Harbor Superfund Site.

The purpose of this memo is to outline the Applicable or Relevant and Appropriate Requirements (ARARs) for the two regulatory programs administered by the Division of Wetlands and Waterways; the Wetlands Protection Regulations (310 CMR 10.00) and the Waterways Regulations (310 CMR 9.00). In developing this list, the Division has considered all alternatives proposed for the New Bedford Harbor Superfund project from the "Hot Spot" remediation to activities proposed for Upper Buzzards Bay. Applicable sections and performance standards for Wetlands Protection and Waterways regulations are listed below. Both the Wetlands Protection and Waterways Regulation programs have strict provisions to protect filling of salt marsh and tidal flats. The EPA must provide the Division with a summary of the alternative analysis which documents that there are no reasonable upland alternatives prior to locating CDFs in flowed tidelands.

The Division is also concerned that untreated PCB contaminated sediments are proposed to be placed in unlined confined disposal facilities. The Division is concerned that the CDFs may represent a secondary source for future PCB contamination of the Harbor. Additional steps should be taken to eliminate long term migration of PCBs from the disposal sites. The Division strongly recommends that the CDFs be lined with some type of reduced permeable material and that a monitoring plan be implemented to track PCB migration.

The Division has suggested a list of possible mitigation projects

which should be considered when the performance standards can not be met by the project. However, specific mitigation measures must be proposed by the EPA and submitted to us for our review and approval as the possible mitigation measures listed in the memorandum are suggestions only. In addition, as plans for this Superfund Site evolve, additional impacts to wetland and waterway resources may be identified. The Division therefore reserves the right to request additional mitigation once final plans become available and submitted to us for our review and approval.

Wetlands Protection Regulations - Performance Standards

Land Under Ocean 310 CMR 10.25

- bottom area should not be altered in a manner which increases the potential for storm damage or erosion of nearshore areas;
- attempt to avoid areas with eelgrass or widgeon grass and high densities of polychaetes, mollusks or macrophytic algae.
- since the land under the ocean underlies an anadromous/catadromous fish run, the project shall not impede or obstruct the migration of fish, shall not change the volume or rate of flow of water within the fish run, and shall not impair the capacity of spawning or nursery habitats necessary to sustain the various life stages of the fish.
- dredging, disposal of dredged material, or filling in a fish run shall be prohibited between March 15th and June 15th in any year.

Possible Mitigation

- identify areas with high shellfish concentrations, remove shellfish from areas to be dredged and replant in another section of the harbor; and
- identify eelgrass and widgeon grass beds, replant these species in suitable areas after dredging.
- time the construction activity to avoid the critical life stages of the various aquatic species.

Designated Port Areas 310 CMR 10.26

- when a proposed project in a designated port area is on land under the ocean which is determined to be significant to marine fisheries, water quality and water circulation are critical to the protection of such interests.

Coastal Beaches 310 CMR 10.27 (Tide Flats)

- water-dependent projects (as determined by Waterways Regulations) on tide flats shall be designed and constructed to minimize adverse effects to marine fisheries and wildlife habitat caused by alterations in water circulation, distribution of sediment grain size, or changes in water quality;
- As outlined in two Memorandums from the Division of Water Pollution Control to the EPA dated May 24, 1991 and September 17, 1991, Massachusetts water quality standards must be met for both dredging operations and discharge of effluent from CDFs to minimize impacts to fisheries and wildlife.
- dredging, filling, removing, or altering a coastal beach or tide flat is not permitted unless the issuing authority makes a written determination that the coastal beach does not play a role in storm damage prevention, flood control, or protection of wildlife habitat, or that the tide flats do not play a role in the protection of marine fisheries or land containing shellfish. DWW is not prepared to make this determination, therefore a Variance from DWW will be required for project components located on coastal beaches or tide flats.

Possible Mitigation

- fisheries or shellfish improvement projects to compensate for an equal amount of lost resource area (e.g. enhancement of fish runs, fisheries or shellfish habitat improvement within Harbor watershed.
- minimize tide flat (and salt marsh) area required for CDF's by increasing the height and volume of the CDF's.

Salt Marsh 310 CMR 10.32

- Proposed project shall not destroy any portion of a salt marsh or have an adverse effect on the productivity of a salt marsh. Projects which propose to alter salt marsh will require a Variance from DWW.

Possible Mitigation

- do not dredge salt marsh areas, monitor salt marsh for PCB migration;
- salt marshes which are dredged must be replicated on a two to one basis due to the low probability of successful

replication. Replicated salt marshes must be monitored and maintained for a minimum of ten years. Restoration, monitoring and maintenance plans must be submitted for DEP approval;

- remove fill from other tide flats and salt marsh areas in the Harbor and restore historic salt marsh areas;
- create new salt marsh areas at base of CDFs. These salt marshes could provide additional protection for CDF berms and serve as a buffer for potential PCB migration from CDFs;
- fill in and replant ditches created for mosquito control purposes following open-water marsh management guidelines developed by Massachusetts Audubon Society for mosquito control;
- improve wetland and salt marsh aesthetics by debris removal;
- improve salt marsh hydrologic connections in appropriate areas; and,
- lower estuary and bay is a Designated Port Area which is subject to less stringent Performance Standards. Additional CDF's could be located in this area with less impacts to wetland resources. Provisions to maintain water-dependent uses must be incorporated into the design of any CDF in the DPA (see Waterways Regulations below).

Land Containing Shellfish 310 CMR 10.34

- projects which adversely effect shellfish productivity on a temporary basis may be permitted if the land can be returned to its former productivity within one year. Plans for shellfish restoration should be submitted for DEP approval.

Possible Mitigation:

- remove shellfish from areas to be dredged and replant in another suitable location;
- create new shellfish beds and stock with uncontaminated shellfish seed stock; and,
- replant shellfish seed stock in dredged areas.

Bordering Vegetated Wetlands 310 CMR 10.55

- Alteration of up to 5,000 square feet of Bordering Vegetated

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Wetlands (BVW) may be permitted. Replication of filled wetlands on a one to one basis is required. Projects which propose to alter more than 5,000 square feet will require a Variance from DEP. BVW restoration plans should be submitted for DWW approval.

Possible Mitigation

- replicate BVW areas filled on a one to one basis within New Bedford Harbor watershed;
- restore degraded BVW areas within New Bedford Harbor watershed.

Land Subject to Flooding 310 CMR 10.57

- compensatory storage shall be provided for all lost flood storage volume when the loss will cause an increase or contribute incrementally to an increase in horizontal extent and level of flood waters during peak flows;

Possible Mitigation (see additional Waterways comments)

- acquisition of undeveloped land to serve as flood storage areas;
- CDFs constructed to minimize wave refraction; and
- inner harbor "flood proofing" of existing structures.

Waterways Regulations - Performance Standards

According to 310 CMR 9.12(2)(a)(9 and 14) the proposed dredging and capping of polluted aquatic sediments will be classified as a Water-dependent use. Waterways concerns focus on the long term viability of marine industrial uses within the New Bedford Designated Port Area, maintaining or improving public access, and protecting public rights in tidelands. These rights include fishing, fowling, and navigating and in Commonwealth tidelands all lawful activities.

Categorical Restrictions on Fill and Structures - 310 CMR 9.32(1)(a and b)

New fill in tidelands below the high water mark for water dependent purposes can be approved only if reasonable measures have been taken to minimize the amount of fill which includes relocating the fill to an area above high water. EPA must provide DWW with an alternative analysis which documents there are no reasonable upland

sites before locating CDF's in flowed tidelands.

New fill in tidelands within Designated Port Areas must be designed to accommodate water-dependent-industrial use.

Possible Mitigation (see 9.35 and 9.36)

- CDFs must be designed to accommodate either future water-dependent-industrial use in the DPA, or water-dependent activities elsewhere in the Harbor;
- provide improvements to existing water-dependent uses such as waterfront public picnic land or fishing and boating areas;
- create or improve tidelands;
- improve DPA including docking facilities, boat ramps, boat pumpout facilities, or improvements to State Fish Pier;
- provide structures to accommodate public pedestrian access; and,
- maintain pier edge or docking/unloading space.

Conformance with Municipal Zoning and Harbor Plans - 310 CMR 9.34

Any project located on private tidelands or filled Commonwealth tidelands must comply with applicable zoning ordinances and by-laws of the municipality. If the project is located within an area covered by a municipal harbor plan, it must conform to the provisions of the plan to the degree applicable under the plan approval regulations at 301 CMR 23.00.

Standards to Preserve Water-Related Public Rights - 310 CMR 9.35

The project shall preserve any rights held by the Commonwealth in trust for the public to use tidelands, Great Ponds and other waterways for lawful purposes; and shall preserve any public rights of access that are associated with such use. These rights include: 9.35(2)(a) - Navigation, 9.35(3)(a) - Fishing/fowling, and 9.35(3)(b) - On-foot passage. Compensation is required at 9.35(4) for interfering with public's rights in Commonwealth tidelands. Navigational impacts from capping must be examined and minimized. The EPA should present the following information on the proposed cap to the Division for review: maximum depths practicable after capping; potential impacts to shipping and navigation; and maintenance procedures to prevent future impacts to shipping and navigation.

Possible Mitigation

- provide measures deemed appropriate by the Department to promote public use and enjoyment of the water such as design, construction and maintenance funds for public waterfront recreational facilities; and
- construct a permanent public educational display at a CDF site. This display should provide a description of project details and a discussion of the history of PCB contamination in the Harbor.

Standards to Protect Water-Dependent Uses - 310 CMR 9.36

The project shall preserve the availability and suitability of tidelands, Great Ponds, and other waterways that are in use for water-dependent purposes, or which are reserved primarily as locations for maritime industry or other specific types of water-dependent use. These rights include: littoral or riparian property owners right to approach property from a waterway, and to approach waterway from their property; project shall not disrupt off-site water-dependent use within project vicinity without providing mitigation or compensation; and project shall not displace water-dependent use in a DPA.

Possible Mitigation

- appropriate mitigation would be determined based on the degree of impact to water-dependent uses.

Engineering Standards - 310 CMR 9.37

All fill and structures, including the proposed subaqueous capping of polluted sediments, shall be designed and constructed in a manner that: (9.37(1)(c)) does not unreasonably restrict the ability to dredge any channels.

Possible Mitigation

- locate all structures, fill or caps outside customary boating channels; and
- the EPA should identify potential disposal sites for future maintenance dredging activities in the Harbor.

Standards for Dredging and Dredged Material Disposal - 310 CMR 9.40

Resource Protection Requirements - 310 CMR 9.40(2)

- design and timing of dredging and dredge material disposal shall avoid interference with anadromous and catadromous fish runs. No activity between March 15th and June 15th without Division of Marine Fisheries approval.
- design and timing of dredging and dredge material disposal shall minimize adverse effects on shellfish beds, fisheries resources and submerged aquatic vegetation.

Operational Requirements for Dredging - 310 CMR 9.40(3)

- dredging extent shall not exceed that reasonably necessary to accommodate navigational requirements of project and provide adequate circulation
- shoreward extent of dredging shall be a sufficient distance from the edge of adjacent marshes (at least 25 feet from marsh boundary) to avoid slumping

Operational Requirements for Dredged Material Disposal - 310 CMR 9.40(4) (These requirements would apply to capping operations)

- the date, time, and proposed route of all ocean disposal activities and the coordinates of the ocean disposal site shall be published in the Notice to Mariners;
- ensure that transport vessels are not loaded beyond capacity; and
- ensure that disposal occurs within boundaries of designated disposal site, and discharge location is marked during disposal operations by a buoy equipped with a flashing light and radar reflectors which will allow it to be located under variable sea/weather conditions.

Supervision of Dredging and Disposal Activity - 310 CMR 9.40(5)

- dredging and disposal activities shall be supervised by a dredging inspector approved by the Department for: any offshore disposal; any onshore disposal of dredged material greater than 10,000 cubic yards; and the disposal of any materials defined by the Department as potentially degrading or hazardous.
- Post dredging and capping report must be prepared and submitted to the Division within 30 days of completion of dredging operations.

General Waterways Comments

- Confined Disposal Facilities - Upland disposal sites or increasing the height of CDF 1 is preferred to filling additional areas of flowed tidelands or creating a new CDF in the Designated Port Area. If a CDF is located within DPA, however, then the water-dependent-industrial use of this area must be maintained. The DPA is a high priority area for waterfront commerce. The pier "edge" or docking/unloading space must be maintained. Water dependent uses shall not be displaced pursuant to 9.36(4).
- Confined Disposal Facilities - the future uses of the CDFs that will be allowed by the design requirements should be addressed for all CDFs proposed. In the DPA, future water dependent industrial uses must be accommodated. For CDF 1 in the tidal flat area, the final design should address the thickness and permeability of the CDF cap to minimize public health threats and allow for public access and enjoyment of the waterfront area.
- Subaqueous Disposal - Water Quality concerns must be addressed. Capping activities should not occur in shipping channels or in customary boat routes without an examination of navigational impacts from capping. Waterways Program should review navigational impact information. Use of clean dredge material from another site which requires dredging is preferred. The maximum depth practicable must be maintained in capped area. The cap should not hinder shipping or navigation and must be maintained to prevent future impacts to shipping and navigation.

Additional Division Comments on Flood Control

- The proposed dredge spoils disposal areas are within a known flood hazard area as identified and mapped by FEMA. The CDFs will be subject to both coastal and inland storm events and may displace flood waters causing increase flooding on adjacent properties. The project should be designed so that flooding on adjacent properties does not increase.
- The CDF's should be designed so the bulkheads are not overtopped by the 100 year flood at a minimum. For public safety purposes, the EPA should examine designs which would prevent the CDF from being overtopped by the 500 year event.
- The FEMA flood elevation study will be out of date after the CDF's are built. The EPA should provide new floodplain

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information to FEMA using the appropriate model to update the flood insurance rate maps.

If you have any questions regarding these comments, please contact Gary Gonyea or Richard Tomczyk for Wetland Protection issues and John Simpson or Andrea Langhauser for Waterways Regulation issues.

cc: Arleen O'Donnell, Asst. Commissioner, BRP
Christy Foote-Smith, Director, DWW
Elizabeth Kouloheras, Section Chief, SERO, DWW
Lenore White, SERO, DWW
Richard Tomczyk, DWW
John Simpson, Waterways Section Chief, DWW
Andrea Langhauser, DWW
Paul Craffey, BWSC