

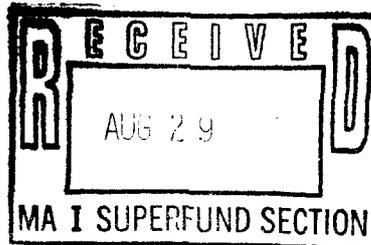


COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
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SDMS DocID 63928

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August 27, 1997

*New Bedford  
17.07  
63928*

Mr. David Dickerson  
U.S. EPA Region I - HBO  
J.F. Kennedy Federal Building  
Boston, MA 02203-2211

Subject: New Bedford Harbor Superfund Site  
Estuary and Lower Harbor/Bay Operable Unit - State ARARs

Dear Mr. Dickerson:

The Department of Environmental Protection ("DEP") has identified the State's applicable, or relevant and appropriate requirements ("ARARs") for the Estuary and Lower Harbor/Bay Operable Unit ("OU") of the New Bedford Harbor Superfund Site. The DEP previously sent ARARs letters for this OU on January 4 and 6, 1993. This letter is an update of the two previous letters and is specific to the remedy described below.

The identification of action, location, and chemical specific ARARs is done at every step in the process of the remedial assessment and implementation for a Federal Superfund Site. This OU presents a number of unique characteristics which warrant a focused effort on our part to identify state laws and regulations which are applicable, or relevant and appropriate to the proposed remedy, and policies which should be considered in the remedial process.

EPA's proposed remedy for this OU consists of removal of about 450,000 yd<sup>3</sup> of PCB contaminated sediments. The removal will dredge where PCB concentrations are greater than 10 ppm in the Acushnet River Estuary, and 50 ppm in New Bedford Harbor and Buzzards Bay. The dredged sediments will be transported by a hydraulic pipeline to shoreline basins or confined disposal facilities (CDFs) where the sediment will settle, and eventually be capped. This OU includes the necessary dredging controls, water treatment units, and construction and finishing of CDFs.

EPA indicates its support for additional navigational dredging as a remedy enhancement, as requested by the Commonwealth (contingent on available funding) under section 40 CFR 300.515 (f) of CERCLA. The EPA solicited comments from the public on the inclusion of the remedy enhancement in the Proposed Plan for this OU. In the event that the navigational dredging is included in the remedy, the ARARs identified herein will also apply to those activities.

The DEP reviewed the statutes, regulations, and policies of the Commonwealth's various environmental agencies. The state ARARs identified for the proposed remedy are contained in **Attachment 1** (Tables A, B and C). **Attachments 2 and 3** highlight certain specific requirements necessary to address its high priority concerns about the proposed remedy.

1. Environmental Impacts, Location, and Action Specific ARARs

M.G.L.c. 30, s.61 - s.62H, The Massachusetts Environmental Policy Act ("MEPA") and the regulations thereunder at 301 CMR 11.00, establishes standards to minimize environmental impacts from certain projects, including the use of all practicable means and measures to minimize "damage to the environment," which are applicable to the proposed remedy.

In addition, actions by federal agencies in the coastal zone must comply with all applicable state coastal zone management ("CZM") requirements, including CZM policies. In that regard, a monitoring program and a decision making process applicable to the proposed dredging which achieves at least the same level of protection obtained during the dredging of the Hot Spot is necessary to minimize water quality impacts and ensure the adequate protection of the coastal resources.

In the area of water pollution control, the dewatering and treatment of dredged sediments must meet the best available control technology ("BACT") as the applicable requirement. See Attachment 2 - written summary and DEP memorandum to Helen Waldorf, BWSC, DEP from Lawrence Gil, OWM, DEP, dated October 28, 1996. Any impacts to estuarine areas and inland vegetated wetlands must be addressed in accordance with DEP's wetland regulations. See Attachment 2 - DEP memorandum to Helen Waldorf, BWSC, DEP from Gary Gonyea, OWM, DEP, dated October 7, 1996. Any alterations and structures located below existing or historical mean high water, whichever is farther landward, must also be addressed in accordance with DEP's wetlands and c.91 regulations.

Based on its current understanding of the proposed remedy, DEP has not identified any substantive provision of the Massachusetts Contingency Plan (the "MCP") as an ARAR for this remedy. Instead, assuming DEP concurs in the Record of Decision ("ROD") for the final selected remedy, DEP shall deem such remedy as being adequately regulated by EPA under the Federal Superfund Program, as provided for in 310 CMR 40.0111 of the MCP.

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State ARARs  
August 27, 1997

2. Process Control, Chemical, and Action Specific Requirements

DEP's Solid Waste and Hazardous Waste Regulations contain relevant and appropriate requirements. See Attachment 3 - written summary and DEP memorandum to Paul Craffey, BWSC, DEP from John Carrigan, BWP, DEP, dated July 15, 1996. More specifically, the cap, side walls, and bottom material in the CDFs must achieve a maximum permeability standard of  $1 \times 10^{-7}$  cm/sec. The CDFs shall also incorporate environmental control systems to provide adequate protection to the groundwater, surface water, and air quality.

The remedial actions must be evaluated by an appropriate level of air quality monitoring in light of the air quality at the Site which currently exceeds the recommended Allowable Ambient Limits ("AALs") for PCBs. See written summary in Attachment 3.

Finally, DEP reserves the right to add ARARs or otherwise modify its ARAR and TBC lists at any time during the CERCLA process, consistent with the provisions of state and federal law.

If you have any questions or comments on this letter, please contact, Paul Craffey at (617)292-5591.

Very truly yours,



Helen Waldorf,  
Acting Division Director

cc: Paul Craffey, DEP Project Manager  
Jack Terrill, NOAA

**ATTACHMENT 1 ARARs Tables For Proposed New Bedford Harbor  
Remedial Action**

TABLE A: APPLICABLE ARARs

TABLE B: RELEVANT AND APPROPRIATE ARARs

TABLE C: TO BE CONSIDERED REQUIREMENTS

**TABLE A: APPLICABLE ARARs**

DPH Prohibition Against Certain Fishing in New Bedford Harbor  
Laws c.30A §2; c.94 §186+192, and c.111 §5+6  
Regulation 105 CMR 260 (4/1/94)

- 260.001 - Findings and Purpose
- 260.004 - Adulterated Fish
- 260.005 - Taking and/or Sale of Lobsters and Certain Fish Prohibited

Right to Know (DPH) Law c.111F  
Regulation 105 CMR 670.0 (4/1/94)

- 670.010 - The Massachusetts Substance List
- 670.025 - Physician's Access to MSDS

Rules and Regulations for Certification of Operators of Wastewater Treatment Facilities Law c.21 §34A+B  
Regulation 257 CMR 2.0 (12/1/93)

- 2.01 to 2.15 - Total

The Massachusetts Environmental Policy Act ("MEPA") Law c. 30, §61-62H Regulations 301 CMR 11.00 (12/1/93)

- 11.07 - Outline and Content of the EIR
- 11.10 - Agency Procedures; Section 61 Findings

Administration of Waterway Licenses Laws c.21A §2,4,8+14;  
c.91 §1-63; and c.91A §18  
Regulation 310 CMR 9.000 (4/19/96)

- 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

**TABLE A: (Continued)**

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Wetlands Protection Law c.131 §40  
Regulation 310 CMR 10.000 (4/5/96)

- 10.25 - Land Under Ocean
- 10.26 - Designated Port Areas
- 10.27 - Coastal Beaches
- 10.32 - Salt Marsh
- 10.34 - Land Containing Shellfish
- 10.35 - Banks of Land Under the Oceans, Ponds, Rivers, Lakes, or  
Creeks that Underlie an Anadromous/Catadromous Fish Run
- 10.55 - Bordering Vegetated Wetlands
- 10.57 - Land Subject to Flooding

Employee and Community Right to Know Law c.111F  
Regulation 310 CMR 33.000 (4/1/94)

- 33.03 - Municipal Coordinators
- 33.04 - Filing of MSDS
- 33.05 - Release of MSDS to Government Officials
- 33.06 - Community Petition Process
- 33.07 - Enforcement Procedures

Massachusetts Contingency Plan (MCP) Laws c.21E  
Regulation 310 CMR 40.000 (5/30/97)

- 40.0111 - Federal Superfund Program

Massachusetts Surface Water Discharge Permit Program  
Law c.21 §27(12)+34  
Regulation 314 CMR 3.000 (5/30/97)

- 3.03 Discharges Requiring a Permit
- 3.04 (2) Storm Water Discharges
- 3.05 (4) Exemptions
- 3.10 (3) - Water Quality Based Effluent Limitations
- 3.10 (4) - Technology Based Effluent Limitations
- 3.10 (6) - Technology Based Effluent Limitations for Non-POTWs
- 3.10 (9) - Monitoring, Recordkeeping and Reporting Requirements
- 3.19 (3) to (6), (10) to (13), and (21) -General Permit  
Conditions

Massachusetts Surface Water Quality Standards Law c.21 §27  
Regulation 314 CMR 4.00 (5/30/97)

- 4.01 - General Provisions
- 4.02 - Definitions
- 4.03 - Application of Standards
- 4.04 (1) and (6) - Antidegradation Provisions
- 4.05 (1), (2), (4), and (5) - Classes and Criteria
- 4.06 - Basins Classification and Maps

**TABLE A: (Continued)**

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Certification for Dredged Material Disposal and Filling in Waters

Law c.21 §26-53

Regulation 314 CMR 9.000 (3/1/95)

9.03 (2) to (5) - Classification of Dredge or Fill Material

9.06 Criteria for the Evaluation of Applications for Discharge of Dredged or Fill Material

9.07 Criteria for the Evaluation for Dredging and Dredged Material Disposal

Operation and Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers Law c.21 §27(12)+34

Regulation 314 CMR 12.000 (5/2/97)

12.03 (6), (8), (10) to (12) - Operations of Treatment Works

12.04 - Maintenance of Treatment Works

12.05 - Safety Program

12.06 - Sampling and Analysis

12.07 - Record Keeping and Reporting

Rules for the Prevention and Control of Oil Pollution in the Waters of the Commonwealth Law c.21 §26-53

Regulation 314 CMR 15.000 (12/1/93)

15.03 - General Regulations

15.06 - Spills and Accidental Discharges

Right to Know (DOI) Laws c.111 §189A-199B and c.149 §6

Regulation 454 CMR 21.000 (9/1/93)

21.03 - General Duties and Responsibilities

21.04 - General Performance Requirements

21.05 - Labels

21.06 - Material Safety Data Sheets

21.07 - Instruction or Training

**TABLE B: RELEVANT AND APPROPRIATE ARARs**

Ambient Air Quality Standards Law c.111 §142D  
Regulation 310 CMR 6.000 (4/1/94)

- 6.04 (2) - Particulate Matter
- 6.04 (6) - Standard for Lead

Air Pollution Control Law c.111 §142A-J  
Regulation 310 CMR 7.000 (6/27/97)

- 7.09 - Dust, Odor, Construction, and Demolition
- 7.10 - Noise

Prevention/Abatement of Air Pollution Incident Emergencies  
Law c.11 §2B  
Regulation 310 CMR 8.000 (4/1/94)

- 8.01 - Introduction

Solid Waste Management Facility Regulations  
Laws c.21A §2+8 and c.111 §150A  
Regulation 310 CMR 19.000 (9/9/94)

- 19.112 - Landfill Final Cover Systems
- 19.115 - Storm Water Controls
- 19.116 - Surface and Ground Water Protection
- 19.117 - Air Quality Protection Systems
- 19.118 - Ground Water, Surface Water and Gas Monitoring Systems
- 19.121 - Landfill Gas Recovery Operations
- 19.130 (1), (15)(a) and (e), (18), (19), and (20) - Operation and Maintenance Requirements
- 19.132 - Environmental Monitoring Requirements
- 19.133 - Maintenance of Environmental Control and Monitoring Systems
- 19.143 (3) and (4) - Post-Closure Use of Landfills

Hazardous Waste Regulations (RCRA) Laws c.21C  
Regulation 310 CMR 30.000 (5/2/97)

- 30.001 through 30.009 - Authority to Certification
- 30.060 through 30.064 - Notification Requirements
- 30.303 - EPA identification number
- 30.304 - Offering Hazardous Waste for Transportation
- 30.305(5) - Destination of Hazardous Waste or Regulated Recyclable Material Sent Off-Site
- 30.310 through 30.314 - Manifest Requirements
- 30.320 through 30.324 - Pre-transport Requirements
- 30.330 through 30.334 - Record Keeping and Reporting
- 30.340 - On-Site Accumulation
- 30.402 - Requirements For Transporting Hazardous Waste
- 30.501(3)(a)(b) and (c) - PCB Waste Landfills
- 30.590 - Post-Closure

**TABLE B: (Continued)**

Page 2

- 30.606 - Special Requirements for Miscellaneous Units
- 30.610 - Surface Impoundments
- 30.620 and 629 - Landfills
- 30.633 - Closure and Post-Closure Care
- 30.660 - Groundwater Protection
- 30.750 - Land Disposal Restriction

Supplemental Requirements for Hazardous Waste Management Facilities

Laws c.21 §27(12), 34+43

Regulation 314 CMR 8.000 (12/1/93)

- 8.03 - RCRA Facilities Subject to 314 CMR 8.00

**TABLE C: TO BE CONSIDERED REQUIREMENTS**

**POLICIES AND REQUIREMENTS (Dated)**

DWPC Policy - Massachusetts Water Quality Standards Implementation Policy for the Control of Toxic Pollutants in Surface Waters (2/23/90)

DAQC Policy 90-001 - Allowable Sound Emissions (2/1/90)

To Be Considered - Recommended Threshold Effects Exposure Limits and Allowable Ambient Limits (Dec. 1995)

**CZM Policies**

Habitat Policy #1 - Protect Coastal Resource Areas

Water Quality Policy #1 - Attainment of National Water Quality Goals

Coastal Hazard Policy #2 - Water Circulation Minimization

Coastal Hazard Policy #3 - State and Federal Funded Works Project Considerations

Port Policy #1 - Dredging Impact Minimization

Port Policy #2 - Public Benefit from Dredging

Port Policy #3 - Designated Port Areas (DPAs)

Port Management Policy #3 - Waterfront Re-development

Protection Areas Policy #3 - Historic Preservation

Public Access Policy #1 - Public Recreation

Public Access Management Principle #2 - Increase Recreational Areas

Public Access Management Principle #4 - Increase Recreation Capacity

Growth Management Principle #1 - Community Character and Scenic Resources

## ATTACHMENT 2: ENVIRONMENTAL IMPACT CONTROL DISCUSSION

### A. Water Pollution Control ARARs

Attached hereto is an internal DEP Memorandum to Helen Waldorf, BWSC, DEP, from Lawrence Gil, OWM, DEP, dated October 28, 1996, setting forth the state water pollution control ARARs. Summarized below is more specific guidance regarding key areas of concern. DEP expects its Office of Watershed Management to play an ongoing review role with respect to the implementation of the remedy, including the review of detailed design plans.

"Best Available Control Technology" ("BACT") is required to ensure that ambient water quality is maintained and that potential pollutant releases do not result in toxicity to aquatic organisms.

1. Hydraulic Dredging - In order to meet the State's Water Quality Standards for oil and grease (314 CMR 4.05 (4)b(7)), which may be liberated during dredging, sorbant booms may be required. Toxicity tests are recommended in order to ensure that dredging does not adversely impact aquatic life. These toxicity tests should be patterned after those done during the Hot Spot dredging, with both acute and chronic toxicity, and bioaccumulation of PCBs and heavy metals assessed. Contingency plans must be implemented in the event toxic effects are observed, including but not limited to, work stoppages and additional protective engineering measures on the dredge and/or silt curtains and booms.
2. Transport of the Slurry - BACT would be required to ensure the integrity of the pipeline from the dredge site to the CDF sites in order to prevent an unauthorized discharge of pollutants into the harbor and/or estuary.
3. Dredged Sediment Settling - The CDFs must be structurally sound.
4. Water Treatment - The water discharged from the CDFs should be treated using the BACT in order to approach as closely as possible the following background conditions;

PCBs	0.6 ug/l
Cu	5.4 ug/l
Cd	0.2 ug/l
Pb	2.7 ug/l

(These background conditions were found from waters north of the Coggeshall Street Bridge prior to the pilot dredging project.)

The total suspended solids ("TSS") must be less than 10 mg/l using BACT. Coagulants used to reduce the solids content of the discharge must be non-toxic to marine life.

B. Wetlands and Waterways ARARs

Attached hereto is an internal DEP Memorandum to Helen Waldorf, BWSC, DEP, from Gary Gonyea, OWM, DEP, dated October 7, 1996, setting forth the state wetlands and waterways ARARs.

C. Coastal Zone Management

The proposed plan involves Federal actions in the coastal zone which must be consistent with applicable coastal zone management regulations. These regulations require protection of the coastal zone environment to the maximum extent feasible. See CZM's letter from Margaret Brady, Director MCZM to Helen Waldorf dated March 4, 1997.

### ATTACHMENT 3: PROCESS CONTROL REQUIREMENTS DISCUSSION

#### A. Hazardous Waste ARARs

Attached hereto is an internal DEP Memorandum to Paul Craffey, BWSC, DEP, from John Carrigan, BWP, DEP, dated July 15, 1996, setting forth the state hazardous waste ARARs. Summarized below is more specific guidance regarding key areas of concern.

The handling, storage, treatment, and transport of oil and hazardous materials is addressed in M.G.L.c. 21C and in the regulations promulgated thereunder, 310 CMR 30.000. As a general matter, 310 CMR 30.000 is not legally applicable to the remediation of releases of hazardous material. However, in DEP's view, certain regulatory requirements in 310 CMR 30.000 constitute relevant and appropriate ARARs for the proposed remedy.

As EPA knows, the issue of whether to line the Pilot Study CDF was discussed numerous times during the Pilot Study Project and Hot Spot Feasibility Study. A decision was made not to line the Pilot Study CDF in order to evaluate the fate of the contaminants - both metals and PCBs. DEP recognizes that unlined CDFs may be the only feasible means of implementing sediment disposal for the large amount of contaminated material that will require disposal on the shoreline. Furthermore, the sediments located at the bottom of the proposed CDFs contain high organic matter, clays, and fines and may serve the function as a barrier through the bottom of the proposed CDFs.

The proposed plan contemplates utilizing the CDFs as receiving and settling basins for the contaminated sediments. The CDFs would be required to meet appropriate and relevant requirements for the handling of hazardous materials (PCBs > 50 ppm and TCLP metals) for the use of impoundments and/or landfills to treat hazardous materials. "Liners" for impoundments and/or landfills to contain hazardous materials must be tested in the field to meet a permeability standard of  $1 \times 10^{-7}$  cm/sec.

In DEP's view, the use of any unlined shoreline CDFs for settling of contaminated material must meet the following regulatory requirement in 310 CMR 30.610 for "Surface Impoundments": "...prescribed requirements which apply to owners and operators of facilities that use surface impoundments require that...each surface impoundment shall be underlain by two liners which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners...Each liner shall be...of hydraulic conductivity not to exceed  $1 \times 10^{-7}$  cm/sec." Accordingly, the various layers of organic sediment materials now at the bottom of the proposed CDF locations must meet the above described permeability standard.

B. Solid Waste ARARs

Actions involving the cap construction and post-closure activities of the CDFs must comply with the requirements contained in DEP's Solid Waste Regulations at 310 CMR 19.00.

C. Air Quality ARARs

The dredging and disposal of the contaminated sediment must also meet the requirements of DEP's Air Quality Regulations at 310 CMR 6.00 through 310 CMR 8.00. More specifically, during dredging it will be necessary to demonstrate, through air quality monitoring, that the remedial activities will not cause a significant negative impact on the air quality, as measured by the Threshold Effect Levels (the "TEL" for PCBs is 0.003 ug/m<sup>3</sup> for a 24 hour ceiling) and Ambient Air Levels (the "AAL" for PCBs is 0.0005 ug/m<sup>3</sup> for an annual average). The TEL and AAL exposure concentrations for air contaminants were developed by DEP's Office of Research and Standards (ORS) and both should be used. DEP views the above referenced AALs as relevant and appropriate ARARs. However, DEP acknowledges that both the TEL and AAL are exceeded for PCBs at the site under existing conditions. In summary, the monitoring must demonstrate that the remedial action is not causing a significant negative impact on the air quality. These relevant and appropriate ARARs should be used as the basis for deciding whether to modify site operations to address any significant negative impact on air quality. An appropriate level of air quality monitoring and BACT will be required to control possible air releases from the capped CDFs in exceedance of AALs.

Finally, the dredging activities, construction of the CDFs, and the future operation of the CDFs must all be performed such that a condition of "air pollution" does not occur due to the emission of sound and/or odor.



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MEMORANDUM

To: Helen Waldorf, Acting Division Director, DRR

Through: Robert W. Golledge, Jr., Acting Director, DWW *RWG*

From: Gary Gonyea, Chief of Technical Support, DWW *GG*

Date: October 7, 1996

Subject: Division of Wetlands and Waterways Applicable or Relevant and Appropriate Requirements (ARARs) for the New Bedford Harbor Superfund Site.

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Applicable or Relevant and Appropriate Requirements (ARARs) for the three regulatory programs administered by the Division of Wetlands and Waterways (DWW); the Wetlands Protection Regulations (310 CMR 10.00), the Waterways Regulations (310 CMR 9.00), and the 401 Water Quality Certification Regulations (314 CMR 9.00) which pertain to the New Bedford Harbor Superfund site are outlined below. In developing this list, the Division has considered all alternatives proposed for the Estuary, Harbor, and Bay Operable Unit of the New Bedford Harbor Superfund project. The Wetlands Protection, Water Quality Certification and Waterways Regulation programs all have strict provisions to protect filling of salt marsh and tidelands. The Division requests that contiguous shoreline alternatives for Confined Disposal Facilities (CDFs) be explored and utilized to the maximum extent practicable prior to locating CDFs in either salt marshes or flowed tidelands. The Division has suggested a list of possible mitigation projects which should be considered if regulatory performance standards cannot be met by the project.

As plans for this Superfund Site evolve, additional impacts to wetland and waterway resources may be identified. The Division therefore requests that Design and Planning documents be forwarded to the Division for review.

**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;

#### Possible Mitigation

- quantify areas to be dredged with high concentrations of contaminated shellfish, and replant equivalent acreage in another uncontaminated location;
- identify and quantify acreages of eelgrass and widgeon grass beds, replant these species in suitable areas of comparable acreages after dredging; and
- time the construction activity to avoid the critical life stages of the various aquatic species to the maximum extent practicable.

#### **Designated Port Areas 310 CMR 10.26**

- if a proposed project is on land under the ocean in a designated port area and this area is determined to be significant to marine fisheries, then water quality and water circulation interests should be protected.

#### Possible Mitigation

- Division supports locating a CDF in the DPA if: the CDF is used to store dredge spoils from the harbor maintenance dredging; ultimate use of the CDF supports a water-dependent-industrial use in the harbor; and it provides pedestrian access facilities; and
- develop a CDF specifically for maintenance dredging disposal.

#### **Coastal Beaches 310 CMR 10.27 (Tide Flats)**

- water-dependent projects (as determined by Waterways Program in accordance with the Waterways Regulations) on tidelands should 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; and

- dredging, filling, removing, or altering a coastal beach or tidelands 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.

#### Possible Mitigation

- contribute to 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 the Harbor watershed); and
- minimize tideland (and salt marsh) area required for CDF's by increasing the height and volume of the CDF's. The Division requests that CDF impacts to tidelands and coastal beaches be minimized by locating CDFs on contiguous shoreline parcels to the maximum extent practicable.

#### **Salt Marsh 310 CMR 10.32**

- Proposed project should 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 typically require a Variance from DEP.

#### Possible Mitigation

- selectively remove as much PCB contaminated sediment from salt marshes and mosquito control ditches as practicable while minimizing impacts to adjacent uncontaminated salt marshes;
- much of the salt marsh area which EPA proposes to remediate is high salt marsh (*Spartina patens*) which has a low probability of successful replication. The Division recommends that these areas be replicated as low salt marsh (*Spartina alterniflora*) which has a higher probability of successful replication. The Division would expect to see EPA propose at least a 1:1 replication ratio within the Harbor. Additional replication or restoration sites outside the Harbor should be considered;
- replicated salt marshes must be monitored and maintained for a minimum of ten years;

and restoration, monitoring and maintenance plans should be submitted to DWW for review;

- remove fill from other tideland 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,
- locate additional CDF's in the lower estuary and bay which is a Designated Port Area and thus subject to less stringent Performance Standards.
- include provisions to maintain water-dependent uses 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**

- quantify areas to be dredged with high concentrations of contaminated shellfish, replant equivalent acreage in another uncontaminated location;
- create new shellfish beds and stock with uncontaminated shellfish seed stock; and,
- replant shellfish seed stock in dredged areas.

#### **"Fish Run" 310 CMR 10.35**

Helen Waldorf, Acting Division Director  
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October 7, 1996  
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- since the land under the ocean underlies an anadromous or catadromous fish run in this project area, the project should not impede or obstruct the migration of fish, change the volume or rate of flow of water within the fish run, and or impair the capacity of spawning or nursery habitats necessary to sustain the various life stages of the fish; and

#### Possible Mitigation

- contribute to anadromous fish restoration projects in Achesnet River and other rivers which flow into Buzzards Bay; and
- dredging, disposal of dredged material, or filling in a fish run should be prohibited between March 15th and June 15th in any year unless specifically authorized by the Division of Marine Fisheries.

#### **Bordering Vegetated Wetlands 310 CMR 10.55**

- alteration of up to 5,000 square feet of freshwater Bordering Vegetated Wetlands (BVW) may be permitted. Replication of filled wetlands on a one to one basis is required; and projects which propose to alter more than 5,000 square feet may be considered a Limited Project under 10.53(3)(q).

#### Possible Mitigation

- replicate filled BVW on a one to one basis within New Bedford Harbor and Achesnet River watersheds; and
- restore degraded BVW areas within New Bedford Harbor and Achesnet River watersheds.

#### **Land Subject to Flooding 310 CMR 10.57**

- compensatory storage should 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

- acquisition of undeveloped land to serve as flood storage areas;
- CDFs constructed to minimize wave refraction; and

Helen Waldorf, Acting Division Director  
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- 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 in the estuary 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 in Commonwealth tidelands.

### **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 contiguous shoreline 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)

- design CDFs in the DPA to accommodate future water-dependent-industrial use;
- design CDFs elsewhere in estuary to support water-dependent activities and provide pedestrian access facilities;
- provide improvements to existing water-dependent uses such as waterfront public recreational areas, pedestrian access facilities, or fishing and boating areas;
- create or improve tidelands elsewhere in Harbor;
- improve DPA including docking and related facilities, boat ramps, boat yards, boat pumpout vessels and facilities, or improvements to State Fish Pier;
- provide structures to accommodate public pedestrian access at other locations in the Harbor; and

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- maintain a waterfront edge suitable for docking, loading and unloading of goods transported in waterborne commerce.

#### **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 or sediment covering must be examined and minimized. The EPA should present the following information on the proposed geotextile covering of the powerline which traverses the estuary to the Division for review: alternative analysis including burying powerline below maximum dredging depth; maximum water depths after covering; cover construction design criteria to prevent scouring; potential impacts to recreational boating; maintenance procedures to prevent future impacts to boating; and appropriate mitigation, including but not limited to navigational aids.

#### **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;
- 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; and
- clearly mark cap area over power line with buoys or other navigational aides.

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**Standards to Protect Water-Dependent Uses - 310 CMR 9.36**

The project shall preserve the availability and suitability of tidelands 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, should 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
- 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 should avoid interference with anadromous and catadromous fish runs; no activity between March 15th and June 15th without Division of Marine Fisheries approval; and
- design and timing of dredging and dredge material disposal should minimize adverse effects on shellfish beds, fisheries resources and submerged aquatic vegetation.

Operational Requirements for Dredging - 310 CMR 9.40(3)

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- dredging extent should not exceed that reasonably necessary to accommodate project requirements and provide adequate circulation; and
- shoreward extent of dredging should be a sufficient distance from the edge of adjacent marshes (at least 25 feet from marsh boundary) to avoid slumping; adjust bottom slope with placement of clean fill after dredging.

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

- publish the date, time, and proposed route of all ocean disposal activities and the coordinates of the ocean disposal site 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; and
- submit post dredging and capping report to the Division within 30 days of completion of dredging operations.

#### **General Waterways Comments**

- Confined Disposal Facilities in the Palmer Island Area for maintenance Dredging - Upland disposal sites or increasing the height of CDFs is preferred to filling additional areas of flowed tidelands. The Division supports the location of CDFs within the DPA, however, the water-dependent-industrial use of this area must be maintained. The DPA is a high priority area for activities characteristic of a working waterfront and it's backlands. The waterfront edge must be designed to accommodate docking, loading and unloading of goods transported in waterborne commerce. Water dependent uses shall not be displaced pursuant to 9.36(4). The CDF's should be sized to accommodate maintenance dredging spoils. Additional CDF capacity within the Harbor should be provided to support further

dredging for water-dependent-industrial uses, boat yards, marinas, and other water-dependent uses. This dredging is needed to improve navigational access and to reduce resuspension of contaminated sediments.

- 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 and public access must be accommodated. For all CDFs in the estuary, the final design should address the thickness and permeability of the CDF cap to minimize public health threats and allow for limited public access to the waterfront area.
- Subaqueous Disposal - Water Quality concerns must be addressed. Capping activities should not occur in shipping channels, beyond harbor lines, or in customary boat routes without an examination of navigational impacts from capping or without Legislative approval, as appropriate. Waterways Program should be provided with an analysis of navigational impacts for their review. 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 navigation and must be maintained to prevent future impacts to navigation.

### **Water Quality Certification**

#### **Criteria for evaluation of Discharge of Dredge or fill material 314 CMR 9.06**

- no discharge of dredged or fill material should be permitted if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem;
- no discharge of dredged or fill material should be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts to bordering or isolated vegetated wetlands or land under water including a minimum of 1:1 restoration or replication of bordering or isolated vegetated wetlands; and
- no discharge of dredged or fill material should be permitted in the rare circumstances where the activity meets the criteria for evaluation but will result in substantial adverse impacts to the physical, chemical or biological integrity of the surface waters of the Commonwealth.

#### **Criteria for Evaluation of Dredging and Dredge Material Disposal 314 CMR 9.07**

- On the basis of application forms, the MEPA process, and any other information presented to the Department, the Department will classify the dredge or fill material into one of

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three categories and will impose such conditions on the project [to protect the water quality of the Commonwealth and to ensure the discharge meets Water Quality Standards] as may be necessary.

#### Potential Mitigation

- at least 1:1 replication of all salt marshes, tidelands or freshwater wetlands filled by CDFs;
- water column monitoring "downstream" from dredging operations with thresholds established to stop dredging operations if exceeded. Monitoring parameters should include: metals, PAHs, PCBs, TSS, and bioassays for bioaccumulation;
- monitoring of any effluent from settling basins for metals, PAHs, and PCBs to ensure Water Quality discharge standards are met; and
- dredging operations shall use the best available technology to remove contaminated sediments with a minimum of sediment resuspension.

If you have any questions regarding these comments, please contact Cary Gonyea for Wetland Protection issues, Greg Carrafiello or Andrea Langhauser for Waterways Regulation issues, or Judith Perry for 401 Water Quality Certification issues.

cc: Arleen O'Donnell, Asst. Commissioner, BRP  
Elizabeth Kouloheras, Section Chief, SERO, DWW  
John Simpson, Waterways Section Chief, DWW  
Lenore White, SERO, DWW  
Greg Carrafiello, DWW  
Judith Perry, DWW  
Andrea Langhauser, DWW  
Paul Craffey, BWSC  
Steve Pearlman, DWW



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
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WILLIAM F. WELD  
Governor

TRUDY COXE  
Secretary

ARGEO PAUL CELLUCCI  
Lt. Governor

DAVID B. STRUHS  
Commissioner

MEMORANDUM

To: Helen Waldorf, Section Chief, BWSC

Through: Andrew Gottlieb, Director, OWM *AG*  
John Higgins, Director, DWPC *JH*

From: Lawrence Gil, Aquatic Biologist IV *LG*

Date: October 28, 1996

Subject: Office of Watershed Management (OWM) / Division of Water Pollution Control (DWPC) Applicable or Relevant and Appropriate Requirements (ARARs) for the New Bedford Harbor Superfund Site. Estuary/Harbor/Bay Operable Unit

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The purpose of this memo is to update the Applicable or Relevant and Appropriate Requirements (ARARs) for the regulatory programs administered by the Office of Watershed Management (OWM) / Division of Water Pollution Control (DWPC). As you may know recent changes in the organizational structure of Divisions within Bureau of Resource Protection (BRP) have lead to some shifting of responsibilities. Division of Water Pollution Control (DWPC) responsibilities are now more focused upon subsurface disposal of wastes and groundwater discharge permits.

The Office of Watershed Management (OWM) now has primary responsibility for administering provisions of:

314 CMR 1.000 to 7.000 Massachusetts Surface Water Discharge Permit Program

4.00 Massachusetts Surface Water Quality Standards

12.000 Operation and Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers

A review of regulatory authorities within 314 CMR 8.000 Supplemental Requirements for Hazardous Waste Management Facilities and 9.000 Certification for Dredged Material Disposal and Filling in Waters was not addressed in this memo.

In developing this revised list, the Office of Watershed Management has reviewed the current regulations for changes since the previous 1992 ARAR letter. Revisions were made to 314 CMR 3.00: SURFACE WATER DISCHARGE PERMIT PROGRAM and to 314 CMR 4.00 MASSACHUSETTS SURFACE WATER QUALITY STANDARDS. Based on our review, the changes do not appear to effect the proposed cleanup activities.

The Office notes for the record that the ARAR's originally noted in 1992 addressed the Phase I Operable Unit "Hot Spot" remediation activities within the Upper Harbor north of the Coggeshall Street Bridge. It is OWM's understanding that Phase II Estuary/Harbor/Bay Operable Unit will address PCB contaminated sediments outside of the designated "Hot Spot". These sediments, which contain high concentrations of PCB's, metals and other contaminants, will be handled by dredging dewatering and containment behind Contained Disposal Facilities (CDF's), located at various sections of the harbor shoreline.

It is OWM understanding that sediment contamination limits of 10 ppm PCB or greater would be removed from the harbor as well as an unspecified volume of "low to moderately contaminated sediments" as part of a more comprehensive "enhanced alternative" to address the chronic need for maintenance dredging within the harbor.

OWM is concerned that the CDFs may represent a secondary source for future PCB and metals contamination of the Harbor. OWM would like confirmation that the additional CDFs will be lined with some type of reduced permeable material and that a monitoring plan would be implemented to track potential PCB migration from the CDF's. At any point before the plans are finalized, OWM reserves the right to review and approve draft plans and to request additional mitigation steps.

Specific Comments

The Federal Water Quality Act requires all states to restore and maintain the chemical, physical and biological integrity of the nation's waters. Under the Federal Act, the waters of the nation must be able to support the propagation of fish, shellfish and wildlife and recreation in and on the water. These goals have been shortened in regulatory parlance to "fishable and swimmable". Massachusetts General Law Chapter 21, section 27 herein after referred to as the "Act" charges the Office of Watershed Management with the duty and responsibility to protect public health and enhance the quality and value of the water resources of the Commonwealth. The Commonwealth regulates activities within the surface waters under 310 CMR 4.00 Massachusetts Surface Water Quality Standards (310 CMR 4.00 et al) effective December 1, 1993. The Massachusetts Surface Water Quality Standards designate the most sensitive uses to be enhanced, maintained and protected and the minimum criteria to sustain the designated uses 310 CMR 4.01 (4).

The surface waters of the Commonwealth are segmented into finite portions and each segment assigned to a particular "Class" of water. Each class is identified by the most sensitive, and therefore governing, water uses to be achieved and protected. The classification of "SA" is applied to marine waters which are or should have the highest quality designations. The classification "SB" is applied to marine waters which are subject to natural conditions or human caused conditions or sources of pollution which may periodically reduce water quality. This classification implicitly acknowledges the urbanized nature of some of the Commonwealth's waters.

The two segments which encompass the upper estuary from the Main Street Bridge to the Route (6) "Fairhaven Bridge" and the inner harbor from the Route 6 bridge out to the Hurricane Barrier are classified as being SB waters. The segment seaward of the Hurricane Barrier i.e., New Bedford Outer Harbor is classified as SA.

The designated uses for "SB" waters whether they are being attained or not are "as habitat for fish, aquatic life and wildlife and for primary and secondary contact recreation. The Massachusetts Division of Marine Fisheries determines which SB waters shall be deemed suitable for shellfish harvesting with depuration".

The criteria which determine whether or not a segment is meeting its classification include dissolved oxygen, temperature, pH, Fecal Coliform Bacteria, solids, color and turbidity, oil and grease, aesthetics, bottom pollutants, toxic pollutants. Where limits for specific toxic pollutants are not listed, the Division will use limits provided by the EPA pursuant to Section 304(a) of the Federal Act or Site-specific limits based on toxicity testing procedures approved by the Office of Watershed Management. Human health risks associated with the toxic pollutants will be regulated using guidance issued by the Department's Office of Research and Standards.

The WQS allow designating segments or portions thereof into a partial use subcategory. The criteria for establishing the subcategory are: when it is determined that natural background conditions prevent attainment of the use; human caused conditions or sources of pollution cannot be remedied or would cause more environmental damage to correct than to leave in place; or when controls more stringent than those proposed by Section 301 (b) and 306 of the Federal Act would result in substantial and widespread adverse economic and social impact.

It is likely therefore that all or substantial portions of the segments identified will have to be reclassified since all alternatives propose a minimum sediment residual of 10 ppm PCB or greater. In addition since the sediments are known to contain substantial concentrations of other toxic pollutants it would appear determinations would have to be rendered on all of the toxic pollutants identified.

The regulations for removing a national goal use or the establishment of a partial use subcategory require a public notice and the opportunity for a public hearing in accordance with M.G.L. C30A.

Under the proposed alternatives the dredging component is followed by dewatering and disposal of the dredging spoils. Accordingly the applicant must receive a Massachusetts Division of Water Pollution Control Certification pursuant to regulations 314 CMR 9.00 et al. The certification procedure is typically incorporated into the application and issuance of a final Order of Conditions under the Wetlands Protection Act MGL C131 S40. Regulatory authority is established when activities alter wetland resources areas such as salt marsh, coastal banks, land under the ocean and land containing shellfish.

Presumably the permit conditions would draw upon the lessons learned from Phase I.

Alternatives which generate some form of process water which in turn is discharged back into the estuary will be subject to regulations under 314 CMR 3.00 the Massachusetts Surface Water Discharge Permit Program. Section 4.03 of the MWQS outlines the procedures for establishing effluent limitations, the development of mixing zones, the hydrological conditions under which dredging would be permitted. Again permit requirements, effluent limitations etc would likely be based or modified after a through review of the findings and reports generated by the pilot study.

OWM recommends that EPA structure the ROD in such a way as to allow the inclusion in the remedy of any additional contaminated material (>10 ppm PCBs) found in the harbor. The potential inclusion of any additional material into the remedy would depend on several factors, such as: 1) the amount and location(s) of additional material; 2) the type remedy selected and compatibility to the remediation. The EPA should make a decision in advance to the limit of extra material that could potentially be handled with the remediation without changing the ROD.

OWM recommends continuance of toxicity sampling of the treated discharges as a protective measure in to insure adequate treatment and protection are maintained during cleanup operations. It is our understanding that the projected permit limits will be less than or equal to existing ambient water column concentrations for most of the constituents of concern. The constituents are PCB, PAH, Cd, Cu, Cr, Pb, Ni, Zn and Fe.

The OWM should be kept regularly informed with the results of the long term monitoring plan.

Should you have any questions please give me a call at 617 292 5653.

cc:

Arleen O'Donnel

John Simpson

John Higgins

**TABLE A: APPLICABLE ARARs  
FOR NEW BEDFORD HARBOR PROPOSED PLAN**

Massachusetts Surface Water Discharge Permit Program

Law c.21 s27(12)+34

Regulation 314 CMR 3.000 (8/25/95)

- 3.03 Discharges Requiring a Permit
- 3.04 (2) Storm Water Discharges
- 3.05 (4) Exemptions
- 3.10 Permit Conditions
- 3.10 (3) - Water Quality Based Effluent Limitations
- 3.10 (4) - Technology Based Effluent Limitations
- 3.10 (6) - Technology Based Effluent Limitations for Non-POTWs
- 3.10 (9) - Monitoring, Recordkeeping and Reporting Requirements
- 3.19 (3) to (6), (10) to (13), and (21) -General Permit Conditions

Massachusetts Surface Water Quality Standards Law c.21 s27

Regulation 314 CMR 4.00 (7/12/96)

- 4.01 - General Provisions
- 4.02 - Definitions
- 4.03 - Application of Standards
- 4.03 (1) Establishment of effluent Limitations
- 4.04 (1) and (6) - Antidegradation Provisions
- 4.05 (1), (2), (4), and (5)(e) - Classes and Criteria
- 4.06 - Basins Classification and Maps

Certification for Dredged Material Disposal and Filling in Waters

Law c.21 s26-53

Regulation 314 CMR 9.000 (3/1/95)

- 9.03 (2) to (5) - Classification of Dredge or Fill Material

Operation and Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers Law c.21 s27(12)+34

Regulation 314 CMR 12.000 (12/1/93)

- 12.03 (6), (8), (10) to (12) - Operations of Treatment Works
- 12.04 - Maintenance of Treatment Works
- 12.05 - Safety Program
- 12.06 - Sampling and Analysis
- 12.07 - Record Keeping and Reporting

Rules for the Prevention and Control of Oil Pollution in the Waters of the Commonwealth Law c.21 s26-53

Regulation 314 CMR 15.000 (12/1/93)

- 15.03 - General Regulations
- 15.06 - Spills and Accidental Discharges



**THE COMMONWEALTH OF MASSACHUSETTS**  
**EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS**  
**OFFICE OF COASTAL ZONE MANAGEMENT**  
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(617) 727-9530 FAX: (617) 727-2754

March 4, 1997

Helen Waldorf  
Acting Division Director  
DEP Division of Hazardous Waste  
1 Winter Street  
Boston, MA 02108

Subject: New Bedford Harbor Superfund Site  
Estuary and Lower Harbor Proposed Cleanup Plan-MCZM ARARs

Dear Ms. Waldorf:

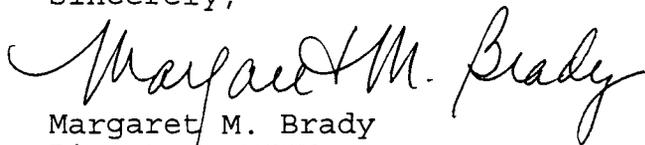
Massachusetts Coastal Zone Management (MCZM) has reviewed the November 1996, proposed cleanup plan for the Upper and Lower New Bedford Harbor Superfund site. As you know, MCZM has been a participant on the Superfund Community Forum for the past two years, during which time this plan was developed with input from state, federal, and local officials and also local citizens and environmental groups. Given this participation, MCZM strongly support the recently proposed plan. We believe the proposed plan will remove the vast majority of PCBs from the site, protect the public health, and bring closer the time when all threats from PCBs to the marine ecosystem are eliminated within the harbor.

The primary purpose of this letter is to identify MCZMs "applicable or relevant and appropriate standards, limitations, criteria, and requirements" (ARARs) for the site and the proposed cleanup activities within this site. The MCZM Program is a federally funded and approved state CZM program under the national Coastal Zone Management Act of 1972. The MCZM Program Policies are implemented on a networking basis through other Massachusetts Executive Office of Environmental Affairs (EOEA) agencies and their regulations. Table 1 includes the relevant MCZM policies, authorities and recommended implementation strategies.

I hope this information aids DEP in the preparation of its ARARs letter to EPA. If you have any questions regarding the MCZM ARARs identified in this letter, do not hesitate to contact MCZM staff people Dave Janik at 508-946-8990 or Jane Mead at 727-9530 x418.

We look forward to continued cooperation with DEP on this cleanup project.

Sincerely,

A handwritten signature in cursive script that reads "Margaret M. Brady". The signature is written in dark ink and is positioned above the typed name.

Margaret M. Brady  
Director, MCZM

## Table 1: MCZM Policies

The following identifies MCZM policies which it believes to be applicable or relevant and appropriate to the clean up of the New Bedford Harbor Superfund Site. Included in the list are:

- MCZM enforceable program policies and their authorities in MA statute; and regulations;
- Management principles, which do not have enforceable authority in MA statute and regulation but provide guidance to proponents of projects in the coastal zone;
- Recommended means of meeting the intent of the policy or management principle.

**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.**

*MCZM encourages EPA to time the construction and dredging activity to avoid the critical life stages of aquatic species to the maximum extent practicable.*

### Primary State Authorities:

- M.G.L. c. 21, §§ 26-53: Clean Waters Act
  - 314 CMR 3.00: Surface Water Discharge Permits
  - 314 CMR 4.00: Surface Water Quality Standards
  - 314 CMR 9.00: 401 Water Quality Certification
- M.G.L. c. 30, §§ 61-62H: MA Environmental Planning Act
  - 301 CMR 11.00 MEPA Regulations
- M.G.L. c. 91: Public Waterfront Act
  - 310 CMR 9.00: Waterways Regulations
- M.G.L. c. 130, § 105: Coastal Wetlands Restriction Act
  - 302 CMR 4.00: Adopting Coastal Wetland Orders
- M.G.L. c. 131, § 40: Wetlands Protection Act
  - 310 CMR 10.00: Wetlands Protection Regulations
- M.G.L. c. 131, § 40A: Inland Wetland Restriction Act
  - 302 CMR 6.00: Adopting Inland Wetland Orders

### Additional State Authorities:

- M.G.L. c. 21A, § 2(7): Areas of Critical Environmental Concern
  - 301 CMR 12.00: ACEC Designations
- M.G.L. c. 21A, § 13: State Environmental Code

310 CMR 11.00 and 15:00: State Environmental Code

M.G.L. c. 111, 127A: State Sanitary Code

M.G.L. Chapter 130: Marine Fish and Fisheries  
322 CMR 1.00-11.00 Marine Fisheries Regulations

M.G.L. c. 132A, §§ 12A-16F, 18: Ocean Sanctuaries Act  
302 CMR 5.00: Ocean Sanctuaries Regulations

M.G.L. c. 164F-R: Energy Facilities Siting Board  
980 CMR 9.00: Coastal Facility Siting

**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.**

*MCZM encourages EPA to conduct water column monitoring downstream of dredging operations with thresholds established to stop dredging operations, if exceeded. Monitoring parameters should include: metals, PAHs, PCBs, TSS, and bioassays for bioaccumulation. EPA is also encouraged to monitor the effluent from settling basins for metals, PAHs, and PCBs to ensure that state surface water quality standards are met. Finally, MCZM suggests that EPA utilize dredging operations that employ the best available technology to remove contaminated sediments with a minimum of sediment resuspension.*

Primary State Authorities:

M.G.L. c. 21, §§26-53: Clean Waters Act

314 CMR 3.00: Surface Water Discharge Permit  
314 CMR 4.00: Surface Water Quality Standards  
314 CMR 5.00: Groundwater Discharge Permit  
314 CMR 9.00: 401 Water Quality Certification

M.G.L. c. 91: Public Waterfront Act  
310 CMR 9.00: Waterways Regulations

M.G.L. c. 111, §17: State Environmental Code  
310 CMR 11.00 and 15.00: State Environmental Code

M.G.L. c. 132A, §§12A-16F, 18: Ocean Sanctuaries Act  
302 CMR 5.00: Ocean Sanctuaries Regulations

Additional State Authorities:

M.G.L. c. 21A, § 14: Disposal of Dredged Material

M.G.L. c. 130, § 105: Coastal Wetland Restriction Act  
302 CMR 4.00: Adopting Coastal Wetland Orders

M.G.L. c. 131, §40A: Inland Wetland Restriction Act  
302 CMR 6.00: Adopting Inland Wetland Orders

M.G.L. c. 131, § 40: Wetlands Protection Act  
310 CMR 10.00: Wetlands Protection Regulations

310 CMR 40.000 Massachusetts Contingency Plan

**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.**

*Within the design of the CDFs in the estuary, MCZM encourages EPA to ensure that there is not a significant decrease in flushing capacity of the upper Acushnet River and also ensure that water velocities through the area are not increased to the point of increasing erosion of the fringing salt marsh areas.*

Primary State Authorities:

M.G.L. c. 30, §§ 61-62: MA Environmental Policy Act  
301 CMR 11.00: MEPA Regulations

M.G.L. c. 91, §§ 1-63: Public Waterfront Act  
310 CMR 9.00: Waterways Regulations

M.G.L. c. 131, §40: Wetlands Protection Act  
310 CMR 10.00: Wetlands Regulations

**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, and
- 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.

*Although not a typical public works project, MCZM encourages EPA to design the CDFs to be safe from flood and erosion damage. We also suggest that the CDF designs are such that*

they remain safe even in the event there is a failure of the hurricane barrier.

Primary State Authorities:

M.G.L. c. 21, §§ 26-53: MA Clean Waters Act  
314 CMR 3.00: Surface Water Discharge Program  
314 CMR 4.00: Surface Water Quality Standards  
314 CMR 9.00: 401 Water Quality Certification

M.G.L. c. 30, §§ 61-62: MA Environmental Policy Act  
301 CMR 11.00: MEPA Regulations

M.G.L. 81: Department of Public Works

M.G.L. c. 91, §§ 1-63: Public Waterfront Act  
310 CMR 9.00: Waterways Regulations

M.G.L. c. 161A: Massachusetts Bay Transportation Authority

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

*MCZM encourages EPA to consider the following in implementation of the remedy:*

- *creation of new salt marsh areas at the base of the CDFs in the upper estuary. These salt marshes would provide ecological benefits and also potentially provide some limited additional protection for CDFs.*
- *design, time, and conduct dredging, disposal of dredged material, or filling in a way that limits disruption of anadromous fish runs (especially between March 15th and June 15th), and minimizes adverse effects on shellfish beds, fisheries resources and submerged aquatic vegetation.*
- *providing the communities adjacent to the river shellfish seed stock to replace the benefit of the dredged shellfish resources.*

Primary State Authorities:

M.G.L. c. 21, §§ 26-53: Clean Waters Act  
314 CMR 3.00: Surface Water Discharge Permit Program  
314 CMR 4.00: Surface Water Quality Standards  
314 CMR 9.00: Water Quality Certification Program

M.G.L. c. 21A, § 14: Disposal of Dredged Material

M.G.L. c. 30 §§61-62H: MA Environmental Policy Act  
302 CMR 11.00: MEPA regulations

M.G.L. c. 91: Public Waterfront Act  
310 CMR 9.00: Waterways Regulations

M.G.L. c. 111, § 150A: Community Sanitation Program

M.G.L. c. 130: Division of Marine Fish and Fisheries  
322 CMR 1.00-14.00 Marine Fisheries Regulations

M.G.L. c. 131, § 40: Wetlands Protection Act  
310 CMR 10.00 Wetlands Protection Regulations

Additional State Authorities:

M.G.L. c. 21 § 17B: Scenic and Recreational Rivers Act  
302 CMR 3.00 Scenic Rivers Orders

M.G.L. c. 21 §§ 54-58 Mineral Resource Act

M.G.L. c. 21A § 2(7): Areas of Critical Environmental  
Concern  
301 CMR 12.00: ACEC Designations

M.G.L. c. 130 § 105: Coastal Wetland Restriction Act  
302 CMR 4.00: adopting coastal wetland orders

M.G.L. c. 132A, §§12A-16F, 18: Ocean Sanctuaries Act  
302 CMR 5.00: Ocean Sanctuaries regulations

310 CMR 30.00: Hazardous Waste Disposal Regulations

**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.**

*See comment under Ports Policy #3*

Primary State Authorities:

M.G.L. c. 21, §§ 26-53: Clean Waters Act  
314 CMR 3.00: Surface Water Discharge Permit Program  
314 CMR 4.00: Surface Water Quality Standards  
314 CMR 9.00: Water Quality Certification Program

M.G.L. c. 21A, § 14: Disposal of Dredged Material

M.G.L. c. 30 §§61-62H: MA Environmental Policy Act  
302 CMR 11.00: MEPA regulations

M.G.L. c. 91: Public Waterfront Act  
310 CMR 9.00: Waterways Regulations

M.G.L. c. 111, § 150A: Community Sanitation Program

M.G.L. c. 130: Division of Marine Fish and Fisheries  
322 CMR 1.00-14.00 Marine Fisheries Regulations

M.G.L. c. 131, § 40: Wetlands Protection Act  
310 CMR 10.00 Wetlands Protection Regulations

Additional State Authorities:

M.G.L. c. 21 § 17B: Scenic and Recreational Rivers Act  
302 CMR 3.00 Scenic Rivers Orders

M.G.L. c. 21 §§ 54-58 Mineral Resource Act

M.G.L. c. 21A § 2(7): Areas of Critical Environmental  
Concern  
301 CMR 12.00: ACEC Designations

M.G.L. c. 130 § 105: Coastal Wetland Restriction Act  
302 CMR 4.00: Adopting Coastal Wetland Orders

M.G.L. c. 132A §§12A-16F, 18: Ocean Sanctuaries Act  
302 CMR 5.00: Ocean Sanctuaries regulations

310 CMR 30.00: Hazardous Waste Disposal Regulations

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

*MCZM encourages EPA to design and construct CDF D, which is located within the designated port area, in such a way that maritime commerce and development are encouraged to the greatest extent appropriate. EPA is also encouraged to utilize to the greatest extent possible harbor maintenance dredging spoils for the interim caps of the CDFs.*

Primary State Authorities:

M.G.L. c. 91: Public Waterfront Act  
310 CMR 9.00: Waterways Regulations

Additional State Authorities:

M.G.L. c. 21 §§ 26-53: Clean Waters Act  
314 CMR 9.00: 401 Water Quality Certification  
314 CMR 15.00: Prevention and Control of Oil Pollution

M.G.L. c.30 §§ 61-62H: MA Environmental Policy Act  
301 CMR 11.00: MEPA regulations

M.G.L. c. 131 § 40: Wetlands Protection Act  
310 CMR 10.00: Wetlands Protection Regulations

M.G.L. c. 132A, § 11 Self Help Program  
301 CMR 7.00: Self Help

M.G.L. c. 132A, §§12A-16F, 18: Ocean Sanctuaries Act  
302 CMR 5.00: Ocean Sanctuaries regulations

M.G.L. c. 164F-R: Energy Facilities Siting Board  
980 CMR 9.00: Coastal Zone Facility Siting, Evaluation  
and Assessment

**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.**

*See comment under Ports Policy #3.*

**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.**

*MCZM suggests that EPA be sensitive to concerns that may be raised from the community regarding historic structures or areas, especially those that may have significant Native American artifacts, and the impacts the remediation, especially the CDFs, may have on these structures or areas.*

Primary State Authorities:

M.G.L. c. 9, §§26-27C: MA Historic Commission Act  
950 CMR 71.00: Protection of Properties Included on the  
State Historic Register

M.G.L. c. 30, §§61-62: MA Environmental Policy Act  
301 CMR 11.00: MEPA Regulations

M.G.L. c. 40C: Historic District Act  
950 CMR 71.00: Historic District Regulations

Special Historic District Acts.

**PUBLIC ACCESS POLICY #1 - Ensure that developments proposed near existing public recreation sites minimize their adverse effects.**

*MCZM encourages EPA to identify public recreation areas in or near the superfund site to minimize adverse impacts and possibly enhance the public benefit of these existing areas.*

Primary State Authorities:

M.G.L. c. 30, §§ 61-62: MA Environmental Policy Act  
301 CMR 11.00 MA Environmental Policy Act Regulations

**PUBLIC ACCESS MANAGEMENT PRINCIPLE #2** - Increase capacity of existing recreation areas by facilitating multiple use and by improving management, maintenance and public support facilities. Resolve conflicting uses whenever possible through improved management rather than through exclusion of uses.

*Within the project design and implementation, MCZM encourages EPA to consider how the final facilities can be designed in such a way that may encourage and facilitate new recreational activities and public access to the water, and also improve any existing recreation facilities near the areas of remediation activity.*

**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.

*See comment under Public Access Management Principle #2*

**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.

*MCZM encourages EPA to design the facilities in such a way that they will be visually pleasing from either side of the river and result in a positive impact on surrounding neighborhoods.*



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ARGEO PAUL CELLUCCI  
Lt. Governor

TRUDY COXE  
Secretary

DAVID B. STRUHS  
Commissioner

MEMORANDUM

DATE: July 15, 1996  
TO: Paul Craffey DEP/BWSC - BOSTON  
COPY: Jeff Chormann DEP/BWP - BOSTON  
FROM: John Carrigan DEP/BWP - BOSTON  
PHONE: (617) 292 - 5584  
SUBJECT: NEW BEDFORD HARBOR REMEDIATION

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Paul:

I have reviewed the document you supplied concerning the proposal to place dredge spoils from the New Bedford Harbors channel dredging into the CDFs at the New Bedford Harbor Site. This would involve the placement of PCB contaminated dredge spoils from the channel into the CDFs. This may include the management of sediments containing greater than 50 mg/kg PCBs. Wastes that contain greater than 50 mg/kg PCBs are managed in Massachusetts as MA02 listed hazardous waste under 310 CMR 30.000, the Massachusetts Hazardous Waste Regulations.

In October 1993 the Department promulgated a major revision of 310 CMR 40.0000, the Massachusetts Contingency Plan. This included the promulgation of section 310 CMR 40.0030 Remediation Waste Management. 310 CMR 40.0031(5) states:

"Remediation Waste which meet the criteria defining a listed hazardous waste [e.g., MA02] or which are themselves a characteristic hazardous waste shall be accumulated, treated, and stored or otherwise managed at a disposal site in a manner that achieves a level of control and protection equivalent to that provided by the technical and management requirements of 310 CMR 30.000, the "Massachusetts Hazardous Waste

Regulations."

The Department in section 310 CMR 30.501(3)(a) exempts facilities that store, manage, treat, or dispose of PCB greater than 50 mg/kg from the requirements of 310 CMR 30.060 through 310 CMR 30.999 provided that such facilities shall meet all the requirements of 40 CFR Part 761 for the storage, treatment, or disposal as may be the case of PCBs. In addition, 310 CMR 30.501(3)(a)(2) requires that "in the case of PCB incinerators or PCB waste landfills, they have been **formally approved** pursuant to 40 CFR Part 761, and such approval is in effect at the time". Clearly, the intent of 310 CMR 30.501(3)(a) is to defer the regulation of the storage, treatment, and disposal of PCB contained waste that are properly managed under TSCA. CERCLA should demonstrate that this is the case otherwise the requirements of 310 CMR 30.00 would be directly applicable in which case CERCLA should demonstrate that the placement of the dredge spoils into the CDFs has attained a level of protection equivalent to that of the requirements of 310 CMR 30.620 Landfills. In addition, it has been indicated that the dredge spoils may include some quantities of TC-Toxic characteristic waste. The CDFs would again need to satisfy the requirements of 310 CMR 40.0031(5) and therefore demonstrate a level of protection equivalent to that of 310 CMR 30.620 Landfills.

In determining whether such activities are equivalent the Department believes with regards to the dredge spoils that the April 6, 1990 Memorandum from Sylvia K. Lowrance, Director of the Office of Solid Waste to Stephen D. Luftig, Director of the Emergency and Remedial Response Division, Region II may be used. In this memorandum Ms. Lowrance states "EPA believes that it is appropriate generally to consider CERCLA areas of contamination as a single RCRA land-based unit or 'landfill'." Furthermore, in most cases units located within these areas of contamination (AOCs) are not subject to the design and operating requirements for subtitle C landfills (40 CFR 264.301) because they are existing portions of the landfill [AOC]. Any lateral expansion of the existing unit [construction or expansion of a CDF outside of the AOC], however, would trigger the minimum technology requirements of 40 CFR 264.301(c)."

If you have any questions or need additional comments please contact me at extension 5584.