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

William F. Weld  
Governor  
Daniel S. Greenbaum  
Commissioner

July 10, 1992

Ms. Gayle Garman  
U.S. EPA Region I  
HRM-CAN3  
J.F. Kennedy Federal Building  
Boston, MA 02203-2211

Subject: Estuary/Harbor/Bay Operable Unit  
State's Comments on Addendum Proposed Plan

Dear Ms. Garman:

The Department of Environmental Protection (DEP) has reviewed the Addendum Proposed Plan and 1992 Supplemental Feasibility Study (SFS) Evaluation for Upper Buzzards Bay for the Estuary/Harbor/Bay Operable Unit of the New Bedford Harbor Superfund Site. The State's comments for the Addendum Proposed Plan and SFS are listed below, in anticipation of a Record of Decision (ROD) on the site.

Preferred Alternative

The DEP prefers the Dredging and On-site Disposal Alternative (Bay-2) in the SFS. The DEP prefers removal to all capping and treatment alternatives (Bay-3 to 5), since we are not convinced that the integrity of any underwater cap can be maintained and that the Operation and Maintenance (O&M) on a cap can be assured over the long term.

The Order of DEP Preference of the Other Alternatives

Combination of Dredging and Capping Alternative (Bay-4) - The Bay-4 alternative is the EPA preferred alternative.

Capping Alternative (Bay-3) - See above comments on Preferred Alternative.

Dredging, Solvent Extraction and On-site Disposal (Bay-5) - The Bay-5 should not be considered unless the treatment of sediments from the estuary/harbor/bay contaminated with greater than 500 ppm PCB is also considered.

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Minimal No Action Alternative (Bay-1) - The DEP cannot concur with this option, as it does not reduce toxicity, mobility, and volume; and is also not a permanent or temporary solution as defined in the Massachusetts Contingency Plan (MCP).

#### OTHER ISSUES ON THE PROPOSED PLAN

Water Pollution Control Comments - See attached Memorandum for the comments from the DEP's Water Pollution Control Division.

Wetland and Waterways Comments - The Division of Wetlands and Waterways is concerned about the long-term stability and integrity of the proposed cap and impacts to wetland and waterway resources from both dredging and the Confined Disposal Facilities. The EPA should provide mitigation plans for shellfish beds, salt marsh, tidal areas and water-dependent uses displaced by the project. See attached Memorandum for additional comments from the DEP's Wetlands and Waterways Division.

Enforcement - The enforcement of the fishing ban and other institutional controls need to be accelerated and if possible some part of the settlement monies could be used for enforcement. Costs for the enforcement of institutional controls should be identified and included with the O&M costs for the site.

Predesign Sampling Program - The EPA needs to structure the ROD so that any additional contaminated material (>10 ppm PCBs) found in any of the locations to be sampled can be included in the remedy. 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 volume limit of the extra material that could potentially be handled by the remediation without changing the ROD.

Locations of Contaminated Sediment Placement - The contaminated PCB sediment should be placed in the CDFs to minimize migration of the PCBs out of the CDFs. The most contaminated sediment should be placed in the middle and near the back of each CDF. The most contaminated sediments should be placed in CDF #1 at the farthest point from the water. The least contaminated sediments should be placed at the edges, bottom, and top of the CDFs.

Operation and Maintenance (O&M) - The EPA needs to specify more details on the O&M requirements especially regarding costs. Also, please indicate the present worth of alternatives so the State can make an educated decision on remedy concurrence.

Monitoring - The EPA needs to specify what the long and short term monitoring requirements are for the site including frequency, duration, and who is responsible. Quarterly monitoring has been identified in the Plan.

New Bedford City Sewer System - Any removal and/or capping around the outfall of the New Bedford sewer system and/or any CSO needs to be planned and coordinated with the City of New Bedford before any remedial plans are finalized.

Cost Estimate Update - The Hot Spot Operable Unit cost estimates are now higher than the original estimates. The EPA should use the most recent and appropriate cost information in this Proposed Plan.

RCRA Requirements - Please refer to the attached memorandum from the DEP to EPA dated May 22, 1992 for the RCRA requirements which have been delegated to Massachusetts.

PCB Air Emissions

Dredging - It will be necessary through monitoring and air quality modeling to demonstrate that the remedial action activities will not cause a significant negative impact on air quality, Threshold Effect Levels (TELs), and Ambient Air Levels (AALs).

CDF - Monitoring and Best Available Control Technology will be required to control possible air release from the CDFs in exceedance of AALs.

See attachment for additional comments.

Remedy Failure - The EPA needs to specify what constitutes remedy failure for the CDFs. Please consult our letter of May 22, 1992 for a discussion of alternative SW8 and the DEP's suggestion of how to address CDF failure with a "maximum PCB loss" amount. Please clarify the EPA's and State's responsibilities for correcting any remedy failure.

CDF Capping - The EPA needs to specify the type of cap required for the CDFs and the permeability criteria which will be required.

CDF Locations - The locations of CDF 1 and 3 need to be corrected in the plan (page 6, Figure 2). CDF 3 includes the area between the Coggeshall St. and Interstate 195 bridges. This area is identified as CDF 4 in the January 1992 Proposed Plan (page 12, Exhibit 3). Also, CDF 1 should not include the area that the Hot Spot CDF now occupies.

Cap Implementability - The EPA needs to explain who is responsible for any additional remedial actions required for the cap (SFS page 6-33). The SFS indicates the possibility of additional cap material placement or removal of contaminated sediment from under the cap.

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Capping Costs - The cost of capping could be impacted by use of a marine source. For Alternative Bay-4, the total cost would be lowered from about \$9.7 million to approximately \$6.8 million (SFS page 6-43 and 6-44). The EPA needs to explain how the cost can be lowered about \$2.9 million when the cap costs are \$2.5 million.

CDF O&M Costs - The EPA needs to explain why no additional O&M Costs are included in the Bay-4 Alternative (SFS page 6-44) when the height of the CDFs in this proposal have been increased by 2 feet over the previous proposal.

The DEP appreciates the opportunity to comments on the Addendum Proposed Plan and the SFS. If you have any questions or comments on this letter, please contact, Paul Craffey at (617)292-5591.

Very truly yours,

  
Helen Waldorf,  
Section Chief

cc: Paul Craffey, DEP Project Manager  
Don Nagle, OGC  
Madeline Snow, Division Director, BWSC  
Paula Fitzsimmons, Section Chief, EPA  
Matt Brock, Assistant AG  
Tom Bigford, NOAA



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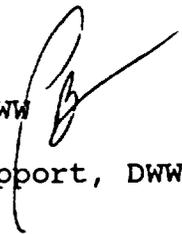
## Department of Environmental Protection

William F. Weld  
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### MEMORANDUM

To: Helen Waldorf, DEP, BWSC

Through: Peg Brady, Deputy Director, DEP, DWW 

From: Gary Gonyea, Chief of Technical Support, DWW 

Date: July 8, 1992

Subject: Division of Wetlands and Waterways comments on draft EPA expanded cleanup plan for Upper Buzzards Bay, New Bedford Harbor Superfund Site.

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The Division of Wetlands and Waterways has reviewed the Addendum Proposed Plan for Upper Buzzards Bay, New Bedford Harbor Superfund Site. The Division's comments for this component of the New Bedford Harbor cleanup plan are presented below.

#### EPA Preferred Alternative

The EPA's preferred alternative (Bay 4) to cleanup PCB contaminated sediments in Upper Buzzards Bay includes dredging polluted areas near the Hurricane Barrier and the Cornell Dubilier outfall. The EPA also proposes to install a two foot thick cap of clean fill material over contaminated bottom sediments surrounding the wastewater treatment plant outfall. DWW does not concur with the proposed alternative for the following reasons:

- Bottom sediments will not be treated to reduce PCB levels. These untreated sediments even if stored in CDFs represent a long term threat to the environment;
- biological and physical factors such as erosion and accretion, which would impact the long term stability and integrity of the cap have not been adequately addressed;
- the long term maintenance requirements for the capping material have not been adequately addressed; and
- studies on the adequacy of a two foot cap to prevent long term impacts to biota from both lateral and horizontal bioturbation and resuspension of pollutants have not been presented.

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### DWW Preferred Alternatives

DWW prefers the Dredging, Solvent Extraction and On-Site Disposal (Bay 5) alternative presented in the Addendum Proposed Plan. DWW strongly supports the treatment of contaminated sediment option to reduce PCB levels before sediments are placed in the proposed CDFs. The Dredging and On-Site Disposal (Bay 2) alternative could be acceptable to DWW with modifications to the CDFs to eliminate PCB migration through the CDF berm material. These modifications include adding a liner or other reduced permeable material to the berm to prevent PCB migration and development of a monitoring program to track PCB movement out of the CDFs. DWW does not concur with either the Capping Only (Bay 3) or Limited Sampling (Bay 1) alternatives.

### Comparative Analysis of Alternatives

EPA must include an analysis of applicable Wetland Protection Regulations (310 CMR 10.00) and Waterways Regulations (310 CMR 9.00) in this section. For instance, 310 CMR 10.25(6) Land Under the Ocean specifies that water-dependent projects minimize adverse effects to eelgrass beds and alterations of areas with high densities of mollusks. If the area to be dredged has been deemed significant for the production of shellfish as specified in 310 CMR 10.34(3), appropriate steps as outlined in 310 CMR 10.34(6) must be undertaken to preserve the resource. Additionally, the CDF's will displace large volumes of water and potential flood storage. Even though the hurricane barrier protects the inner harbor from high hazard storm events (v zone), the upper harbor and estuary are still within the 100 year floodplain as mapped by FEMA. Pursuant to 310 CMR 9.32, the Waterways Regulation Program can not approve the filling of flowed tidelands for water-dependent uses unless there is no reasonable upland alternative. The EPA should provide DWW with the alternative analysis completed for locating the CDF's in flowed tidelands.

DWW can not accept implementation of the proposed alternative until adequate mitigation for these and other wetland and waterways issues have been addressed.

### Other Division Concerns - Outer Harbor-Bay Project

According to the Waterways Regulations at 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 and improving public access, and protecting public rights in tidelands. These

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rights include fishing, fowling, and navigating and in Commonwealth tidelands all lawful activities are a public right.

- Confined Disposal Facilities - 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. As stated above, the EPA must show there is no reasonable alternative to filling flowed tidelands. 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 should not be displaced pursuant to 310 CMR 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 marine site which requires dredging is preferred. The maximum depth practicable must be maintained in capped area. The cap should not hinder shipping or navigation. Cap must be maintained to prevent future impacts to shipping and navigation.
- Dredging and Disposal Operations - all dredging and capping activities must follow the standards specified at 310 CMR 9.40. These standards include: minimizing adverse impacts on fish, shellfish and vegetation; design and time dredging operations to minimize impacts to anadromous and catadromous fish runs; dredging operations supervised by a design inspector approved by the Division; and, preparation of a post-dredging or capping report.
- Resource Protection - both the Wetlands and Waterways regulations require the avoidance or minimization of impacts to fish runs, shellfish, fisheries resources, and vegetation. Mitigation plans must be developed for the shellfish beds, salt marsh and tidal areas impacted by this project.
- New contaminated areas may be discovered during the outer bay

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monitoring program. All treatment alternatives should be explored for these areas. The Division, however, will continue to support alternatives which focus on the removal and treatment of polluted sediments with mitigation for impacted resources.

If you have any questions concerning these comments please do not hesitate to contact me at 556-1152.

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



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### **ATTACHMENT: AIR POLLUTION CONTROL COMMENTS**

Sound and Odor Emissions - The dredging, CDF construction, and future operation must be performed in a manner such that a condition of "air pollution" does not occur due to the emission of sound and/or odor.

*PAUL CRAFFEY*

~~John Cafferty@BWSC FMCRA@DEP Boston~~  
Lawrence Gil@BRP WPC@DEP Boston  
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Christopher Tilden@BWP@DEP SERO

Bcc:  
From: Russell Isaac@BRP WPC@DEP Boston  
Subject: new bedford superfund  
Date: Monday, July 13, 1992 12:30:34 EDT  
Attach:  
Certify: Y  
Forwarded by:

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The Division is of the opinion that the concerns Larry Gil raises in his review of the target objective of 50 mg/kg of PCB in the sediments of New Bedford Harbor are valid. Based on monitoring we have done involving PCBs, this concentration in the sediment will result in high concentrations of PCBs in biota. However, given the state of art in predicting such relationships, and the resources available remediation, the Division feels that the proposed solution is a good first step that should be followed by post implementation evaluation. Based on the evaluation of the implementation efforts, the site could be considered for further work depending on how it ranks with other sites being evaluated at that point in time.

This email should accompany any copies of Mr. Gil's memorandum.



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Memorandum

July 9, 1992

TO: Paul Craffey Site Manager BWSC Boston

THRU: Brian Donahue Director DWPC Boston

Thru: Russell A. Issac Assistant Chief Engineer DWPC/TSS Boston

From: Lawrence W. Gil Aquatic Biologist IV, DWPC/TSS Boston 

Subject: Estuary/Lower Harbor/Bay and Upper Bay Operable Units  
State's Comments on Proposed Plans

The Division of Water Pollution Control (DWPC) has reviewed the January 1992 Proposed Plan for the Estuary/ Harbor/Bay Operable Unit (E/LH/B) of the New Bedford Harbor Superfund Site and the Expanded Cleanup Proposal to Address Contamination in Parts of Upper Buzzards Bay.

The EPA's preferred alternative for the (E/LH/B) involves the construction of confined disposal facilities (CDFs) along the shore of the estuary. Sediments with PCB levels in excess of 50 ppm in the estuary, lower harbor and the upper bay would be dredged, dewatered by gravity in the CDFs and covered with an impermeable cap. Water produced by the dewatering process would be treated by Best Available Control Technology (BACT) to reduce contamination to appropriate discharge limits.

The Expanded Cleanup Plan for the upper bay addresses sites seaward of the Hurricane Barrier which have been shown to contain PCB contaminated sediments in excess of 10 ppm. These sites include two areas totaling 42 acres which have been impacted by the periodic discharges of combined sewer overflows (CSO) adjacent to Cornell Dubilier and a third site of approximately 17 acres surrounding the New Bedford Sewage Treatment Plant Outfall. The sites offshore of the Cornell Dubilier plant will be dredged and the material disposed of in the CDFs located in the upper estuary while the contaminated sediments around the outfall will be capped with 6 ft. of clean sediments.

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The Division's comments for these two operable units are presented separately below.

### General Comments

The conclusion reached by DWPC after reviewing the "preferred alternative" for the (E/LH/B) is that it is at substantial variance with a host of federal and state regulations developed to protect the public health along with criteria and standards designed to protect sensitive resources. Of particular concern and relevance to DWPC is that the preferred alternative will not meet a number of existing water quality standards.

The primary reasons for limiting the dredging to sediments containing PCBs  $\geq$  50 ppm appears to be the difficulty in demonstrating significant benefits for greater removal and justification for higher treatment because of the substantially greater costs. Volume I Section 4.3.2.2.2 Ecological Target Clean-up Levels for Sediment page 4-22 indicates that under Best Scientific Judgment a sediment residual between 0.1 and 1 ppm PCB would be needed to protect most marine organisms.

The problem is not with the burden of the scientific proof which is sufficient to conclude that exposure to the PCB concentrations present is significantly harmful to humans or biota, or that the concentrations of PCB's, heavy metals and a wide range of other hazardous organic compounds have effected the structure and function of the New Bedford Harbor ecosystem through increased mortality, decreased reproduction, and decreased food resources to higher trophic level biota. Rather the problem is that the models used to assess ecological risk are not sufficiently precise to quantify impacts beyond the most basic comparisons. As a consequence, various remediation alternatives are predicted to result in approximately the same environmental benefit.

The earlier decision to partition the "entire" site cleanup into operable units to allow for efficiencies in addressing discrete areas or types of contamination makes intuitive sense. However recommending dredging, treatment and incineration for the "Hot Spot" should not be viewed as being sufficient in meeting CERCLA requirements for providing a permanent remedy for the whole site since portions of the upper estuary after the Hot Spot remediation will still have PCB sediment concentrations up to 4,000 ppm.

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In fact the EPA's (E/LH/B) preferred alternative of containment without treatment seems inconsistent with its own guidance which states "that PCB concentrations in excess of 500 ppm should generally be treated since they typically represent a principal threat".

The Preferred Alternative for the (E/LH/B) as currently presented fails to integrate the remediation of the PCB contaminated sediments into a comprehensive framework which does more than isolate a source of contamination. It subjects stretches of an already significantly impacted shoreline to even more alteration. These sites will remain as economic and environmental liabilities to the state and local officials and more importantly to the area residents. In addition the residual amounts remaining in areas not receiving remediation will effectively prevent the area from realizing any positive gains either environmentally or economically for years to come.

For example, large areas of the lower harbor will still contain excessive residual levels of contaminants such as PCB, lead, and copper. These contaminants will exceed the Commonwealth's category III levels used for classifying dredging spoils. The city's ability to conduct maintenance dredging of shipping channels, mooring sites or to remove navigational obstructions and improve the economic viability of the harbor will be severely hampered. Further, the residual levels in the sediments will also continue to be a significant source of contamination to the biota particularly to commercially important species such as lobster and winter flounder.

Due to the complexity and magnitude of the problem all of the alternatives will require some form of trade-offs either in environmental terms or in dollars. However, DWPC would recommend that the overall solution employ remedies which maximize the removal, treatment and / or long term stabilization of the contaminated sediments. The alternatives which rely heavily on capping and containment only delay the requirement for a permanent solution and subject the inhabitants and local and state authorities with decades of expensive monitoring and maintenance.

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### 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". Under Massachusetts General Law Chapter 21, section 27 herein after referred to as the "Act", the Division of Water Pollution Control is mandated with the duty and responsibility to protect public health and enhance the quality and value of the water resources of the Commonwealth. The Massachusetts Surface Water Quality Standards, 310 CMR 4.00 et al., designate the most sensitive uses to be enhanced, maintained and protected and the minimum criteria to sustain the designated uses.

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 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".

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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 Director of Water Pollution Control. Human health risks associated with the toxic pollutants will be regulated using guidance issued by the Department's Office of Research and Standards. The standards which apply to PCB concentrations in marine waters are 10 ppb for acute exposure and 0.03 ppb for chronic exposure. The ambient concentrations within the water column north of the Coggeshall Street bridge have been determined to be 0.6 ppb and 0.11 ppb at the hurricane barrier and are therefore in violation of 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 the preferred alternative proposes a sediment residual of <50 ppm PCB. 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. 30A.

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The preferred alternative will dewater the dredged sediments, treat and discharge the effluent back to the estuary and lower harbor. The process waters are 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.

The calculations used to determine the allowable loadings of the individual chemical variables in the respective segments must consider the background concentrations in determining the appropriate water quality based effluent limitations.

Again permit requirements, effluent limitations etc., would likely be based or modified after a thorough review of the findings and reports generated by the pilot study. Presumably the permit conditions would draw upon the lessons learned from the pilot study.

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 resource areas such as salt marsh, coastal banks, land under the ocean and land containing shellfish.

Another particular concern is the impact brought about by the large scale alterations to the shoreline and harbor islands in constructing the contained disposal facilities (CDFs). Hurricanes are a sporadic but not uncommon visitor to the region. NOAA climatological records indicate that the area is visited by tropical storms every 5 years. The last major hurricanes in the mid 1950's caused extensive damage. Large scale storms can be expected to reek havoc with the CDF's due to erosion of the protective caps, flooding and wave damage. Such impacts could be exacerbated by changes in the flood storage capacity of the estuary with the construction of CDFs. Corrective measures are likely to require significant expenditures of time and money at a time when money and time would be better spent in dealing with other storm damages.

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### Recommendations

Upon settlement of the litigation between the principal parties, the cleanup alternatives must be coordinated and integrated with several other programs to maximize the environmental and economic benefits on the most sensitive and valuable resource, the harbor. Several examples come to mind: (1) dredging and removing the shoals of sediments which currently impede vessel movement, docking and mooring within New Bedford Harbor, (2) coordinate cleanup of the harbor with the city's upgrading of it's sewer system, which has been explicitly identified as a source and conduit for pollutant transport, (3) since sediments within New Bedford Harbor will retain significant contaminants regardless of the level of treatment it would make sense to develop a disposal facility within the harbor to dispose of sediments generated by future maintenance dredging.

Finally the litigants assembled a small army of consultants who conducted a number of studies in support of their clients position, the information generated should be made available to all reviewers and applicable findings incorporated into the decision making.

### Preferred Alternative

The DWPC prefers the dredge/solvent extraction treatment alternative (SW-9a) in the FS for all sediments with PCB contamination > than 500 ppm. This would be consistent with the EPA's own guidelines. These dredged spoils would then be solidified as outlined in alternatives EST-4 and LHB-4. Instead of burying the stabilized blocks in CDF's, the blocks would be buried in Contained Aquatic Disposal (CAD) cells located in the upper estuary north of the Coggeshall Street Bridge, and covered with cleaner coarse grained sediments to depths to minimize biological activity. Bottom contours would be restored to their original depths and configuration. Over a period of time the natural deposition of finer grained materials would serve to further cap and isolate the underlying blocks.

Contaminated sediments between 500 ppm and 10 would be dredged, mechanically dewatered as outlined in Volume II alternatives EST-3d and LHB-3d. They would be contained within Confined Disposal Facilities (CDFs) without treatment.

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Under this approach the most contaminated materials would be treated, stabilized and effectively. While large storm events would be expected to move and shift the overlying sediments, they are not likely result in the large scale migration of the blocks. In the event the contaminated materials are exposed the cover material would be replaced.

#### Order of DWPC Preference of the Other Alternatives

Dredge/Dewater/Solidify/Dispose On-site (EST-4 and LHB-4) - Modified for 500 ppm solidify , 10 ppm removal - Treatment is preferred to the non-treatment options.

Dredge/Dewater/Incineration/Solidify Ash/Dispose On-site (SW-9b, EST-6, and LHB-6) - The incineration option is the least preferred of the removal/ treatment options. The metals in some locations in the estuary and harbor are higher than the Hot Spot Operable Unit.

Dredge/Dispose On-site (SW8) - This alternative is preferred to the incineration, capping, and minimal no-action alternatives. The DWPC may be able to concur with this alternative, provided the EPA clarifies, justifies, and defines a reasonable maximum allowable loss of PCBs from the CDFs into the harbor. In this way the EPA will be able to assure the public that PCB recontamination of the harbor will be minimal. Exceedence of this "maximum allowable rate" as defined by the EPA will have several beneficial effects on the Record of Decision process. A maximum loss rate, if exceeded could be used to clearly define what constitutes failure for each CDF. In addition, the DWPC will be assured there is a "safety net" so that CDF failures are clearly defined.

Capping (SW-7, EST-2 and LHB-2) - DWPC prefers all removal alternatives to capping and may not be able to concur with any capping alternative. Capping would leave the PCB contamination in the estuary, harbor, and bay. PCBs have the potential to migrate in the event of cap failure. Storm and tidal action could move the cap exposing PCBs to the environment and PCBs have the potential to diffuse through the cap. Operation and maintenance is also difficult and costly in the capping option.

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Minimal No-action (EST-1 and LHB-1) - The DWPC will cannot concur with this option, as it does not reduce toxicity, mobility, and volume; and is also not a permanent or temporary solution as defined in the Massachusetts Contingency Plan (MCP).

#### OTHER ISSUES ON THE PROPOSED PLAN

Location of Contained Disposal Facilities - The location of CDF's numbers 4 and 1A are located in an area already subject to high current velocities due to the narrowing of the estuarine channel. Further restrictions in the width of the channel at this point can be expected to exacerbate current speeds. The impacts on the integrity of bulkheads placed there should be carefully evaluated.

Locations of Contaminated Sediment Placement - Over a long period of time their confinement without treatment could result in non-point source discharges and might make the unlined CDFs point source discharges of PCB contamination. The contaminated PCB sediment should be placed in the CDFs to minimize migration of the PCBs out of the CDFs. The most contaminated sediments should probably be placed in CDF #1 at the farthest point from the water. The least contaminated sediments should be placed at the edges, bottom, and top of the CDFs.

Heavy Metals and other Priority Pollutant Contamination - The issue of residual levels of heavy metal hot spots and other priority pollutants is virtually ignored in the proposed Plan. Provide information about the residual levels of other principal contaminants remaining after the implementation of the remedy.

Ambient Water Concentration Levels for PCBs, Copper - The EPA should provide estimates of what the ambient water quality concentrations would be after completion of the cleanup at various points in the estuary north of the Coggeshall bridge, at the Route 6 bridge and at the hurricane barrier.

Monitoring - The EPA needs to specify what the monitoring requirements are for the site including frequency and duration. (Quarterly monitoring planned.). The objectives of the monitoring plan should include monitoring of biota, sediments and the integrity of the CDFs.

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New Bedford City Sewer Grit Problem and other institutional issues

This sewer grit problem has been discussed numerous times with the City, EPA, and DEP. The DWPC understands the complicated enforcement implications in addressing the PCB contaminated grit from the adjacent sewer system. It may be appropriate to indicate in the ROD the circumstances under which the remedy could address the sewer grit. In other words, a list of criteria to be met and issues which must be resolved by the City should be clearly stated so the City may make decisions regarding the remediation of the grit.

The City of New Bedford and the town of Fairhaven are currently in the process of upgrading their waste disposal practices and the facilities. THE EPA preferred alternatives say virtually nothing about these ongoing activities and proposes actions which may in fact be at variance with these proposed activities. For example the location of the some of the CDF's could block existing storm sewers and street drains.

Contaminated Areas above Wood Street Bridge - The PCB contamination north of the Wood Street bridge should be determined during design. If the contamination is above the EPA removal level then the contaminated sediment should be removed.

Remedy Failure - No estimates of the PCB movement through the CDFs were provided in the Proposed Plan, however the DWPC recognizes that PCBs bound to organic sediments to be disposed of in the proposed CDFs will leach very slowly in very small amounts over a long period of time. The EPA needs to specify what constitutes remedy failure for the CDFs with a "maximum PCB loss" amount. Please clarify the EPA's and State's responsibilities for correcting any remedy failure.

CDF Capping - The EPA needs to specify the type of cap required for the CDFs and the permeability criteria which will be required.

Future PCB Contaminated Dredge Spoils - Some consideration should be given to determine the amount of future dredge spoil space will be required for the Harbor and Bay, and the location that this material may go.

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#### COMMENTS TO THE SUPPLEMENTAL FEASIBILITY STUDY (SFS)

DWPC supports the removal of all sediments contaminated with PCBs in excess of 10 ppm regardless of their location. However it finds the EPA's logic, as applied to the upper bay sources, to be inconsistent with the rationalization and justifications used to limit cleanup of PCB contamination levels landward of the barrier to < 50 ppm.

If NOAA's quantitative approach is accepted then the 930 acres inside the hurricane barrier will have residual PCB contamination levels ranging between ND and <50 ppm. Since the juveniles of many marine species exhibit habitat preference for shallower less saline waters, the 930 acres would have a greater biological impact than the combined 59 acres located outside of the barrier.

If the NOAA's qualitative rationale for increased biotic activity about the POTW outfall is used, DWPC does not see how it logically applies to the two areas close to the hurricane barrier since neither site is exposed to continuous deposition from an outfall.

DWPC finds the EPA concerns regarding increased human consumption of fish within the Fishing Closure Area II to be disingenuous when contrasted with the rationale used for limiting cleanup within the harbor to < 50 ppm. It is not an adequate defense to point out that the EPA's acceptable risk for human consumption for PCBs is 10 times lower than FDA Tolerance limit of 2 ppm PCBs or that EPA's reliance on institutional controls to limit human consumption is not working if the EPA does not follow it's own regulations and guidelines.

#### SPECIFIC COMMENTS

The Division of Water Pollution Control has some serious concerns regarding the proposal to cap the contaminated sediments around the existing outfall, they are as follows:

1. Under the existing agreement with Commonwealth and the EPA, the City of New Bedford may be required to install a diffuser at the existing outfall in order to meet water quality criteria when their existing facility is upgraded to secondary treatment. The addendum acknowledges this potential but provides no details regarding how this would be resolved.

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2. The water depth in this area of the outer harbor is ~ 30 ft at MLW, the proposed capping would reduce the depth by 20 %. The impacts on current patterns must be evaluated prior to any filling.

3. As previously discussed the greater New Bedford area is subject to severe storms. Storm surge may severely impact the integrity of the cap. The combined impacts of (2) and (3) will present some formidable maintenance problems.

4. The burial of 17 acres of benthic fauna should not be treated lightly, a thorough assessment of stocks of shellfish, and other benthic fauna should be conducted.

The addendum indicates that predesign sampling would occur to better define areas within the upper bay which have PCB levels > 10 ppm. Two areas come to mind, the first is in the vicinity of the auxiliary outfall and the second would be within Clark's Cove.

The addendum lists several other alternatives, Bay 2 which calls for the dredging and on-site disposal of contaminated sediments from the three areas and confinement within a CDF constructed in the lower harbor provides the best choice from our perspective.

If you have any questions or comments on this letter, please contact, Lawrence Gil at (617) 292-5884.