UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Management Division
2 State Fish Pier
Gloucester, MA 01966

November 28, 1986 F/NER741:SM

Mr. Frank Ciavatierri
U.S. Environmental Protection Agency
Waste Management Division
HSL - 1907
J.F.K. Federal Building
Boston, MA 02203

Dear Mr. Ciavatierri:

This is in reference to the proposed pilot study of dredging and disposal alternatives and the proposed wetland evaluation of the in-harbor containment alternative for the New Bedford Harbor/Acushnet Estuary Superfund clean-up. We have reviewed the draft documents that outline these proposals and offer the following comments:

Pilot Study on Dredging and Disposal Alternatives

The National Marine Fisheries Service (NMFS) has expressed concern that the proposed Superfund dredging of highly contaminated sediments in New Bedford Harbor could result in significant resuspension of polychlorinated biphenyls (PCBs) and heavy metals. This concern centers on the potential for increased dispersion of these toxic substances and the subsequent bioaccumulation by living marine resources. Thus, we agree that further evaluation of the feasibility of safely dredging and disposing of these highly contaminated sediments is necessary. It is vital that this pilot study be properly engineered and monitored so as to minimize adverse effects to aquatic organisms from dredging and disposal operations. Since the proposed pilot study is in an early stage of development, we anticipate that the following concerns and information gaps can be addressed during the study's formulation and environmental review.

(1) In general, the NMFS is concerned that the pilot study, unless properly conducted and monitored, may cause a significant resuspension of contaminants that would degrade water quality beyond the immediate project vicinity. However, without detailed plans that outline dredging techniques, operations controls, and monitoring protocol, it is impossible to completely assess the environmental effects associated with this project. Therefore, it is impossible to provide specific comments at this time. We assume that there will be further opportunities for review as more detailed plans are developed. Since there appears to be uncertainty regarding contaminant release to both air and water, it may be appropriate to test dredging and disposal options in an area of New Bedford Harbor that is less contaminated. This would minimize the risk of a significant contaminant release during the pilot study.

The pilot study plan is to dredge about 25,000 cubic yards of contaminated sediment and to dispose of the material in a 4-10 acre diked disposal site and in a confined aquatic disposal site. The purpose of the plan is to assess contaminant release during dredging, engineering techniques to minimize contaminant release, and the feasiblity of utilizing a confined aquatic disposal site. According to the plan, although confined aquatic disposal sites have been utilized in foreign countries, their efficacy and safety have not been verified in this country. Therefore, the pilot study is necessary to completely assess this disposal option. However, the proposed diked disposal site, a proven technology, has been sited within an intertidal mudflat area. (2) This portion of the project would permanently destroy between 4 and 10 acres of intertidal aquatic habitat. We understand that the upland adjacent to this site is undeveloped, and therefore could potentially serve as at least part of the diked disposal area. We recommend that this and other upland locations for the diked disposal site be investigated.

The pilot study proposal lacks information on what engineering techniques will be employed to control contaminant release and physically minimize the affected area. Information on precisely where, and how, monitoring will be (3) conducted is also necessary. Will monitoring be simply a process of data collection or will provisions be made to stop dredging in the event of significant PCB release? If the latter is the case, what levels will be considered acceptable on site and at downstream monitoring stations?

Wetland Report

Since the preferred disposal alternative for remedial action would eliminate much of the vegetated wetlands within the Acushnet River estuary, an evaluation of the functional integrity of this wetland ecosystem is planned to determine its "value." In general, salt marsh wetland functions include fish and wildlife habitat, food chain support, pollution attenuation, and shoreline stabilization. Preliminary observations of plant and animal communities of the project site wetlands made by Sanford Ecological Services in February 1985 do not indicate degradation. Vegetative cover of salt marsh wetlands approached 100%, plant growth was vigorous for all marsh species, and the height of salt marsh grasses suggested a high rate of productivity. Ribbed mussels (Geukensia demissa) were abundant, the amphipod (Orchestia grillus) and salt marsh snail (Melampus bidentatus) were ubiquitous, and some polychaete worms, isopods, and land snails were locally abundant. The study (4) site showed "at least the expected levels of bird populations for an unpolluted site." Based on these preliminary observations, this site appears to be at least providing fish and wildlife habitat, food chain support through detrital export, and shoreline stabilization.

The planned wetland study will compare, both quantitatively and qualitatively, the project site wetland with a so-called "control" wetland located outside New Bedford Harbor. The study plan is broad: Parameters to be measured include primary productivity, benthic invertebrate populations, fisheries, and (5) wildlife use. Although the study results would be interesting, and may be useful, it is unclear how these results will be used to assess this wetland's "value." The preliminary observations indicate that there will probably not

be large differences between the project and control wetlands biota. Further, any observed differences in productivity, species abundance and distribution, or diversity indices could be attributed to the differences in geographical location (protected inner harbor vs. outside harbor), salinity, substrate, water regime, sampling error, natural variability, or to pollution effects. If parameter observations for the project site wetland are lower than the control, do we conclude it is less valuable, and therefore suitable as a disposal area? Or conversely, if the "control" values are lower, do we conclude that New Bedford Harbor is excellent habitat? The main point here is that few, if any, conclusions can be derived from one year's sampling of complex, naturally variable ecosystems.

6 We consider the project site wetland to be functional aquatic habitat and believe its local value is augmented by the fact that it is the only major vegetated wetland complex in this developed estuary. Unless this wetland ecosystem is a significant source of PCBs and heavy metals, the NMFS will continue to recommend that an alternative disposal location that does not destroy aquatic habitat be utilized if dredging proves to be a feasible alternative for remedial action.

7 We recommend that the wetland study be streamlined to focus on the physical questions of PCB and heavy metal contamination of this wetland site; namely, (1) do the sediments of this wetland complex contain elevated levels of PCBs and heavy metals, and (2) are these contaminants being incorporated into resident plants and animals and exported out of the system? The first question can be assessed through chemical analysis of sediment cores taken within the project site. However, this information alone is not sufficient. It is possible that PCBs and heavy metals may be present at elevated levels in the salt marsh sediments, but may be physically trapped in the sediments and not biologically available to aquatic plants and animals. Therefore, it is necessary to analyze PCB and heavy metal levels in aboveground stalks of Spartina spp. and resident animals, such as Geukensia demissa, a detritivore, or Uca pugnax, a mud and detritus feeder, to determine if this wetland is a significant source of PCBs. Attributing the source of elevated contaminant levels may be difficult for animal species, but should be straightforward for the marsh grasses. We believe that this approach, utilized in conjunction with the preliminary wetland observations and other existing datasets, e.g., surface and groundwater relationships, will provide sufficient information to assess the effects of utilizing this wetland as a disposal site.

Summary and Recommendations

The NMFS requires additional information to adequately assess the environmental effects of the proposed pilot study. We understand that this project is in a preliminary stage and anticipate that further review will be possible as plans are developed. We recommend that alternative locations that do not destroy aquatic habitat be investigated for the diked disposal area. Regarding the proposed wetland study, we recommend the study be streamlined to address the physical questions of PCB and heavy metal contamination as outlined above.

We appreciate the opportunity to comment on these proposals. We are prepared to provide more detailed comments on the specific sections of the wetland study plan that relate to marine resources at the upcoming December 9 interagency meeting. Please keep us informed as additional information relative to the pilot study or the proposed remedial action becomes available.

For further coordination regarding this project, please contact Susan Mello at FTS 840-1323 or Comm. (617) 548-5123 ext. 323.

Sincerely,

Thomas E. Bigford

Thomas E. Bigford
Branch Chief

mail read

No mail at this time.

>off
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301 241 DISCONNECTED 00:48
To: GNED (XCE2009)
From: R5NEFO (FWS242) Posted: Fri 5-Dec-86 9:22 EST Sys 57 (75
Subject: SOW FOR NEW BEDFORD WETLAND REPORT
Acknowledgment Sent

--More--

TO: Russ Belmer, NED

FROM: Ken Carr, U.S. Fish and Wildlife Service, Concord, NH

SUBJECT: SOW for New Bedford Wetland Report

We continue to stand by our position, as stated to EPA in our 1984 response to the draft Feasibility Study for New Bedford Harbor that upland containment or subtidal aquatic containment sites will negate the need for the wetlands assessment while restoring 200 acres of aquatic habitat.

More specifically, comments regarding the scope of work are outlined below:

8 Item 3. Section 404(b)(1) guidance pertains to other than vegetated wetlands. Will mudflat areas be included in the assessment?

9 Item 3B. The concept of a "control" site is troubling. What is its
--More--

intended use? A control site adjacent to Buzzards Bay may contain PCBs. Is this intended?

10 Reference is made to census transects during
autumn and
winter, with
no mention of breeding season studies. Will breeding season population data be gathered?

11 Item 3E. The SOW proposes to freeze (archive) biological specimens for possible future reference, such as histological examination. Our pathologists strongly recommend against the freezing of animal tissues that are to be used for histological examination because freezing destroys tissues.

12 The control site is mentioned again, to be used as a comparison for bioaccumulation studies. Is the site sufficiently clean to allow for valid comparisons?

13 In a similar vein, why will comparisons be limited to PCBs?

14 Item 5. The SOW states that the contractor will explore all

We strongly support the avoidance concept, although we note that engineering proposals to date, including the demonstration
--More--
project, have focused on wetland/mudflat filling. Is exploration of the avoidance alternative only to comply with 404(b)(1) guidance, or is it an attempt to find a non-wetland site? If the latter is the case, the contractor will need the initiative of EPA, and MADEQE to find an upland disposal site. COE might exert more influence on these agencies than the contractor.

Item 10. While not important to our interests in the SOW, this item seems superfluous and overly proprietary.

Appendix A, Ite, 7. Bioaccumulation apparently will consider several species while only mussels are mentioned in Item 3E of the SOW. The two outlines need to be reconciled.

/s/
Ken Carr
12-5-86

cc: S. Mello, NMFS, Woods Hole
--More--
E. Reiner, EPA, Boston

Susan: Thanks very much. Hope you have a nice holiday!!!!

Jeannine

Disposition: d

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ENGINEERS & SCIENTISTS

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November 17, 1986

Mr. Frank Ciavattieri
New Bedford Project Manager
Region 1
U.S. Environmental Protection Agency
Room 1903
J.F.K. Federal Building
Boston, MA 02203

Dear Frank:

Subject: Comments on the Corps of Engineers, New England Division's Draft Scope of Work for Wetlands Assessment Work at New Bedford Harbor

We have reviewed the subject scope of work which we received from the Corps of Engineers on November 5, 1986. Our general comments are that the program is very thorough and should provide more than enough information to evaluate the present wetlands conditions and how they might be impacted during implementation of remedial actions. The language in the scope of work gives the impression it is being proposed as part of an environmental impact evaluation for a proposed new project rather than a Superfund Site cleanup program. We believe it should be emphasized that the program's objective is to develop data sufficient to evaluate alternatives and their effect on wetlands, including no action, for site cleanup.

(17)

(18) Also, the scope of work includes evaluation of alternative remedial actions, including mitigation of impacts on wetlands. Similar work has been budgeted in the Ebasco/Jordan FS Work Plan for New Bedford Harbor under Task 22 Environmental Evaluation. It was our understanding that the Corps of Engineers was requested to prepare a scope of work for an assessment of the condition of the wetlands at the present time, the no-action alternative in FS terms. We do see a need to have NED and their contractor participate in the alternative and mitigation evaluations done as part of the FS.

(19) A final general comment is that the schedule for the wetlands assessments as proposed, assuming work would start in March 1987, would extend until December 1987. This is three months after the scheduled date for completing a draft FS report for the site. It appears that specific elements of the field program including primary productivity, wildlife, saltmarsh and mudflat benthos data collection causes the overall schedule to extend to December 1987. We would like to explore ways to complete a program that would provide information sufficient to evaluate present

wetlands conditions and effects of alternative remedial actions within a schedule that is consistent with the overall FS. Our specific comments on sections of the Scope of Work are attached.

Very truly yours,

E.C. JORDAN CO.

Allen J. Ikalainen, P.E.
Site Manager

AJS:rmn:cb

cc: S. Stockinger
D. Allen
S. Santos
M. Donato

Attachment

COMMENTS
ON
SCOPE OF WORK
FOR WETLAND REPORT OF
WETLAND/MUDFLAT ALTERATION AT THE
NEW BEDFORD SUPERFUND SITE

TITLE:

(20) It is suggested the title be changed to "Scope of Work for Wetlands/Mudflat Assessment at the New Bedford Superfund Site".

(21) Section 1.

It is suggested the paragraph be changed to read "The contractor shall perform environmental analysis sufficient to assess the present wetlands conditions, their functional attributes and effects of contamination. Information requirements for the analysis will be based upon Section 404 (b)(1) guidelines.

(22) Section 2. Coordination and Collection of Baseline Information

Information on remedial alternatives will be developed between now and September 1987 by Ebasco/Jordan. Such information will not be available upon contract award. As mentioned in the general comments, the wetlands assessment is to develop present baseline conditions information for use in the feasibility study as alternatives are evaluated for many considerations one of which is the effect on wetlands.

It is suggested an item be added here that after the baseline wetlands assessment is completed the contractor be prepared to coordinate with EPA's FS contractors (Ebasco/Jordan) as remedial action alternatives are developed and evaluated.

(23) The scope of work does not include topographic surveys. Is this because topography will be done by others as part of the Corps of Engineers topographic survey scheduled for the Auschment River Estuary? Isn't topographic information needed to assess potential wetlands effects due to changes in flooding levels?

(24) How will the Sanford Ecological Services wetlands assessment conducted in 1986 be coordinated with this scope of work so that there is no duplication of effort?

Section 3. Field Effort

(25) Figure 1 should be modified as indicated on the attached copy to reflect EPA's decision to proceed with a risk assessment as part of the FS rather than a stand alone endangerment assessment.

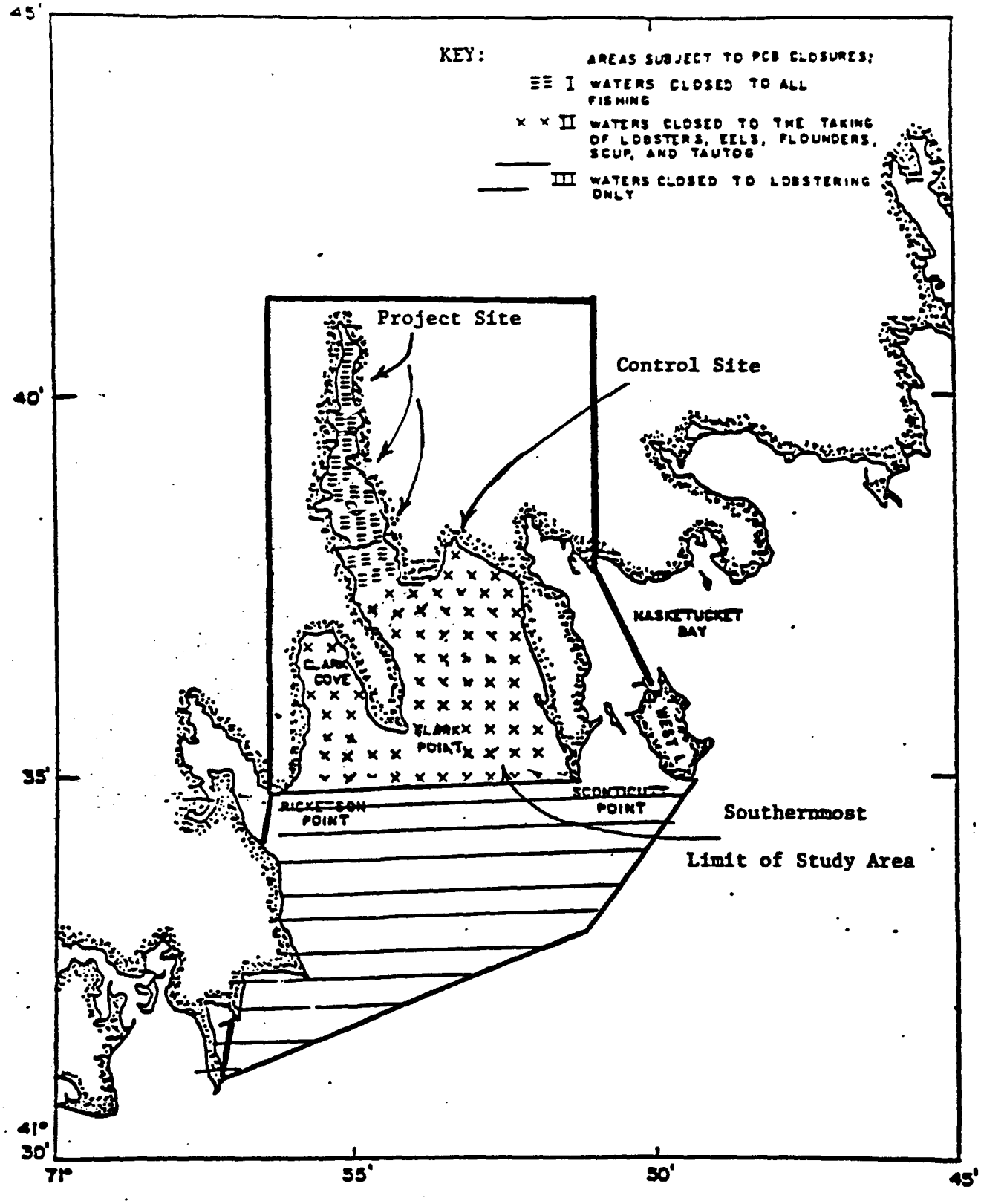

Figure 1. Risk Assessment Study Area.

(26) Criteria used to select the control site should be documented. Are these being discussed in Sanford Ecological Services report on their Acushnet River Wetlands Study?

(27) A. Data Collection and Synthesis

Could some detailed information on the method of developing indirect indices of productivity be provided separate from the Scope of Work? Does EPA concur with the approach? Can information, sufficient to evaluate productivity, be developed by this approach in lieu of the above ground productivity measurements which require sample collection at the beginning and end of the growing season thereby extending the schedule into the fall of 1987? Would an alternative approach be to complete the assessment and report using the indirect measure of productivity and complete the productivity measurements as a confirmatory step following the drafting of the report?

(28) B. Wildlife

Are avifauna censuses scheduled for the fall of 1987 and winter of 1987? Could qualitative information be developed during late winter 1986-87, and during spring and summer for waterfowl and other large water birds?

(29) Here again what type of program can be completed between contract award, assuming March 1987, and late summer 1987 such that the data will be sufficient to complete the assessment and draft report?

D. Saltmarsh/Mudflat Benthos

(30) a. Could sampling be conducted in the spring and summer and still produce information sufficient to characterize the benthos?

(31) b. What is meant by the project site? Is it the mudflats?

G. Sediment/Substrate

(32) Sample analysis: cadmium should be added to the analyses to be consistent with other sampling programs and modeling programs. Does the reference to "all proper scientific techniques" mean chain of custody, quality assurance/quality control?

(33) 4. Determination of Effects and 5. Mitigation

As mentioned in the general comments these tasks describe the work to be included under evaluation of alternatives in the Ebasco/Jordan FS Work Plan Task 22.

(34) 9. Period of Service

The 270 calendar day timeframe for the assessment extends to December 1987, assuming contract award in March 1987. As previously mentioned means to reduce the schedule to be consistent with that of the FS should be explored, while maintaining a program which will allow a sufficient wetlands assessment.

Appendix A

Wetland Assessment Report
Outline

Sections 5 and 10 - As previously mentioned the content of these will be part of the Ebasco/Jordan FS Report.