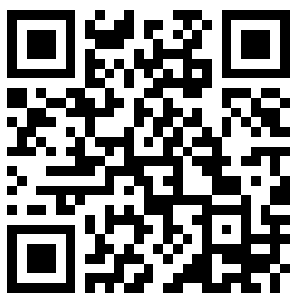

United States
Environmental Protection
Agency

Region 6
1445 Ross Avenue
Dallas, TX 75202

EPA 906/07-89-010
July 1989

EPA

ENVIRONMENTAL IMPACT STATEMENT

FINAL

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Barataria Bay Waterway, LA Ocean Dredged Material Disposal Site Designation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE SUITE 1200
DALLAS TEXAS 75202

July 31, 1989

TO INTERESTED AGENCIES, OFFICIALS, PUBLIC GROUPS AND INDIVIDUALS:

Enclosed is a copy of the Final Environmental Impact Statement (EIS) concerning the Environmental Protection Agency's (EPA's) designation of the Barataria Bay Waterway ocean dredged material disposal site. The National Environmental Policy Act does not apply to EPA activities of this type. EPA has voluntarily committed to prepare EISs in connection with its ocean disposal site designation program. EPA and the New Orleans District Corps of Engineers jointly prepared this EIS. Written comments or inquiries regarding this Final EIS should be addressed to Norm Thomas, Chief, Federal Activities Branch, at the above address by the date stamped on the cover sheet following this letter.

Sincerely yours,

Robert E. Layton Jr., P.E.
Regional Administrator

Enclosure

FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR
BARATARIA BAY WATERWAY
OCEAN DREDGED MATERIAL DISPOSAL SITE DESIGNATION
JEFFERSON PARISH, LOUISIANA

Responsible Agencies: U.S. Environmental Protection Agency, Region 6
U.S. Army Corps of Engineers, New Orleans District

Administrative Action: The purpose of this action is to comply with the Marine Protection, Research, and Sanctuaries Act of 1972 by providing an environmentally acceptable ocean dredged material disposal site (ODMDS) for the Barataria Bay Waterway (BBWW), in compliance with the Ocean Dumping Regulations (40 CFR Parts 220-229).

Contacts:

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Dallas, TX 75202-2733

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P.O. Box 60267
New Orleans, LA 70160-0267

ABSTRACT

The proposed action is the designation of the Barataria Bay Waterway, Louisiana ODMDS. In 1977, the EPA approved the site for interim use, based on historical use of the site since 1960. Alternatives considered were no action, relocation of the ODMDS to alternate ocean areas, land disposal, and beach nourishment. The preferred action is designation of the existing disposal site. Adverse environmental impacts include: 1) temporary increases in turbidity; 2) short-term changes in grain size of ODMDS surficial sediments; 3) localized burial of benthic organisms; and 4) temporary mounding of substrate.

COMMENTS ON FINAL EIS DUE: SEP 1 1 1989

RESPONSIBLE OFFICIALS:

Robert E. Layton Jr., P.E.
Regional Administrator

Richard V. Gorski
Colonel, U.S. Army
District Engineer

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SUMMARY

PURPOSE AND NEED - The purpose of this final Environmental Impact Statement (EIS) is to evaluate the BBWW Ocean Dredged Material Disposal Site (ODMDS) as an appropriate EPA designated site. This site, at the gulfward end of the BBWW has been used for disposal of dredged material by the Corps of Engineers (COE) since 1960. It received interim designation by EPA in 1977. Designation of the BBWW ODMDS would provide an environmentally acceptable site for future disposal of dredged material that is in compliance with the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972.

ALTERNATIVES - Alternatives considered in this EIS include:

1) No Action.
2) Relocation of the ODMDS to an alternate ocean area: near-shore, mid-shelf, or off-shelf sites.
3) Non-ocean disposal - beach nourishment, marsh creation, and land disposal.
4) Preferred-designation of the interim BBWW ODMDS.

RATIONALE FOR THE PREFERRED ALTERNATIVE - The preferred alternative is designation of the BBWW ODMDS, which has been used for about 30 years. The no action alternative is unacceptable because it leaves the site in an interim status. Relocation would subject other areas to effects of disposal without resulting in environmental advantages. Relocation of the site would also be more costly than use of the existing site because distances to transport the dredged material would be increased; substantially in the case of the mid-shelf or off-shelf sites. The BBWW ODMDS has been evaluated using the eleven specific and five general criteria listed in the MPRSA and found to be environmentally acceptable.

ENVIRONMENTAL IMPACTS - Past use of the BBWW ODMDS has resulted in minimal, short-term adverse impacts. Temporary increases in turbidity occur, but conditions return to ambient soon after cessation of disposal.

The grain size of the substrate of surrounding areas is very similar to that existing in the site, and no effects of previous disposal on sediment physical characteristics are discernable. Benthic organisms are buried during disposal, but repopulation usually occurs within 2 to 6 months. Temporary mounding of dredged material may occur within the site, but the mounds disperse quickly.

INTRODUCTION

The BBWW, Louisiana, project serves as access for the ports of Barataria and Lafitte, and the Gulf Intracoastal Waterway. The U.S. Army Corps of Engineers (COE), New Orleans District, is responsible for planning and conducting necessary maintenance dredging. In 1976, the COE prepared a final EIS on the operation and maintenance of this project, with a final supplement issued in 1982. The information in the 1976 EIS and 1982 supplement is incorporated by reference in this document. Comments received on the draft EIS published in April 1989 were considered during preparation of this document.

The Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 made designation of dredged material disposal sites in the ocean mandatory. The only ocean disposal from the BBWW is in a 1152-acre site running 3.6 mi. long and 0.5 mi. wide, parallel to the east side of the channel (Figures 1 and 2). Approximately 500,000 cubic yards (cy) of dredged material are disposed in this site during each disposal operation. Disposal generally occurs once every 2-3 years and generally does not occur inside mile -0.7 of the BBWW. The BBWW Ocean Dredged Material Disposal Site, henceforth referred to as the BBWW ODMDS, received a 3-year interim designation by EPA in 1977. This interim designation was based on historical use of the site since 1960. In January 1980, the interim status of the site was extended indefinitely.

The proposed action in this EIS is the designation of the BBWW ODMDS. The EIS presents the information used to evaluate the suitability of the site

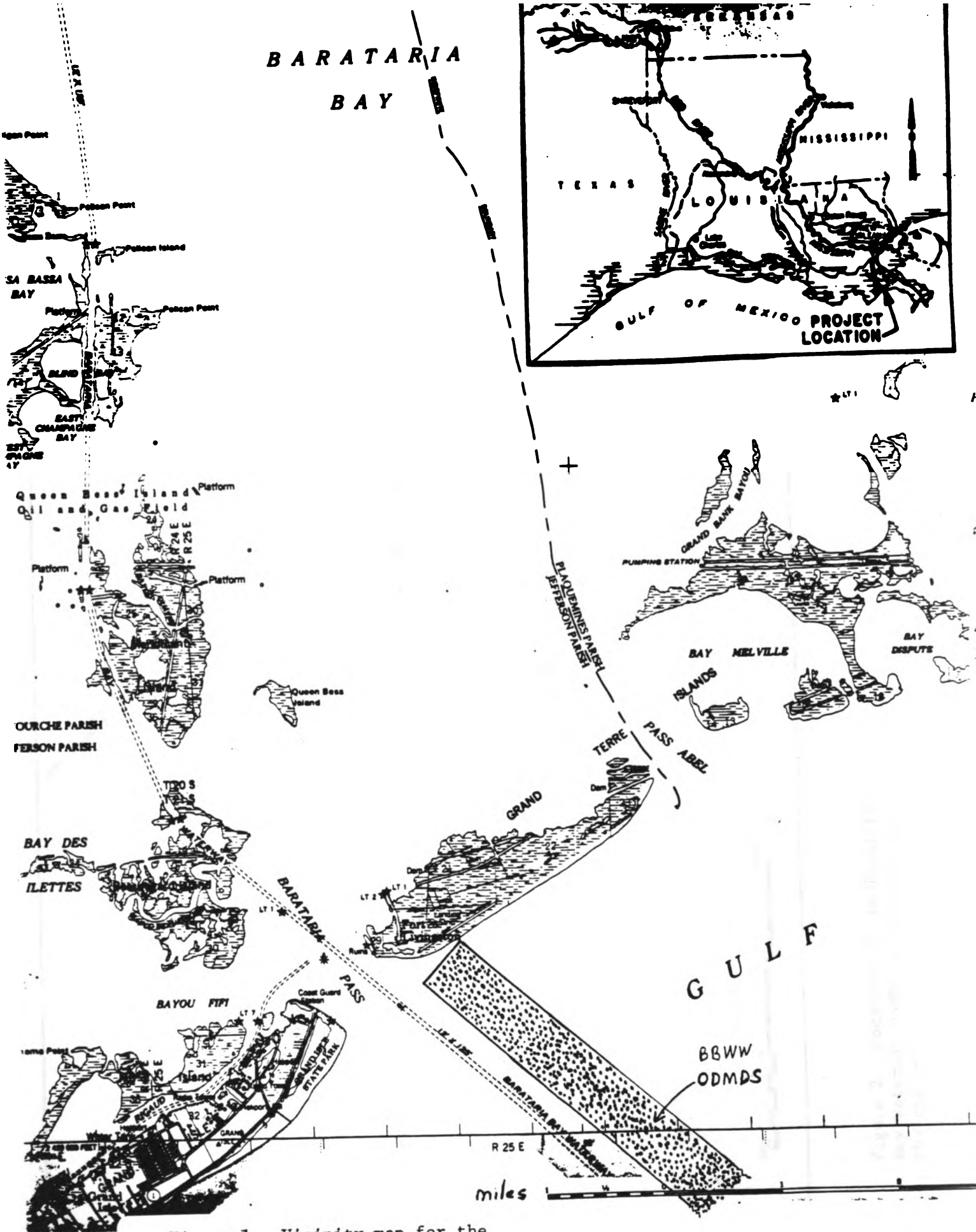

Figure 1. Vicinity map for the Barataria Bay Waterway ODMDS.

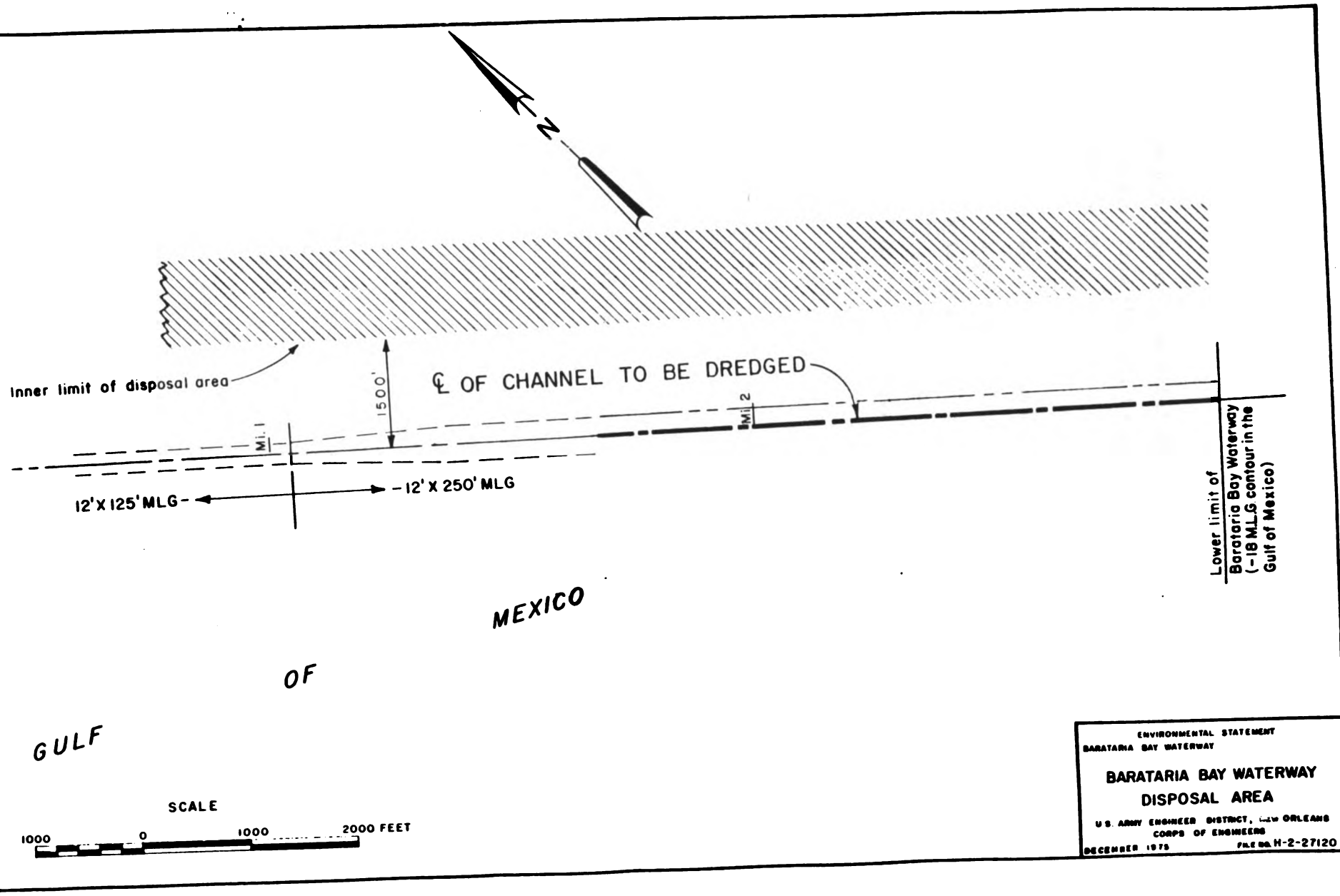

Figure 2. Location of the Barataria Bay Waterway ODMDS in relation to the channel.

and is based on environmental studies, including a 1980-81 site study, done with funding from the COE, by Interstate Electronics Corporation, under contract to EPA.

The COE is likely to be the sole user of the BBWW ODMDS. The COE does not issue itself a permit; however, the requirements that must be met before dredged material from a COE project can be discharged into the ODMDS are the same as when a permit is required. If a non-Federal entity desires to use the BBWW ODMDS for dredged material, the COE would apply the criteria in 40 CFR Part 227 during its public interest review of the permit application.

PURPOSE AND NEED

The BBWW is an important entrance to and from Barataria Bay, Louisiana from the Gulf of Mexico. The channel provides access for commercial barge traffic carrying liquid sulphur, water, and crude petroleum; vessels involved in shrimp, crab, and menhaden fisheries; and support vessels for offshore oil and gas activities. A designated site for ocean disposal is needed for material dredged from the offshore portion of the BBWW (COE 1978) where an east-west sandbar occurs.

The purpose of the proposed action is to designate an environmentally acceptable ocean location for continued disposal of materials dredged from the offshore reach of the BBWW.

The nearest land disposal area occurs about 3.5-6.0 mi. north of the ODMDS on Mendicant Island (COE 1976). However, this area is already used for disposal of material dredged from the bay portion of the BBWW. Also, land disposal into diked areas is considered infeasible because of the distance involved. Using this or other sites would increase costs considerably and would reduce their life expectancy, necessitating acquisition of new areas.

The authority for designation of ocean disposal sites is the MPRSA of 1972 (86 Stat. 1052), as amended (33 U.S.C.A. § 1401 et seq.). Section 102(c)

of Title 1 of the Act authorizes EPA to designate recommended ocean disposal sites for disposal of dredged material. The EPA's Ocean Dumping Regulations (ODR) (40 CFR 220-229) must be used to make site determinations. This EIS is being prepared under EPA's voluntary EIS preparation policy.

In accordance with the ODR, site designation will be promulgated by formal rule-making. The proposal by EPA to designate the BBWW ODMDS will be published in the Federal Register and will be based on appropriate Federal statutes, disposal site evaluation studies, the draft EIS, supporting documentation, and the public notice issued as part of the proposed rule-making. The final rule-making package will be prepared and published in the Federal Register after the expiration of the review period on the final EIS.

ALTERNATIVES. This section describes the alternatives that were considered and explains the rationale for their elimination.

NO ACTION. The interim designation of the BBWW ODMDS does not have a specific termination date. If no action is taken, the designation status will remain unsettled. The interim designation was made pending completion of any necessary studies and evaluation of the site's suitability for continued use. The environmental studies and evaluation have been completed, and in accordance with the ODR, a decision regarding designation is required.

RELOCATION OF ODMDS TO ALTERNATE OCEAN AREAS. The location of an alternate shallow-water site (one with comparable depths to the interim site, 8.0-20.0 feet) was determined by avoiding locations of conflicting activities (oil and gas activities, fishing areas, shipwrecks, etc.)(COE 1984). An alternate shallow-water ODMDS could be located further east or immediately west of the BBWW. The alternate site would be approximately the same depth and size as the interim site. Environmental effects of dredged material disposal on the physical, chemical, and biological environment of the alternate shallow-water site would be similar to those

at the interim ODMDS. Water circulation patterns in the area are complex (MMS 1984, 1987) and have been studied inadequately (Wells, et al. 1981). Accretion in the area on the east side of islands suggests that the dominant sediment transport is from west to east, which seems to be a contradiction to the dominant east-to-west offshore current (U.S. Department of Transportation 1976). However, infrequent high waves associated with storms may be the dominant influence and account for the apparent discrepancy between general current and longshore transport. No environmental benefits would be gained by moving the disposal site to either alternative location and channel maintenance costs could be increased at the west site due to a possible increased frequency of dredging. Costs would be increased in the area further east because of greater pumping distance. The turbidity plume would be altered slightly, but would not impact the islands. There are no other shallow water sites that would be less damaging environmentally and/or less costly.

Selection of an alternate mid-shelf site was based on criteria similar to those for the alternate shallow-water site. An alternate site in approximately 130 ft of water, located about 22 miles south of the interim site would be acceptable because there are no active oil and gas leases. Because of its greater depth, the mid-shelf area is less dynamic than the shallow-water area. Bottom organisms would be buried as they would be at the interim site. The mid-shelf site would be further from the dredging site than the interim site; thus transportation costs would be much greater. Safety hazards, resulting from transporting dredged material greater distances through areas of active oil and gas development, would be increased. Surveillance methods would be similar to those at the interim site, but surveillance would be more expensive because of the additional travel time to the site. Monitoring would also be more expensive due to greater distances and water depths involved. In addition, use of the mid-shelf site would remove sediments from the nearshore environment and make them less available for movement and deposition by longshore currents.

The deep-water region lies off the continental shelf seaward of the 400-foot depth contour. An alternate deep-water ODMDS could be located off the continental shelf about 45 miles south of the interim site. No

specific site was selected for evaluation, but the characteristics of a deep-water site were considered. The dredged material would be dispersed over a larger area because of the dissipation of the descending plume. Sediments reaching the bottom would tend to remain in place because of the slow erosion and transport. Effects on benthic organisms would be less than those at the interim site or mid-shelf alternate sites because it is a natural deposition zone (MMS 1987). Safety hazards would be increased by longer distances required to transport the material. Surveillance and monitoring would be more costly and difficult because of deep water. Annual costs of disposal would be significantly increased over costs at the interim site because special deep-water barges would be required and travel time would be increased. With existing equipment, it is not feasible to dredge and transport the necessary volume of material. Use of the deep-water site would also remove sediments from the nearshore environment and make them unavailable for deposition.

BEACH NOURISHMENT AND MARSH CREATION ALTERNATIVES. Beach nourishment with the material dredged from the BBWW has been suggested by several local, state, and Federal agencies and private groups. Although such comments may be relevant to determinations about the need for ocean dumping in relation to a specific maintenance dredging occurrence, EPA does not regard those comments as being relevant to the site designation. EPA believes that beach nourishment should be evaluated each time the COE or other entity plans to use the site. Designation will not preclude the use of material for beach nourishment.

The material is mostly sand (IEC 1981) and could be used for beach nourishment on the western end of Grand Terre Islands. However, costs per disposal would increase by about $700,000 (a 64 percent increase) because of transportation to the island area. Taking possible benefits into account over a period of five dredging cycles, yields a cost increase of 46 percent. Section 145 of P.L. 94-587 as amended reads as follows: "The Secretary of the Army, acting through the Chief of Engineers, is authorized upon request of the State, to place on the beaches of such State beach-quality sand which has been dredged in constructing and maintaining

navigation inlets and channels adjacent to such beaches, if the Secretary deems such action to be in the public interest and upon payment by such state of 50 percent of the increased cost thereof above the cost required for alternative methods of disposing of such sand." No request accompanied by a willingness to pay 50 percent of additional costs has been received by the COE.

Material could also be pumped to the bay side of Grand Terre Island for marsh creation. However, this would increase costs by about $1.9 million (a 173 percent increase) for each disposal on average. Taking into account the benefits from the marsh, the cost increase would still be 128 percent. Should another entity desire to absorb these costs, the COE would coordinate the effort with them.

PREFERRED ALTERNATIVE

The alternative preferred by the EPA and COE is the designation of the historically-used interim BBWW ODMDS. The boundary coordinates of the preferred site (Plate 2) are 29° 16' 10" N., 89° 56' 20" W.; 29° 14' 19" N, 89° 53' 16" W.; 29° 14' 00" N, 89° 53' 36" W.; 29° 16' 29" N., 89° 55' 59" W.; thence to the point of beginning. A need exists for locating and designating an acceptable ODMDS in the vicinity of Grand Terre Islands. The need for continued dredging of the BBWW has been demonstrated (COE 1978) and the no-action alternative is not considered acceptable. Selection of this alternative is based on the following information: 1) the BBWW site has been in use for some 29 years with minimal adverse environmental effects, 2) no adverse environmental effects were detected outside the site boundaries during environmental surveys, 3) relocation of the site to other ocean areas would subject new areas to adverse effects of dredged material disposal, without resulting in environmental advantages over continued use of the interim site, and 4) the costs of using any other sites would be greater than those associated with the interim site. Utilizing the eleven specific criteria (40 CFR 228.6) and the five general criteria (40 CFR 228.5), EPA has determined that the final designation of the BBWW ODMDS is environmentally acceptable.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section summarizes information in the 1976 COE FEIS, the 1978 COE Ocean Dumping Assessment, results of the Interstate Electronics Corporation (IEC) studies in December 1980 and June 1981 (available from COE), the EPA preliminary draft EIS (1984), and studies done by others.

The BBWW ODMDS is located off the Barataria Basin of southeast Louisiana. The Barataria Basin is an interdistributary estuarine-wetland system with a mixture of swamps, marshes, ponds, barrier islands, and bays created by sediment from the Mississippi River and complex coastal processes (Conner and Day 1987). The continental shelf extends about 45 miles south off the Grand Terre Islands. The BBWW ODMDS lies offshore between Grand Isle to the west and Grand Terre Island to the east (Figure 1). These islands are eroding and slowly moving north (Adams et al. 1976). Longshore currents are generally to the west (U.S. Department of Transportation 1976), but this area is protected by the Mississippi Delta and a vortex is often created that results in easterly currents during certain weather conditions (Adams et al. 1976). Grand Isle and Fort Livingston have been identified as critically eroding areas based primarily on socio-economic factors (COE 1971). However, this same report shows Grand Isle to be in a cyclic state of accretion and erosion.

The climate in the area is subtropical, rainfall averages 160 cm (63 in) per year, and winds are generally southerly in spring and summer and northerly in winter. Hurricanes occur in summer and early autumn, with a frequency of about once every two years at or near the site (Bahr et al. 1983). These storms have a tremendous influence on sediment movement.

SPECIFIC AND GENERAL CRITERIA

Section 228 of the ODR mandates that 11 specific criteria and five general criteria be utilized to evaluate a potential ODMDS. These criteria are

discussed in the following paragraphs; the impacts of site designation on each criteria are analyzed.

Specific Criteria (§ 228.6)

1) "Geographical position, depth of water, bottom topography and distance from coast."
See Figures 1 and 2 for the location of the proposed site. Water depths at the site range from 2.5 to 6.0 m (8.0-20.0 ft). Bottom topography slopes gently to the southeast (2.0 ft/mi). The northern end of the ODMDS is about 0.2 miles southeast of Grand Terre and about 0.7 miles east of Grand Isle, in Jefferson Parish. However, dredging and disposal does not occur generally inside of mile -0.7 of the BBWW. The site extends approximately 3.6 miles offshore.

2) "Location in relation to breeding, spawning, nursery, feeding, or passage areas of living resources in adult or juvenile phases."
Breeding, spawning, nursery, feeding, and passage of shrimp, menhaden, bottom fish, and other organisms occur within the entire northern Gulf of Mexico, and thus, also in the vicinity of the ODMDS. Barataria Pass is a major pathway for movement of fish and shell fish between the Gulf and the Barataria Bay estuary. Migration of fish and shellfish through the area is heaviest during spring and fall (Darnell et al. 1983). The BBWW ODMDS represents a small area of the total range of fisheries resources. Impacts to endangered or threatened turtles and whales that might utilize the area for the listed activities are negligible. Grand Terre Island harbors a bird nesting colony consisting of black skimmers (Keller et al. 1984). This area is located 1.5 miles from the ODMDS.

3) "Location in the relation to beaches and other amenity areas."
The ODMDS is 0.25 mile from the nearest beach on Grand Terre Island, but disposal does not occur within approximately 1.0 mile of the beach. The Grand Terre beach is sparsely used because it is small and accessible only by boat. There is a beach on the eastern end of Grand Isle in Grand Isle State Park, about 0.75 miles to the east (disposal occurs at least 1.5

miles distant), that attracts visitors. The turbidity plume resulting from disposal would be diluted to ambient levels well before reaching either of these beaches (Stern and Stickle 1978).

4) "Types and quantities of wastes proposed to be disposed of and proposed methods of release, including methods of packing the waste, if any." The material disposed is from the adjacent area of the BBWW and consists of a mixture of sand, silt, and clay obtained by hydraulic dredge. Sediment grain size generally, decreases in the offshore direction, with sands being predominant (63 percent) in the ODMDS (IEC 1981). This is related to higher water velocities in Barataria Pass. Approximately 500,000 cubic yards of material are disposed in the site during each use, based on historical use (Table 1). The material is removed with a hydraulic dredge and released in the ODMDS. The material is not packaged in any way. Future disposal is expected to be similar to past actions, in terms of material types, quantities, and methods of disposal. The Corps of Engineers would likely be the only user of the site.

TABLE 1
HISTORIC DISPOSAL VOLUMES - BARATARIA BAY
WATERWAY ODMDS, 1960-1988

Dredging Period	Volume (yd^3)
1960	102,854
1965	200,802
1968	772,933
1970	566,478
1973	750,199
1976	662,229
1979	200,000
1983	924,398
1985	798,800
1988	413,400

5) "Feasibility of surveillance and monitoring."
Surveillance is possible by shore-based radar, aircraft, or day-use boats. No surveillance is currently performed by the U.S. Coast Guard. Monitoring would be facilitated by the fact that the ODMDS is nearshore, in fairly shallow waters, and has baseline data available. The primary purpose of monitoring is to determine whether disposal at the site is significantly affecting areas outside the disposal area and to detect any unacceptable adverse effects occurring in or around the site. Based on historic data, an intense monitoring program is not warranted. However, in order to provide adequate warning of environmental harm, EPA is in the process of developing a monitoring plan in coordination with the COE. The plan would concentrate on periodic depth soundings and sediment and water quality testing. Details of the monitoring plan will be available at a later date.

6) "Dispersal, horizontal transport, and vertical mixing characteristics of the area, including prevailing current direction and velocity, if any."
Mixing processes, current characteristics, and sediment transport in the nearshore region off Barataria Pass are influenced by tidal currents, winds, and storms. Chemical and physical parameters generally indicate a fairly homogeneous water column in the area. Density stratification can occur seasonally to a minor extent with fresher water from the Mississippi River on the surface (Barret et al. 1978). Salinities ranged from 26-31 parts per thousand during the IEC surveys. In the summer, bottom waters on the Louisiana shelf are occasionally oxygen depleted (Rabalais et al. 1985), which can cause mortality of benthic organisms. During the IEC study in December 1980, waters were near saturated or supersaturated with oxygen at all depths (2-4 m). During June 1981, waters were partially saturated (83 percent) or supersaturated (109 percent) with oxygen down to 5.0 m. Velocities of 3 to 4 knots may occur during storm events resulting in more homogeneous conditions. It appears that the predominant current is to the west, but easterly currents occur with storm events (Adams et al. 1976). Data on the specifics of currents in the area are sparse, but sediment movement is generally from west to east (Murray 1976). Suspended sediments generally range from 14-426 mg/l with highest concentrations being associated with high Mississippi River discharge (Barrett et al. 1978).

7) "Existence and effects of current and previous discharges and dumping in the area (including cumulative effects)."

Dredged materials from construction and maintenance of the BBWW have been disposed at the interim ODMDS since 1960 and no significant adverse impacts have resulted. Previous disposals have caused minor effects, such as temporary increases in suspended sediment concentrations, temporary turbidity, sediment mounding, smothering of some benthic organisms, release of nutrients, possible minor releases of trace metals, and a temporary change in sediment grain size. The material is swept in an easterly direction by prevailing currents. For a more detailed discussion of impacts, see specific criteria 9. Because the effects of disposal are temporary, there are no cumulative effects.

8) "Interference with shipping, fishing, recreation, mineral extraction, desalination, fish and shellfish culture, areas of special scientific importance, and other legitimate use of the ocean."

In the vicinity of the ODMDS the majority of shipping traffic is confined to the BBWW. Dredging the BBWW facilitates shipping; periodic use of the ODMDS has some potential for interfering with ship movement in the BBWW during disposal operations.

Nearshore areas also contain a productive, "high-use" fishing ground for a number of commercial and recreational species. The BBWW ODMDS represents a very small proportion of the total nearshore fishing grounds in the Deltaic Plain and adverse impacts from it's use would be temporary and minor. Interferences with fishing may occur if any shoals are created by dredged material disposal, since this could cause groundings of shrimp boats within disposal site boundaries. If the material is spread evenly, it would raise bottom elevations within the ODMDS by about 0.4 ft, which should present no problems for shipping and other uses. The material would eventually be moved toward the east, which would occur naturally if the dredging and disposal in the ODMDS did not occur.

Since the late 1940's, the northern portion of Barataria Bay has become increasingly the primary area of natural oyster production because of higher salinities in the southern portion of the bay (Van Sickle et al. 1976). The nearest oyster leases are on the north side of Grand Terre Island about 1.25 miles to the northwest of the ODMDS north end. Designation of the ODMDS would not impact these or any other lease areas. Desalination areas do not occur in the vicinity of the ODMDS. The site is located near the Grand Isle State Park recreation area. There has been no impact to the park from the use of the site and no impact is expected to occur in the future.

Petroleum and mineral-extracting activities occur offshore within 8.0 miles of the ODMDS and are not impacted by use of the site. Also, there are pipelines that occur throughout the area that have not been impacted by the deposition of dredged material. There is a major oil and gas collection facility that occurs on the eastern end of Grand Isle; it has not been impacted by the use of the ODMDS. Intermittent dumping does not interfere with the exploration or production phases of resource development, or with other legitimate uses of the ocean.

9. "The existing water quality and ecology of the site as determined by available data or by trend assessment or baseline surveys."

Physical Environment Baseline Conditions - Water column concentrations of trace metals were below EPA water quality criteria (EPA 1986) during IEC sampling.

Chlorinated hydrocarbon (CHC) concentrations in and near the BBWW ODMDS were below the detection limits, except for dieldrin and DDT metabolite pp' DDE. Dieldrin was found near the ODMDS during June at a concentration of 2.3 ng/l, which is slightly greater than the EPA 24-hour average criterion of 1.9 ng/l, but considerably less than the single measurement criterion of 710 ng/l. During the same month, DDE was detected at 33 ng/l, which is above the EPA 24-hour average criterion of 1.0 ng/l, but well below the single measurement criterion of 130 ng/l.

Water temperatures parallel air temperatures and range from 31°C in summer to 9°C during winter. Surface salinities vary from 10 to 31 ppt near the BBWW ODMDS (Barrett et al. 1978). The water is generally well oxygenated (see Specific Criteria Number 6) and alkaline. Water quality appears to be good in the area.

Nutrient concentrations, turbidity, and suspended solids, are controlled in large part by Mississippi River discharge (Conner and Day 1987), with suspended solids generally low in the late summer/fall and high in the winter/spring. Nutrient concentrations show a reverse trend (Barrett et al. 1978).

During the IEC survey, concentrations of chemicals in sediments were found to be strongly related to grain size, with highest levels in silts and clays at the station farthest offshore, which is well outside of the ODMDS. Concentrations of heavy metals and CHC's were comparable inside and outside the ODMDS for similar sediment types. Total hydrocarbon concentrations were three to four times higher in June than in December, probably due to riverine sources. This same trend occurred inside and outside of the ODMDS. The presence of unresolved high molecular weight hydrocarbons showed evidence of chronic petroleum contamination (IEC 1981). Concentrations of cyanide, phenols, and oil and grease were low and were comparable inside and outside the ODMDS. Effects of previous dredged material disposal were not evident during the IEC study.

Physical Environment Impacts - Temporary mounding occurs within the ODMDS during dumping, which reduces water depths. The disposed sediments are reworked by waves and littoral currents and are slowly moved out of the ODMDS within one year. The direction and speed of currents are probably variable, but sediments apparently drift toward the east under particular circumstances. However, there is no consistent discernable difference in substrate physical characteristics between the ODMDS and surrounding areas.

Contaminants are generally not released into the water following disposal, but remain associated with the sediments, especially silts and clays (Brannon et al. 1978). Elutriate tests indicated that concentrations of manganese could exceed EPA criteria (COE 1978). The collection site for samples within the ODMDS was located near Barataria Pass where coarser sediments occur (the control site was farther out to sea) although changes in particle size did occur on a seasonal basis. The IEC surveys in 1980 and 1981 indicated concentrations of contaminants were highest in the seaward areas, most of which will not be included in the ODMDS. Thus, contaminant release due to disposal is unlikely except for manganese. Manganese occurs at high concentrations in sediments throughout southern Louisiana apparently as a general soil feature.

Disposal would temporarily increase turbidity at the site. The duration of the plume would depend on particle size, currents, and mixing, but should not extend over an area greater than about 62 acres beyond the ODMDS at any given time. The fine sediments may remain suspended for hours, but would eventually settle and turbidity would return to ambient conditions. The BBWW ODMDS is actively used for disposal on an average of 14 days per operation. Thus, turbidity would be increased for approximately 2-3 weeks each year that disposal occurs.

Plankton Baseline Conditions - Plankton communities at the ODMDS fluctuate seasonally and annually as are typical of nearshore waters of the gulf. Phytoplankton consists primarily of marine diatoms and dinoflagellates. The amounts of phytoplankton decrease in a Gulfward direction (Barrett et al. 1978). Dominant components of the zooplankton include copepods and ostracods. Numbers of zooplankton generally parallel the concentrations of phytoplankton with a lag period of about one month (Barrett et al. 1978).

Impacts to Plankton - Impacts of disposal on plankton would be temporary. Plankton in the ODMDS during disposal may be entrained in the dredged material, subjected to decreased light transmission, and possibly to minor increased levels of contaminants. A summer bioassay, using offshore sediments collected near the ODMDS, showed statistically significant mortalities among copepods, in the 100 percent liquid phase. Penaeid shrimp and sheepshead minnows did not demonstrate significant mortalities during the liquid phase tests. The suspended particulate phase and solid phase tests did not produce any significant mortality (ERT 1979a). A winter bioassay using sediments from the same site showed no statistically significant mortalities in any solid, liquid, or suspended sediment concentrations (ERT 1979b). An additional summer bioassay showed no significant mortalities of any species in any phase tests (Jones, Edmunds & Associates, Inc. 1982). The bioassay results indicate that dredging in winter would be less likely to produce adverse environmental impacts.

Benthos Baseline Conditions - The benthos at the site was found to exhibit a patchy distribution, spatially and temporally and is dominated by polychaete worms and the little surf clam. The little surf clam only became dominant during summer on sand substrate. Polychaetes tended to reach highest densities in fine grained sediments. Statistical analyses demonstrated a very high variance between dominant species at stations inside and outside of the ODMDS. Several of the dominant organisms, inside and outside the ODMDS, are well adapted to the area and are common along the Gulf Coast. No effects of previous dredged material disposal on benthic organisms could be identified at the BBWW ODMDS and the macrofauna were characteristic of shallow areas offshore from southern Louisiana.

Impacts to Benthos - Benthic organisms in the ODMDS would be buried during disposal. Motile species could burrow upward through 10-30 cm of substrate Recolonization would start at the cessation of dumping and would be essentially complete within a period of 2-6 months (Gaston et al. 1985). There was no disposal of dredged material during the 1980-1981 surveys by IEC. Mean macrofaunal abundance within the ODMDS in 1980 (December) was

3,400 individuals/m^2 and 4,111 organisms/m^2 outside the ODMDS. During the June 1981 survey, mean macrofaunal abundance was 9,516 individuals/m^2 within the ODMDS and 10,509 organisms/m^2 outside the ODMDS. There was a slightly higher mean density of benthic organisms outside of the ODMDS compared to mean densities within the ODMDS; however, there was no statistical difference. Species composition was fairly similar between the two areas especially in similar substrate type. Sediments collected from the ODMDS area in 1979 and 1980 had no significant effect on benthic species in solid phase bioassay tests (ERT 1979a, 1979b).

Nekton Baseline Conditions - Numerous recreationally and commercially important fishery species exist in Gulf waters off Louisiana. Abundance and composition vary seasonally as many species spend part of their life cycle in the inshore marsh/estuarine complex. The most common invertebrates caught in the IEC survey were seabob shrimp (Xiphopeneus krayori), brown shrimp (Penaeus aztecus), blue crab (Callinectes sapidus), thumbstall squid (Lolliguncula brevis), and jellyfish. Bay anchovy, Atlantic cutlassfish, various sciaenids, and butterfish were the most common fish. All these species are common in estuaries and adjacent offshore waters of Louisiana (Barrett et al. 1978).

Impacts to Nekton - Due to the ability of nekton to avoid the disposal activities, effects would be minimal. Burial of benthic prey could have a slight, temporary adverse impact on bottom feeders. The Barataria Pass is an important migration avenue for all estuarine species, especially in the spring and fall. Migration in this area may be adversely impacted while disposal is occurring.

Mammals, Turtles, Birds, and Endangered and Threatened Species Baseline - The numbers and diversity of marine mammals and turtles are low in nearshore waters. The Atlantic bottlenosed dolphin is common in tidal passes (DOI 1979). Five species of endangered or threatened sea turtles [green (threatened), Kemp's ridley (endangered), hawksbill (endangered), leatherback (endangered), and loggerhead (threatened)] occur in the

northern Gulf. Several species of endangered whales may occur in the area including finback, humpback, right, sei, and sperm whales (see letters from FWS and NMFS) (Attachment 1). Several species of oceanic birds and waterfowl may occur throughout the year in the nearshore waters of the area. There is a seabird nesting colony on Grand Terre Island consisting of black skimmers (Keller et al. 1984). A colony of brown pelicans, introduced from Florida, occurs at Queen Bess Island, approximately 3.5 miles north of the ODMDS.

Impacts on Mammals, Turtles, Birds, and Endangered and Threatened Species - Effects of disposal should be minimal on these highly mobile animals. The feeding of sea turtles may be disrupted by burial of prey, but disposal is infrequent and effects are temporary and localized, so significant negative impacts should not occur. Disposal would have little effect on migration or breeding of sea turtles or whales. Food sources of endangered whales would not be affected. Bird nesting colonies on the barrier islands would not be adversely affected by disposal at the site. A Biological Assessement of impacts to threatened and endangered species was prepared by the COE and reviewed by NMFS. NMFS concurred with the COE determination that endangered/threatened species would not be adversely impacted by the proposed action (Attachment 1).

Commercial/Recreation Fisheries Baseline Conditions - Waters off the central Louisiana coast, shoreward of the 20 m contour, comprise one of the most heavily fished areas in the world (Kutkuhn 1966). Fishing occurs throughout the year, but activities are more intense from March through October (Adkins 1972; Dugas, 1981). The most valuable resources have been penaeid shrimp, menhaden, blue crabs, redfish, tuna, and spotted seatrout (Adkins 1972; Barrett et al. 1979; Barrett and Gillespie 1973; NMFS 1988).

The ports at Golden Meadow-Leeville, Lafitte-Barataria, and Grand Isle are among the busiest fishery ports in the United States, with Golden Meadow-Leeville being 11th in value of fish landed for 1987 (O'Bannan 1988).

In 1987, the total inshore and offshore catch for the area between the Mississippi River and Bayou Lafourche was 294 million pounds, valued at $50.8 million. The commercial redfish fishery in Louisiana has been closed until September 1, 1991. In Federal waters, there is an indefinate ban on the commercial redfish fishery and recreational fishermen can not keep any redfish. A number of management plans have been developed by the Gulf of Mexico Fishery Management Council and approved by the National Oceanic and Atmospheric Administration.

Impacts to Commercial/Recreational Fisheries - There would be some physical interference with commercial and recreational fishing during disposal. However, it would be confined to the ODMDS itself and should be minimal. There would be little danger of heavy metal or CHC contamination of fish and or shellfish during disposal as shown by elutriate analyses and bioaccumulation studies discussed earlier in this report.

Shipping and Navigation Baseline Conditions - Shipping tonnage on the BBWW has varied from 1.0 million to 2.0 million tons annually during the period 1977-1986 (COE 1988). Commodities included mainly crude petroleum, water, liquid sulphur, and distillate fuel oil.

Impacts To Shipping and Navigation - Temporary shoaling after disposal may reduce water depths within the site. However, the BBWW ODMDS is located outside the BBWW fairway and is marked on NOAA navigation charts. The dredges may interfere with shipping by temporarily blocking sections of the channel. This is an unavoidable adverse impact resulting from disposal at the site.

Esthetics Baseline Conditions - Turbidities in the vicinity are generally low (June-Jan), but tend to be higher during Feb-May during the associated period of heavy freshwater inflow. Man-induced noise in the area is from passing vessels.

Impacts to Esthetics - Disposal would cause a temporary turbidity plume of about 2,000 feet (May 1973; Carstea et al. 1976; Stern and Stickle 1978; Bokuniewicz and Gordon 1980) that would disperse soon after disposal ceases. The dredging and disposal activities would temporarily increase noise levels in the vicinity of the ODMDS, but should not disturb wildlife.

Industrial Development Baseline Conditions - The nearest land masses to the ODMDS are Grand Tere Island and Grand Isle. Grand Terre is sparsely developed and has no roads connecting it to the mainland. Grand Isle has substantial residential and commercial development along its length. The population is approximately 2,000, with more people present during the summer months. A large oil and gas tank farm is present on the east end of the island. There are numerous active oil and gas wells in the vicinity of the ODMDS. Sulphur production is also important in the area.

Industrial Development Impacts - There would be no impact on oil and gas or other industrial activities by use of the ODMDS.

10. "Potential for the development or recruitment of nuisance species in the disposal sites." No nuisance species have developed at the BBWW ODMDS, and none are expected to develop in the future.

11. "Existing at or in proximity to the site of any significant natural or cultural features of historical importance." Fort Livingston is a registered historic site on the west end of Grand Terre Island, due north of the ODMDS. This landmark has undergone marked subsidence and disintegration and can not be restored. Fort Livingston would not be impacted by use of the ODMDS. A survey to identify other archeological and historical resources is not required at this time. However, a Nautical Resources Plan for the COE is being prepared in consultation with the Louisiana State Historic Preservation Officer. Under guidelines established by this plan, studies may be done in the future to evaluate impacts to historic shipwrecks that may result from use of the BBWW ODMDS.

General Criteria (§228.5)

(a) The dumping of material into the ocean will be permitted only at sites or in areas selected to minimize the interference of disposal activities with other activities in the marine environment, particularly avoiding areas of existing fisheries or shellfisheries, and regions of heavy commercial or recreational navigation.

The interim ODMDS is located adjacent to the BBWW. A hydraulic dredge is used generally for about two weeks every two to three years and there is limited transport and interference with other activities in the marine environment. There may be some minor interference with fishing and navigation during the dredging and disposal activities. It is expected that there will be no interference with these or other marine activities outside these brief periods. Dredging the channel will facilitate commercial and recreational activity.

(b) Locations and boundaries of the disposal sites will be so chosen that temporary perturbations in water quality or other environmental conditions during initial mixing caused by disposal operations anywhere within the site can be expected to be reduced to normal seawater levels or to undetectable contaminants or effects before reaching any beach, shoreline, marine sanctuary, or known geographical fishery or shellfishery.

There would be a turbidity plume of about 2,000 ft. during the actual dredged material disposal operations (May 1973; Carstea et al. 1976; Stern and Stickle 1978; Bokuniewicz and Gordon 1980). This plume should be dispersed to the point where it is undetectable from the turbidity naturally occurring in the area. It would not reach the adjacent barrier islands. Any temporary changes in water quality would also return to ambient concentrations within a short distance and would not impact the barrier islands. There are no marine sanctuaries in the area. Commercial fisheries and shellfisheries exist throughout the region; however, these are not unique to the area of the site, and would be minimally impacted.

(c) If at anytime during or after disposal site evaluation studies, it is determined that existing disposal sites presently approved on an interim basis for ocean dumping do not meet the criteria for site selection set forth in §§228.5 - 228.6, the use of such sites will be terminated as soon as suitable alternative disposal sites can be designated.

The studies to date indicate that the interim ODMDS meets the requirements of both §228.5 and §228.6. Surveys of the site indicated the water quality, sediments, and biological life were generally similar inside and outside the site. No permanent adverse environmental effects inside or outside the site boundaries due to dredged material disposal have been detected.

(d) The sizes of ocean disposal sites will be limited in order to localize for identification and control any immediate adverse impacts and permit the implementation of effective monitoring and surveillance programs to prevent adverse long-range impacts. The size, configuration, and location of any disposal site will be determined as a part of the disposal site evaluation or designation study.

The configuration of the interim ODMDS has resulted from the ease and economics of disposal from BBWW maintenance dredging areas. The proximity led to the establishment of a site parallel to the channel. The site lends itself to surveillance of individual dredged material disposal operations and long-term monitoring.

(e) EPA will, wherever feasible, designate ocean dumping sites beyond the edge of the continental shelf and other such sites that have been historically used.

The interim site has been used historically for disposal of dredged material; there is no environmental advantage to locating the site beyond the shelf without incurring large increases in the cost of disposal.

CUMULATIVE IMPACTS

There is a large active oil field located about 5.0 miles south of the ODMDS. Also, there is a large gas field in Barataria Bay. Numerous pipelines exist, especially west of the BBWW. Production and associated impacts of inshore developments probably have been declining since the late 1960's (MMS, 1984). Pipelines from offshore oil and gas rigs traverse the area with a major oil line occuring just south of the ODMDS. The adverse impacts from the oil and gas development in the Gulf are generally temporary and localized. The use of the ODMDS would result in additional temporary, localized impacts to the nearshore area. Grand Isle has been greatly impacted by human activity, but the use of the ODMDS would not induce additional adverse impacts to this or other barrier islands.

PUBLIC INVOLVEMENT

Coastal Zone Consistency - The EPA is coordinating with the Louisiana Department of Natural Resources (LDNR) concerning the consistency of final designation of the BBWW ODMDS with the Louisiana Coastal Zone Management Plan. Designation by EPA only makes the site available for disposal of dredged material when ocean disposal is the preferred alternative. Each time the COE desires to use the site, they would go through the same actions as if they were applying for a permit.

History of Public Involvement - The 1976 COE Draft EIS for the BBWW was sent to numerous state, Federal, and local agencies and groups. Comments were received from 16 entities that responded to the EIS. The comments were addressed in the Final EIS. A draft supplemental EIS was prepared in 1980 with a final published in 1982. Also, a Maintenance Dredging Ocean Dumping Assessment was prepared in 1977.

Scoping - A Notice of Intent to prepare the EIS for the BBWW ODMDS was published in the Federal Register on 28 March 1988. A scoping input request was sent to all interested parties in April 1988. A scoping document was sent on July 13, 1988 to all parties responding to the scoping

input request. Comments received from said parties have been incorporated into the EIS. Letters regarding endangered and threatened species were sent to the FWS and the NMFS and responses are included in this document. Biological Assessments were prepared by the COE and sent to NMFS. The NMFS response letter is included in Attachment 1.

Draft Environmental Impact Statement - A draft EIS was published by the EPA in April 1989.

Responses to Comment Letters - Five comment letters concerning the draft EIS were submitted by the following groups and agencies.

Letter Number	Agency or Group
1	Environmental Defense Fund
2	U.S. National Marine Fisheries Service
3	Louisiana Coastal Management Division
4	Orleans Audubon Society
5	U.S. Department of the Interior

The comment letters are reproduced in this section and in Attachment 2. Each letter is numbered at the top and each comment within the letter is numbered in the left margin. EPA's response to the comment is assigned a number corresponding to the comment number and is reproduced in the right margin beside the letter.

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

April 7, 1989

Mr. Norm Thomas (C6 E-F)
U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, Texas 75202-2733

and

Mr. Robert Martinson
U.S. Army Corps of Engineers
New Orleans District
P O BOx 60267
New Orleans, Louisiana 70160-0267

RE: DEIS for Barataria Bay Waterway ODMDS

Dear Mr. Thomas and Mr. Martinson:

1-1. We have received and reviewed a copy of the draft EIS for the Barataria Bay Waterway, Louisiana Ocean Dredged Material Disposal Site designation. While most of the information about the likely impacts of the disposal of about 500,000 cubic yards of dredged material every two or three years offshore in the proposed 1152 acre Louisiana ODMDS appears to be accurate, it is woefully incomplete and therefore misleading. The DEIS simply fails to discuss the environmental context in which both the dredging of the Barataria Waterway and the disposal of dredged material where the environmental baseline conditions are to take place. A great deal of information about what is happening in coastal Louisiana has been learned since 1982 when the Corps of Engineers prepared its last final supplement to the EIS for the Barataria Bay Waterway. Before any further work progresses on this Waterway, we would therefore request that the Corps of Engineers prepare a new or a revised EIS for the Waterway and that this draft EIS be revised.

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1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
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(919) 821-7793

Responses

1-1. The EPA and COE are aware of the coastal wetland losses that plague Louisiana and have reviewed studies and researched the extent of the losses. The Corps of Engineers has taken a charge to investigate possible corrective measures in this complex situation with the Louisiana Coastal Area (LCA) Land Loss/ Marsh Creation studies, the LCA Comprehensive Study, Mississippi Delta Region Studies, the Programmatic Marsh Management EIS, and construction of the Caernarvon Diversion Project. The present issue is whether this specific site should be designated for ocean disposal, not a reevaluation of the BBWW impacts or a discussion and analysis of subsidence and erosion in Louisiana.

The broad environmental baseline context in which this work is to take place is the largest estuarine zone in the United States which contains 40% of the Continental United States' coastal wetlands and 80% of coastal wetland erosion. That erosion and subsidence caused in part by the fact that the sediments of the Mississippi River, through a series of levees and jetties, are disposed of on or off the Continental Shelf and are not allowed to fan out in a deltaic fashion to nourish and build new wetlands in the Barataria Bay and elsewhere and in part through the construction of canals and channels that interrupt hydrologic and nutrient flows and cause salt water intrusion.

-3. In recent decades, the Barataria Basin has suffered eggregious wetland loss. The Barataria Bay Waterway is a major contributor to that loss. Among other things, it facilitates salt water intrusion way up into the Barataria Basin. A major question therefore is the economic justification for continued maintenance of this Waterway at present depths. In any case, before any further dredging of the Waterway proceeds, there should be a detailed investigation of the contribution of the Waterway to salt water intrusion and other impacts that affect the rates of coastal erosion in the Barataria Basin and elsewhere.

1-4. Although it should be clear to both EPA and the Corps of Engineers that the Barataria Basin is suffering from sediment starvation, this draft EIS in effect proposes to dump materials to be dredged offshore at a depth where they will build no new wetlands. The draft EIS rejects all other alternatives as too expensive. This draft EIS therefore is a microcosm of everything that is wrong about agency thinking for dealing with coastal Louisiana's problems.

1-5. The fact is that the offshore disposal in open water of sediments where those sediments are wasted should be prohibited. It should not even be a proposal. Obviously, reasonably uncontaminated sediments can be dumped in the middle of the ocean without flunking the ocean dumping criteria. That is not the point. The point is that all dredged sediments should be used for beneficial purposes.

1-6. In this respect, the Coalition to Restore Coastal Louisiana has recently published its revised report "Here Today and Gone Tomorrow?" That report contains three goals that we fully endorse. The second goal, pertinent here, is that all dredged materials be used for beneficial wetland restoration purposes. Dredged sediments are too valuable to be dumped. In addition, it calls for cessation of the construction of new canals and enlargement of canals and

1-2. Statement Noted.

1-3. Statement Noted. Also, see response 1.1.

1-4. By designating an ocean disposal site, EPA is providing an acceptable location in the event ocean disposal is the preferred option for a particular dredging project. Alternative sites may still be utilized if additional funding becomes available. The draft EIS clearly showed that the preferred disposal site is an environmentally acceptable location and is the least costly to utilize. Should additional funding be made available from any source to cover the higher costs, other locations could be utilized.

1-5. The point expressed in this paragraph is commendable, but it does not reflect economic or environmental realities. EPA has no authority to impose, either directly or indirectly, a blanket prohibition on ocean disposal of dredged material. Disposal at the preferred site has resulted in minimal temporary impacts, has removed no material from the system, and has been the least costly alternative for the taxpayer. EPA believes that ocean disposal must be evaluated for each Federal project or permit application. These evaluations include considerations of the availability and environmental acceptability of other disposal options, including potential beneficial uses.

1-6. Comment noted. However, the goal states nothing about practicality, nor does it specify how additional costs would be absorbed. The EPA and COE support beneficial uses of dredged material, but practicality must be considered. Site designation by EPA does not authorize any dredging project nor permit disposal of any dredged material. Additional funds for other than the preferred alternative may come on an individual action basis; therefore, designation of the interim site is still appropriate.

channels. Since waterways, such as the Barataria Basin Waterway and the Houma Navigational Canal are such major conduits for salt water intrusion, their openings must be further restricted or eventually locks or other major water control structures must be installed.

1-7. The draft EIS gives no sense of the dimensions of the ecological tragedy unfolding in coastal Louisiana. The discussion of barrier island erosion at page 10 is so slim that a reader not steeped in the environmental history of coastal Louisiana would have little idea that anything noteworthy is transpiring. Information about salinities appears at page 13. However, no information is provided about salinities throughout the Barataria Basin; nor is any information provided about the implications of the Waterway for salinity levels.

1-8. As a result of the lack of any meaningful discussion about the environmental context, the discussion of alternatives is pro forma. The cost of using dredged materials beneficially can only be assessed as too high if one is indifferent to the fate of coastal Louisiana wetlands.

1-9. The Corps of Engineers has underway a very preliminary investigation of the technical feasibility of constructing an alternative navigation outlet to the Gulf above the mouth of the River such that the sediments of the River could be used to create new wetlands, nourish wetlands, first and foremost in the Barataria Basin. In addition, the Corps has underway, we are told, a major study of coastal Louisiana. If those investigations have any environmental merit, this proposal must run entirely counter to their recommendations.

1-10. We would therefore request that the Corps and EPA withdraw this draft EIS and set about preparing a new revised draft EIS on the Barataria Waterway and its dredged disposal plan that takes into account a comprehensive assessment of existing conditions in ecological and geologic processes at work within the Barataria Basin and more broadly coastal Louisiana and that assesses navigation and dredged disposal alternatives accordingly. The time has come when EPA and the Corps of Engineers can no longer talk about coastal Louisiana wetland protection only in the broad macropolicy sense and take specific actions on a micro level that perpetuate the legacy of environmental indifference.

Yours very truly,

James T.B. Tripp
Counsel

Responses

1-7 and 1-8. It is not the purpose of the EIS to explore and demonstrate the magnitude of coastal erosion in Louisiana, which has been done in numerous documents and scientific papers. Nor is it necessary to discuss the past and present impacts of the BBWW for which an EIS was written. The ocean dumping EIS is required to determine if the interim site is an environmentally acceptable location to deposit material dredged from the Gulf section of the BBWW under the evaluation criteria of EPA's Ocean Dumping Regulations (ODR). Alternative disposal areas could still be used as funds become available, but use of the interim site is environmentally acceptable and is economically, the most practical.

1-9. Designating the interim site as a disposal area does not run counter to the mentioned studies. Diverting the river has been determined to induce more environmental damage over a 50 year period than benefits it would produce. The Comprehensive Study is still in a preliminary stage, so recommendations have not been made. If it can be shown that the BBWW could be shallower than the 15 foot depth contour, less or perhaps no material would be dredged and disposed in the area.

1-10. The concerns and ideas presented have been noted and taken into consideration. It is our understanding that the COE will make attempts to obtain additional funding and will accept contributions from other sources to deposit the material in other areas, but that perpetual funding of such work is unlikely. Therefore, an environmentally and economically acceptable ocean dumping location is still needed.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

Office of the Chief Scientist

6E-F

89 MAY 15 AM 10:29

OFFICE OF THE DIRECTOR

cc: KK
D. Keeler

May 1, 1989

Mr. Robert E. Layton
Regional Administrator
EPA - Region VI (6E-F)
1445 Ross Avenue
Dallas, Texas 70895

Dear Mr. Layton:

This is in reference to your Environmental Assessment on the Barataria Bay Waterway, Louisiana, Ocean Dredged Material Disposal Site Designation.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

David Cottingham

David Cottingham
Director
Ecology and Environmental
Conservation Office

Enclosure

RECEIVED
WATER MANAGEMENT DIVISION
89 MAY -8 PM 4:03

75 Years Stimulating America's Progress ★ 1913-1988

National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702

April 24, 1989 F/SER114:RR

Mr. Robert E. Layton
Regional Administrator
EPA - Region VI (6E-F)
1445 Ross Avenue
Dallas, Texas 70895

Dear Mr. Layton:

The National Marine Fisheries Service (NMFS) has received the draft environmental impact statement (EIS) entitled Barataria Bay Waterway, Louisiana, Ocean Dredged Material Disposal Site Designation, transmitted by your letter dated March 23, 1989. We offer the following comments for your consideration.

General Comments

2-1. We do not believe that the environmental document gives adequate consideration to mechanisms which, in effect, would require spoil disposal in areas suitable for beach or marsh creation at Grand Isle or Grand Terre Islands. The NMFS, EPA, and other agencies have identified the seriousness of marsh loss and beach erosion in coastal Louisiana and have expended a great deal of effort in identifying potential remedies. While the Barataria Bay Waterway has been shown to be a major causative factor in land loss, it now offers an opportunity to mitigate some of that loss. Unfortunately, the EPA does not consider such an option "relevant" to site designation.

2-2. Because opportunities to reduce land loss rates in Louisiana are extremely limited and land loss is severe, the need for positive action is urgent. We find that dismissing opportunities offered by this project, without including a thorough evaluation and discussion in the EIS, fails to provide full disclosure or an adequate evaluation of alternatives.

Responses

2-1. The designation of the ODMDS does not preclude use of the material for marsh creation or beach nourishment. The DEIS showed that the ODMDS is an environmentally acceptable disposal area and that it is the least costly site for the COE to use. Some benefits could be gained by pumping the material to a marsh creation or beach nourishment area, but at an additional cost that is not justified. If a state, local agency, or organization is willing to provide the additional funding, the COE has stated that they would be more than willing to pump the material to these areas.

2-2. While other ocean disposal sites have been eliminated, beach nourishment and marsh creation are not being dismissed by EPA's proposed site designation action. (See response #1-4).

Specific Comments

ALTERNATIVES

NO ACTION

Page 6, paragraph 3. This paragraph should discuss any available
2-3. opportunities to terminate site designation (temporary and permanent), thereby requiring the use of alternative locations.

RELOCATION OF ODMDS TO ALTERNATE OCEAN AREAS

Page 6, paragraph 4. The term "shallow water site" should be
2-4. defined to allow comparisons of costs and environmental damages.

BEACH NOURISHMENT AND MARSH CREATION ALTERNATIVES

Page 8, paragraph 2. The EIS does not evaluate options to remove
2-5. disposal site designation and inadequately discusses land loss issues and mitigation opportunities. Without a detailed presentation of these issues or a discussion of legal constraints of the site designation process to indicate otherwise, the beach nourishment-marsh creation alternative should be considered relevant and highly desirable.

Page 8, paragraph 2. We recommend that the document present cost
2-6. increases on a percent increase basis, provide a detailed accounting of the costs of alternatives, and include benefits of marsh or beach construction/maintenance. With respect to Sec. 145 of P.L. 94-587, this paragraph should indicate whether a request for beneficial use of dredged material by the state has been made for the Barataria Bay Waterway.

2-7. Page 9, paragraph 1. See previous comments regarding costs.

Page 9, paragraph 2. Costs and benefits should be quantified in
2-8. Item 4. While the preferred alternatives may be the least expensive, benefits of other more costly plans which might offset increased costs should be included.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES
SPECIFIC AND GENERAL CRITERIA
Specific Criteria

Page 11, paragraph 2. This paragraph should be revised to
2-9. indicate that the ODMDS is adjacent to a major migratory pathway (Barataria Pass) utilized by great numbers of commercially and recreationally important marine organisms moving to and from the productive marsh nursery habitats of the Barataria Bay complex.

2-3. Terminating the interim designation or the permanent designation as the comment proposes would be contrary to the intent of the Marine Protection, Research and Sanctuaries Act of 1972 as well as EPA's ODR. See 40 CFR 228.11(d)

2-4. Shallow water site will be defined in the text.

2-5. It is not the purpose of this EIS to evaluate the land loss issues of Louisiana. Furthermore, removing the disposal site designation would be inappropriate since the interim site has been shown to be an environmentally acceptable location for dredged material disposal using the criteria of EPA's ODR. EPA agrees that beneficial uses of dredged material are desirable. However, as stated in response #1-5, the beneficial use issue must be evaluated in each action for ocean disposal.

2-6 and 2-7. Cost comparisons were done using $1.1 million as the cost of dredging and disposing in the interim site. For the marsh creation alternative, the draft EIS presents the average estimated cost for five dredging cycles. The first dredging would actually cost about $4.0 million because of dike construction. In practice, the disposal site would have to be moved for each operation in order for material to be deposited at appropriate marsh elevation (i.e. first disposal costs). Assuming disposal depths average 4.0 feet, some 77 acres of marsh land could be created by each operation. This translates to $37,600 per acre above the $1.1 million that would be spent to use the ODMDS. Using the highest estimates for the value of marsh ($4,280/acre at 8-5/8 % discount rate) (U. S. Army Corps of Engineers 1988a), there is a huge gap in the benefit to cost ratio. Beach nourishment values are more difficult to calculate because the results may be very temporary and/or beach nourishment may reduce accumulations of material elsewhere. Barrier islands must be considered as part of a dynamic system (LaRoe 1980). Taking material from one location and placing it in another may accomplish very little and could be detrimental. However, if material were placed on Grand Terre beach to a depth of 2.0 feet, it would cover about 154 acres. Assuming it would be replaced at each dredging cycle, it would cost 22,700/acre for five cycles of dredging above the cost of using the ODMDS. There is still a large disparity in benefits to cost even if the nourished beach is given the same value as marsh. No request from the state accompanied by a statement of willingness to pay their share of the additional cost has been received. If one is submitted, the COE will apply Sec 145 of P. L. 94-587.

2-8. See Beach Nourishment and Marsh Creation Alternatives Section of the EIS and response to comments 2-6 and 2-7, above.

2-9. A statement has been included.

2-10. Page 18, paragraph 1. It is unclear whether the penaeid shrimp (unspecified species) and sheepshead minnows used in bioassay studies were planktonic forms. This section also should indicate how representative the bioassay results for these two organisms are for commercially and recreationally important species of endemic fish and shellfish.

2-11. Page 18, paragraph 3. To more accurately describe impacts to benthic fauna, this paragraph should: 1) identify the limits of the area normally affected by spoil deposition; 2) discuss the implication of repetitive benthic perturbations from frequent channel maintenance; and 3) present data to substantiate the suggestion that mobile species would not suffer burial mortality because they would burrow upward through thick layers of overburden.

CUMULATIVE IMPACTS

2-12. Page 25, paragraph 1. The discussion of cumulative impacts should be expanded to fully address, not only local petroleum production and exploration related impacts, but the broad range of adverse impacts associated with Barataria Bay Waterway maintenance and disposal site designation. Some cumulative impact topics which should be addressed include salinity intrusion, hydrographic alterations, dredging and filling impacts, and shoreline and marsh erosion. With respect to oil and gas development impacts (lines 6 and 7), they have been shown to be both long-term and regional in nature.

PUBLIC INVOLVEMENT

2-13. Page 25, paragraph 2. Although designation of the preferred disposal site would not dictate the use of that site, we believe that it would make the use of alternative sites, which could enhance coastal resources, very unlikely. Future use of the preferred site would not require much public input, and we believe would not encourage consideration of beneficial uses of dredged material. On the other hand, if use of an ocean disposal site for the waterway is prohibited, environmentally desirable disposal locations could he used. The environmental statement should be expanded to fully address these issuss.

Sincerely yours,

Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

Responses

2-10. The following organisms were tested in the bioassay studies: Penaeus setiferus, Artemia salinia, Cyprinodon variegatus, Nereis virens, and Mercenaria campechiensis. This is a very good representation of the overall community at the site. The shrimp, copepods, and sheepshead minnows were studied in liquid and suspended particulate phases and were thus included together in the plankton section for easy comparison; although the copepods were the only true zooplankters tested.

2-11. The affected area is the ODMDS except that dredging begins at about mile -0.7 because the pass area does not need to be dredged. A natural benthic community would occur 75-90 percent of the time. Although many benthic organisms (e.g. polychaetes) are known for their ability to burrow through the substrate (Barnes 1968), it is certainly recognized that benthic mortality does occur during disposal.

2-12. The area of study and impact assessment has been limited to include the zone of likely impact from the proposed project, which is designation of the BBWW ODMDS. While saltwater intrusion, marsh erosion, etc. are acknowledged problems in Louisiana, the proposed action would not impact these processes.

2-13. EPA does not agree that site designation is an automatic incentive not to employ alternative disposal options that may produce beneficial results. As previously stated, site designation does not preclude the consideration of other disposal options.

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES

BUDDY ROEMER
GOVERNOR

RAYMOND W. STEPHENS, JR
SECRETARY

May 9, 1989

U. S. Environmental Protection Agency
Attn: Mr. Norm Thomas, Chief
Federal Activities Branch (6E-F)
Region VI
1445 Ross Avenue
Dallas, TX 75202

RE: CB90139, Coastal Zone Consistency,
Draft Environmental Impact Statement
For The Barataria Bay Waterway Ocean Dredged
Material Disposal Site

Dear Mr. Thomas:

3-1. After careful review of the Draft Environmental Impact Statement for the Barataria Bay Waterway (BBWW) Ocean Dredged Material Disposal Site (ODMDS), we have concluded that this site designation is inconsistent with the Louisiana Coastal Management Program (Guideline 4.2). Guideline 4.2 states that "spoil shall be used beneficially to the maximum extent practicable to improve productivity or create new habitat, reduce or compensate for environmental damage done by dredging activities, or prevent environmental damage".

3-2. We feel that not enough attention has been given to the excellent opportunity to utilize spoil dredged from the BBWW ODMDS for habitat enhancement.

Should you have any questions concerning this determination, please contact Mr. Larry Narcisse of my staff at (504)342-7591.

Sincerely,

R. W. Stephens, Jr., Secretary

By: Terry W. Howey
Terry W. Howey, Director
Coastal Management Division

RWS:TWH/jacr

COASTAL MANAGEMENT DIVISION P.O.BOX 44487 BATON ROUGE, LOUISIANA 70804-4487

3-1. EPA disagrees with LDNR's conclusion.

3-2. Alternative disposal areas that could result in habitat enhancement will not be eliminated by EPA's site designation action. The COE has indicated that if additional funding from any source becomes available, the material will be used for potentially beneficial purposes. However, because the cost increases are considerable and perpetual funding of such work is unlikely, an environmentally and economically acceptable ocean dumping location is needed and has been shown to be available.

Comment Letter 4

Rec'd 5/22/89

Orleans Audubon Society

A CHAPTER OF THE NATIONAL AUDUBON SOCIETY

1522 Lowerline St.
New Orleans, La. 70118
May 19, 1989

Mr. Norm Thomas (6E-F)
U.S. Environmental Protection Agency
Region 6
1445 Ross Ave.
Dallas, Tx. 75202

Mr. Robert Martinson
US Army Corps of Engineers
P.O. Box 60267
New Orleans, La. 70160

Re: Barataria Bay Waterway (ODMDS); Ocean dumping of 500,000 cu. yds. of dredged material.

-1. Our conservation committee has reviewed the Draft EIS on the above project and find it inadequate. Since the initiation of this project in1960, there have been major environmental impacts in the lower Barataria Bay.

-2. By lowering the sill depth between Grand Isle and Grand Terre, storm surges and salt water have entered the lower bay. The Louisiana Dept. of Wildlife and Fisheries has documented this salt water intrusion and the resultant destruction of the commercial oyster leases. Also, the salt water has moved up the Barataria Waterway into Lake Salvador causing brackish water conditions which has adversely impacted the commercial catfish industry.

3. We wrote to Col. E. J. Rush in 1975 concerning these and other impacts of the BBWP and the Corps' reply was that they were quite aware of them and that; 1) economics supported continuation of the dredging and 2) that the adverse impacts were acceptable. We don't agree that these impacts are acceptable. Environmental degradation, loss of land, loss of recreation and loss of commercial fisheries are unacceptable.

4. We request that a new, revised EIS be prepared by the Corps which properly addresses the impacts of the <u>entire</u> Barataria Bay Waterway Project (BBWP). The EIS prepared by the Corps in 1982 did not adequately address the environmental impacts such as land loss and the adverse impacts to the commercial fishing industry.

Responses

4-1 ,4-2 ,4-3, and 4-4. Comments noted. The present EIS addresses designation of the interim BBWW ODMDS. Impacts associated with maintenance dredging of the BBWW is not within the scope of EPA's site designation EIS.

[redacted] is the most productive along the entire Gulf Coast. Because of its [redacted] under consideration as a special management area by the State of Louisiana. [redacted] National Historical Park lies along the eastern shore of Lake Salvador and is [redacted] degradation because of salt water intrusion. The National Park Service has been critical of the Corps' projects as they adversely impact the National Park. The EIS did not address these impacts.

In regard to the Ocean Dumping site, we are opposed to the selected site. The dredged material is not going to be used to rebuild the disappearing marsh or other wetlands. Louisiana is losing 60 square miles of wetlands each year. The spoil should be used behind the barrier islands to build up wetlands. Much of the land loss is traceable to the Corps' Public Works projects built over the past 30 years such as: the Mississippi River Gulf Outlet, Houma Navigation Canal, Calcasieu Ship Channel and the Barataria Waterway.

We request that the following questions be answered concerning the BBWP.

1. What was the pre-project (pre-1960) sill depth between Grand Isle and Grand Terre?
2. Has shipping tonnage using the waterway increased or decreased over the last 10 years? What is the present usage? What commodities are transported?
3. Are there any commercially operated oyster leases in the lower Barataria Bay?
4. What are the present salinity gradients in Barataria Bay and how have they changed since the BBWP was opened?
5. Queen Bess Island is a major nesting area for the Brown Pelican-a threatened species. Why isn't it included as a potential disposal site since it is only 3.5 miles north of the ODMDS ?

In summary, we ask that the Corps and EPA withdraw this Draft EIS and that the questions raised in our letter be answered in a Revised Draft EIS which addresses the impacts of the entire project as well as all alternatives.

Sincerely,

Barry Kohl

Dr. Barry Kohl
Conservation Chairman

cc: Col. R. V. Gorski
District Engineer, New Orleans

Mr. R. E. Layton
Regional Admin. EPA, Region VI

Dr. Paul Kemp
Coalition to Restore Coastal Louisiana

4-5. Designating the BBWW ODMDS would have no impact on the park.

4-6. The present EIS addresses those direct and indirect impacts that may occur as a result of designating the ODMDS and will remain focused on them. Site designation by the EPA does not preclude the consideration of other disposal options.

Question 1. Depths in Barataria Bay are generally 2-8 feet. Restricted tidal passages within the bay are as much as 32 feet deep and the main tidal inlet between Grand Isle and the Grand Terre Islands is 165 feet deep.

Question 2.

Year	Million Tons
1977	1.8
1978	1.5
1979	1.9
1980	2.0
1981	1.9
1982	1.2
1983	1.0
1984	1.5
1985	1.6
1986	1.3

The main commodities are identified of page 5 of the draft EIS.

Question 3. Yes, see Specific Criteria 8 in the EIS.

Question 4. Details of salinity regimes and changes in the area can be obtained from U. S. Army Corps of Engineers. 1984. Louisiana Coastal Area, Louisiana, Freshwater Diversion to Barataria and Breton Sound Basins. Feasibility Study, Volume 2. Wiseman and Swenson (1988) have found a negative trend in mean salinity at the mouth of Barataria Bay and no mean salinity trend in the upper reach of the bay in recent years.

Question 5. The added cost to pump the material to Grand Terre Island would be $700,000/ operation. Therefore, the additional cost to pump the material to Queen Bess Island would involve a considerably greater cost.

Comment Letter 5

United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
POST OFFICE BOX 649
ALBUQUERQUE, NEW MEXICO 87103

May 18, 1989

ER 89/276

Mr. Robert E. Layton, Jr., P.E.
Regional Administrator
Environmental Protection Agency
Region VI
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

89 MAY 30 AM 11:0[illegible]
OFFICE OF THE DIRECTOR

Dear Mr. Layton:

We have reviewed the Draft Environmental Impact Statement for Barataria Bay Waterway, Louisiana, Ocean Dredged Material Disposal Site Designation, and have the following comments.

5-1 The statement provides a concise assessment of potential adverse environmental impacts that may result from the proposed action.

5-2 We are concerned that the selection of the preferred alternative may preclude future consideration of alternative uses of the spoil to benefit the public. Various local, State, and Federal resource agencies have advocated the use of dredged materials to restore barrier islands such as Grand Isle and Grand Terre Islands located immediately north of the proposed designated site. The Coastal Restoration Committee, appointed by the Governor of the State of Louisiana, has also targeted such barrier island restoration as a priority measure to reduce the effects of storm surges on Louisiana's fragile coastal marshes. Beneficial uses of dredge soil to create and/or restore Louisiana's barrier island system at Grand Isle and Grand Terre near the proposed site could greatly enhance the area's fish and wilflife resources.

Thank you for the opportunity to comment on this statement.

Sincerely,

Raymond P. Churan

Raymond P. Churan
Regional Environmental Officer

Responses

5-1. Statement acknowledged

5-2. As stated in the EIS and in previous responses, the designation of an ocean disposal site does not preclude future consideration of alternative beneficial uses of the material.

Coordination of the final EIS - This EIS will be sent to the following agencies, groups, and individuals:

Honorable J. Bennett Johnston
Honorable Lindy Boggs
Honorable Robert Livingston
Honorable Jimmy Hayes
Honorable Jim McCrery
Honorable John B. Breaux
Honorable Jerry Huckaby
Honorable Richard Baker
Honorable Billy Tauzin
Honorable Clyde Holloway

FEDERAL

Dept. of the Interior
Washington, D.C.

Mineral Management Service
New Orleans, LA

Advisory Council of Historic Preservation
Washington, D.C.
Golden, CO

Dept. of Health and Human Resources
Washington, D.C.

U.S. Fish and Wildlife Service
Lafayette, LA

U.S. Dept. of Commerce
Washington, D.C.

U.S. Coast Guard
New Orleans, LA

National Marine Fisheries Service
Baton Rouge, LA
St. Petersburg, FL

Centers for Disease Control
Atlanta, GA

STATE OFFICIALS AND AGENCIES

Governor of Louisiana

La. Dept. of Transportation and Development

La. Natural Heritage Program

La. Dept. of Natural Resources
Office of Environmental Affairs
Division of State Lands
Coastal Resources Program

La. Dept. of Culture, Recreation and Tourism
State Historic Preservation Officer
Office of State Parks

Attorney General of Louisiana

La. Dept. of Health and Human Resources

La. Dept. of Wildlife and Fisheries

La. Dept. of Environmental Quality
Water Pollution Control Division

La. Dept. of Commerce

La. State Planning Office

LSU
Center for Wetlands Resources
Curator of Anthropology

La. Geological Survey

Governor's Coastal Protection Task Force

LOCAL AGENCIES

Mr. Michael Yenni, Jefferson Parish President

Mr. Andy Valens, Mayor of Grand Isle

Jefferson Parish Library

ENVIRONMENTAL GROUPS

Orleans Audubon Society

Gulf Coast Conservation Association

Environmental Defense Fund

Delta Chapter, Sierra Club

Chappepeela Group, Sierra Club

Honey Island Group, Sierra Club

National Wildlife Federation

Louisiana Wildlife Federation

National Resources Defense Council

League of Women Voters of LA

South LA. Environmental Council

Fund for Animals

Gulf States Marine Fisheries Comm.

Sea Grant Legal Program

Description of EIS and Rule-making Processes - The draft EIS was distributed for a 45-day review and comment period. This final EIS is being circulated to the above entities for a 30-day review period. Site designation also requires publication of proposed and final rule-making packages in the Federal Register by EPA. The proposed rule should be published concurrent with the final EIS review period.

LIST OF PREPARERS

The final EIS was prepared by Robert J. Martinson and Suzanne R. Hawes, (Environmental Resource Specialists in the New Orleans District, COE) in cooperation with Joe Swick and Darlene Coulson (EIS Project Officers of EPA, Region VI). Some of the data herein was taken from a Preliminary Draft EIS prepared by Janis T. Jeffers, EPA Ocean Dumping EIS Task Force. Information from the IEC Survey of the BBWW ODMDS was also used.

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ATTACHMENT 1

Letters from U.S. National Marine Fisheries Service

and the U.S. Fish and Wildlife Service

Concerning Threatened and Endangered Species

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702

April 21, 1988 F/SER23:SM:td

Mr. Cletis R. Wagahoff
Chief, Planning Division
Environmental Analysis Branch
New Orleans District/Corps of Engineers
Post Office Box 60267
New Orleans, LA 70160-0267

Dear Mr. Wagahoff:

This is in response to your letter of April 12 requesting information on threatened or endangered species which may be impacted by disposal of dredged material in three ocean dredged material disposal sites off Louisiana.

Enclosed is a list of endangered and threatened species under NMFS jurisdiction off Louisiana. Regarding the proposed dredging activities, we would call your attention to the listed sea turtles, particularly Kemp's ridleys and loggerheads given the proposed location of the activities. Please note that we are equally concerned about the potential impacts of the actual dredging activity (the Corps should be aware of this concern from past experiences at Cape Canaveral, Florida), in addition to the disposal activity which is the focus of your letter.

At this time, we reserve further comments on the potential impacts of the proposed dredging and disposal activities pending our review of the draft environmental impact statements under joint preparation by the COE and the EPA.

If you have any questions, please contact Dr. Terry Henwood, Fishery Biologist at FTS 826-3366.

Sincerely yours,

Charles A. Oravetz

Charles A. Oravetz, Chief
Protected Species Management
Branch

Enclosure

cc: F/PR2
F/SER1

ENDANGERED AND THREATENED SPECIES AND CRITICAL HABITATS UNDER NMFS JURISDICTION

Louisiana

Listed Species	Scientific Name	Status	Date Listed
finback whale	Balaenoptera physalus	E	12/02/70
humpback whale	Megaptera novaeangliae	E	12/02/70
right whale	Eubaleana glacialis	E	12/02/70
sei whale	Balaenoptera borealis	E	12/02/70
sperm whale	Physeter catodon	E	12/02/70
green sea turtle	Chelonia mydas	Th	07/28/78
hawksbill sea turtle	Eretmochelys imbricata	E	06/02/70
Kemp's (Atlantic) ridley sea turtle	Lepidochelys kempi	E	12/02/70
leatherback sea turtle	Dermochelys coriacea	E	06/02/70
loggerhead sea turtle	Caretta caretta	Th	07/28/78

SPECIES PROPOSED FOR LISTING
None

LISTED CRITICAL HABITAT
None

PROPOSED CRITICAL HABITAT
None

United States Department of the Interior
FISH AND WILDLIFE SERVICE
POST OFFICE BOX 4305
103 EAST CYPRESS STREET
LAFAYETTE, LOUISIANA 70502

May 5, 1988

Mr. Cletis R. Wagahoff
Chief, Planning Division
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160

Dear Mr. Wagahoff:

Reference is made to your April 12, 1988, letter in which you requested information concerning listed and proposed threatened or endangered species that may be impacted by disposal of dredged material in three ocean disposal sites in coastal Louisiana. The disposal sites are located adjacent to the Mississippi River Gulf Outlet in St. Bernard Parish, the Barataria Bay Waterway in Jefferson Parish, and the Houma Navigation Canal in Terrebonne Parish. Material dredged from those navigation channels would be deposited in the designated disposal areas. The following comments are provided in accordance with provisions of the Endangered Species Act (87 Stat. 884, as amended: 16 U.S.C. 1531 et seq.).

Our records indicate no endangered, threatened, or proposed species or their critical habitat occur in the project area. However, the National Marine Fisheries Service is responsible for aquatic marine threatened or endangered species. Contact Terry Henwood (813/893-3366) in St. Petersburg, Florida, for information concerning those species.

If you anticipate any changes in the scope or location of this project, please contact Kim Bettinger of this office for further coordination.

Sincerely yours,

David M. Smith
Acting Field Supervisor

KB/pl

cc: EPA, Dallas, TX
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD), Baton Rouge, LA
NMFS, Baton Rouge, LA

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702

September 20, 1988 F/SER23:TAH:td

Mr. R. H. Schroeder, Jr.
Acting Chief, Planning Division
New Orleans District COE
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Schroeder:

This responds to your August 29, 1988 letter regarding the proposed designation for ocean dredged material disposal of sites at Houma Navigation Canal (Cat Island Pass), Barataria Bay Waterway (Barataria Pass and Bar Channel), and Mississippi River-Gulf Outlet (Breton Sound and Bar Channel) in coastal Louisiana. A Biological Assessment (BA) was transmitted pursuant to Section 7 of the Endangered Species Act of 1973 (ESA).

We have reviewed the BA and concur with your determination that populations of endangered/threatened species under our purview would not be adversely affected by the proposed action.

This concludes consultation responsibilities under Section 7 of the ESA. However, consultation should be reinitiated if new information reveals impacts of the identified activity that may affect listed species or their critical habitat, a new species is listed, the identified activity is subsequently modified or critical habitat determined that may be affected by the proposed activity.

If you have any questions, please contact Dr. Terry Henwood, Fishery Biologist at FTS 826-3366.

Sincerely yours,

Charles A. Oravetz

Charles A. Oravetz, Chief
Protected Species Management Branch

cc: F/PR2
F/SER1

ATTACHMENT 2

Comment Letters on the Draft Environmental Impact Statement

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

April 7, 1989

Mr. Norm Thomas (C6 E-F)
U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, Texas 75202-2733

and

Mr. Robert Martinson
U.S. Army Corps of Engineers
New Orleans District
P O BOx 60267
New Orleans, Louisiana 70160-0267

RE: DEIS for Barataria Bay Waterway ODMDS

Dear Mr. Thomas and Mr. Martinson:

We have received and reviewed a copy of the draft EIS for the Barataria Bay Waterway, Louisiana Ocean Dredged Material Disposal Site designation. While most of the information about the likely impacts of the disposal of about 500,000 cubic yards of dredged material every two or three years offshore in the proposed 1152 acre Louisiana ODMDS appears to be accurate, it is woefully incomplete and therefore misleading. The DEIS simply fails to discuss the environmental context in which both the dredging of the Barataria Waterway and the disposal of dredged material where the environmental baseline conditions are to take place. A great deal of information about what is happening in coastal Louisiana has been learned since 1982 when the Corps of Engineers prepared its last final supplement to the EIS for the Barataria Bay Waterway. Before any further work progresses on this Waterway, we would therefore request that the Corps of Engineers prepare a new or a revised EIS for the Waterway and that this draft EIS be revised.

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(202) 387-3500

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(415) 658-8008

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

The broad environmental baseline context in which this work is to take place is the largest estuarine zone in the United States which contains 40% of the Continental United States' coastal wetlands and 80% of coastal wetland erosion. That erosion and subsidence caused in part by the fact that the sediments of the Mississippi River, through a series of levees and jetties, are disposed of on or off the Continental Shelf and are not allowed to fan out in a deltaic fashion to nourish and build new wetlands in the Barataria Bay and elsewhere and in part through the construction of canals and channels that interrupt hydrologic and nutrient flows and cause salt water intrusion.

In recent decades, the Barataria Basin has suffered eggregious wetland loss. The Barataria Bay Waterway is a major contributor to that loss. Among other things, it facilitates salt water intrusion way up into the Barataria Basin. A major question therefore is the economic justification for continued maintenance of this Waterway at present depths. In any case, before any further dredging of the Waterway proceeds, there should be a detailed investigation of the contribution of the Waterway to salt water intrusion and other impacts that affect the rates of coastal erosion in the Barataria Basin and elsewhere.

Although it should be clear to both EPA and the Corps of Engineers that the Barataria Basin is suffering from sediment starvation, this draft EIS in effect proposes to dump materials to be dredged offshore at a depth where they will build no new wetlands. The draft EIS rejects all other alternatives as too expensive. This draft EIS therefore is a microcosm of everything that is wrong about agency thinking for dealing with coastal Louisiana's problems.

The fact is that the offshore disposal in open water of sediments where those sediments are wasted should be prohibited. It should not even be a proposal. Obviously, reasonably uncontaminated sediments can be dumped in the middle of the ocean without flunking the ocean dumping criteria. That is not the point. The point is that all dredged sediments should be used for beneficial purposes.

In this respect, the Coalition to Restore Coastal Louisiana has recently published its revised report "Here Today and Gone Tomorrow?" That report contains three goals that we fully endorse. The second goal, pertinent here, is that all dredged materials be used for beneficial wetland restoration purposes. Dredged sediments are too valuable to be dumped. In addition, it calls for cessation of the construction of new canals and enlargement of canals and

channels. Since waterways, such as the Barataria Basin Waterway and the Houma Navigational Canal are such major conduits for salt water intrusion, their openings must be further restricted or eventually locks or other major water control structures must be installed.

The draft EIS gives no sense of the dimensions of the ecological tragedy unfolding in coastal Louisiana. The discussion of barrier island erosion at page 10 is so slim that a reader not steeped in the environmental history of coastal Louisiana would have little idea that anything noteworthy is transpiring. Information about salinities appears at page 13. However, no information is provided about salinities throughout the Barataria Basin; nor is any information provided about the implications of the Waterway for salinity levels.

As a result of the lack of any meaningful discussion about the environmental context, the discussion of alternatives is pro forma. The cost of using dredged materials beneficially can only be assessed as too high if one is indifferent to the fate of coastal Louisiana wetlands.

The Corps of Engineers has underway a very preliminary investigation of the technical feasibility of constructing an alternative navigation outlet to the Gulf above the mouth of the River such that the sediments of the River could be used to create new wetlands, nourish wetlands, first and foremost in the Barataria Basin. In addition, the Corps has underway, we are told, a major study of coastal Louisiana. If those investigations have any environmental merit, this proposal must run entirely counter to their recommendations.

We would therefore request that the Corps and EPA withdraw this draft EIS and set about preparing a new revised draft EIS on the Barataria Waterway and its dredged disposal plan that takes into account a comprehensive assessment of existing conditions in ecological and geologic processes at work within the Barataria Basin and more broadly coastal Louisiana and that assesses navigation and dredged disposal alternatives accordingly. The time has come when EPA and the Corps of Engineers can no longer talk about coastal Louisiana wetland protection only in the broad macropolicy sense and take specific actions on a micro level that perpetuate the legacy of environmental indifference.

Yours very truly,

James T.B. Tripp
Counsel

Norm Thorn

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

Office of the Chief Scientist

ENVIRONMENTAL SERVICES DIVISION 6E-F

89 MAY 15 AM 10:29

OFFICE OF THE DIRECTOR

May 1, 1989

cc: KK
P. Keeler

Mr. Robert E. Layton
Regional Administrator
EPA - Region VI (6E-F)
1445 Ross Avenue
Dallas, Texas 70895

Dear Mr. Layton:

This is in reference to your Environmental Assessment on the Barataria Bay Waterway, Louisiana, Ocean Dredged Material Disposal Site Designation.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

David Cottingham

David Cottingham
Director
Ecology and Environmental
Conservation Office

Enclosure

RECEIVED
WATER MANAGEMENT DIVISION
89 MAY -8 PM 4:03

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702

April 24, 1989 F/SER114:RR

Mr. Robert E. Layton
Regional Administrator
EPA - Region VI (6E-F)
1445 Ross Avenue
Dallas, Texas 70895

Dear Mr. Layton:

The National Marine Fisheries Service (NMFS) has received the draft environmental impact statement (EIS) entitled Barataria Bay Waterway, Louisiana, Ocean Dredged Material Disposal Site Designation, transmitted by your letter dated March 23, 1989. We offer the following comments for your consideration.

General Comments

We do not believe that the environmental document gives adequate consideration to mechanisms which, in effect, would require spoil disposal in areas suitable for beach or marsh creation at Grand Isle or Grand Terre Islands. The NMFS, EPA, and other agencies have identified the seriousness of marsh loss and beach erosion in coastal Louisiana and have expended a great deal of effort in identifying potential remedies. While the Barataria Bay Waterway has been shown to be a major causative factor in land loss, it now offers an opportunity to mitigate some of that loss. Unfortunately, the EPA does not consider such an option "relevant" to site designation.

Because opportunities to reduce land loss rates in Louisiana are extremely limited and land loss is severe, the need for positive action is urgent. We find that dismissing opportunities offered by this project, without including a thorough evaluation and discussion in the EIS, fails to provide full disclosure or an adequate evaluation of alternatives.

Specific Comments

ALTERNATIVES
NO ACTION

Page 6, paragraph 3. This paragraph should discuss any available opportunities to terminate site designation (temporary and permanent), thereby requiring the use of alternative locations.

RELOCATION OF ODMDS TO ALTERNATE OCEAN AREAS

Page 6, paragraph 3. The term "shallow water site" should be defined to allow comparisons of costs and environmental damages.

BEACH NOURISHMENT AND MARSH CREATION ALTERNATIVES

Page 8, paragraph 1. The EIS does not evaluate options to remove disposal site designation and inadequately discusses land loss issues and mitigation opportunities. Without a detailed presentation of these issues or a discussion of legal constraints of the site designation process to indicate otherwise, the beach nourishment-marsh creation alternative should be considered relevant and highly desirable.

Page 8, paragraph 1. We recommend that the document present cost increases on a percent increase basis, provide a detailed accounting of the costs of alternatives, and include benefits of marsh or beach construction/maintenance. With respect to Sec. 145 of P.L. 94-587, this paragraph should indicate whether a request for beneficial use of dredged material by the state has been made for the Barataria Bay Waterway.

Page 9, paragraph 1. See previous comments regarding costs.

Page 9, paragraph 2. Costs and benefits should be quantified in Item 4. While the preferred alternatives may be the least expensive, benefits of other more costly plans which might offset increased costs should be included.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES
SPECIFIC AND GENERAL CRITERIA
Specific Criteria

Page 11, paragraph 2. This paragraph should be revised to indicate that the ODMDS is adjacent to a major migratory pathway (Barataria Pass) utilized by great numbers of commercially and recreationally important marine organisms moving to and from the productive marsh nursery habitats of the Barataria Bay complex.

Page 18, paragraph 1. It is unclear whether the penaeid shrimp (unspecified species) and sheepshead minnows used in bioassay studies were planktonic forms. This section also should indicate how representative the bioassay results for these two organisms are for commercially and recreationally important species of endemic fish and shellfish.

Page 18, paragraph 3. To more accurately describe impacts to benthic fauna, this paragraph should: 1) identify the limits of the area normally affected by spoil deposition; 2) discuss the implication of repetitive benthic perturbations from frequent channel maintenance; and 3) present data to substantiate the suggestion that mobile species would not suffer burial mortality because they would burrow upward through thick layers of overburden.

CUMULATIVE IMPACTS

Page 25, paragraph 1. The discussion of cumulative impacts should be expanded to fully address, not only local petroleum production and exploration related impacts, but the broad range of adverse impacts associated with Barataria Bay Waterway maintenance and disposal site designation. Some cumulative impact topics which should be addressed include salinity intrusion, hydrographic alterations, dredging and filling impacts, and shoreline and marsh erosion. With respect to oil and gas development impacts (lines 6 and 7), they have been shown to be both long-term and regional in nature.

PUBLIC INVOLVEMENT

Page 25, paragraph 2. Although designation of the preferred disposal site would not dictate the use of that site, we believe that it would make the use of alternative sites, which could enhance coastal resources, very unlikely. Future use of the preferred site would not require much public input, and we believe would not encourage consideration of beneficial uses of dredged material. On the other hand, if use of an ocean disposal site for the waterway is prohibited, environmentally desirable disposal locations could be used. The environmental statement should be expanded to fully address these issues.

Sincerely yours,

Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

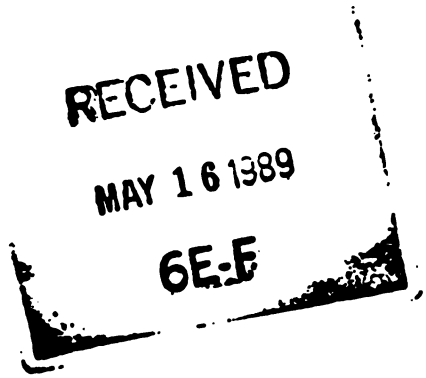
State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

BUDDY ROEMER
GOVERNOR

RAYMOND W. STEPHENS, JR
SECRETARY

May 9, 1989



U. S. Environmental Protection Agency
Attn: Mr. Norm Thomas, Chief
Federal Activities Branch (6E-F)
Region VI
1445 Ross Avenue
Dallas, TX 75202

RE: C890139, Coastal Zone Consistency,
Draft Environmental Impact Statement
For The Barataria Bay Waterway Ocean Dredged
Material Disposal Site

Dear Mr. Thomas:

After careful review of the Draft Environmental Impact Statement for the Barataria Bay Waterway (BBWW) Ocean Dredged Material Disposal Site (ODMDS), we have concluded that this site designation is inconsistent with the Louisiana Coastal Management Program (Guideline 4.2). Guideline 4.2 states that "spoil shall be used beneficially to the maximum extent practicable to improve productivity or create new habitat, reduce or compensate for environmental damage done by dredging activities, or prevent environmental damage".

We feel that not enough attention has been given to the excellent opportunity to utilize spoil dredged from the BBWW ODMDS for habitat enhancement.

Should you have any questions concerning this determination, please contact Mr. Larry Narcisse of my staff at (504)342-7591.

Sincerely,

R. W. Stephens, Jr., Secretary

By: Terry W. Howey
Terry W. Howey, Director
Coastal Management Division

RWS:TWH/jacr

Orleans Audubon Society
A CHAPTER OF THE NATIONAL AUDUBON SOCIETY

1522 Lowerline St.
New Orleans, La. 70118
May 19, 1989

Mr. Norm Thomas (6E-F)
U.S. Environmental Protection Agency
Region 6
1445 Ross Ave.
Dallas, Tx. 75202

Mr. Robert Martinson
US Army Corps of Engineers
P.O. Box 60267
New Orleans, La. 70160

Re: Barataria Bay Waterway (ODMDS); Ocean dumping of 500,000 cu. yds. of dredged material.

Our conservation committee has reviewed the Draft EIS on the above project and find it inadequate. Since the initiation of this project in1960, there have been major environmental impacts in the lower Barataria Bay.

By lowering the sill depth between Grand Isle and Grand Terre, storm surges and salt water have entered the lower bay. The Louisiana Dept. of Wildlife and Fisheries has documented this salt water intrusion and the resultant destruction of the commercial oyster leases. Also, the salt water has moved up the Barataria Waterway into Lake Salvador causing brackish water conditions which has adversely impacted the commercial catfish industry.

We wrote to Col. E. J. Rush in 1975 concerning these and other impacts of the BBWP and the Corps' reply was that they were quite aware of them and that; 1) economics supported continuation of the dredging and 2) that the adverse impacts were acceptable. We don't agree that these impacts are acceptable. Environmental degradation, loss of land, loss of recreation and loss of commercial fisheries are unacceptable.

We request that a new, revised EIS be prepared by the Corps which properly addresses the impacts of the <u>entire</u> Barataria Bay Waterway Project (BBWP). The EIS prepared by the Corps in 1982 did not adequately address the environmental impacts such as land loss and the adverse impacts to the commercial fishing industry.

[redacted] is the most productive along the entire Gulf Coast. Because of [redacted] consideration as a special management area by the State of Louisiana. [redacted] National Historical Park lies along the eastern shore of Lake Salvador and is undergoing [redacted] because of salt water intrusion. The National Park Service has been critical of the Corps' projects as they adversely impact the National Park. The EIS did not address these impacts.

In regard to the Ocean Dumping site, we are opposed to the selected site. The dredged material is not going to be used to rebuild the disappearing marsh or other wetlands. Louisiana is losing 60 square miles of wetlands each year. The spoil should be used behind the barrier islands to build up wetlands. Much of the land loss is traceable to the Corps' Public Works projects built over the past 30 years such as: the Mississippi River Gulf Outlet, Houma Navigation Canal, Calcasieu Ship Channel and the Barataria Waterway.

We request that the following questions be answered concerning the BBWP.

1. What was the pre-project (pre-1960) sill depth between Grand Isle and Grand Terre?
2. Has shipping tonnage using tha waterway increased or decreased over the last 10 years? What is the present usage? What commodities are transported?
3. Are there any commercially operated oyster leases in the lower Barataria Bay?
4. What are the present salinity gradients in Barataria Bay and how have they changed since the BBWP was opened?
5. Queen Bess Island is a major nesting area for the Brown Pelican-a threatened species. Why isn't it included as a potential disposal site since it is only 3.5 miles north of the ODMDS ?

In summary, we ask that the Corps and EPA withdraw this Draft EIS and that the questions raised in our letter be answerad in a Revised Draft EIS which addresses the impacts of the entire project as well as all alternatives.

Sincerely,

Barry Kohl

Dr. Barry Kohl
Conservation Chairman

cc: Col. R. V. Gorski
District Engineer, New Orleans

Mr. R. E. Layton
Regional Admin. EPA, Region VI

Dr. Paul Kemp
Coalition to Restore Coastal Louisiana

United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
POST OFFICE BOX 649
ALBUQUERQUE, NEW MEXICO 87103

May 18, 1989

ER 89/276

Mr. Robert E. Layton, Jr., P.E.
Regional Administrator
Environmental Protection Agency
Region VI
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

Dear Mr. Layton:

We have reviewed the Draft Environmental Impact Statement for Barataria Bay Waterway, Louisiana, Ocean Dredged Material Disposal Site Designation, and have the following comments.

The statement provides a concise assessment of potential adverse environmental impacts that may result from the proposed action.

We are concerned that the selection of the preferred alternative may preclude future consideration of alternative uses of the spoil to benefit the public. Various local, State, and Federal resource agencies have advocated the use of dredged materials to restore barrier islands such as Grand Isle and Grand Terre Islands located immediately north of the proposed designated site. The Coastal Restoration Committee, appointed by the Governor of the State of Louisiana, has also targeted such barrier island restoration as a priority measure to reduce the effects of storm surges on Louisiana's fragile coastal marshes. Beneficial uses of dredge soil to create and/or restore Louisiana's barrier island system at Grand Isle and Grand Terre near the proposed site could greatly enhance the area's fish and wilflife resources.

Thank you for the opportunity to comment on this statement.

Sincerely,

Raymond P. Churan

Raymond P. Churan
Regional Environmental Officer