MISSISSIPPI RIVER, SOUTHWEST PASS, LOUISIANA

SITE MANAGEMENT PLAN
FOR THE MAINTENANCE DREDGING
OCEAN DREDGED MATERIAL DISPOSAL SITE

AS REQUIRED BY
SECTION 102 OF THE
MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT

SITE MANAGEMENT PLAN

MISSISSIPPI RIVER, SOUTHWEST PASS, LOUISIANA OCEAN DREDGED MATERIAL DISPOSAL SITE

I. General

The Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972 (33 U.S.C. Section 1401, et seq.) is the legislative authority regulating the disposal of dredged material into ocean waters, including the territorial sea. The transportation of dredged material for the purpose of placement into ocean waters is permitted by the Corps of Engineers or, in the case of Federal projects, authorized for disposal under MPRSA Section 103(e), applying environmental criteria established by the Environmental Protection Agency in the Ocean Dumping Regulations (40 CFR Parts 220-229).

Section 102(c) of the MPRSA and 40 CFR 228.4(e)(1) authorize the Environmental Protection Agency (EPA) to designate ocean dredged material disposal sites (ODMDSs) in accordance with requirements at 40 CFR 228.5 and 228.6. Section 103(b) of MPRSA requires that the Corps of Engineers (USACE) use dredged material sites designated by EPA to the maximum extent feasible. Where use of an EPA-designated site is not feasible, the USACE may, with concurrence of EPA, select an alternative site in accordance with MPRSA 103(b).

Section 228.3 of the Ocean Dumping Regulations established disposal site management responsibilities; however, the Water Resources Development Act of 1992 (WRDA 92; Public Law 102-580) included a number of amendments to the MPRSA specific to ODMDS management. Section 102(c) of MPRSA as amended by Section 506 of WRDA 92 provides that:

1. Site management plans shall be developed for each ODMDS designated pursuant to Section 102(c) of MPRSA.

2. After January 1, 1995, no ODMDS shall receive a final designation unless a site management plan has been developed.

3. For ODMDSs that received a final designation prior to January 1, 1995, site management plans shall be developed as expeditiously as practicable, but no later than January 1, 1997, giving priority to sites with the greatest potential impact on the environment.
4. Beginning on January 1, 1997, no permit or authorization for dumping shall be issued for a site unless it has received a final designation pursuant to Section 102(c) MPRSA or it is an alternate site selected by the USACE under Section 103(b) of MPRSA.

This Site Management Plan, for the Mississippi River, Southwest Pass, LA Ocean Dredged Material Disposal Site, was developed jointly by the U.S. Environmental Protection Agency, Region 6 (EPA, Region 6) and the U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District (CEMVN). In accordance with Section 102(c)(3) of the MPRSA, as amended by WRDA 92, the plan includes the following:

1. A baseline assessment of conditions at the site;

2. A program for monitoring the site;

3. Special management conditions or practices to be implemented at the site that are necessary for protection of the environment;

4. Consideration of the quantity of dredged material to be discharged at the site, and the presence, nature, and bioavailability of the contaminants in the material;

5. Consideration of the anticipated use of the site over the long term, including the anticipated closure date for the site, if applicable, and any need for management of the site after the closure;

6. A schedule for review and revision of the plan.

II. Site Management Objectives

The purpose of ODMDS management is to ensure that placement activities do not

unreasonably degrade the marine environment or interfere with other beneficial uses (e.g., navigation) of the ocean. The specific objectives of management of the Mississippi River Southwest Pass Ocean Dredged Material Disposal Site for maintenance material are as follows:

1. Beneficial use of dredged material;

2. Ocean discharge of only that dredged material that satisfies the criteria set forth in 40 CPR Part 227 Subparts B, C, D, E, and G and Part 228.4(e) and is suitable for unrestricted placement at the ODMDS;

3. Avoidance of excessive mounding either within the site boundaries or in areas adjacent to the site, as a direct result of placement operations.

These objectives will be achieved through the following measures:

1. Regulation and administration of ocean dumping permits;

2. Development and maintenance of a site monitoring program;

3. Evaluation of permit compliance and monitoring results.

III. Roles and Responsibilities

In accordance with Section 102 (c) of the MPRSA and with the Regional MOU between CEMVN and EPA, Region 6 on Management of ODMDSs signed March 15, 1988, EPA is responsible for designation of ODMDSs. Where use of an EPA-designated site is not feasible, the CEMVN may, with concurrence with EPA, Region 6 select an alternative site in accordance with Section 103(b) of the MPRSA as amended by Section 506 of WRDA 1992.

Development of site management plans for ODMDSs within the New Orleans District is the joint responsibility of EPA, Region 6 and the CEMVN. Both agencies are responsible for assuring that all components of the site management plans are implementable, practical, and applicable to site management decision-making.

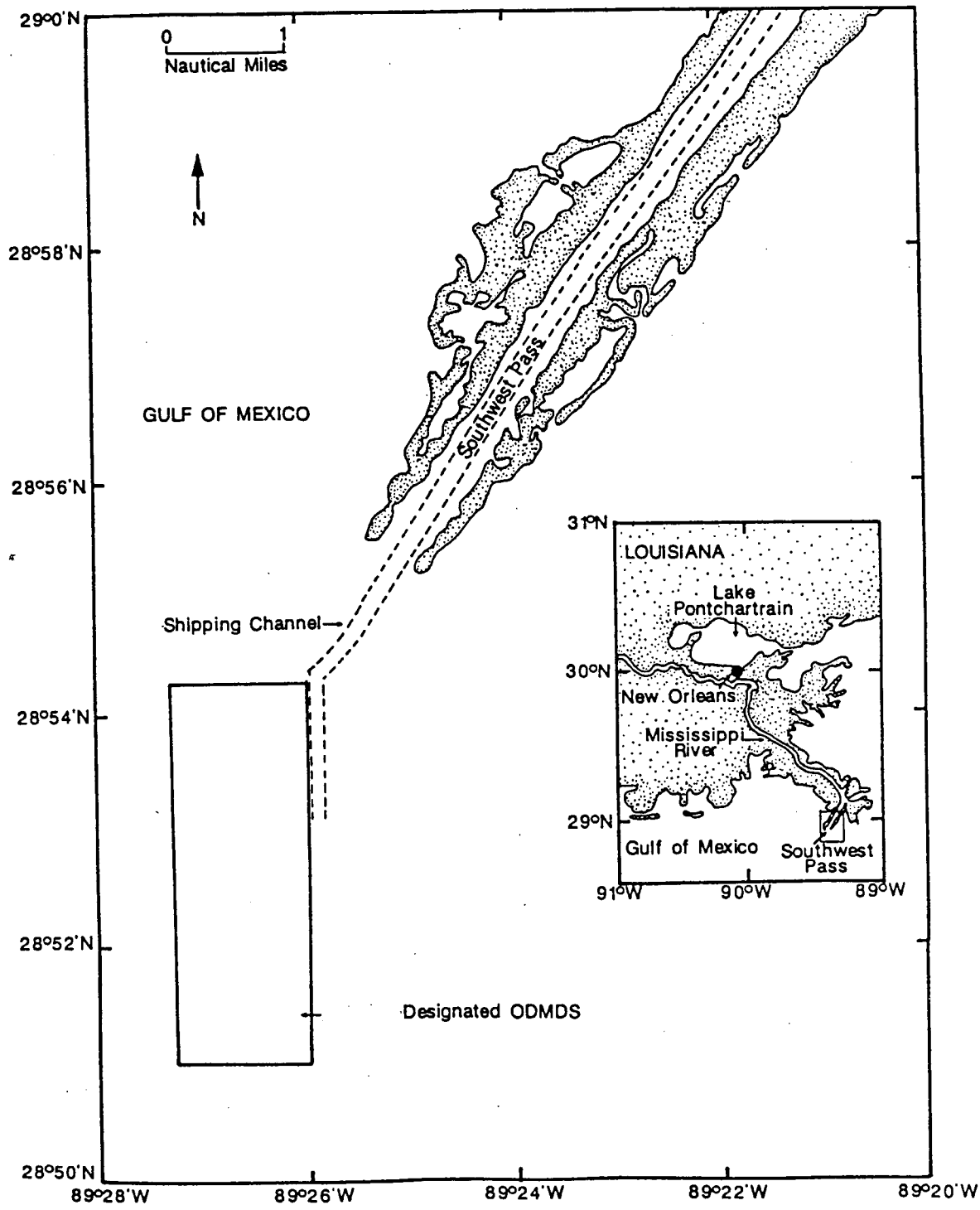

FIGURE 1. Mississippi River, Southwest Pass ODMDS

IV. Funding

Physical, chemical, and biological effects-based testing shall be undertaken on sediments to be deposited at the ODMDS. This testing will be conducted at least every five years, or as necessary to address contaminant concerns due to unanticipated events, and will be funded by the permittee if the project is permitted or CEMVN for Federal projects. The permittee or CEMVN, as appropriate, shall also be responsible for costs associated with placement site hydrographic monitoring. Should monitoring indicate that additional studies and/or tests are needed at the ODMDS, the cost for such work would be shared by the permittee or CEMVN and EPA, Region 6. Physical, chemical, and biological effects-based testing at the ODMDS, or in the site environs after discharge, that is not required as a result of hydrographic monitoring, shall be funded by EPA, Region 6. Federal funding of all aspects of this Site Management Plan is contingent on availability of appropriated funds.

V. Baseline Assessment

A. Site Characterization. The Mississippi River Southwest Pass Project ODMDS is located west of and parallel to the Mississippi River, Southwest Pass bar channel (Figure 1.). The site is rectangular, with an area of approximately 3.44 square nautical miles and the northern boundary approximately 1.75 nautical miles from the mouth of the Mississippi River, with coordinates located at:

28°54'12"N, 89°27'15"W;
28°54'12"N, 89°26'00"W;
28°51'00"N, 89°27'15"W;
28°51'00"N, 89°26'00"W.

Baseline conditions at the Mississippi River, Southwest Pass ODMDS were assessed during the site designation process. Details of baseline conditions, including descriptions of the marine environment in the site vicinity and the physical, chemical and biological characteristics of the sediments and the water column at the site, are contained in the "Final Environmental Impact Statement (EIS) for the Mississippi River, Southwest Pass Ocean Dredged Material Disposal Site Designation" (EPA 1988). In 1995, EPA collected and characterized sediment and biological

samples at the Mississippi River Southwest Pass ODMDS. This information updates the EIS baseline conditions at the disposal site.

B. Historical Use of the Site. The Rivers and Harbors Acts of 1946 and 1962, the Supplemental Appropriations Act of 1985, and the Water Resources Development Act of 1986 provided for the construction of a -55-foot deep channel in the Mississippi River from the Gulf of Mexico to Baton Rouge, LA., a distance of 257 miles. Construction of the -55-foot channel is not complete. Currently a channel with the following dimensions is maintained:

-45' deep x 500' wide Mile 232.4 to Mile 104.5
-45' deep x 750' wide Mile 104.5 to Mile 18.0 Below Head of Passes
-45' deep x 600' wide between Mile 18.0 Below Head of Passes and Mile 22 Below Head of Passes

The present configuration of the site was established during the site designation process. The existing site received interim designation for disposal of dredged material from Mississippi River, Southwest Pass in 1977(42 FR 2461 et seq.). Interim status of the site was extended indefinitely in January 1980. The Mississippi River, Southwest Pass ODMDS received final designation on May 1, 1989 (54 FR 61).

History of disposal of dredged material prior to 1976 is incomplete. Dredging records dating back to 1960 indicate discontinuous reaches of the lower jetty and bar channel were maintained with hopper dredges.

Maintenance dredging of the Mississippi River, Southwest Pass area is required on an annual basis. Dredging is conducted approximately between Mile 6.5 Above Head of Passes and Mile 22 Below Head of Passes. While deep draft hopper dredges are utilized for maintenance along the entire channel length, cutterhead dredges are utilized between Mile 1 and Mile 18.8 Below Head of Passes. Material removed from the lower jetty (Mile 11 Below Head of Passes to Mile 18.8 Below Head of Passes) by cutterhead dredges is deposited for bank nourishment or

wetlands development. Material removed from the lower jetty and bar channel (Mile 11 Below Head of Passes to Mile 22 Below Head of Passes) by deep draft hopper dredges is deposited in the ODMDS. Only dredged material from the navigation channel is placed in the ODMDS.

The hopper dredges use two methods of dredging and disposal when working in the lower jetty and bar channel reaches; dredge and haul; and dredge and haul with agitation. In the dredge and haul mode; material is pumped into the hopper and hauled and deposited in the ODMDS. Agitation dredging consists of filling a hopper dredge to capacity and allowing it to continuously overflow. The very fine suspended sediments are released and swept away by littoral currents which generally flow westward. Dredged material that accumulates in the hopper and is not re-suspended during agitation is hauled and deposited into the ODMDS.

Dredging is conducted on non-continuous reaches beginning in the winter and continuing to the fall. Dredging is conducted in areas of high shoaling, often with multiple deep draft hopper dredges together. Maintenance may be conducted within the lower jetty and bar channel reaches at any time throughout the dredging season. When a deep draft hopper dredge is working in the channel, dredging and disposal operations will occur 24 hours a day, 7 days a week until the authorized channel dimensions are restored. Table 1. provides a summary of the dredged quantities since 1976.

VI. Quantity of Material and Presence of Contamination

A. Summary of information used to determine size of the site. The rectangular shaped Mississippi River, Southwest Pass ODMDS is 3.44 square nautical miles in size. The ODMDS parallels and is west of the Mississippi River Southwest Pass bar channel. When EPA designated it an interim ODMDS in 1977, the site had been used historically for disposal of dredged material from the navigation channel. The location and configuration of the site resulted from the ease of disposal from the navigation channel. In January 1980 the interim status of the site was extended indefinitely. On May 1, 1989, final designation of the ODMDS was completed. No

recommendations for changes in the size of the site were made as a result of the site designation studies.

The location and configuration of the ODMDS involves only short transit of the hopper dredge from the navigation channel to the ODMDS. This minimizes interference with other activities such as fishing and navigation in the site environs during dredging and disposal operations. The site also is easily accessible for surveillance of dredged material disposal operations and monitoring.

Like most ODMDSs in the Gulf of Mexico, the Mississippi River, Southwest Pass ODMDS is a dispersive site. The dredged material discharged into the site is reworked by wave and littoral currents and moved out of the ODMDS.

Since 1976, the Mississippi River, Southwest Pass lower jetty and bar channel reaches have been dredged annually; and dredged material has been placed in the ODMDS. Approximately 3.5

Table 1. Summary of Dredged Quantities Deposited at the Mississippi River, Southwest Pass ODMDS

	Dredging		Interval	Quantity of Dredged Material
				(cubic yards)
CY76				
01 Jan	- 26	May	'76	3,926,500
CY77				
01 Apr	- 30	Apr	'77	31,400
CY78				
01 Jan	- 30	Jul	'78	2,698,900
CY79				
01 Jan	- 30	Sep	'79	5,401,200
CY80				
02 Jan	- 30	Jul	'80	6,315,100
CY81				
12 Jun	- 30	Jul	'81	1,769,500
CY82				
15 Jul	- 02	Aug	'82	330,300
CY83				
23 Jan	- 18	Jun	'83	8,383,100
CY84				
14 Apr	- 30	Dec	'84	2,282,000
CY85				
03 Jan	- 13	Dec	'85	1,170,600
01 Jan	- 31	Dec	'85	3,132,500
CY86				
01 Jan	- 30	Apr	'86	3,100,000
CY87				
11 Feb	- 03	Nov	'87	8,556,000

Table 1. Continued

CY88				
20 Jan -	02	Jun	'88	2,495,800
CY89				
01 Jan -	04	Aug	'89	1,381,200
CY90				
07 Feb -	02	Aug	'90	1,245,100
CY91				
08 Jan -	10	Jul	'91	450,000
CY92				
01 Dec -	01	Aug	'92	7,200,700
CY93				
03 Jan	- 05	Oct	'93	11,055,300
CY94				
01 Oct	- 01	Aug	'94	4,353,300
CY95				
09 Feb	- 01	Sep	'95	7,504,695
CY96				8,360,290
CY97				7,565,976
CY98				9,262,940
CY99				4,960,527
CY2000				518,000
CY01				6,671,000
CY02				11,310,020
CY03				5,145,755
CY04				6,261,917
CY05				2,087,114
CY06				2,510,000
CY07				5,426,616
Totals				70,080,155

million cubic yards of dredged material are removed from the lower jetty and bar channel reaches and placed in the ODMDS annually. The dredged material generally can be characterized as mixture of sand, silt, and clay. The average percentages of sand, silt, and clay sampled from 12 stations in the jetty and bar channel, located between Mile 11 and Mile 22.2 Below Head of Passes, were 24.9%, 50.1°%, and 24.9% respectively. It is anticipated that annual maintenance of the Mississippi River, Southwest Pass lower jetty and bar channel reaches, and disposal of dredged material into the ODMDS will continue in the future.

B. Summary of testing requirements per Regional Implementation Agreement (RIA) and summary of past dredged material evaluations. In October 1992, a RIA was executed between EPA Region 6, and the New Orleans District. This RIA was updated on September 30, 2003 (U.S. EPA and USACE, 2003), and describes protocols for evaluating the quality of the dredged material and implementation of the "GREEN BOOK" (U.S. EPA and USACE, 1991). These protocols describe chemical parameters to be analyzed, as well as required detection limits. It also specifies how toxicity testing and bioaccumulation assessments are to be conducted, as well as organisms to be utilized. Since that time, all sediment evaluations have been conducted in accordance with the RIA. Since the mid-1970s, before development of the RIA, dredged material from the Mississippi River Southwest Pass Project had been evaluated numerous times to determine suitability for offshore placement. This testing was performed to determine levels of metals and organic constituents, as well as toxicity and bioaccumulation assessments. Testing beyond Tier I has been performed for this project in April 1999 and July 2007 in the navigation channel, the ODMDS, and the reference site. The above testing indicated that the material was suitable for offshore placement without special management conditions.

Although dredged material from the Mississippi River, Southwest Pass lower jetty and bar channel reaches has been placed in the ODMDS annually, sampling or analyses has not been

performed annually. Prior to each maintenance event, a Tier I evaluation has been conducted. Comprehensive analyses of existing and readily available information on the proposed dredged material, including spill reports from the U.S. Coast Guard, National Response Center, indicated "no reason to believe" that the proposed discharges of dredged material were not suitable for ocean disposal. The CEMVN and EPA, Region 6, will adhere to the RIA in deciding when new chemical and biological data are needed.

VII. Anticipated Site Use

Dredged material will be removed annually using deep draft hopper dredges and discharged via agitation or dredge and haul into the ODMDS. The dredged material generally is comprised of 24.9% sand, 50.1% silt, and 24.9% clay.

Dredging in the lower jetty and bar channel reaches normally begins in the winter and continues into the fall. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

It is anticipated that annual maintenance of the Mississippi River, Southwest Pass lower jetty and bar channel reaches, and disposal of dredged material into the ODMDS will continue in the future. During each maintenance event, approximately 3.5 million cubic yards of dredged material will be discharged into the ODMDS.

It is the policy of the New Orleans District to implement beneficial uses of dredged material, wherever practicable. Although beneficial use of material removed by cutterhead dredges from the Southwest Pass was employed during past maintenance operations, the current practice of utilizing only hopper dredges to maintain the navigation channel precludes the immediate beneficial use of material dredged from this channel. However, the CEMVN will continue to pursue beneficial use

disposal alternatives in partnership with the state of Louisiana.

VIII. Special Management Conditions or Practices

Special management conditions or practices applicable to the **Mississippi** River, Southwest **Pass ODMDS** include the following:

a. Options for beneficial use of dredged material taken from Mississippi River, Southwest Pass lower jetty and bar channel were considered during development of the Mississippi River, Southwest Pass Long Term Disposal Plan (LTDP) and in the EIS ODMDS designation process. The alternatives reviewed included pump out of hopper dredges for wetlands creation or beach nourishment, or concentrating material while bottom dumping to create berms. These alternatives were determined to be infeasible due to the following: high costs; material unsuitable for beach nourishment; and few environmental benefits. Additionally, during the dredging season, hopper dredges must maintain high production in order to maintain project depths. It was determined during the LTDP process that the time required to conduct pump out operations ashore or at distant open water locations would result in the loss of project depths and adversely impact navigation.

Beneficial use is conducted with material removed from the jetty reach by cutterhead dredge. This material is deposited beneficially for bank restoration or wetlands development. Beneficial use of dredged material from the Mississippi River, Southwest Pass bar channel has not been implemented because hydraulic cutterhead pipeline dredges with trailing pipe, traditionally used for beneficial use, are not used in the bar channel. Rough sea conditions, ship traffic, and the need to maintain high production rates while being able to rapidly mobilize equipment in the bar channel reach preclude use of this type of dredge. However, prior to the start of each new fiscal year, beneficial use alternatives are investigated. Should technology and

or funding become available that would make beneficial use feasible, the CEMVN will incorporate beneficial use into the disposal plan for the bar channel reach of the Mississippi River, Southwest Pass to the maximum extent practicable.

IX. Monitoring Program

The primary purpose of the Site Monitoring Program is to evaluate the impact of the placement of dredged material on the marine environment. The evaluations will be used for making decisions, preventing unacceptable adverse effects beyond the site boundary, and ensuring regulatory compliance over the life of the ODMDS. Emphasis will be placed on determining physical impacts, since, to date, dredged material from the Mississippi River Southwest Pass Project has been determined to be acceptable for ocean placement, without special conditions; however, consideration of contaminants will also be included. Testing of dredged material is conducted based on "Greenbook" and RIA procedures, however it is necessary to verify the decisions made regarding the suitability of the dredged material are correct and that the material is not having an adverse impact to the environment. In the event that the material persists in the ODMDS, there may be potential for long-term contaminant effects on the benthos.

The size and location of the Mississippi River Southwest Pass Project ODMDS were determined pursuant to the General Criteria as listed in 40 CFR 228.5, and the Specific Criteria at 40 CFR 228.6(a). There are no significant environmental resources delineated within or immediately outside of the designated ODMDS. Since this site is dispersive in nature, the primary concern of the use of the site is the potential short-term build up of dredged material, such that a hazard to navigation is presented. Another concern is whether there is significant short-term movement of the dredged material beyond the ODMDS boundaries; specifically, the benthic community can be impacted if significant rapid movement of material off the site occurs, resulting in burial of benthic populations outside the site. Studies have shown that benthic organisms can burrow through 6-9

inches of dredged material without significant impacts on the community (EPA/USACE, 1996).

The Site Monitoring Program is designed as a tiered program. If initial tier results fail predetermined limits, then a more complex set of tests is invoked at the next tier to determine the extent of impact. The tiers are used to facilitate rapid, accurate and economical collection of information for use by the EPA, Region 6, and the CEMVN. The tiered testing for these factors is described below.

TIER M1

Physical and chemical evaluations of the ODMDS material shall be conducted to characterize possible effects from the placement of dredged material occurring at the site. Physical analyses of the sediment can assist in assessing the impact of disposal practices on the benthic environment at the disposal site and determine if dredged material is migrating offsite. Chemical analyses of the sediment shall be conducted to establish whether contaminants of concern are suspected to be affecting the benthic environment at the disposal site.

Bathymetric Surveys

The ODMDS is located outside of the safety fairway for large vessel traffic, therefore, the mounding will be considered in regard to shallow-draft vessels, only. Considering the grain-size characteristics of typical maintenance dredged material from this channel, significant mounding is not expected subsequent to discharge operations.

Since the site is dispersive, movement of material from the site is expected to occur after disposal operations cease. In order to detect if short-term movement of the material out of the designated ODMDS is occurring at a significant rate, hydrographic surveys of the ODMDS shall be

obtained before the start of disposal operations, and after completion of disposal operations. A post-disposal survey indicating an accumulation of 2.0 feet above the predisposal elevation of sedimentation within the site or mounding greater than 1.0 feet above the pre-disposal elevation for movement of material outside of the designated ODMDS will be considered the threshold levels of acceptability.

Hydrographic surveys shall be conducted along transects within the ODMDS. These transects shall be oriented perpendicular to the channel in the direction of sediment transport (i.e., southwest). Transect intervals shall be every 1,000 feet extending 1,000 feet outside each boundary. In addition, a depth profile shall be obtained along each boundary.

Surveys shall be obtained using a USACE, or contract survey vessel equipped with electronic surveying capabilities. The vessel must be equipped with positioning equipment with a horizontal precision of one (1) foot. The fathometer, which shall display real-time depth on real-time location, must have a precision of 0.5 feet. All data shall be collected using methodology described in Engineer Manual EM 1110-2-1003, dated January 1, 2002.

Data Analysis

- If deposited dredged material is not mounding to elevations greater than the threshold elevation above the existing bottom elevation, and there is no short-term movement of material beyond the limits of the ODMDS, then the management objectives are met. No further post-disposal monitoring will be required.

- If mounding to elevations greater than the threshold elevation, and/or movement of material out of the ODMDS has occurred, as determined by the post-dredging survey, then the monitoring program shall proceed to Tier M2.

Sediment Chemistry

Sediment chemistry analyses shall be conducted in conjunction with the dredged material evaluations from samples collected in the navigation channel. Collecting samples from both the navigation channel and ODMDS during the same sampling event has been determined to be the most efficient use of resources. Because most ODMDSs lie directly adjacent to the navigation channels, there are relatively short distances between the two areas. As described in the RIA, sediment testing in the navigation channels generally occurs on a five-year cycle. Sediment chemistry results from the ODMDS should be compared to the results collected from the reference site and the navigation channel. Significantly elevated sediment concentrations are defined as concentrations above the range of contaminant levels in dredged sediments that the Regional Administrator and the District Engineer found to be suitable for disposal at the ODMDS.

Data Analysis

- If contaminant concentrations are not significantly different than navigation channel concentrations then no further testing is needed.

- If significant increases in levels of contaminants are observed at the ODMDS, then a determination will be made whether a bioassay/bioaccumulation study is warranted to determine effects on the benthic community. The studies are described below as Biological Testing under Tier M2.

TIER M2

Bathymetric Surveys

If transport of material from the site is occurring, hydrographic surveys shall be expanded to

include the impacted area and shall be performed on a semi-annual basis to determine the changes in dispersion of the material until the impacts are no longer observed. An accumulation of more than one (1) foot of sedimentation along the ODMDS boundary will be considered the threshold level for significant movement of material outside of the designated ODMDS.

Data Analysis

- If deposited dredged material is mounding to elevations above the threshold value, but less than fifteen (15) feet above the existing bottom elevation and there is no significant short-term transport of material beyond the limits of the ODMDS, then semi-annual post-disposal monitoring shall occur as described.

- If at six months after disposal, deposited dredged material remains mounded to elevations greater than half the post-disposal elevations, then bathymetric surveys shall be continued.

- If deposited dredged material is mounding to elevations greater than fifteen (15) feet, and/or significant movement of material out of the ODMDS has occurred, the New Orleans District together with EPA Region 6 will consider various management options to rectify the situation. Such options could include, but are not limited to expansion of the ODMDS; or relocation of the ODMDS within the zone of siting feasibility described in the designation EIS.

Biological Testing

If the results of the Tier M1 sediment chemistry evaluation suggest the need for additional testing, then solid-phase bioassay and bioaccumulation testing shall be conducted in accordance with the procedures described in the RIA. If the sediment can be attributable to recent dredging, funding

for testing under this Tier will be provided by CEMVN or the permittee, as appropriate; otherwise funding will be provided by EPA, Region 6. Any such testing is contingent on availability of appropriated funds.

Data Analysis

- If toxicity is not indicated, then no further testing is needed and disposal activities can continue at the ODMDS.

- If toxicity is indicated at the ODMDS, the New Orleans District together with EPA Region 6 will consider various management options to rectify the situation. Because the ODMDS is a dispersive site, potential sources of toxicity other than dredged material must also be considered. If planned use of the ODMDS is imminent, a decision must also be made whether to allow continued use of this site.

X. References

NMFS (National Marine Fisheries Service), 2007. Revision 2 to the November 19, 2003 Biological Opinion concerning Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287).

U.S. EPA and USACE. 1991. *Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual.* EPA-503/8-91/001. U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, Washington, D.C.

U.S. EPA and USACE. 2003. *Regional Implementation Agreement for Testing and Reporting Requirements for Ocean Disposal of Dredged Material off the Louisiana and Texas Coasts Under Section 103 of The Marine Protection, Research and Sanctuaries Act*. U.S. Environmental Protection Agency, Region 6 and U.S. Army Corps of Engineers, Galveston and New Orleans Districts.

XI. Site Management Plan Review and Revision

Pursuant to Section 102(c) of the MPRSA, as amended by WRDA 1992, the Site Management Plan for the Mississippi River Southwest Pass ODMDS will be reviewed and revised, if necessary, not less frequently than 10 years after adoption and every 10 years, thereafter.

Modifications or updates to the Site Management Plan may be necessary, based on specific needs identified for specific authorized projects. Modifications or updates to the Site Management Plan may be proposed by either the CEMVN or EPA Region 6. Following a thirty (30) day review period of the changes(s), the modifications may be incorporated into the plan by mutual consent of both agencies.

This Site Management Plan complies with Section 102(c)(3) of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. Sections 1401, et seq.) as amended by Section 506 of the Water Resources Development Act of 1992 (WRDA 92; Public Law 102-580), and has been approved by the following officials of Region 6 of the U.S. Environmental Protection Agency, and New Orleans District of the U.S. Army Corps of Engineers. This plan goes into effect upon the date of the last signature:

_____ _____

Richard E. Greene Date
Regional Administrator
Region 6
U.S. Environmental Protection Agency

_____ _____

Alvin B. Lee Date
Colonel, US Army
District Commander
New Orleans District
U.S. Army Corps of Engineers