State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

JUN 24 2009

U.S. Army Corps of Engineers- New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Attention: Sandra Stiles

RE: Water Quality Certification (WQC 090212-05/AI 105036/CER 20090002)
Calcasieu River & Pass, Louisiana Dredged Material Management Plan
Calcasieu and Cameron Parishes

Dear Ms. Stiles:

The Department has reviewed your modified request to dredge waterbottoms for
navigation maintenance, to place spoil material beneficially for coastal marsh restoration,
to construct and maintain new confined disposal facilities (CDF’s) & to place additional
spoil material in said CDF’s for disposal purposes, along the Calcasieu Ship Channel
between Lake Charles and Cameron, Louisiana. This modification includes the
placement of additional of rip-rap between river miles 16 to 20 for erosion control.

The requirements for Water Quality Certification have been met in accordance with LAC
33:IX.1507.A-E. Based on the information provided in your application, we have
determined that the placement of the fill material will not violate the water quality
standards of Louisiana provided for under LAC 33:IX.Chapter 11. Therefore, the
Department has issued a Water Quality Certification.

Sincerely,

[Signature]

Thomas F. Harris
Administrator
Waste Permits Division

TFH/jjp
Planning Programs and Project Management Division
Environmental Planning and Compliance Branch

Mr. Thomas Harris
Louisiana Department of Environmental Quality
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

Dear Mr. Harris:

Please reference our letter dated February 6, 2009, requesting water quality certification for the Calcasieu River and Pass (CR&P), Louisiana, Dredged Material Management Plan and Supplemental Environmental Impact Statement; and a conference call on May 4, 2009, between Louisiana Department of Environmental Quality (DEQ) Waste Permits Division (Jamie Phillippe, Jason Meyers) and USACE Operations Division (Ed Creef, Jeff Corbino). As requested in the May 4 conference call, enclosed are tables comparing analyte concentrations from CR&P shoal material with RECAP Non-Industrial Screening Standards for soils (enclosure 1) and a map depicting sampling locations within the channel (enclosure 2).

Based on comparison to RECAP screening standards, we feel that shoal material from the CR&P is uncontaminated dredged material and therefore exempt from DEQ’s Solid Waste Regulations. Please contact Jeff Corbino at (504) 862-1958 for any additional information or further clarification on the CR&P sediment evaluation.

Sincerely,

Richard E Boe
Acting Chief, Environmental Planning & Compliance Branch

Enclosures
March 6, 2009

Attn: Sandra Stiles
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
United States Army Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160-0267

Applicant: U.S. Army Corps of Engineers, New Orleans District
Public Notice Date: February 9, 2009

Dear Ms. Stiles:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the above referenced Public Notice. Based upon this review, the following has been determined:

Although the proposed beneficial use of dredge material may be considered compensatory for adverse wetland impacts, justification for the conversion of 545 acres of marsh to uplands should be provided along with an alternative site analysis. The justification should clearly show if there is a real need to expand the CDF’s within wetlands. If need can be established, actions must be taken to avoid and/or minimize adverse impacts to fish and wildlife resources.

Although LDWF staff have been briefed on plan formulation and WVA evaluations, we believe that dredged material should be used beneficially to the maximum extent possible.

The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding this proposed activity. Please do not hesitate to contact Habitat Section biologist Matthew Weigel at 225-763-3587 should you need further assistance.

Sincerely,

Kyle F. Balkum
Biologist Program Manager

mw

c: Matthew Weigel, Biologist
Sandra Stiles:

As we discussed by telephone today, please note the following input from EPA Region 6 regarding the Public Notice for the Dredged Material Plan and Supplemental Environmental Impact Statement for the Calcasieu River and Pass, Louisiana.

The recommended Plan B includes a mix of upland confined disposal facilities (CDFs) and beneficial use placement and is the National Economic Development plan. It is our understanding that Plan B now excludes the planned expansion of the CDFs along the Calcasieu River reaches (CDFs 9, 10, 11, and 13). This is definitely a step in the right direction, which, in our opinion, is to maximize beneficial use of the dredged material and minimize use of CDFs for the disposal of material that would be suitable for marsh restoration. Since both Plans B and C are similar in economic expenditures, it would seem that there is an opportunity to move toward greater use of the dredged material for beneficial use purposes as a part of this project. Toward that end, we look forward to hearing more about additional beneficial use opportunities in the West Black Lake/Marcantel area, as a result of the State's dedication of Coastal Restoration and Restoration Fund resources.

If you have any questions about these comments, please let me know.

Barbara Keeler  
Coastal & Wetlands Planning Coordinator  
EPA Region 6 (6WQ-EC)  
1445 Ross Ave., Suite 1200  
Dallas, TX  75202-2733  
tel: 214-665-6698  
fax: 214-665-6689  
e-mail: keeler.barbara@epa.gov
DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

February 6, 2009

Planning Programs and
Project Management Division
Environmental Planning and
Compliance Branch

Thomas F. Harris
Louisiana Department of Environmental Quality
Waste Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313

Dear Mr. Harris:

tal Environmental Impact Statement (DMMP/SEIS). The authority for this study is the River and
Harbor Act of 1946, Public Law 79-525, July 24, 1946 which authorized the Lake Charles Deep
Water Channel and Calcasieu River and Pass in accordance with Senate Document No. 190; the
River and Harbor Act of 1960, Public Law 86-645, July 14, 1960; the River and Harbor Act of
October 23, 1962; Section 201 of the Flood Control Act of 1965 (Public Law 89-298) and the
River and Harbor Act of 1960, Section 107 as amended by Section 310 and Section 112 of the

The tentative selected plan is the placement of shoal material in existing confined disposal
facilities and beneficial use sites with CDF capacity maximized from channel mile 12 to 21. This alternative involves construction of rock bank protection features, the expansion of existing
upland confined disposal areas, and the designation of new disposal areas for the beneficial use
placement of shoal material removed during essential maintenance dredging of the Federal
navigation project, Calcasieu River and Pass, Louisiana. Project information is provided in the
enclosed public notice (enclosure 1). A Corps of Engineers 404 Permit application is provided as
enclosure 2.
Contaminants

This resource is institutionally significant because of the Clean Water Act of 1977, as amended. Water quality is publically significant because of the desire of the public for recreational fishing and boating.

In recent history the Calcasieu River has had a number of significant water quality problems. The seasonal low flows in this basin, coupled with the large number of point and nonpoint source discharges, have resulted in a water quality classification of “limited” by the state in portions of the river. This classification indicates that even under conditions of compliance with all Federal effluent limitations, water bodies in the basin would not meet state water quality standards. Sources of pollutants include industrial and municipal discharges, and agricultural and urban runoff. The segment of the Calcasieu River from just above mile 27 (Moss Lake) to mile 44 (Calcasieu Saltwater Barrier north of Lake Charles) has approximately 17 industrial, four municipal, and two water treatment plant discharges contributing to water quality degradation in the area. State water quality standards for dissolved oxygen, pH, bacteria, oil and grease, and temperature have been frequently exceeded. In addition, taste and odor problems have been noted.

In December of 2006, water samples were collected from one wetland area within the Sabine National Wildlife Refuge (SNWR) and two areas in Calcasieu Lake. These reference areas are within the vicinity of the proposed disposal areas, and water quality at the reference sites is expected to typify water quality at the proposed disposal areas. Ambient water from the SNWR and Calcasieu Lake was analyzed for the presence of 133 analytes. Detected analytes included metals (arsenic, barium, chromium, hexavalent chromium, copper, nickel, selenium, and zinc), pesticides (4,4'-DDT, alpha-BHC, alpha-chlordane, beta-BHC, endrin, and heptachlor epoxide), and ammonia. Concentrations of the detected analytes were compared to Federal and state Water Quality Criteria (WQC). All detected analytes from the SNWR were below available WQC. Copper was the only analyte from Calcasieu Lake that exceeded WQC, and was detected at concentrations about two-times higher than its criterion. Barium, chromium, alpha-BHC, and beta-BHC do not have applicable WQC.

Concurrent with the 2006 sampling of ambient water from the SNWR and Calcasieu Lake, water and sediment from the Calcasieu River were collected from three river segments near the proposed disposal sites. Five sediment samples and a single water sample were collected from miles 24 to 21 (including Devil’s Elbow); five sediment samples and a single water sample were collected from miles 21 to 16; and six sediment samples and a single water sample from miles 16 to 5. Sediment and water from each river segment were combined to produce a typical “dredging elutriate”, representative of the dredged material slurry that would be discharged at the proposed disposal sites. Eight analytes were common to elutriates from the three river segments, including ammonia, arsenic, barium, chromium, copper, nickel, selenium, and zinc. Gasoline range organics (GRO) were detected in the mile 21 to 16 reach and the mile 16 to 5 reach.
While state and Federal WQC are not directly applicable to elutriate chemistry, it may be assumed that analytes detected in an elutriate at concentrations below acute WQC are not expected to adversely impact receiving waters adjacent to a dredged material disposal area. Of the nine analytes, only ammonia and copper exceeded acute WQC. Ammonia was an order of magnitude greater in the elutriates (3,500 to 9,300 ppb) than ambient waters of Calcasieu Lake and the SNWR (200 to 210 ppb). The concentration of copper in the river segments (6.3 to 6.8 ppb) was comparable to concentrations observed in ambient waters of Calcasieu Lake (6.0 ppb). Barium, chromium, and GRO do not have applicable WQC.

While elevated levels of ammonia are common in anaerobic sediments underlying Louisiana’s estuaries and waterways, ammonia is rapidly oxidized when exposed to oxygenated surface waters. Special management of dredged material within a disposal area can facilitate the rapid oxidation of ammonia prior to the release of effluent into adjacent receiving waters. Special management practices include, but are not limited to: 1) attachment of a baffle plate to the end of the discharge pipeline to thoroughly expose elutriates to oxygen prior to placement in a disposal area; 2) construction of interior dikes to route elutriates within a disposal area, thereby increasing retention time; and 3) routing effluent across vegetated wetlands within the disposal area prior to discharge into adjacent receiving waters. Due to elevated levels of ammonia in elutriates from the river segments, special management practices similar to those described above would be employed during dredged material disposal operations to dissipate ammonia within the proposed disposal areas. The concentration of ammonia would be sufficiently reduced prior to the discharge of effluent from the proposed disposal areas, and water quality in the adjacent waters would not be adversely impacted.

The concentration of copper in elutriates from the river segments ranged between 6.3 and 6.8 ppb, and exceeded the Louisiana Department of Environmental Quality (LDEQ) acute WQC for marine waters (3.63 ppb). Copper in receiving waters of Calcasieu Lake (6.0 ppb) and the Calcasieu River (6.2 to 7.4 ppb) also exceeded acute WQC and concentrations therein were similar to concentrations observed in the elutriates. Copper was not detected in waters of the SNWR (< 2.0 ppb). Dilution factors were determined for copper, with dilution to within 5% of background levels observed in Calcasieu Lake and Calcasieu River, and to WQC in the SNWR. The CORMIX model was used to predict the size of mixing zones that would be required for the dilution of copper in effluent from the river segments to specified dilution endpoints. Mixing zones extending from disposal areas 7 to 60 feet into Calcasieu Lake, 7 to 33 feet into the Calcasieu River, and 7 to 39 feet into the SNWR would provide sufficient dilution of copper in effluent from the river segments.

For coastal lakes and bays, including the open waters of Calcasieu Lake and the SNWR, LDEQ requires that dilution of effluent to WQC or approximate background levels occur within 200 feet of a dredged material disposal area. For tidal channels with flows greater than 100 cubic feet per second, such as the Calcasieu River, mixing zones may not exceed one third of the channels ambient flow. Considering an approximate width of 900’, approximate depth of 42’, and a mean low tidal velocity of 0.79 feet/second, the regulatory mixing zone for the Calcasieu River is approximately 9,944 feet. Predicted mixing zones required for sufficient dilution of copper are no greater than 60 feet for Calcasieu Lake, 33 feet for Calcasieu River, and 39 feet for...
The predicted mixing zones are well within LDEQ’s regulatory mixing zones, and the discharge of dredged material into the proposed disposal areas therefore would have little effect on water quality in adjacent receiving waters.

The discharge of dredged material from the Calcasieu River into the proposed disposal areas is not expected to adversely impact adjacent receiving waters. Analytes detected in dredging elutriates were either below applicable state WQC, would be dissipated through special management within the disposal area, or would be sufficiently diluted prior to discharge of effluent into adjacent receiving waters. Placement of dredged material in the proposed disposal areas is therefore not expected to adversely impact water quality.

Best Management Practices

Best Management Practices will be implemented to reduce potential detrimental effects on water quality caused by non-point source pollution resulting from these disposal and rock placement activities. Dredged material would be discharged into confined shallow open water areas of eroded marsh and into existing upland confined disposal areas. Containment levees, both existing and newly constructed, surrounding the proposed and existing disposal sites would prevent dredged material from entering adjacent waterways and properties that have not been designated for the receipt of dredged material. Where existing natural ridges, waterway bankline levees, petroleum industry canal levees, or upland confined disposal area retention dikes are insufficient to prevent dredged material from exiting the designated disposal areas, retention features and/or closures would be constructed as necessary to prevent dredged material from entering adjacent waterways and properties following discharge into the designated disposal areas. Earthen material used to construct these retention features and/or closures would be obtained from within the designated disposal areas. It is anticipated that the marsh restoration dredged material placement areas either will vegetate naturally through colonization from adjacent marsh plants, or be planted with an array of selected wetlands plant species. Rock would be placed along channel and lake side boundaries of several existing upland confined disposal areas to prevent the occurrence of wave-induced erosion.

Best Management Practices will be implemented to reduce potential detrimental effects on water quality caused by non-point source pollution resulting from flotation access corridor construction activities. Flotation access channel dredged material would be stockpiled on shallow open water bottom adjacent to the flotation access channel, placed on existing/remnant bayou and canal levees, or placed in the designated disposal areas. No flotation access channel material would be placed on existing marsh. Stockpiled material either would be used to backfill flotation access channels, or, if placed on existing/remnant bayou and canal levees, be left in place to rebuild these features if such an action is deemed appropriate. Stockpiled sediments would experience only temporary exposure between flotation access channel excavation and backfilling activities during this work.
The draft DMMP/SEIS is anticipated to be released for public comment around late March 2009. Please contact Ms. Sandra Stiles of this office at (504)862-1583 or email Sandra.E.Stiles@usace.army.mil if you have questions or require additional information.

Sincerely,

[Signature]

Elizabeth Wiggins
Chief, Environmental Planning & Compliance Branch

Enclosures
PUBLIC NOTICE

Dredged Material Management Plan and Supplemental Environmental Impact Statement
Calcasieu River and Pass, Louisiana

INTRODUCTION: This Public Notice is issued in accordance with provisions of Title 33 CFR Parts 336.1(b)(1) and 337.1, which established policy, practices, and procedures to follow on federal actions involving the disposal of dredged or fill material into waters of the United States.

Interested parties are hereby notified that the US Army Engineer District, New Orleans (CEMVN), proposes to expand existing upland confined disposal facilities (CDFs) for placement of dredged material removed during routine maintenance events, designate additional beneficial use disposal areas to restore areas of subsided marsh, and construct rock bankline protection features necessary to maintain the Calcasieu River and Pass (CR&P), Louisiana, Federal navigational project, for a period of at least 20 years (Figures 1 and 2).

Designation and subsequent use of the proposed disposal areas involves the discharge of dredged material and fill into waters of the U.S. Therefore, the provisions of Title 33 CFR, Part 336, effective April 26, 1988, are applicable and issuance of this public notice is required.

PROJECT AUTHORITY: Construction and maintenance of the CR&P navigation channel was authorized by the Rivers and Harbors Act of July 24, 1946, House Document 190, 79th Congress, 2nd Session and prior Rivers and Harbors Acts, which provides for a channel 35 feet deep and 250 feet wide from the wharves of the Lake Charles Harbor and Terminal District (including the Loop around Clooney Island) to the Gulf of Mexico, via Calcasieu Lake and through Calcasieu Pass, a channel 35-37 feet deep and 250 feet wide between the jetties, and an approach channel 37 feet deep and 400 feet wide seaward to the 37-foot depth contour in the Gulf of Mexico. This Act also provides for reconstruction and extension of improvement of the river from Lake Charles to Phillips Bluff by removing logs, snags, overhanging trees and dredging.

The Rivers and Harbors Act of July 14, 1960, House Document 436, 86th Congress, 2nd Session provides for an approach channel having a depth of 42 feet below Mean Low Gulf (MLG) level over a bottom width of 800 feet from the 42 foot depth in the Gulf of Mexico to the jettied
channel; a channel between the end and shoreline, respectively, over a bottom width of 400 feet; a channel 40 feet deep over a bottom width of 400 feet from the shoreline at Mile 0.0 to the wharves of the Port of Lake Charles at Mile 34.1; enlargement of the existing turning basin at Mile 29.6 to a depth of 40 feet; and a mooring basin at about Mile 3.0 having a width of 350 feet, a length of 2000 feet, and a depth of 40 feet; extension of the ship bottom width of 250 feet below MLG over a bottom width of 250 feet from the wharves of the Port of Lake Charles, Mile 34.1 to the vicinity of the bridge on U.S. Highway 90, Mile 36.0, and a turning basin of the same depth at the upper end having a width of 750 feet and a length of 1000 feet; and maintenance of the existing channel 12 feet deep and 200 feet wide from the ship channel to Cameron, Louisiana, via the old channel of the Calcasieu River.

The Rivers and Harbors Act of October 23, 1962, House Document 582, 87th Congress, 2nd Session provides for a salt water barrier structure with five 40-foot tainter gates in a new bypass channel; a parallel channel with navigation structure and a single sector type gate, an earth closure dam, and a woven lumber type revetment.

The Senate Public Works committee on December 27, 1970, and the House Public Works committee on December 15, 1970, adopted resolutions approving the project at Devil’s Elbow under the provisions of Section 201 of the Flood Control Act of 1965 (Public Law 89-298; S.D. 91-111) which consists of enlarging 2.3 miles of the existing industrial channel to a 40-foot depth over a bottom width of 400 feet, a ½ mile eastward extension of the enlarged channel, and the construction of a 1200-foot by 1400-foot turning basin south of the extended channel at its landward end.

The Calcasieu River at Coon Island, Louisiana project was authorized under Section 107 of the Rivers and Harbors Act of 1960, as amended by Section 310 and Section 112 of the Rivers and Harbors Acts of 1965 and 1979, respectively. The project consists of deepening and widening to –40 feet by 200 feet for a distance of 6,943 feet, and the existing turning basin to –40 feet by 750 feet by 1000 feet.

**PROJECT LOCATION:** The proposed action is located in Cameron and Calcasieu Parishes, Louisiana

**PROJECT PURPOSE:** The CR&P project does not have adequate dredged material disposal capacity needed to maintain the channel to authorized dimensions. Existing discharge sites are at or near capacity, and past maintenance deficiencies have resulted in substantial erosion of discharge facilities. Other discharge sites have been lost to commercial development. Previous real estate agreements, which have enabled landowners to opt out of agreements for disposal, have resulted in some landowners rescinding permissions for their property to be used for the placement of dredged material. As a result, remaining discharge areas cannot accommodate the volume of dredged material needed to maintain the ship channel to project-authorized dimensions.

**PROPOSED ACTION:** The proposed action would include expansion of existing upland CDFs for placement of dredged material removed from the Calcasieu Ship Channel during routine
maintenance events, the designation of additional beneficial use disposal areas to restore areas of
subsided marsh, and the construction of rock bankline protection features (Figures 1 and 2).

Confined Disposal Facilities: A CDF is an area bound by dikes or structures engineered to
contain dredged material. Dredged material is placed into the CDF either hydraulically or
mechanically, where it is allowed to drain, dry, and consolidate. Effluent resulting from the
settling of solids is discharged across weirs into adjacent waters (effluent is discharged from all
CR&P CDFs back into the channel).

The proposed action would include the expansion of existing CDFs 9, 10, 11, and 13 into
adjacent wetlands and/or open water along the CR&P between river miles 28 and 21. CDFs 17,
19, D, and E would be expanded into Calcasieu Lake to the approximate limits depicted in the
1976 CR&P Environmental Impact Statement. Extending lakeward from reconfigured CDFs D
and E, dredged material would be placed in Calcasieu Lake to the approximately 3-foot depth
contour to create intertidal marsh. The approximate size and dredged material capacity of the
CDFs is listed in Tables 1 and 2.

To provide erosion protection from ship wakes and waves, rock would be placed along the
channel and lake boundaries of CDFs 17, 19, 22, and 23; and at the eastern edge of the created
marsh of CDFs D and E. Rock dikes constructed along the perimeter of CDFs 17 and 19, and
along the lake boundary of CDFs D and E would also serve as containment features for dredged
material. Note that foreshore rock dikes have previously been constructed along the channel
boundary of CDFs D and E. The Texaco Cut near river mile 18 would remain open and would
be armored on its north and south banks into Calcasieu Lake. Additional rock armoring would
be constructed along the right-descending bank of the ship channel between approximate miles
18.7 to 16.5 to preserve the integrity of the bankline and reduce maintenance dredging
requirements. Figure 2 depicts the location of rock placement sites. About 8.4 million cubic
yards of stone is required to construct the erosion protection and containment features.

Beneficial Use: About 36 million cubic yards of dredged material removed from the CR&P
would be used beneficially for shoreline stabilization, land reclamation, and marsh creation. A
hydraulic dredge would be used to remove shoal material from the channel and transport dredged
material via a pipeline into confined, semi-confined, or unconfined disposal areas. Dredged
material slurry would be discharged into shallow open-water areas to an elevation conducive to
the development of wetland habitats following dewatering and compaction. It is anticipated that
the final result of this dredged material placement would be a combination of emergent wetland,
mud flat, and shallow open water habitat within the placement site. Dredged material slurry
would be allowed to overflow existing emergent marsh vegetation within the proposed disposal
area, but would not be allowed to exceed a height of about one-foot above the existing marsh
elevation. Proposed beneficial use disposal areas are shown in Figures 1 and 2, with
approximate acreages and disposal capacity detailed in Tables 1 and 3.

In conjunction with the discharge activities, retention dikes, deflection dikes, and/or closures may
be required to prevent the flow of dredged material back into adjacent waterways and properties.
Earth, rock, aggregate, shell, geotubes, sheetpiles, hay bales or a combination of these materials
would be used to construct or refurbish dikes and closure structures. Interior low-level earthen weirs also may be constructed within discharge areas to facilitate the deposition of sediments in a manner that would enhance wetlands development. Borrow material for dike/closure/weir construction would be taken from within the disposal areas. Earthen structures would be allowed to degrade naturally or would be mechanically degraded as necessary to provide fisheries access and tidal ingress/egress following appropriate settlement of dredged material placed within the disposal areas.

In addition to dredged material containment features, elements that may be constructed in association with the placement of material for beneficial use include:

- **Access Corridors.** Construction access corridors from the ship channel to beneficial use sites would be a maximum of about 200 feet in width and would cross over uplands, wetlands, and shallow open water as necessary. Access corridors also may occur across or along the crown of existing levees in the project vicinity.

Levees surrounding beneficial use sites would be degraded as necessary to provide access to disposal sites. Degraded levees may be rebuilt following completion of discharge activities. Degraded levee material would be stockpiled in shallow open-water adjacent to the degraded levee section or on adjacent levees. Degraded levee sections would be rebuilt with material degraded from the levee or excavated from adjacent shallow open-water areas. Material placed in shallow open-water not utilized to rebuild levees would be degraded, if necessary, to a height conducive to wetlands development.

- **Flotation Access Channels.** Flotation channels would be excavated as needed in shallow open water areas to allow construction equipment to access disposal sites. If necessary, flotation channels would be excavated by a mechanical dredge to maximum dimensions of approximately 80 feet wide and 10 feet deep. Flotation channel material would be used for the construction or refurbishment of dikes and closures; temporarily stockpiled adjacent to the access channel and later used to backfill the channel; or would be placed adjacent to and behind dikes and closures for wetlands development.

If existing canals are used for access, they may be dredged to facilitate flotation of pipelines and other necessary equipment from the dredging site on the ship channel to pipeline discharge sites within the beneficial use disposal areas. Dredged material removed from existing canals would be placed on adjacent levees and/or into shallow open water on either side of the canals. Canal dredged material placed in shallow open water areas would be placed to a height conducive for wetlands development.

**DISPOSAL AREAS:** The proposed disposal sites for the expansion of CDFs 9, 10, 11, and 13 are located in marsh and shallow open-water along the CR&P between river miles 28 and 21. Expansion sites for CDFs 17, 19, D, and E are bordered to the west by the left-descending bank of the CR&P between approximate miles 20 and 12, and to the east by Calcasieu Lake. Dredged material would be placed into about 545 acres of marsh and about 511 acres of shallow open-waters of the channel and lake, converting these areas to uplands. An additional 476 acres of shallow open-water in Calcasieu Lake would be filled to intertidal marsh elevation after placement of dredged material into the lake side of CDFs D and E. Rock would be placed on
about 32 acres of shallow open-water in the channel (left-descending bank) and about 48 acres of shallow lake bottom to construct shoreline protection features associated with the CDFs. An additional 13 acres of shallow open-water along the right-descending bank of the channel between approximate river miles 18.7 and 16.5 would be impacted by the construction of rock shoreline protection features.

The proposed beneficial use disposal areas located west of the CR&P are bordered by shallow open-water and fragmented marsh of black lake and the Sabine National Wildlife Refuge (SNWR). Beneficial use disposal areas east of the CR&P are bordered by shallow open-waters of Calcasieu Lake and fragmented marsh within the Cameron Prairie National Wildlife Refuge (CPNWR). Dredged material slurry would be discharged into shallow open-water within the beneficial use disposal areas to an elevation conducive to the development of wetland habitats. It is anticipated that the final result of this dredged material placement would be a combination of emergent wetland, mud flat, and shallow open water habitat within the placement site. Dredged material slurry would be allowed to overflow existing emergent marsh vegetation within the proposed disposal areas, but would not be allowed to exceed a height of about one-foot above the existing marsh elevation. Dredged material placement and associated retention features would impact about 890 acres in Black Lake; approximately 5,600 acres within the SNWR; about 640 acres immediately adjacent to the SNWR; and about 2,900 acres in the CPNWR. Over 10,000 acres of wetland habitat would be created or nourished from the proposed beneficial use of dredged material. Prior to the development of project plans, it is impossible to determine the area that would be impacted temporarily or converted to marsh elevation during the construction of access channels outside of these disposal areas.

**METHODS OF DISCHARGE:** A hydraulic cutterhead pipeline dredge would be used to remove shoal material from the CR&P during maintenance dredging events and to discharge the dredged material into CDFs and confined, semi-confined, or unconfined shallow open-water areas at the beneficial use sites for wetlands development. A barge mounted bucket dredge and dragline would be used to perform work associated with flotation access channel excavation, access corridor construction, dike/closure construction, and shoreline protection rock features. Land-based construction activities within CDFs or across access corridors that are inaccessible by barge would be performed by dump trucks, bulldozers, and similar construction equipment.

**PROPERTY ADJACENT TO THE DISPOSAL AREA:** Property adjacent to the project includes Devil’s Elbow, the GIWW, Black Lake, petroleum industry canals, industrial facilities, recreational and residential properties, brackish marsh and open waters of the SNWR, Calcasieu Lake, and the CPNWR.

**QUANTITIES AND FREQUENCIES:** Approximately 3.6 million cubic yards of dredged material removed from the CR&P between miles 30 and 22 would be discharged into CDFs 9, 10, and 11 during maintenance events scheduled for years 8, 2, and 0 (respectively). About 2.6 million cubic yards of shoal material removed from Devil’s Elbow would be discharged into CDF 13 during maintenance scheduled for year 0. About 10 million cubic yards of dredged material removed between CR&P miles 20 and 16 would be placed into the expanded uplands of CDFs 17, 19, D, and E during channel maintenance scheduled for years 6 and 9. An additional
4.1 million cubic yards of shoal material removed from the CR&P mile 20 to 16 reach would be
placed in CDFs D and E to create intertidal marsh during maintenance scheduled in years 10, 12,
15, and 17. About 8.4 million cubic yards of rock would be used to construct foreshore dikes and
shoreline armoring features associated with CDFs 17, 19, 22, 23, D, and E and along the left-
descending bank of the channel between miles 18.7 and 16.5. Rock features would be
constructed along the CR&P between years 6 and 8; rock work in Calcasieu Lake would occur in
years 6, 9, and 14.

In addition to intertidal marsh creation sites in Calcasieu Lake associated with CDFs D and E, six
beneficial use areas are proposed as disposal sites for maintenance of the CR&P between miles
16 and 5. Dredged material from maintenance between miles 16 and 12 would be placed in an
area near Black Lake and an area within the SNWR (site 5): approximately 7.2 million cubic
yards would be placed at the Black Lake site during years 0, 2, 5, 12, and 17; and about 8.9
million cubic yards would be placed at the SNWR site during years 0, 2, 5, and 7. Dredged
material from maintenance between miles 12 and 9.5 would be placed in an area within the
SNWR (site 18) and an area immediately adjacent to the SNWR (site 49): about 9.3 million
cubic yards would be placed within the SNWR in years 0, 6, 9, 12, 15, and 18; and about 2.4
million cubic yards would be placed at the site adjacent to the SNWR in years 3, 6, and 9.
Dredged material from maintenance between miles 9.5 and 5 would be placed at two areas within
the CPNWR (sites 19 and 20): approximately 2.9 million cubic yards would be placed at site 19
in years 6 and 12; and about 1.2 million cubic yards would be placed at site 20 in year 2. It is
impossible to determine the quantity of material required to construct or refurbish dikes and
closures within these disposal areas or the frequency in which these features would need to be
refurbished after initial discharges. The need to construct access channels and the quantity of
material removed during construction would be determined prior to channel maintenance events
– it is impossible to determine these quantities and frequencies prior to the development of
individual project plans and specifications.

**DREDGING BY OTHERS:** No accurate estimate can be given to the amounts and/or frequency
of dredging required to maintain non-Federal facilities in the vicinity of this project.

**EVALUATION FACTORS:** The decision whether to designate the proposed areas for the
placement of dredged material from routine maintenance of the CR&P and associated features
necessary for disposal will be based on an evaluation of the probable impact including
cumulative impacts of the proposed activities on the public interest. That decision will reflect
the national concern for both protection and utilization of important resources. The benefit
which reasonably may be expected to accrue from the proposal must be balanced against its
reasonably foreseeable detriments. All factors which may be relevant to the proposal will be
considered; among those are conservation, economics, aesthetics, general environmental
concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values,
land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation,
water quality, energy needs, safety, food and fiber production, mineral needs, considerations of
property ownership and, in general, the needs and welfare of the people.

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE:** An
Environmental Impact Statement addressing impacts of the proposed expansion of existing upland CDFs for placement of dredged material removed from the CR&P during routine maintenance events, the designation of additional beneficial use disposal areas to restore areas of subsided marsh, and the construction of rock bankline protection features is being prepared by CEMVN. The Draft SEIS is expected to be released for the 45-day public comment period in late March 2009. Environmental compliance for the proposed action would be achieved upon: coordination of Draft SEIS with appropriate agencies, organizations, and individuals for their review and comments; U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) confirmation that the proposed action would not be likely to adversely affect any endangered or threatened species; Louisiana Department of Natural Resources concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the Louisiana Coastal Resources Program; receipt of a Water Quality Certificate from the State of Louisiana; public review of the Section 404(b)(1) Public Notice; signature of the Section 404(b)(1) Evaluation; receipt of the Louisiana State Historic Preservation Officer Determination of No Affect on cultural resources; receipt and acceptance or resolution of all USFWS Fish and Wildlife Coordination Act recommendations; receipt and acceptance or resolution of all Louisiana Department of Environmental Quality comments on the air quality impact analysis documented in the EA; and receipt and acceptance or resolution of all NMFS Essential Fish Habitat recommendations. The draft FONSI would not be signed until the proposed action achieves environmental compliance with applicable laws and regulations, as described above.

STATE WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act necessitates state water quality certification for the proposed activities. Application for certification was submitted by the CEMVN on February 6, 2009 to the Louisiana Department of Environmental Quality (LDEQ) in accordance with statutory authority contained in LRS: 30:2074 A(3) and provisions of Section 401 of the Clean Water Act, (P.L. 92-500, as amended).

SECTION 404(B)(1) GUIDELINES: Designation of the proposed sites for the placement of the dredged material and fill associated with routine maintenance of the CR&P will be made through the application of guidelines promulgated by the Administrator, Environmental Protection Agency, in conjunction with the Secretary of the Army. If these guidelines alone prohibit the designation of the disposal areas, any potential impairment to the maintenance of navigation and anchorage which would result from the failure to use these disposal areas also will be considered.

COASTAL ZONE CONSISTENCY DETERMINATION: The CEMVN provided the Office of Coastal Restoration and Management Division, Louisiana Department of Natural Resources, a consistency determination for the proposed activities dated January 16, 2009. The Corps determined that the proposed action is consistent, to the maximum extent practicable, with the State of Louisiana’s approved Coastal Resources Program.

ENDANGERED SPECIES: The CEMVN has consulted with the United States Fish and Wildlife Service. The USFWS by letter dated November 13, 2007, concurred with the Corps determination that the recommended plan is not likely to adversely affect the brown pelican and the piping plover or its critical habitat.
ESSENTIAL FISH HABITAT: The initial determination is that the proposed action will not have a substantial impact on Essential Fish Habitat or federally managed species in the Gulf of Mexico. The NEPA document described assesses the impacts of the proposed action on Essential Fish Habitat and includes the required components of 50 CFR 600.920(g). The final determination relative to impacts and the need for mitigation measures is subject to review by the National Marine Fisheries Service.

CULTURAL RESOURCES: A cultural resources survey has been conducted for the proposed action. The CEMVN has consulted with the Louisiana State Historic Preservation Officer to assess the potential effects of the proposed activities on cultural resources. By letter dated October 5, 2007, SHPO stated that they had no objections to the implementation of the proposed project from a Section 106 compliance standpoint.

COORDINATION: The following is a partial list of agencies to which a copy of this notice is being sent for coordination purposes:

- Region VI, Environmental Protection Agency
- Regional Director, National Marine Fisheries Service
- Regional Director, U.S. Fish and Wildlife Service
- Commander, Eighth Coast Guard District
- Louisiana Department of Wildlife and Fisheries
- Louisiana Department of Environmental Quality
- Louisiana Department of Natural Resources
- Louisiana Department of Transportation and Development
- Louisiana State Historic Preservation Officer

PROJECT PLANS: Plans for the proposed work are on file in the Office of the District Engineer, U.S. Army Engineer District, New Orleans, Foot of Prytania Street, New Orleans, Louisiana 70160-0267, and may be seen by anyone having an interest in them.

EVALUATION FACTORS: Evaluation includes application of the Section 404(b)(1) guidelines promulgated by the Administrator of the U.S. Environmental Protection Agency, through 40 CFR 230.

PUBLIC INVOLVEMENT: Interested persons may submit comments on the proposed work or suggest modifications. All comments received within 30 days of the date of this notice will be considered. Any person who has an interest which may be affected by the proposed work may request a public hearing. The request must be submitted in writing to the District Engineer within the comment period of this notice, and must clearly set forth the interest which may be affected and the manner in which the interest may be affected by this activity. You are requested to communicate the information contained in this public notice to any parties who may have an interest in the proposed maintenance work.

INFORMATION: Additional information concerning the proposed work can be obtained by
writing to: District Engineer, U.S. Army Engineer District, New Orleans, ATTN: CEMVN-PM-RS / Ms. Sandra E Stiles, Post Office Box 60267, New Orleans, Louisiana 70160-0267. Ms. Stiles also can be reached at (504) 862-1583.

Elizabeth Wiggins
Chief, Environmental Planning &
Compliance Branch
RECOMMENDED PLAN: PLAN B
Calcasieu River & Pass
Dredged Material Management Plan

Figure 1. CDF and Beneficial Use disposal areas.
Figure 2. CDF and rock placement sites.
Table 1. Approximate size of CDF and Beneficial Use dredged material disposal areas.

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Location/Description</th>
<th>Site Size (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Upland Confined Discharge Sites</strong></td>
<td></td>
</tr>
<tr>
<td>CDF 9</td>
<td>Expansion of CDF into Marsh</td>
<td>116</td>
</tr>
<tr>
<td>CDF 10</td>
<td>Expansion of CDF into Marsh</td>
<td>94</td>
</tr>
<tr>
<td>CDF 11</td>
<td>Expansion of CDF into Marsh</td>
<td>116</td>
</tr>
<tr>
<td>CDF 13</td>
<td>Expansion of CDF into Marsh</td>
<td>219</td>
</tr>
<tr>
<td>CDFs 17, 19</td>
<td>Expansion of CDF into Calcasieu Lake</td>
<td>235</td>
</tr>
<tr>
<td>CDF D</td>
<td>Expansion of CDF into Calcasieu Lake</td>
<td>229</td>
</tr>
<tr>
<td>CDF E</td>
<td>Expansion of CDF into Calcasieu Lake</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td><strong>Beneficial Use Sites</strong></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>West of the CWPPRA Cycle 1 Site, SNWR</td>
<td>3,083</td>
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<tr>
<td>18</td>
<td>Vicinity of Pond 1A, SNWR</td>
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<tr>
<td>19</td>
<td>Cameron Prairie NWR</td>
<td>1,026</td>
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<tr>
<td>20</td>
<td>Cameron Prairie NWR</td>
<td>1,867</td>
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<tr>
<td>49</td>
<td>Cameron Parish School Board Site</td>
<td>639</td>
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<tr>
<td>50</td>
<td>Black Lake</td>
<td>887</td>
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<tr>
<td>CDF D/E Wetlands</td>
<td>Wetland Creation in Calcasieu Lake</td>
<td>476</td>
</tr>
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</table>
Table 2. Approximate quantity of dredged material and rock in cubic yards (CY) that would be placed at Confined Disposal Facilities (CDF) and shoreline protection sites.

<table>
<thead>
<tr>
<th>Facility</th>
<th>20-Year Gross Quantity (CY)</th>
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<tbody>
<tr>
<td>CDF 9</td>
<td>1,496,800</td>
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<tr>
<td>CDF 10</td>
<td>774,400</td>
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<tr>
<td>CDF 11</td>
<td>1,342,400</td>
</tr>
<tr>
<td>CDF 13</td>
<td>2,581,600</td>
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<tr>
<td>CDF 17/19</td>
<td>1,936,500</td>
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<tr>
<td>CDF D</td>
<td>4,087,200</td>
</tr>
<tr>
<td>CDF E</td>
<td>4,087,200</td>
</tr>
<tr>
<td>Foreshore Dike</td>
<td>8,390,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>24,696,100</strong></td>
</tr>
</tbody>
</table>

Table 3. Approximate quantity of dredged material in cubic yards (CY) that would be placed at beneficial use sites.

<table>
<thead>
<tr>
<th>Beneficial Use Site</th>
<th>20-Year Gross Quantity (CY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Lake (50)</td>
<td>7,219,750</td>
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<tr>
<td>Sabine NWR (5)</td>
<td>8,873,500</td>
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<tr>
<td>Cameron Par. School Bd (49)</td>
<td>2,420,000</td>
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<tr>
<td>Sabine NWR (18)</td>
<td>9,276,500</td>
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<tr>
<td>CDF D Wetlands</td>
<td>2,066,000</td>
</tr>
<tr>
<td>CDF E Wetlands</td>
<td>2,066,000</td>
</tr>
<tr>
<td>Cameron Prairie NWR (19)</td>
<td>2,904,000</td>
</tr>
<tr>
<td>Cameron Prairie NWR (20)</td>
<td>1,165,600</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>35,991,350</strong></td>
</tr>
</tbody>
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