

Louisiana Coastal  
In-Lieu Fee Instrument



State of Louisiana  
Department of Natural Resources  
Office of Coastal Management

January 16, 2014

## Table of Contents

1.0 Introduction.....	4
2.0 Goals and Objectives .....	5
2.1 Threats to Aquatic Resources .....	6
2.2 Historic Aquatic Resource Loss.....	6
2.3 Current Aquatic Resource Loss .....	7
2.4 Approval .....	7
2.5 Disclaimer.....	7
3.0 In-Lieu Fee Instrument .....	8
3.1 State Sponsor .....	8
3.2 Geographic Service Areas.....	8
3.3 Program Credit Tracking and Debiting Procedures.....	10
3.4 Legal Responsibility for Providing Compensatory Mitigation.....	10
3.5 Disaster Events.....	10
3.6 Default and Termination of the Program .....	11
3.7 Reporting Protocols .....	12
Monitoring Reports.....	12
Credit Transaction Notification .....	12
Annual Program Account Report.....	13
3.8 Initial Allocation of Advance Credits .....	13
3.9 Financial Considerations.....	14
3.10 Financial Assurances .....	15
3.11 Description of In-lieu Fee Program Account.....	15
Interagency Review Team Involvement .....	15
Financial Accounting.....	15
Credit Accounting.....	16
4.0 Amendment and Termination .....	16
5.0 Notices and Contacts.....	17
6.0 References.....	17
Attachment 1 .....	19
Selecting and Implementing Compensatory Mitigation .....	19
Attachment 2.....	21
Financial Account Reporting .....	21
Attachment 3.....	22

Long Term Protection and Management .....	22
Attachment 4.....	24
Louisiana Coastal In-Lieu Fee Program Service Area Map .....	24
Attachment 5.....	25
Sample Credit Transaction Letter .....	25
Attachment 6.....	26
Habitat Restoration/Enhancement Mississippi Valley New Orleans Modified Charleston Method Worksheet.....	26
Attachment 7.....	27
State Marsh Creation Bid Tabulations and Associated Projected Program Costs.....	27
Attachment 8.....	30
Financial Assurance Certification.....	30

## 1.0 Introduction

This Instrument establishes a formal in-lieu fee mitigation agreement between the U.S. Army Corps of Engineers, New Orleans District CEMVN and the State of Louisiana, Department of Natural Resources (DNR) (the Sponsor). The DNR agrees to fulfill the duties and obligations associated with administering the In-lieu Fee Program (Program). This Instrument is entered into pursuant to the April 10, 2008, regulations “Compensatory Mitigation for Losses of Aquatic Resources” (33CFR Part 332) and is the result of coordination and consultation between the DNR, the CEMVN, and other Federal and State resource agencies of the Interagency Review Team (IRT). All referenced attachments in this Instrument are attached hereto.

The CEMVN is the federal agency responsible for authorizing certain activities under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act through issuance of Department of the Army (DA) permits which permits may include associated mitigation requirements for such activities. The intent of this Program is to offset such losses by providing an alternative means of compensatory mitigation for permittees in addition to mitigation bank credits and permittee-responsible mitigation projects.

Nothing in this Instrument shall be construed as altering the requirements and agency responsibilities as specified in existing law, regulations, and policy. Further, this Instrument is established in accordance with the following federal and state statutes, regulations, guidelines, and policies:

- Clean Water Act (33 USC 1344 et seq.)
- Rivers and Harbors Acts of 1899 (33 USC 403, et seq.)
- Navigation and Navigable Waters, U.S. Army Corps of Engineers Regulatory Program Regulations (33 CFR Parts 320-332)
- Environmental Protection Agency; Guidelines for the Specification of Disposal Sites for Dredged and Fill Material (404(b)(1) Guidelines, 40 CFR Part 230)
- Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act 404(b)(1) Guidelines (February 6, 1990)
- National Environmental Policy Act (42 USC 4321 et seq.)
- Council on Environmental Quality Procedures for Implementing the National Environmental Policy Act (40 CFR Part 1500-1508)
- Executive Order 11990 (Protection of Wetlands)
- Department of Defense and Environmental Protection Agency; Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 CFR Part 332/40 CFR Part 230)
- Fish and Wildlife Coordination Act (16 USC 661 et seq.)
- Magnuson-Stevens Fishery Conservation and Management Act (P.L. 104-297)
- Endangered Species Act (16 USC 1531 et seq.)
- National Historic Preservation Act, Section 106
- Louisiana Administrative Code (LAC), Title 43, Part I, Chapter 7. Coastal Management

The following agencies participated in the development of this Agreement as members of the Interagency Review Team (IRT):

U.S. Army Corps of Engineers, New Orleans District (CEMVN)  
U.S. Fish and Wildlife Service (USFWS)  
U.S. Environmental Protection Agency (EPA)  
National Marine Fisheries Service (NMFS)  
Louisiana Department of Wildlife and Fisheries (LDWF)

The CEMVN serves as chair of the IRT and is responsible for making the final decision regarding the terms and conditions of this Instrument. Information on the Interagency Review Team Involvement is included in section 3.11.

## 2.0 Goals and Objectives

The Program will provide funding to re-establish marsh in the State's coastal area to achieve the primary goal of the Program of no net loss of wetlands. Program funding will consist of moneys collected from permittees who purchase Program credits to satisfy compensatory mitigation requirements for projects with unavoidable adverse impacts to vegetated wetlands and other coastal habitats. The Program will provide funding for projects that will provide environmental and ecological benefits by creating marsh, conserving wildlife and marine fisheries habitats, reducing open water areas, and re-establishing wetlands.

The specific goals are to:

Provide for the replacement of the chemical, physical, and biological functions of wetlands and other coastal resources that are lost or degraded due to impacts authorized by DA permits;

Provide CEMVN permittees another means by which to satisfy compensatory mitigation requirements for DA permits in addition to mitigation bank credits and permittee-responsible mitigation projects to compensate for unavoidable adverse impacts to the coastal ecosystem after appropriate and practicable measures have been taken to avoid and minimize project-related impacts on site; and

Provide a level of accountability equivalent to mitigation banks as specified in 33 CFR Part 332 for activities that have adverse impacts on the coastal ecosystem.

Work efficiently with the Interagency Review Team; use the best available ecological data to assess, identify, and select the most resourceful marsh creation and marsh re-establishment projects.

This Program will provide effective compensatory mitigation by funding the construction of projects that will re-establish marsh in coastal Louisiana. These marsh projects will contribute to healthy, productive fisheries that will enhance the sustainability of a viable and diverse estuarine

and marine ecosystem. The Program will offset permitted impacts to wetlands to achieve the primary goal of no net wetland losses.

## 2.1 Threats to Aquatic Resources

The coastal zone in Louisiana covers approximately 14,913 square miles, of which 6,737 square miles is water and 8,176 square miles is land (LOSCO 2005). In 2010, over 2 million residents, or approximately 48% of the state's population, lived in Louisiana's coastal parishes (U.S. Census Bureau 2010). The coastal zone contains beach, marsh, and wetland habitats that are essential for threatened and endangered species and avian species of management concern. Hundreds of millions of birds migrate between North America and Central and South America across the Gulf of Mexico, resulting in daily flights of as many as 2.5 million individuals stopping in Louisiana to feed and rest. The international organization Partners in Flight listed 51 species of birds using Louisiana coastal habitats as species of concern that require management and monitoring. Many are in need of urgent attention because of declining numbers (Smith, G.J., and Barrow, W.C., 2005). Threatened and endangered avian species include, but are not limited to, the Interior Least Tern, and the Piping Plover. Three species of endangered sea turtles may be found within Louisiana coastal waters and the threatened Louisiana Black Bear has designated critical habitat within the Louisiana Coastal Zone.

In 2007, Louisiana ranked 1<sup>st</sup> in crude oil production and 2<sup>nd</sup> in natural gas production in the 50 states when including Outer Continental Shelf production and ranked 4<sup>th</sup> in crude oil and 5<sup>th</sup> in natural gas production when excluding Outer Continental Shelf statistics (LDNR 2008). In 2008, Louisiana commercial fisheries landings exceeded 916 million pounds with a dockside value of \$272.9 million, accounting for approximately 24% of the total U.S. catch by weight in the lower 48 States (USDOC 2009). In 2005, Louisiana's coastal wetlands provided storm protection for ports that carried 457 million tons of waterborne commerce, accounting for 18% of all waterborne commerce in the United States. Five of the top fifteen largest ports in the United States are located in Louisiana (USACE 2007, Waterborne Commerce of the United States, Calendar Year 2005).

The resources referenced above are critical to the nation, and to the economy and quality of life in Louisiana. A sustainable balance between the multiple uses of these coastal resources is crucial. Threats to those resources, including those in the Chenier Plain and Deltaic Plain basins/service areas of the Program are well documented in both the State's *Coast 2050: Toward a Sustainable Coastal Louisiana* and *Louisiana's Comprehensive Master Plan for a Sustainable Coast* (2012).

## 2.2 Historic Aquatic Resource Loss

As more thoroughly described in *Louisiana's Comprehensive Master Plan for a Sustainable Coast*, since the 1930's, coastal Louisiana has lost over 1.2 million acres and is still losing land at the rate of 15,300 acres per year. This extreme rate of loss threatens a range of key national assets and locally important communities and resources. Pipelines, navigation channels, and fisheries as well as centuries-old human settlements and priceless ecosystems are all at risk.

Similarly, Louisiana has lost 1,829 square miles since the 1930's (Barras et al. 2008, Britsch and Dunbar 1993)

Between 1990 and 2001, Louisiana lost approximately 13 square miles of wetlands per year- which is equivalent to approximately one football field lost every hour (Barras et al. 2008). The projected loss over the next 50 years, even with current restoration efforts taken into account, is estimated to be approximately 500 square miles (Barras et al. 2003).

Specific historic land loss rates for both the Chenier Plain and Deltaic Plain basins/service areas are addressed in the state's Coast 2050 document, *Coast 2050: Toward a Sustainable Coastal Louisiana*. According to this document, the rate of coastal land loss in Louisiana has reached catastrophic proportions. Within the last 50 years, land loss rates have exceeded 40 square miles per year, and in the 1990's the rate has been estimated to be between 25 and 35 square miles each year. This loss represents 80% of the coastal wetland loss in the entire continental United States. Also documented are a subsidence rate in the Deltaic Plain basin of 3.0 to 4.3 ft/century and a subsidence rate in the Chenier Plain basin of 1.3 to 2.0 ft/century.

### **2.3 Current Aquatic Resource Loss**

Analysis of current aquatic resource conditions in the Chenier Plain and Deltaic Plain basins/service areas is well documented. Louisiana has 30% of the total coastal marsh and accounts for 90% of coastal marsh loss in the lower 48 states (Dahl 2000, Field et al. 1991, USGS 2003). As mentioned above, the State of Louisiana's coast continues to lose land at an estimated rate of 25 to 35 square miles or 15,300 acres each year. The net reduction of land from 2004 to 2008 has been estimated by the United State Geological Survey (USGS) to be approximately 209,000 acres. The primary reason for this recent aquatic resource loss can mainly be attributed to a dramatic increase in severe tropical activities that have impacted the Louisiana coast over the past five (5) years. According to land loss estimates, hurricanes Katrina and Rita transformed 198 square miles of marsh to open water in coastal Louisiana (Barras et al. 2008).

### **2.4 Approval**

This Instrument is considered fully executed upon the latter date of signature by the Secretary of DNR and the CEMVN District Engineer.

### **2.5 Disclaimer**

This instrument does not in any manner affect statutory authorities and responsibilities of the signatory parties. This program is established to provide a compensation mitigation alternative to the purchase of mitigation bank credits or permittee-responsible mitigation projects. Determination of the type, location and amount of mitigation required to satisfy compensatory mitigation obligations will be made in accordance with applicable laws and regulations including the prioritization hierarchy identified in 33 CFR Part 332.3(b)(2).

## 3.0 In-Lieu Fee Instrument

### 3.1 State Sponsor

Under this Instrument, DNR agrees to fulfill the duties and obligations associated with administering the In-lieu Fee Program (Program). This Instrument is intentionally broad and sets the framework under which Program projects will be identified, funded, operated, maintained, and managed. The Instrument provides the authorization for the Program to provide credits to be used as compensatory mitigation for DA permits. As specific mitigation projects are identified, DNR will submit site-specific mitigation plans and permit applications to the IRT for review and evaluation. *Selecting and Implementing Compensatory Mitigation* is included as **Attachment 1**.

Unavoidable authorized impacts to marsh habitats occurring on Louisiana Department of Wildlife and Fisheries (LDWF) owned and managed properties will be permitted to utilize the ILF Program only if prior authorization is granted by LDWF.

### 3.2 Geographic Service Areas

The Program will operate within two service areas, the Deltaic Plain and the Chenier Plain. DNR, in consultation with CEMVN, has concluded that together these service areas offer a scale that is appropriate to ensure that the projects selected will be able to effectively compensate for adverse environmental impacts across coastal Louisiana. Identifying smaller service areas by basin or hydrologic units was not feasible. Due to current regulatory demand, the concept of the broader service areas as related to existing marsh banks and their secondary service areas has been accepted and approved by the IRT.

These two distinct marsh geographic service areas are different due to geologic processes that predominately influenced their landscape through recent geologic history. These service areas are unique due to the geomorphologic processes and subsequent subsidence and sediment compaction processes that have taken place over thousands of years. Processes contributing to soil/land building in both of these basins include, but are not limited to, sediment deposition by riverine processes, tidal movement of sediments, accumulation of organic plant biomass material, and the re-deposition of sediments due to tropical activity.

#### Deltaic Plain Service Area

The Deltaic Plain Service area was formed by the deposition of riverine sediment sands, silts, clays) and contains natural levee ridges, man made levees, fresh, intermediate, brackish and saline marshes, swamps, lakes and bays, barrier islands, and estuaries. The Deltaic Plain is comprised of highly organic soils, and floating marshes and peat deposits are also prevalent in this service area. Subsidence rates in the Deltaic Plain are much higher than the Chenier Plain. With the disappearance of exterior marshes and barrier islands, inland marshes are degrading as a result of wave and saltwater inundation.

The Deltaic Plain landscape includes extensive marshland dominated by salt and brackish marshes with numerous large, open water bays and barrier islands that has been historically influenced by the deltaic properties of the Mississippi River over thousands of years.

The Deltaic Plain Service Area is defined by the Vermilion/Iberia Parish line and extends eastward to the easternmost limits of the New Orleans District in St. Tammany Parish near the Pearl River.

### Chenier Plain Service Area

The Chenier Plain is a complex system formed by transported riverine sediment. The Plain is composed of ridges (oak trees, shell, sand, and silt), mudflats, prairie terraces (sand, silt, and clay), swamps, lakes and bays, and coastal marshland. The Chenier Plain consists of fresh, intermediate, brackish, and saline marshes. Brackish and intermediate marshes are more prevalent in the western part of the Chenier Plain whereas fresh and intermediate are more common in the eastern part of the plain. In areas where cheniers have degraded and/or conduits for salt water have been constructed, once protected fresh marsh habitat located behind the cheniers is shifting to intermediate and brackish marsh. Subsidence also plays a role in marsh degradation though not as high as in the Deltaic Plain. In areas containing highly organic soils that support lower salinity marsh vegetation, the marsh is damaged when exposed to a more saline environment

The Chenier Plain landscape includes ridges, mudflats, prairie terraces, swamps, lakes and bays, and coastal marshland. The Chenier Plain consists mainly of fresh, intermediate, and brackish marshes.

The Chenier Plain Service Area is defined as the area extending from Vermilion Bay, Louisiana west to East Bay, Texas encompassing six river basins. This service area starts at the Vermilion/Iberia Parish line and extends westward to the westernmost limits of the New Orleans District in Cameron Parish near the Sabine River.

Since the actual boundary between the Chenier Plain and the Deltaic Plain does not coincide precisely with any easily identifiable physical feature (i.e. a river or bayou), the political boundary between Vermilion and Iberia Parishes provides an easily identifiable boundary that is approximately equivalent to the actual geographical boundary and was selected with the advice and consent of the CEMVN.

The landward boundary of these two service areas was determined by adopting the boundary that would afford encompassing the greatest area from the following regulatory or study areas: the Louisiana Coastal Zone boundary, the Louisiana Coastal Wetlands Conservation Plan Area boundary and the 2004 Louisiana Coastal Area Ecosystem Restoration (LCA) boundary; all of which are located within the geographical confines of the CEMVN District. DNR seeks to encompass the greatest possible area for the mitigation of loss of marsh habitat in areas with a defensible nexus to marsh resources. Louisiana's Coastal Zone varies from 16 to 32 miles inland from the Gulf coast from the Texas-Louisiana border and ending at the Mississippi-Louisiana border as described in La. R.S. 49:214.24. The State's Conservation Plan Area is defined as the extent of tidally influenced wetlands within the geographic limits of the State of Louisiana.

Prior to Program operation, DNR will provide the CEMVN with Geographic Information System (GIS) files. A *Louisiana Coastal In-Lieu Fee Program Service Area Map* is included as **Attachment 4**.

### **3.3 Program Credit Tracking and Debiting Procedures**

DNR shall use the Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS) for tracking each specific mitigation project's credit production, credit transactions, and financial transactions between the DNR and permittees. Credit production, credit transactions, total credits, used credits, available credits, and financial transactions will be tracked on a programmatic basis (i.e., the number of available credits for the entire program by service area) and separately for each individual project and habitat type.

### **3.4 Legal Responsibility for Providing Compensatory Mitigation**

The State of Louisiana through DNR assumes all legal responsibility for satisfying the mitigation requirements of the DA permit(s) for which fees have been accepted (i.e., the implementation, performance, any required remediation, and long-term management of the compensatory mitigation project(s) approved under this agreement and subsequent mitigation plans). The transfer of liability for performance of the mitigation requirement from a permittee to the Program Sponsor is established by: 1) the approval of this Instrument; and 2) the date of transmission to the CEMVN of a credit sale letter that is signed by the Secretary of DNR or his designee and dated, see Section 3.7, *Reporting Protocols*.

All projects implemented through the Program shall be evaluated based on individual CEMVN-approved *Performance Standards* established in consultation with the IRT, on a project-by-project basis.

### **3.5 Disaster Events<sup>1</sup>**

In the event of substantial damage to Program projects caused by a disaster, and if the CEMVN, in consultation with the Sponsor and the IRT, determines that prevention or mitigation of the event was beyond the control of the Sponsor, its agents, contractors, or consultants, the Sponsor may request, and the CEMVN, in consultation with the IRT, may approve changes to the construction, operations, project milestones, performance standards or crediting formula of the Program.

In addition, should an event with substantial damage to a Program project occur:

---

<sup>1</sup> A disaster event includes a natural catastrophic event, a human-caused catastrophic event and a deliberate and unlawful act. A catastrophic event includes, but is not limited to, a flood equal to or greater in magnitude than the 100-year flood event, earthquake, drought, debilitating disease, wildfire, depredation, regional pest infestation, or fluviomorphic change. A human-caused catastrophic event includes, but is not limited to, war, insurrection, riot, or other civil disorders, spill of a hazardous or toxic substance, or fire. A deliberate and unlawful act includes, but is not limited-to, the dumping of a hazardous or toxic substance, as well as significant acts of vandalism or arson.

Sale of credits from damaged Program project areas shall be immediately suspended pending a determination of the degree of impacts and the measures necessary to remediate identified impacts to the Program project. The IRT will then determine whether:

Sufficient surviving mitigation exists to accommodate credits already sold from the Program; or,

Sufficient mitigation success at the Program project site, despite the disaster, exists to allow credit sales to resume.

The Sponsor shall implement adaptive management measures deemed necessary by CEMVN in consultation with the IRT to remediate identified impacts within one year of the event including any subsequent adaptive management measures deemed necessary by the IRT from time to time. If the IRT determines that the Property is not performing as intended, available advance credits will be reduced by a number equal to the damaged habitat units until the Sponsor has performed remedial work necessary to repair the damaged habitat area corresponding to the issued credits. The Sponsor will continue to provide monitoring reports as specified in this document unless determined to be unnecessary by the IRT.

If the Sponsor fails to undertake the identified remedial actions within one year following the event without good cause for the delay, the IRT may recommend to the CEMVN that action be taken to suspend or revoke credits or to terminate the Program. Suspension of credit sales, revocation of credits, or termination of the Program does not relieve the Sponsor of its obligations to satisfy mitigation requirements for which fees have been accepted.

The IRT will re-evaluate the credits and provide to the Sponsor a revised monitoring and reporting schedule, credit determination and release schedule for the remaining credits based on the re-establishment effort.

### **3.6 Default and Termination of the Program**

Should the IRT determine that the Sponsor is in default of any provision of this Instrument or is in default of its mitigation plan with respect to any Program project, the IRT acting through the CEMVN may notify the Sponsor that the sale or transfer of credits will be suspended until the deficiencies have been remedied. Upon notice of such suspension, the Sponsor agrees to immediately cease all sales or transfers of mitigation credits until the IRT informs the Sponsor that sales or transfers may be resumed. Should the Sponsor remain in default, the IRT, acting through CEMVN, may terminate the Instrument. Upon termination, the Sponsor agrees to perform and fulfill all obligations under this Instrument relating to credits that were sold or transferred prior to termination.

If circumstances warrant, such as misrepresentation, misapplication, misappropriation, improper management, non-disclosure of pertinent information or non-compliance with the terms of this Instrument by the Sponsor, CEMVN and other members may void their recognition of the Program as well as terminate their future participation in this Instrument. Any executed and recorded conservation servitude pertaining to wetlands restored pursuant to mitigation contracts and this Instrument shall remain in full force and effect, and as waters of the United States, any subsequent discharges would require Section 404 authorization. Upon termination of this

Instrument, the conservation servitude shall remain on those lands for which credits were sold. In addition, a buffer sufficient to protect the integrity of the Program's projects, as determined by CEMVN in consultation with the IRT, shall be established and protected by the conservation servitude. Sponsor shall record the revised conservation servitude in the Mortgage and Conveyance Office of the parish where the land is located. All funds in the Program account, if any, will be forfeited and dispersed to a third party at the discretion of the CEMVN and IRT. Additionally, any grossly negligent or wrongful act or failure to act including any intentional misrepresentation, misappropriation, non-disclosure of pertinent information, non-compliance with the terms of this Instrument, or any other intentional illegal act may be prosecuted to the fullest extent of the law.

### 3.7 Reporting Protocols

DNR must report to the CEMVN and other members of the IRT the following information:

1. Monitoring reports, on a schedule and for a period as defined by project specific mitigation plan(s)
2. Credit transaction notifications;
3. Annual Program Account Report / *Financial Account Reporting*, included as **Attachment 2**;
4. *Long Term Protection and Management* included as **Attachment 3**.

### Monitoring Reports

Monitoring conducted in accordance with 33 CFR 332.6 is required of all compensatory mitigation projects to determine if the project is meeting its performance standards and if additional measures are necessary to ensure that the compensatory mitigation project is accomplishing its objectives. If DNR fails to submit reports within 30 days of the deadlines outlined in the mitigation plan(s), the CEMVN may take appropriate compliance actions, see Section 3.6, *Default and Termination of the Program*. Project-specific mitigation plans will detail the parameters to be monitored, the length of the monitoring period, and the dates that the reports must be submitted (e.g., first of each month). The Sponsor is responsible for monitoring mitigation projects and will provide the results of those monitoring efforts in a report to CEMVN and to those members of the IRT as well as other interested members of the public and federal, tribal, state and local resource agencies, upon request. The contents and level of detail for the monitoring reports will be described in the mitigation work plan approved by the CEMVN, in consultation with the IRT, for each Program project.

### Credit Transaction Notification

Section 3.4, *Legal Responsibility for Providing Compensatory Mitigation* establishes the terms by which the legal responsibility for compensation requirements is transferred from the permittee to DNR. These terms require DNR to transmit a credit sale letter to the CEMVN. The document shall be signed by the secretary of DNR or his designee and dated. The credit transaction letter shall include the permit number(s) for which DNR is accepting fees, the number, service area, and resource type of credits being purchased. See **Attachment 5** for *Sample Credit Transaction Letter*. The letter shall include a statement confirming that DNR accepts the responsibility to provide the compensatory mitigation required by the DA permit. DNR shall submit the signed and dated credit transaction letter within three (3) business days of receiving the fees from the

permittee. A copy of each credit transaction letter will be retained in CEMVN's permit administrative records and DNR's administrative and accounting records for the Program.

The Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) will be the primary system used to track credits for this Program. DNR will be responsible for entering debit transactions (credit sales) into RIBITS. For each credit transaction, DNR will input all necessary data into RIBITS at the time of credit sale. This data will consist of, but is not limited to: date, permittee name, permit number (both DNR and DA permit numbers), and number of credits sold.

### **Annual Program Account Report**

DNR must submit an annual program account report to the CEMVN and the IRT. The report will be made available to the public upon request. The annual program report must be submitted no later than November 1, or the following business day if that date falls on a federal/state holiday or weekend.

The annual report will include the following information:

Program account (financial) reporting:

- All income received, disbursements, and interest earned by the program account for the program and by service area.
- A list of all DA permits for which Program funds were accepted by service area, including:
  - The DA permit number (and/or the state coastal use permit number)
  - The service area in which the authorized impacts are located. The amounts paid to the Program
  - The required compensatory mitigation in acres
  - The amount of authorized impacts in acres including habitat type
  - The date the funds were received from the permittee
- A description of Program expenditures/disbursements from the account (i.e., the costs of land acquisition, planning, construction, monitoring, maintenance, contingencies, adaptive management, and administration) for the program and by service area.

Ledger (credit) reporting:

- Beginning and ending balance of available credits and permitted impacts for each resource type;
- All additions and subtractions of credit
- Other changes in credit availability (e.g., credit releases, credit sales suspended) and long-term management funding report: DNR must submit an annual report regarding long-term management to the CEMVN and the IRT.
- In addition to providing the ledger information, it is the responsibility of the Sponsor to identify any deviations of their information from the information provided in RIBITS.

### **3.8 Initial Allocation of Advance Credits**

Upon approval of this instrument, CEMVN authorizes the release of 40 acres of advance credits for each of the two service areas totaling 80 acres of advance credits. These credits are in the form of MCM credits preliminarily assessed at 4.8 credits per acre. Once projects are

implemented and future performance milestones are met, the Sponsor shall first use credits released to fulfill any sold advanced credits within the project service area before any remaining released credits may be sold or transferred to permittees. Credits will be released as a mitigation project meets its success criteria in accordance with the performance milestones and credit release schedule set forth in its mitigation plan. Credit releases must be approved by CEMVN in consultation with the IRT.

Land acquisition and initial physical and biological improvements must be completed within a reasonable time as determined by CEMVN in consultation with the IRT after sale of the first advance credit in that service area; in no event shall this timeframe be extended longer than completion by the third full growing season after the 20<sup>th</sup> acre cumulatively of advance credit is secured by a permittee. Each subsequent project will also be subject to timeframes determined reasonable by CEMVN and the IRT with the maximum timeframes calculated from the time of the sale of advance credits in multiples of 20 acres. Once DNR has sold all of the initial advance credits, no additional advance credits shall be provided until an equivalent number of credits have been released as projects meet performance milestones in accordance with the approved credit release schedule outlined in a project-specific mitigation plan. After all sold advance credits are fulfilled, credits released as a result of the IRT approved mitigation project meeting its performance milestones may be made available for sale at the discretion of the CEMVN and the IRT. If DNR fails to implement a mitigation project within the relevant timeframe or if CEMVN determines that there is a compensatory mitigation deficit within a specific service area by the third full growing season after the first advance credit is sold, the CEMVN will make a determination whether more time is needed to plan and implement an in-lieu fee project or, if additional time is not in the public interest, will direct the DNR to disburse funds from the Program account to provide alternative compensatory mitigation to fulfill those compensation obligations.

The Program will provide compensation for marsh impacts, and as determined by the IRT, the Program will operate under two distinct service areas. Each distinct service area shall contain two marsh habitat types: fresh/intermediate and brackish/saline. A total of 80 acres of advance marsh habitat credits will be made available for both service areas and both habitat types combined, once the instrument is approved. Although the location and habitat types of impacts will not be subdivided, all ledger entries for Program project tracking will differentiate between fresh/intermediate marsh and brackish/saline marsh types and will include the relevant service area to which the entry pertains.

The District Engineer will consider and may grant requests for exceptions for larger advanced credit releases in instances where there aren't sufficient available mitigation banking credits and permittee responsible mitigation is not feasible.

### **3.9 Financial Considerations**

Fees for the DNR's Program shall be established in order to provide the necessary funding to construct projects that will create marsh, conserve wildlife and marine fisheries habitats, reduce open water areas, and re-establish wetlands. These fees shall be determined based on an analysis of the expected costs associated with the re-establishment of aquatic resources in Louisiana's Deltaic and Chenier Plain Service Areas. The program costs will include the cost per acre fee

using the most recent cost information gathered from the last four years of project bid tabulations from the state's Dedicated Dredge Program, CWPPRA, CIAP, and/or state surplus-funded projects and include: project planning and design; construction; plant materials; labor; legal fees; monitoring; program administration; contingency costs appropriate to the stage of project planning, including uncertainties in construction, and real estate expenses; and the resources necessary for the long term management and protection of the Program project that are expected to be necessary to ensure successful completion of Program projects. These fees shall be reviewed annually by the Sponsor, and IRT, and updated as appropriate.

Based on the factors above and comments received from the IRT and the general public during the development of this instrument, the initial standard mitigation fee for marsh habitats will be \$50,000 per acre. These fees shall be reviewed and updated annually by the IRT. *State Marsh Creation Bid Tabulations and Associated Projected Program Costs* are included as **Attachment 7**.

### **3.10 Financial Assurances**

To serve a financial assurances for this Program, DNR has submitted a certification from the Assistant Secretary for the Office of Coastal Management, Department of Natural Resources that attests to DNR's formal commitment to fund, implement, complete, monitor and maintain all compensatory mitigation for which DNR assumes the obligation through sale of credits to permittees through this Program. See **Attachment 8**.

### **3.11 Description of In-lieu Fee Program Account**

#### **Interagency Review Team Involvement**

DNR shall obtain IRT approval for all Program expenditures. While the IRT is normally chaired by the CEMVN and co-chaired by the DNR, with the Louisiana Department of Wildlife and Fisheries (LDWF), National Marine Fisheries Service (NMFS), U. S. Fish and Wildlife Service (USFWS) and Environmental Protection Agency (EPA) acting as commenting members of the IRT, for the purposes of this program's review and evaluation, DNR will strictly act in the Sponsorship role.

#### **Financial Accounting**

Reporting requirements for financial reporting are located in Section 3.7, *Reporting Protocols*. The Program account will be held at a financial institution that is a member of the Federal Deposit Insurance Corporation, and will be established before any fees are accepted. Any and all interest accruing from the account will be retained in the account and utilized to provide compensatory mitigation for impacts to coastal resources authorized by DA permits and/or activities jointly authorized by DA and Coastal Use Permits. The Program account will be established after this instrument is approved and will only contain and accept funds accrued by the Program. There will be no co-mingling of funds. Funds accepted from entities other than permittees must be kept in a separate account. Disbursements from the Program account may only be made after receipt of written authorization from the District Engineer. If the CEMVN

determines that the DNR is failing to provide compensatory mitigation by the third full growing season after the first advance credit is secured by a permittee, the CEMVN may direct the Sponsor to disburse funds from the Program account to provide alternative compensatory mitigation in the form of a purchase of mitigation bank credits.

Additional information on failure to fulfill the terms of the instrument is discussed in Section 3.6, *Default and Termination of the Program*. The CEMVN has the authority to audit the program account records at any time. Funds paid into the Program account may only be used for the selection, design, acquisition (i.e., appraisals, surveys, title insurance, purchase price, etc.), implementation, and management of the approved in-lieu fee compensatory mitigation projects (or substitute mitigation as directed by CEMVN). This may include fees associated with securing a permit for conducting Program-related activities, maintenance and monitoring of project sites, and the purchase of credits from a CEMVN-approved mitigation bank. Use of fees is explicitly prohibited for activities such as upland preservation (other than buffers), research, education and outreach, or implementation of best management practices for wetlands. Up to 5% of the fees paid into Program may be used for administrative costs.

### **Credit Accounting**

RIBITS will be the primary system used to track credits for this Program. RIBITS is the national electronic information system by which the CEMVN is required to track in-lieu fee programs.

DNR will issue credits in quantities a hundredth of an acre unit or greater. The Program will accept the impact value(s) assessed by the CEMVN project managers for each project, to satisfy compensatory mitigation requirement. The Program will accommodate any assessment methodology selected by the CEMVN when habitat impacts are being quantified. Different methods may be used to assess impacts to aquatic habitats however, the same assessment methodology shall be used to calculate both Program credits available and credits impacted. Using the Modified Charleston Method the Program has preliminarily assigned a habitat credit value of 4.8 credits<sup>2</sup> per acre for all marsh habitat types. Derivation of the habitat value is included as **Attachment 6, *Habitat Restoration/Enhancement Mississippi Valley New Orleans Modified Charleston Method Worksheet***. An MVN MCM will be performed on all projects approximately one (1) year after construction completion to confirm the habitat credit type associated with project. If necessary, following consultation with the IRT and with CEMVN approval, the Program may develop other habitat values using other habitat assessment tools (i.e. the Wetland Value Assessment (WVA), use of acreage and ratios as a surrogate).

## **4.0 Amendment and Termination**

Amendments to this Agreement may be proposed by the Sponsor or the CEMVN. Proposed amendments should be presented in writing to and approved by the IRT and shall become effective upon execution by a duly authorized representative of each party.

This Agreement may be terminated by either signatory upon thirty (30) days written notice to the other party.

---

<sup>2</sup> The 4.8 habitat credit value was reviewed and approved by the sub-committee at the direction of the IRT.

## 5.0 Notices and Contacts

The individuals listed below shall be the principal contacts for this Instrument. Notices to be given herein shall be made in writing and may be given by delivering the same in person or to their successor, by mail or by electronic correspondence. Notices shall be effective only if and when received at the address of the party to be notified (or their appointees).

For the CEMVN:                   Regulatory Branch Chief  
US Army Corps of Engineers  
New Orleans District  
CEMVN-OD-S  
7400 Leake Avenue  
New Orleans, LA 70118-3651

For the Sponsor:               Mitigation Manager  
Permits & Mitigation Division  
Office of Coastal Management  
Department of Natural Resources  
617 North Third Street  
10<sup>th</sup> Floor, Suite 1078  
Baton Rouge, LA 70802

## 6.0 References

Louisiana Oil Spill Coordinator's Office. 2004. Land and Water Interface of Louisiana from 2002 Landsat Thematic Mapper Satellite Imagery, Geographic NAD83, LOSCO (2005).

**U.S. Census Bureau.** 2010. Annual Estimates of the Population for Counties: April 1, 2006 to July 1, 2010. (Coastal parish population total was calculated based on the sum of the populations of the 20 coastal parishes: Ascension, Assumption, Calcasieu, Cameron, Iberia, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, and Vermilion.)

**Louisiana Department of Natural Resources, Technology Assessment Division.** 2008. Selected Louisiana Energy Statistics. Louisiana Energy Topic. Baton Rouge, LA.

**U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service.** 2009. Fisheries of the United States, 2008. Silver Spring, MD.

**U.S. Army Corps of Engineers.** 2007. Waterborne Commerce of the United States, Calendar Year 2005. Part 5 - National Summaries. Alexandria, VA: Institute for Water Resources, U. S. Army Corps of Engineers.

**Barras, J.A., J.C. Bernier, and R.A. Morton.** 2008. Land Area Change in Coastal Louisiana: A Multidecadal Perspective (from 1956 to 2006). U.S. Geological Survey Scientific Investigations Map 3019, scale 1:250,000, 14p. Pamphlet

**Britsch, L.D., and J.B. Dunbar.** 1993. Land-loss Rates- Louisiana Coastal Plain. Journal of Coastal Research, v. 9, p. 324-338.

**Barras, J.A., S. Beville, D. Britsch, S. Hartley, S. Hawes, J. Johnston, P. Kemp, Q. Kinler, A. Martucci, J. Porthouse, D. Reed, K. Roy, S. Sapkota, and J. Suhayda.** 2003. Historical and Projected Coastal Louisiana Land Changes: 1978-2050: USGS Open File Report 03-334.

**Dahl, T.E.** 2000. Status and Trends of Wetlands in the Conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington D.C.

**Field, D.W., A. Reyer, P. Genovese, and B. Shearer.** 1991. Coastal Wetlands of the United States- An Accounting of a Valuable National Resource. Strategic Assessment Branch, Ocean Assessments Division, Office of Oceanography and Marine Assessment, National Ocean Service, National Oceanic and Atmospheric Administration, Rockville, MD.

Smith, G.J., and Barrow, W.C., 2005, [Using Radar to Understand Migratory Birds and Their Habitats: Critical Needs for the Gulf of Mexico](#): U.S. Geological Survey Fact Sheet 2005-3067, 2 p.

State of Louisiana Department of Natural Resources  
Office of Coastal Management  
In-Lieu Fee Instrument

January 23, 2014



23 January 2014

**S/** KEITH LOVELL  
ASSISTANT SECRETARY  
OFFICE OF COASTAL MANAGEMENT  
DEPARTMENT OF NATURAL RESOURCES

DATE

State of Louisiana Department of Natural Resources  
Office of Coastal Management  
In-Lieu Fee Instrument

January 24, 2014



24 January 2014

**S/** COLONEL RICHARD HANSEN  
DISTRICT COMMANDER  
U.S. ARMY CORPS OF ENGINEERS  
NEW ORLEANS DISTRICT

DATE

## Attachment 1

### Selecting and Implementing Compensatory Mitigation

The DNR will undertake a mitigation project site search in basins and/or areas surrounding the impacted project locations. The DNR will attempt to strategically identify significant areas that will support mitigation projects that would result in the greatest mitigation value. The DNR will be open to site location and project proposals suggested by other federal and state agencies, Parishes and/or other entities (NGO's, local municipalities, etc.), and will meet annually with the IRT to discuss potential project development and selection. The DNR will search for re-establishment projects that are ready or will be ready for construction completion three years from the sale of the first advance credit. These re-establishment projects will be thoroughly evaluated to determine the ecological values they may provide. Permit applications will be required for those permits requiring structures or a discharge of fill into waters of the US and shall be made part of project mitigation work plans. This project "readiness" and ecological value will be very important in determining the priority of a Program funded project, as there are a limited number of marsh creation efforts ongoing in the coastal area of Louisiana. One of the Program objectives is to provide mitigation projects that will provide the highest ecological value for the money spent. The identification of potential mitigation projects for coastal wetland re-establishment in the form of marsh creation by the DNR will be an on-going activity of the Program using an intensive review process. The DNR will attempt to pre-qualify mitigation projects based on their ability to provide similar functions and values to the corresponding impacts for which fees have been collected whenever possible. Mitigation projects will be cataloged according to habitat type and relative ecological value in an attempt to have potential "shovel-ready" mitigation projects so that funds can be spent in a timely manner.

The DNR will complete construction of mitigation projects within such time as deemed reasonable by CEMVN in consultation with the IRT; however, in no event shall this time period exceed 3 years from the sale of the 20<sup>th</sup> advance acre; subsequent timeframes will be calculated from the sale of advance acres in multiples of 20. The goal is to complete the first project within three (3) years of the first sale of an advance credit to a permittee and a project every three years thereafter. DNR will provide compensatory mitigation for permitted impacts within the same geographic service area in which the impacts occur unless the CEMVN, in consultation with the IRT, has agreed to an exemption. When designing a mitigation project in the Deltaic or Chenier service areas, should additional funds be necessary, the IRT may authorize adequate funds from either or both service areas be combined for the sole purpose of completing design and construction of the IRT approved project. This will allow for a more expeditious and effective use of available funds and will allow for the possible creation of larger mitigation projects created by basin and habitat type boundaries.

The location and habitat type where impacts occur will be continuously tracked and information will be provided to the IRT in order to assist in alternating projects by habitat type during mitigation project selection. The IRT will be consulted prior to the obligation of funds for mitigation projects that contain proposed out of kind or out of basin mitigation or combination thereof.

The Program is flexible and can accommodate any assessment methodology selected by the CEMVN when habitat benefits are being quantified. Different methods may be used to assess benefits to aquatic habitats, however, the primary habitat assessment model announced by the CEMVN is the MVN MCM. Proposed DA permits and Program restoration projects will be assessed using an assessment methodology acceptable to the CEMVN.

The CEMVN policy has been to use restoration (re-establishment and rehabilitation) and enhancement projects as the primary sources of mitigation for project impacts. Preservation and creation have been used in CEMVN only on a limited basis and only in unique situations where impacts were either exceedingly poor wetland sites or resulted in limited and/or temporary loss of some of the wetland functions, usually habitat. This Program will not utilize habitat preservation to satisfy compensatory mitigation obligations and all habitat preservation will be performed at the direction of the IRT. Restoration and enhancement opportunities are widely available in Louisiana and therefore these types of mitigation projects will continue to be the primary source of mitigation in CEMVN. The MVN MCM includes some provisions to provide additional credits for inclusion of existing wetlands (preservation) and upland areas within a compensatory mitigation project to the degree that the protection and management of such areas is an enhancement of aquatic functions and increases the overall ecological functioning of the mitigation site, or of other aquatic resources within the watershed. Such enhancement is reflected in the amount of credit attributed to the mitigation project.

## **Attachment 2**

### **Financial Account Reporting**

The DNR shall submit an Annual Report by August 1 to the CEMVN and IRT for the DNR's previous fiscal year (July 1 through June 30). The Annual Report shall include a Program Account Report, which will include an accounting of all income received and interest earned by the Program account; a listing of all permits for which funds were accepted including permit number, location of impacts, amount and type of authorized impacts, amount and type of required compensatory mitigation, the amount paid to the Program account and the date received; and an accounting of all expenditures/disbursements attributed to the Program. The information will be sorted according to Service Area.

## Attachment 3

### Long Term Protection and Management

DNR has several legal mechanisms available to its Program for the long-term protection and management of parcels upon which compensatory mitigation is performed. The DNR, or the long-term steward if transfer of project responsibility is approved by CEMVN, will oversee the long-term protection and management of each project.

#### A. Long-Term Protection

For each proposed mitigation project, the State will submit appropriate title information to CEMVN to show ownership of and encumbrances on the proposed site. The State will also submit draft(s) of the proposed mechanism(s) to be used to ensure long-term protection and management of the site, which are subject to review and approval by CEMVN.

On property owned by the State of Louisiana, the State will retain ownership of the property. If the State intends to site a mitigation project on property it intends to purchase or otherwise obtain, the State will acquire title to the property prior to construction of the project. For projects sited on property owned by the State, long-term protection and management will be guaranteed by the State through a project-specific agreement executed by the State and CEMVN and through a conservation servitude granted to a qualified holder as defined under the Louisiana Conservation Servitude Act, La. R.S. 9:1271, et seq. Nonetheless, the conservation servitudes may provide protections greater than those set forth in the Louisiana Conservation Servitude Act and may allow activities associated with the design, construction, operation and maintenance, and long-term protection and management of the mitigation project.

For each project performed on public property owned by entities other than the State or on privately-owned property, including property held by conservation organizations, long-term protection will be assured through a CEMVN-approved conservation servitude that will be granted to a qualified and CEMVN-approved holder as defined under the Louisiana Conservation Servitude Act. Nonetheless, the conservation servitudes may provide protections greater than those set forth in the Louisiana Conservation Servitude Act and may allow activities associated with the design, construction, operation and maintenance, and long-term protection and management of the mitigation project. Long-term management will be guaranteed by the State through a project-specific agreement executed by the State and CEMVN. The State will secure appropriate legal rights to access, construct, operate and maintain the mitigation project on the site from the site owner through a lease, a servitude, a cooperative endeavor agreement, or other appropriate legal mechanism. The State will provide CEMVN proof that it has secured appropriate legal rights to the site prior to project construction and prior to any credit release associated with that mitigation project.

In every case, a CEMVN-approved and duly executed conservation servitude as provided in this section for protecting the project lands will be recorded in the conveyance records of the Parish in which the project site is located. The DNR will insure that the recordation information is sent to the CEMVN to be made part of the official project record. Conservation servitudes on public

or privately-owned property shall provide perpetual protection as provided by Louisiana law. Servitudes shall allow transfer to a long-term steward.

The DNR will ensure that CEMVN-approved protection mechanisms are in place prior to construction of the mitigation project, as stipulated in each mitigation plan. The draft mitigation plan will include a draft of the proposed protection mechanism(s), which will be submitted to the IRT for review in order to ensure the protective instrument(s) is (are) in place prior to construction and any credit release. In every case, the protection mechanism shall prohibit uses that might jeopardize the environmental restoration and preservation objectives of the project.

To avoid conflicts of interest, the Program sponsor cannot serve as the holder for a conservation servitude protecting the mitigation site. All holders will need to be a qualified holder as defined under the La. Conservation Servitude Act, La. R.S. 9:1271, et seq. and will need approval by CEMVN. Conservation servitudes will include holders that are entities such as Federal, Tribal, or local resource agencies, or non-profit conservation organizations and will prohibit uses that might jeopardize the objectives of the project. The Program sponsor shall be designated as an entity with a “third party right of enforcement” on all conservation servitudes executed on public property owned by entities other than the State and on privately-owned property. With approval of CEMVN, conservation servitudes under this attachment may provide other qualified entities with a “third party right of enforcement” in addition to any approved holders and the Program sponsor. In addition to and separate from any conservation servitude, the Program Sponsor, as may be necessary to comply with state law or regulations, may execute additional separate servitudes or other land rights agreements in its own name or in the name of the State of Louisiana for mitigation sites located on public property owned by entities other than the State or on privately-owned property. Such servitudes shall not conflict with the protections afforded by the conservation servitudes under the La. Conservation Servitude Act but may provide terms and conditions necessary for design, construction, monitoring, operation and maintenance, and other actions necessary toward the purposes of the mitigation project and may provide terms protecting the mitigation site. For each project site, pre-existing encumbrances that could jeopardize long-term protection and management of the site and any additional and separate Program Sponsor servitude will be subordinated to the conservation servitude.

## B. Long-Term Management

Program projects will be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. The DNR shall be responsible for maintaining projects as functional aquatic resources, consistent with the appropriate mitigation plan, to ensure long-term viability through the lifespan of the project in accordance with performance criteria established per individual mitigation projects. The lifespan of marsh habitat projects shall be defined as 20 years from the date CEMVN determines that the project has achieved its long-term success criteria. The DNR shall retain responsibility to maintain the marsh projects throughout this 20-year period unless and until long-term project responsibility is formally transferred to a CEMVN-approved long-term steward.

## **Attachment 4**

### **Louisiana Coastal In-Lieu Fee Program Service Area Map**

(This page intentionally left blank as a placeholder. A high quality map will be delivered electronically and separately.)

# Louisiana Coastal In-Lieu Fee Service Areas

**NOTES:**  
 The landward boundary of these two service areas was determined by adopting the boundary that would afford encompassing the greatest area from the following regulatory or study areas: the Louisiana Coastal Zone boundary, the Louisiana Coastal Wetlands Conservation Plan Area boundary and the 2004 Louisiana Coastal Area Ecosystem Restoration (LCA) boundary; all of which are to be located within the geographical confines of the New Orleans District of the USACE.

CHENIER PLAIN SERVICE AREA

DELTAIC PLAIN SERVICE AREA

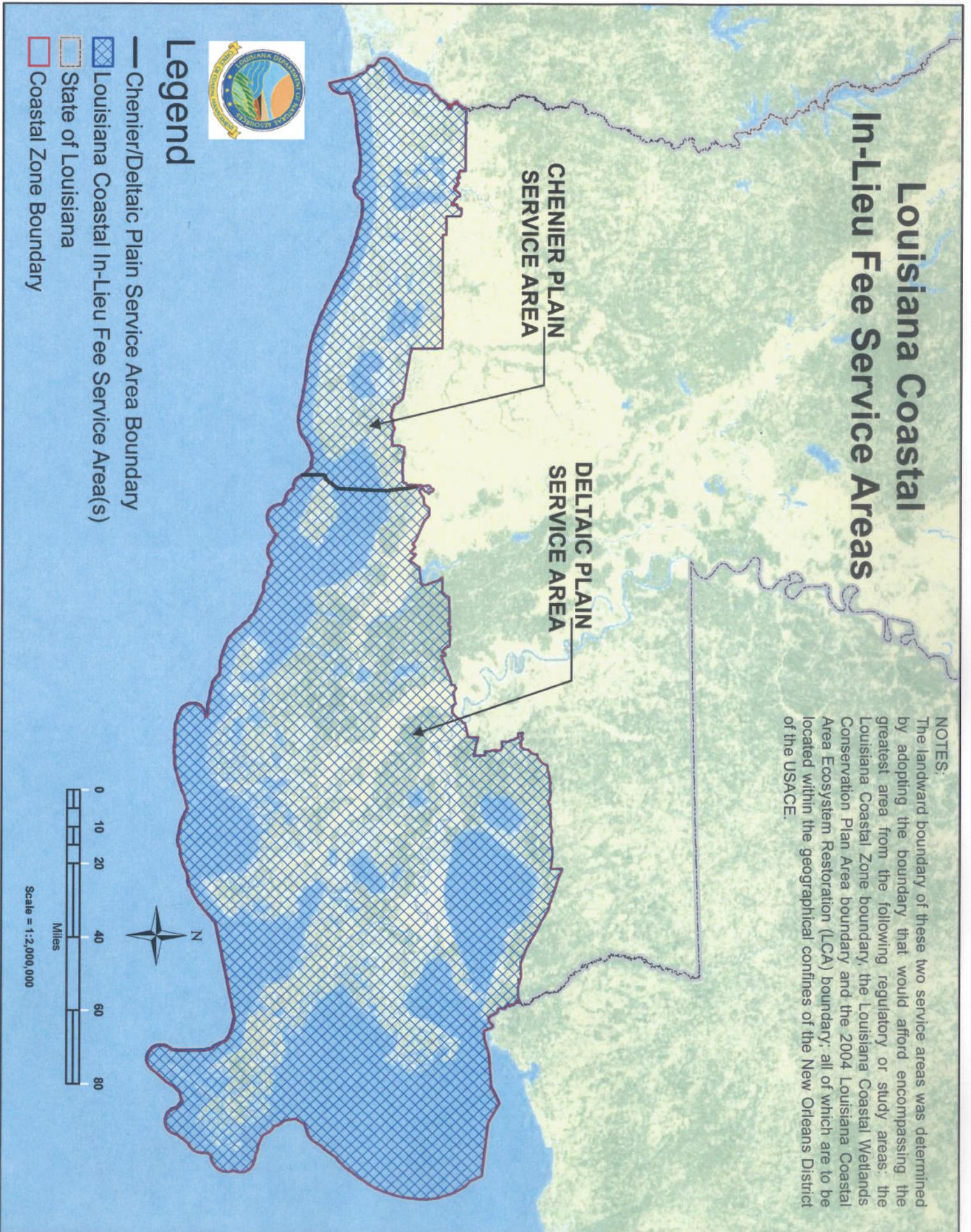


## Legend

- Chenier/Deltaic Plain Service Area Boundary
- ▣ Louisiana Coastal In-Lieu Fee Service Area(s)
- State of Louisiana
- Coastal Zone Boundary



Scale = 1:2,000,000



## Attachment 5

### Sample Credit Transaction Letter

SAMPLE LETTER - NOTICE OF SALE

CEMVN - Policy Specialist  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

Subject: Permit Ref Number; Statement of Sale for (Number of Credits) Wetland Mitigation Credits from the Project Name to Permittee Name

Date

The Department of Natural Resources, Department of Natural Resources (DNR) has a Signed Instrument with the U.S. Army Corps of Engineers (Corps) to establish and operate an In-Lieu Fee Program.

This letter confirms the sale of (Number of Credits) credits of (Habitat Type A), and (Number of Credits) credits of (Habitat Type B) located in (Service Area) relating to unavoidable wetland impacts for Permit Ref Number. These credits are being used as compensatory mitigation for (Number of Acres) acres of impact to (Habitat Type A), and (Number of Acres) acres of impact to (Habitat Type B) in the (Impacted Basin) as authorized by DA permit (DA permit number) and DNR Coastal Use Permit Number (CUP number).

By selling credits to the above permittee, DNR acknowledges it is the party responsible for fulfilling the mitigation obligations of the Permit(s) listed above.

Sincerely,

Administrator  
Permits & Mitigation Division  
Office of Coastal Management  
Louisiana Department of Natural Resources

## **Attachment 6**

### **Habitat Restoration/Enhancement Mississippi Valley New Orleans Modified Charleston Method Worksheet**

(This page intentionally left blank as a placeholder. A copy of the MVN MCM Worksheet used to derive the habitat credit value for marsh impacts will be delivered electronically and separately.)

Revision\_February\_2012

**Table 2B: Proposed Restoration/Enhancement Mitigation Worksheet**

Mitigation Project Name: Typical ILF Funded Marsh Creation Project  
Mitigation Project Size (Acres) Include Wetlands:  
Non-wetlands and Buffer Areas: 25.0  
Mitigation Project HUC: 08070100  
Mitigation Project Basin: Mississippi River  
Impacted HUC: (HUC)  
Mitigation Project in the same basin as the impact: Yes  
Proximity Factor: 1.0

	Factors	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	Mitigation Type	Re-establishment I	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Maintenance/ Management Requirement	Self-Sustaining	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Control	Conservation Servitude	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Temporal Lag	5 to 10	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Credit Schedule	Schedule 3	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Kind	Category 1	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Location	Zone 1	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Negative Influences on the mitigation site	Commercial/Residential Development	No Impact	No Impact	No Impact	No Impact	No Impact
	Oil & gas activities	No Impact	No Impact	No Impact	No Impact	No Impact
	Size	Category 3	Category 1	Category 1	Category 1	Category 1
	Corridors	No Impact	No Impact	No Impact	No Impact	No Impact

Revision\_February\_2012

**Table 2B: Proposed Restoration/Enhancement Mitigation Worksheet**

Mitigation Project Name:

Typical ILF Funded Marsh Creation Project

	Factors	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	Mitigation Type * Maintenance/ Management Requirement	4.0	0.0	0.0	0.0	0.0
	Control	0.4	0.0	0.0	0.0	0.0
	Temporal Lag	-0.1	0.0	0.0	0.0	0.0
	Credit Schedule	0.2	0.0	0.0	0.0	0.0
	Kind	0.4	0.0	0.0	0.0	0.0
	Location	0.4	0.0	0.0	0.0	0.0
	<b>Subtotal</b>	<b>5.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Negative Influences on the mitigation site	Commercial/Residential Development	0.0	0.0	0.0	0.0	0.0
	Oil & gas activities	0.0	0.0	0.0	0.0	0.0
	Size	-0.5	0.0	0.0	0.0	0.0
	Utility Corridors	0.0	0.0	0.0	0.0	0.0
	<b>Sum of negative impacts</b>	<b>-0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	Sum of m Factors	4.8	0.0	0.0	0.0	0.0
	Size of Area (Acres)	25.0	0.0	0.0	0.0	0.0
	M × A =	120.0	0.0	0.0	0.0	0.0
Acreage required for Permittee-responsible Mitigation project using required credits calculated in Adverse impact Worksheet.		0.0	0.0	0.0	0.0	0.0
Total Restoration/Enhancement Credits = $\sum (M \times A) =$						120.0
Total Available including buffers						120.0
Average Credit Per Acre =						4.8

	Buffers	Non-hydric inclusions	Hydric Inclusions
Credits per acre (M)	0.2	0.4	0.6
Size in Acres (A)		0.0	0.0
M × A =	0.0	0.0	0.0
Credits added to bank =			0.0

## Attachment 7

### State Marsh Creation Bid Tabulations and Associated Projected Program Costs

Funding Source	Project	Date	Acres	Project Cost/Ac
Ded Dredge	Point Au Fer	May-07	67	\$36,854.48
Ded Dredge	Grand Bayou Blue	May-07	38	\$48,198.27
CWPPRA	Goose Point	Feb-08	566	\$22,174.43
CWPPRA	North Lake Mechant	Apr-08	698	\$44,221.73
CWPPRA	Barataria Landbridge	Jul-08	1,207	\$24,233.31
CWPPRA	Bayou Dupont	Nov-09	600	\$42,026.66
			Total Avg:	\$36,284.81

Other Costs Considered:	
Engineering & Design	\$3,600/acre
Vegetative Plantings	\$2,500/acre
Real Estate Costs/Legal fees	\$1,500/acre
Planning Costs	\$1,000/acre
Monitoring/Surveying	\$1,000/acre
Operations and Maintenance	\$1,500/acre
Administrative Costs	\$2,500 (5%)
Total:	\$13,600

The bid tabulations above represent all marsh creation project construction costs and all costs have been rounded to the nearest \$1,000. These construction costs include, but may not be limited to: mobilization, demobilization, hydraulic dredging (paid by the cubic yard), surveying, containment dike construction and maintenance, settlement plate installation, and grade stakes and flagging.

There are numerous project specific items that affect the price of marsh creation projects. Some of these may include, but are not limited to:

1. Fuel costs
2. Timing, seasonal and other
3. Providence
4. Dredge Availability
5. Labor availability/Labor costs
6. Project Size
7. Amount of containment required
8. Permit restrictions

DNR acknowledges that there is significant cost saving associated with larger scale marsh creation projects. This is illustrated by data in the above chart for the Bayou Dupont Marsh Restoration Project, the Goose Point Marsh Creation Project, and the East Marsh Island Marsh Creation Project<sup>3</sup>. All three of these projects are more than 500 acres in size. As previously stated, this Program will actively seek projects, such as these three projects, that will offer the most economical option for implementing compensatory mitigation measures. Using Program funds on smaller marsh creation projects in scope and size will likely not yield the most cost effective Program project. If DNR anticipates and/or projects that only small projects are slated for construction, the Program will need to increase its fee schedule to compensate for the likely increase in construction costs for marsh creation projects.

The cost per acre of creating marsh is mostly dependent upon the thickness of the shallow open water fill, or the depth of the shallow open water to be filled, as such, dredging cost will vary widely. Program fee schedules were derived based upon the latest data and information from projects with numerous variables making an average cost the best available predictor of anticipated costs.

The underlying facts upon which these assumptions were based and used to develop this fee schedule will change over time and will require periodic adjustment. As other marsh creation cost data becomes available, DNR will evaluate this data and adjust its fee schedule accordingly.

The U.S. Army Corps of Engineers, Walla Walla District authored and published literature and associated software for estimating dredge/fill projects. These programs are the Micro Computer

---

<sup>3</sup> The data from bid tabulations for this project was received on March 25, 2011 and was not included in the average project costs. This data indicates that the ILF Program cost estimates and fee schedules that were developed from this data may have been over generous. DNR may need to adjust its current fee schedule according to this new data but prefers to use its previous cost estimates. This project site had some relatively shallow fill areas therefore the costs were lower because of this.

Aided Cost Estimating System (MCACES), and the Cost Engineer Dredge Estimating Program (CEDEP). These and other cost factors are addressed in the literature and software.

## **Attachment 8**

### **Financial Assurance Certification**

(This page intentionally left blank as a placeholder. A copy of the signed certification letter from the Assistant Secretary for the Office of Coastal Management, Department of Natural Resources will be delivered electronically and separately.)

**BOBBY JINDAL**  
GOVERNOR



**STEPHEN CHUSTZ**  
SECRETARY

**State of Louisiana**  
**DEPARTMENT OF NATURAL RESOURCES**  
**OFFICE OF COASTAL MANAGEMENT**

November 22, 2013

Colonel Richard L. Hansen  
New Orleans District  
Department of the Army, Corps of Engineers  
Post Office Box 60267  
New Orleans, LA 70160-0267

Dear Col. Hansen:

As you are aware, the Department of Natural Resources ("DNR") implements compensatory mitigation projects through an in-lieu fee program which is administered through our Office of Coastal Management ("OCM"). The purpose of this letter is to provide you with DNR's formal commitment, pursuant to the provisions of 33 CFR 332.3(n)(1), to faithfully pursue and complete all compensatory mitigation for which we assume that obligation. As a government agency, our program is based on both legislatively-enacted statutes and codified rules.

DNR is committed to providing and completing mitigation projects needed to satisfy any requirements formally assumed by OCM. The program carefully monitors all costs associated with mitigation projects developed to satisfy mitigation requirements to ensure that the existing fee schedule provides revenues need to cover all anticipated expenditures for all project phases from land acquisition, implementation, monitoring, long-term site protection and maintenance. If changes in fees are necessary, the Department will pursue them. If shortfalls are experienced because fees are insufficient, the Department is committed to covering costs to meet permit requirements that have been assumed by the program.

It is our agency's desire that this letter provide financial assurances for all requirements accepted by OCM and for all mitigation projects provided by OCM. We request your determination that no additional financial assurances are necessary. Please do not hesitate to contact me if you have questions or need anything else.

Sincerely,

A handwritten signature in blue ink, appearing to read "Keith Lovell".

Keith Lovell, Assistant Secretary  
Office of Coastal Management  
Department of Natural Resources

Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487  
617 North Third Street • 10th Floor • Suite 1078 • Baton Rouge, Louisiana 70802  
(225) 342-7591 • Fax (225) 342-9439 • <http://www.dnr.louisiana.gov>

An Equal Opportunity Employer