

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF LOUISIANA
LAKE CHARLES DIVISION

UNITED STATES OF AMERICA
and STATE OF LOUISIANA

Plaintiffs,

v.

CONOCOPHILLIPS COMPANY
and SASOL NORTH AMERICA
INC.,

Settling Defendants.

CIVIL ACTION NO.

JUDGE

MAGISTRATE JUDGE

CONSENT DECREE FOR NATURAL RESOURCE DAMAGES

This Consent Decree is made and entered into by and among Plaintiffs, the United States of America (“United States”), on behalf of the United States Department of the Interior, acting through the United States Fish and Wildlife Service (“DOI/USFWS”), and the National Oceanic and Atmospheric Administration (“NOAA”) of the United States Department of Commerce, and the Louisiana Department of Wildlife and Fisheries (“LDWF”) and the Louisiana Department of Environmental Quality (“LDEQ”) for the State of Louisiana (State), and Settling Defendants ConocoPhillips Company and Sasol North America Inc. (collectively the “Settling Defendants”).

I. BACKGROUND

A. Contemporaneously with the lodging of this Consent Decree, the United States, on behalf of the Administrator of the United States Environmental Protection Agency (“EPA”), NOAA, and the DOI/USFWS, and LDEQ and LDWF have filed a Complaint in this matter against Settling Defendants pursuant to Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. §§ 9606 and 9607, Section 311(f) of the Federal Water Pollution Control Act (also known as the Clean Water Act or CWA), 33 U.S.C. § 1321 (f), and state law. Claims made by the State of Louisiana also include a claim under the Louisiana Environmental Quality Act, La. R.S. § 30:2025.

B. In the Complaint, the United States and the State seek, *inter alia*, (1) reimbursement of costs incurred by the United States for response actions at the Calcasieu Estuary Superfund Site in Calcasieu Parish, Louisiana (hereinafter the “Site” or the “Calcasieu Estuary Site”), together with accrued interest; (2) performance of response actions at the Bayou Verdine Area of Concern (“BVAOC”)^{1/} by Settling Defendants consistent with the National Contingency Plan, 40 C.F.R. Part 300 (as amended) (“NCP”); and (3) recovery of Natural Resource Damages for the injury to, destruction of or loss of natural resources pursuant to Section 311(f) of the CWA, 42 U.S.C. § 1321(f), under the trusteeship of the federal and state

^{1/} The Bayou Verdine Area of Concern (“BVAOC”) is that area defined or considered by EPA for purposes of response investigations and actions. See definition at Section I, Paragraph H of Consent Decree for Removal Action and Recovery of Response Costs filed contemporaneously herewith.

natural resource trustee agencies which include NOAA, the DOI/USFWS, LDEQ and LDWF. The State also asserts claims against Settling Defendants under Louisiana law.

C. In the Complaint, the United States and the State assert, *inter alia*, that Settling Defendants, or their legal predecessors in interest, discharged and disposed of hazardous substances into Bayou Verdine from their refining and petrochemical facilities and that such hazardous substances were released into the environment and have caused the incurrence of response costs by the United States and injury to, destruction of, or loss of natural resources within the Calcasieu Estuary.

D. On March 31, 1999, EPA commenced a Remedial Investigation (RI) for portions of the Site, including for areas of the Calcasieu River in the upper Estuary, pursuant to 40 C.F.R. § 300.430. Concurrent with EPA's RI, the Settling Defendants performed additional, supplementary investigations and assessments of the conditions in the BVAOC. These investigations are reported in: *Calcasieu Estuary Remedial Investigation/ Feasibility Study (RI/FS): Baseline Ecological Risk Assessment (BERA)*, EPA 2003; *Bayou Verdine Investigation, Volume I: Nature and Extent Investigation (Entrix, October 1999)*, *Bayou Verdine Investigation, Volume II: Screening Level Ecological Risk Assessment (Entrix, November 1999)*, *Bayou Verdine Investigation, Volume III: Baseline Ecological Risk Assessment (Entrix, March 2001)* and *Bayou Verdine Investigation, Volume IV: Baseline Human Health Risk Assessment (Entrix, April 2001)*. Collectively, these investigations found the following hazardous substances, among others, in the sediments of Bayou Verdine and areas within Coon Island Loop, an adjacent portion of the Calcasieu River: arsenic, polynuclear-aromatic hydrocarbon ("PAH") compounds, zinc, copper, and chromium. These investigations found the following hazardous substances,

among others, in the surface waters of Bayou Verdine and Coon Island Loop: 1,1,2-trichloroethane, 1,2-dichloroethane (“EDC”), vinyl chloride, and zinc. The investigations found the following hazardous substances, among others, in biota in Bayou Verdine and Coon Island Loop: arsenic, EDC, PAH compounds, mercury, and zinc.

E. Based on data compiled from EPA’s and the Settling Defendants’ investigations and pursuant to a negotiated Administrative Order on Consent (“AOC”) dated February 15, 2002, Settling Defendants conducted an Engineering Evaluation and Cost Analysis (“EE/CA”) for the BVAOC.

F. Following the issuance of the AOC for the EE/CA, elevated concentrations of EDC were further delineated in the sediments of the West Ditch Area of Bayou Verdine. Pursuant to a subsequently negotiated AOC for Removal Action dated October 22, 2002 (the “West Ditch AOC”), the Settling Defendants agreed to perform a time-critical removal action at the West Ditch Area to remove the sediment containing the elevated EDC concentrations. This action was completed in February 2004.

G. EPA also determined the need to perform a Non-Time Critical Removal Action in the Main Channel of the BVAOC. This EPA decision is embodied in an Action Memorandum executed on August 6, 2003, and is to be performed by Settling Defendants, under EPA oversight, in accordance with the Consent Decree for Removal Action and Recovery of Response Costs lodged contemporaneously herewith. LDEQ has concurred in this decision. The Non-Time Critical Removal Action includes, *inter alia*, removal of contaminated sediments in discrete areas of the BVAOC, upland on-site containment of the removed sediments, and monitored natural recovery.

H. NOAA, DOI/USFWS, LDWF and LDEQ, (collectively, “the Trustees”) have each been designated a natural resource trustee pursuant to Section 107(f) of CERCLA, 42 U.S.C. § 9607(f); Section 311 of the Clean Water Act (“CWA”), 33 U.S.C. § 1321; LAC 43:XXIX.109.A and Subpart G of the National Contingency Plan (“NCP”), 40 C.F.R. §§ 300.600 - 300.615 and, under these authorities, act on behalf of the public to seek damages for the injury to, destruction of, or loss of natural resources resulting from releases of hazardous substances into the environment.

I. Using the data provided by EPA’s RI for the Calcasieu Estuary Site and by the Settling Defendants’ additional investigations of the BVAOC, the Trustees implemented a natural resource damage assessment (“NRDA”) to evaluate the injury, loss or destruction of natural resources and resource services within the Calcasieu Estuary due to releases of hazardous substances at or from the Settling Defendants’ facilities, including, but not limited to, resource injuries resulting from the removal actions performed in the West Ditch Area and to be performed in the Main Channel of the BVAOC.

J. During the NRDA process, the Trustees also consulted and coordinated with the Louisiana Department of Natural Resources (LDNR), another designated natural resource trustee in Louisiana, to ensure that there were no potential impacts to trust resources in Louisiana’s defined coastal zone due to hazardous substance releases within the scope of the assessment.

K. The Settling Defendants cooperated with the Trustees in the NRDA process pursuant to 43 C.F.R. § 11.32(a)(2)(iii).

L. The Trustees’ assessment of injuries to natural resources, including interim ecological service losses, and the restoration plan developed to compensate for those losses are

described in the Final Damage Assessment and Restoration Plan and Environmental Assessment for the Bayou Verdine Site (“Final DARP”). The assessment and restoration plan finalized by the Trustees selects a particular restoration project - the Sabine Unit 1999 Restoration Project - to compensate for the natural resources losses attributable to Settling Defendants’ releases of hazardous substances into the Calcasieu Estuary. The Project will create over 14 new acres of marsh, enhance the ecological functioning of approximately 247 acres of existing marsh, and increase the expected functional lifespan of these marshes. It is to be performed in the Calcasieu Estuary at a designated site within the Sabine National Wildlife Refuge.

M. During development of the Final DARP, the Trustees provided opportunities for public participation, including through a formal public review and comment period on the proposed assessment and restoration plan, in accordance with 43 C.F.R. §§ 11.32 and 11.81, 42 U.S.C. §§ 9607(f) and 9611(I), and the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321, *et seq.*; 74 Fed. Reg. 13193 (March 26, 2009); Lake Charles American Press, March 27, 2009.

N. Each Trustee has incurred costs in connection with carrying out this NRDA process.

O. This Consent Decree provides the terms under which Settling Defendants shall, subject to oversight by the Trustees, implement the Sabine Unit 1999 Restoration Project, as described herein, and provides for payments by Settling Defendants of Past Assessment Costs and Future Costs of the Trustees.

P. The Settling Defendants that have entered into this Consent Decree do not admit

any liability to the Plaintiffs arising out of the transactions or occurrences alleged in the Complaint, nor do they acknowledge that any release or threatened release of hazardous substances at or from their facilities caused Natural Resource Damages. The Settling Defendants do not admit and retain the right to controvert any of the factual or legal statements or determinations made herein in any judicial or administrative proceeding except in an action to enforce this Consent Decree.

Q. The United States, the State, and Settling Defendants recognize, and this Court finds, that the Parties have negotiated this Consent Decree in good faith, that implementation of this Consent Decree will expedite the restoration of natural resources and avoid lengthy and protracted litigation, and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:

II. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, Sections 107 and 113(b) of CERCLA, 42 U.S.C. §§ 9607 and 9613(b), and Section 311(e)(2) of the CWA, 33 U.S.C. § 1321(e)(2). This Court also has personal jurisdiction over the Settling Defendants. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) and Section 113(b) of CERCLA, 42 U.S.C. § 9613(b). Solely for the purpose of this Consent Decree and the underlying Complaint, Settling Defendants waive all objections and defenses that it may have to jurisdiction of the Court or to venue in this District. Settling

Defendants shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

III. PARTIES BOUND

2. This Consent Decree applies to and is binding upon the United States, the State and upon the Settling Defendants and their respective successors and assigns. Settling Defendants shall provide a copy of this Consent Decree to any successor-in-interest. Any change in ownership or corporate status of either Defendant, including any transfer of assets or real or personal property, shall in no way alter Settling Defendants' responsibilities under this Consent Decree.

IV. DEFINITIONS

3. Unless otherwise expressly provided herein, terms used in this Consent Decree which are defined in the CERCLA and the CWA, and in regulations promulgated under CERCLA and the CWA, including 43 C.F.R. § 11.14, shall have the meanings assigned to them in such statutes and regulations. Whenever terms listed below are used in this Consent Decree or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

“CWA” shall mean the Clean Water Act or Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 *et seq.*

“Calcasieu Estuary Superfund Site” shall mean the aerial extent of contamination within the areas encompassing Bayou Verdine, Bayou d’ Inde, Coon Island Loop, Clooney Island Loop, Prien Lake, Lake Charles, and the Calcasieu River from the saltwater barrier to Moss Lake, as depicted generally on the map attached as Appendix C. Within these areas, the Calcasieu Estuary Site includes the surface water, tributaries, biota, sediment, soils, adjoining shoreline and banks, riparian habitats, and related wetlands, as depicted generally on the map attached as Appendix C. As a clarification, the Calcasieu Estuary Superfund Site does not include any area of the Community of Mossville which is situated outside the approximate limits of the Site as generally depicted on Appendix C.

“Consent Decree” means this Consent Decree and all appendices attached hereto. In the event of a conflict between this Decree and any appendix, this Decree shall control.

“Day” shall mean a calendar day unless expressly stated to be a business or working day. “Business or working day” shall mean a day other than a Saturday, Sunday, or Federal or State of Louisiana State holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal or State of Louisiana holiday, the period shall run until the close of business of the next business or working day.

“Date of Lodging” means the date this Consent Decree is lodged with the Clerk of Court.

“Effective Date” means the effective date of this Consent Decree as provided by Section XIX of this Consent Decree (Effective Date and Retention of Jurisdiction).

“Federal Trustees” means NOAA and the DOI/USFWS.

“Future Costs” is the liquidated sum of \$750,000 that Defendants shall pay to the Trustees, in accordance with the provisions set forth herein, in full satisfaction of Defendants’ liability for future administrative costs and other expenses that will be incurred by the Trustees

for overseeing construction of the Restoration Project, for monitoring and assessing performance of the Restoration Project, and for performing corrective or other restoration actions.

“Interest,” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

“Lead Administrative Trustee” means the representative of the Trustees designated under Paragraph 10 of Section VI (Compensation for Natural Resource Injuries).

“Natural Resource Damages” means compensatory relief or damages, including the reasonable costs of assessing such damages, that are recoverable pursuant to Section 107(a)(4)(C) of CERCLA, 42 U.S.C. § 9607(a)(4)(C), or Section 311(f) of the CWA, 33 U.S.C. § 1321(f), or 43 C.F.R. § 11.15, La. R.S. 30:2454 (5)(a) and (17), and LAC 43:XXIX.109.A, and state or federal common law, by the Trustees on behalf of the public for injury to, destruction of, loss of, or loss of use of the natural resources or resource services belonging to, managed by, controlled by or appertaining to the United States, the State, or any local government resulting from past disposals or discharges of hazardous substances that resulted in the release of hazardous substances at or from the Site, the response actions previously conducted at the Site, and the response actions to be implemented under the Consent Decree for Removal Action and Recovery of Response Costs filed contemporaneously herewith.

“Paragraph” shall mean a portion of this Consent Decree identified by an arabic numeral or an upper case letter.

“Party” or “Parties” means the United States on behalf of the Federal Trustees, and the State, individually and collectively, and Settling Defendants ConocoPhillips Company and Sasol North America Inc, individually, and the United States, the State, and Settling Defendants, collectively, as indicated by the context.

“Past Assessment Costs” means the reasonable costs of the natural resource damage assessment for the Site incurred by NOAA, by DOI/USFWS, by LDEQ, by LDWF, and by LDNR prior to the lodging of this Decree that are recoverable from Settling Defendants pursuant to Section 107(a)(4)(C) of CERCLA, 42 U.S.C. § 9607 (a)(4)(C) and 43 C.F.R. § 11.15(a)(3).

“Plaintiffs” means the United States, representing NOAA and the DOI/USFWS, and LDEQ and LDWF for the State of Louisiana.

“Restoration Project Manager” means the person designated by Settling Defendants pursuant to Paragraph 8 to supervise and direct the implementation of the Restoration Project in conformance with the terms of this Consent Decree.

“Restoration Implementation Plan” means the document, attached to this Consent Decree as Appendix A, providing for the implementation of the Sabine Unit 1999 Restoration Project, including any modifications to that plan authorized in accordance with the Consent Decree.

“Restoration Project Site” or “Project Site” means the particular location within the Sabine National Wildlife Refuge known as the Unit 1999 Site, at which construction of the Restoration Project identified in this Consent Decree will be completed by Settling Defendants.

“Restoration Project” means all actions and work required to implement and complete the Sabine Unit 1999 Restoration Project under this Consent Decree, including levee degradation, levee gapping, dredging, filling and/or grading for marsh creation, record keeping, and reporting, as described in the Restoration Implementation Plan attached as Appendix A.

“Sabine Unit 1999 Restoration Project” means the Restoration Project as defined, described, and scheduled in Appendix A to this Consent Decree.

“Section” shall mean a portion of this Consent Decree identified by a Roman numeral.

“Settling Defendants” shall mean ConocoPhillips Company and Sasol North America Inc., and shall include their predecessors, successors and assigns only to the extent the liability of such predecessor, successor or assign arises out of the same activities relating to the Site that gave rise to the alleged liability of their respective Settling Defendant that forms the basis for the claims in the Complaint against Settling Defendants.

“Site” means the Calcasieu Estuary Superfund Site.

“State” means LDEQ, LDWF and LDNR for the State of Louisiana, and its political subdivisions, departments and agencies.

“State Trustees” means LDEQ and LDWF.

“Trustees” means the Federal Trustees and the State Trustees collectively.

“Trustee Council” or “Council” means the Trustee representatives designated by NOAA, the DOI/USFWS, LDEQ and LDWF, pursuant to Paragraph 9 of this Decree, to act on behalf of the Trustees, and by consensus, on all matters related to the Restoration Project under the terms of this Consent Decree.

“United States” means the United States of America.

V. GENERAL PROVISIONS

4. **Objectives of the Parties:** The objectives of the Parties in entering into this Consent Decree are (I) to restore natural resources and resource services that will fully compensate the public for the injury to, loss of, or destruction of natural resources and resource services attributable to past releases of hazardous substances at or from the Settling Defendants’ facilities into the Calcasieu Estuary, including those losses due to the response actions that have been and are to be undertaken to protect public health and welfare and the environment; (ii) to provide for payments to each Trustee of Past Assessment Costs by these Settling Defendants; (iii) to provide for the payment of Future Costs consistent with the terms of this Consent Decree, and (iv) to resolve the Plaintiffs’ claims for Natural Resource Damages against these Settling Defendants.

5. **Responsibility for Compliance.** Settling Defendants are and shall be solely responsible for compliance with all terms of this Consent Decree. All work undertaken by Settling Defendants in order to implement the Restoration Project described in this Consent Decree shall be performed in accordance with the requirements of all applicable federal, state, and local laws and regulations. This Consent Decree is not a permit and where any portion of the Restoration Project requires a federal, state, or local permit or approval, Settling Defendants shall submit a timely and complete application and take all other actions necessary to obtain all such permits and/or approvals. The obligations of Settling Defendants to implement the requirements of this Consent Decree, including completion of the Restoration Project and

payment of Trustees' Past Assessment Costs and Future Costs are joint and several. However, any actions taken by one of the Settling Defendants in satisfaction of the obligations specified in this Consent Decree shall be deemed to be an action jointly taken by both Settling Defendants. In the event of the insolvency or other failure of any one Defendant to implement the requirements of this Consent Decree, the remaining Defendant shall complete all such requirements.

6. Use of Contractors by Settling Defendants.

a. Settling Defendants shall notify the Trustee Council, in writing, of the name, address and telephone number of any contractors and subcontractors hired to perform any work or activity involved in implementing any portion of the Restoration Project. Settling Defendants may subsequently change any contractors or subcontractors but must provide written notice to the Trustees at least 30 days prior to the change.

b. Settling Defendants shall provide a copy of this Consent Decree to their Restoration Project Manager(s), as identified pursuant to Paragraph 8 of Section VI herein, and to each contractor hired to perform any work or activity involved in implementing any portion of the Restoration Project, as described and required by this Consent Decree and, further, shall include a requirement of conformity with the pertinent terms of this Consent Decree in all contracts for the performance of any work involved in implementing the Restoration Project. The Settling Defendants or their contractors shall provide written notice of the Consent Decree to all subcontractors hired to implement any portion of the Restoration Project. Each contractor and subcontractor implementing the Restoration Project shall be deemed to be in a contractual relationship with the Settling Defendants within the meaning of Section 107(b)(3) of CERCLA,

42 U.S.C. § 9607(b)(3). Notwithstanding the above requirements, Settling Defendants shall remain fully responsible for ensuring that its contractors and subcontractors perform all work and activities involved in implementing the Restoration Project identified herein in accordance with this Consent Decree.

VI. COMPENSATION FOR NATURAL RESOURCE INJURIES

7. **Implementation of the Sabine Unit 1999 Restoration Project.** The Settling Defendants shall fund, perform, and complete all work and other activities required to implement the Sabine Unit 1999 Restoration Project, in accordance with the Restoration Implementation Plan (Appendix A, all provisions of which are incorporated in and enforceable under this Consent Decree), in conformance with the procedures, schedules and terms set forth in this Consent Decree and in compliance with all applicable laws and permits.

8. **Settling Defendants' Restoration Project Manager.** Not later than 30 days after the Effective Date of this Consent Decree, Settling Defendants shall notify the Trustees, in writing, of the name, address and telephone numbers of their jointly designated restoration project manager for the Restoration Project ("Restoration Project Manager"). The person so designated shall have technical expertise sufficient to adequately manage implementation of all aspects of implementation of the Restoration Project and will be responsible for supervising and directing all activities necessary to implement the Restoration Project in conformance with the terms of this Decree. The Settling Defendants may subsequently change their designated Project Manager but must provide written notice to the Trustees at least 30 days prior to the change. The Restoration Project Manager shall serve as the Trustee Council's point-of-contact with the

Settling Defendants and coordinate the Settling Defendants' activities in implementing the Restoration Project in accordance with this Consent Decree.

9. Trustee Council. The Trustees shall oversee implementation of the Restoration Project by the Settling Defendants. Such oversight shall be effected through a Trustee Council, consisting of one representative designated each by NOAA, the DOI/USFWS, LDEQ and LDWF. The name, address and telephone number of each Trustee representative on this Council will be provided to Settling Defendants no later than 30 days after the Effective Date of this Consent Decree. This Council shall act on behalf of the Trustees, and by consensus, on all matters related to the Restoration Project under the terms of this Consent Decree, including, but not be limited to:

- a. reviewing and approving all additional work plans and specifications for use in constructing the Restoration Project;
- b. overseeing construction of the Restoration Project, pursuant to the Restoration Implementation Plan;
- c. providing the Settling Defendants with a "Construction Completion Certificate", after all criteria for such certification has been met; and
- d. performing duties associated with the dispute resolution process, whenever necessary, as described in this Consent Decree.

10. Lead Administrative Trustee. No later than 60 days after the Effective Date of this Consent Decree, the Trustee Council will identify a Lead Administrative Trustee ("LAT") to serve as the Settling Defendants' principal point of contact for coordinating with the Trustee Council under the procedures for the Trustees' oversight of the Restoration Project described in

this Section and the Restoration Implementation Plan. The Trustee Council may change the Lead Administrative Trustee at any time by providing written notice to Settling Defendants.

11. The Settling Defendants shall be deemed to have satisfactorily performed their obligation(s) to implement the Restoration Project under this Decree upon issuance of a Construction Completion Certificate by the Trustee Council pursuant to the Restoration Implementation Plan, or upon a final determination under Section X (Dispute Resolution) that no further actions are required to be undertaken by Settling Defendants to complete the Restoration Project.

12. Access.

a. The DOI/USFWS and the Settling Defendants have entered into a Special Use Permit providing for the Settling Defendants' access to and use of the Sabine National Wildlife Refuge in order to implement the Restoration Project. This Permit is attached to this Consent Decree as Appendix E. Settling Defendants will renew the Permit annually, as required, to complete the Restoration Project.

b. The Parties shall provide to the Trustees and their designated representatives, access at reasonable times to all locations used in implementing the Restoration Project, including to all areas of the Restoration Project Site as well as all vessels used by the Settling Defendants, or their contractors, for any purpose relating to the implementation and oversight of the Restoration Project, to future monitoring, or to corrective action pertaining to the Restoration Project, or for the enforcement of this Consent Decree, including but not limited to:

(I) Interviewing the Settling Defendants' personnel involved in field work conducted pursuant to the Restoration Implementation Plan;

(ii) Inspecting records, and/or operating logs related to construction of the Restoration Project;

(iii) Reviewing the progress of the Settling Defendants in implementing the Restoration Project;

(iv) Conducting such sampling, tests or other actions as the Trustees and/or their representatives deem appropriate for implementation and oversight of the Restoration Project, for future monitoring, for corrective action pertaining to the Restoration Project, or for the enforcement of this Consent Decree;

(v) Using a camera, sound recording, or other documentary equipment to make or preserve observations or measurements; and

(vi) Verifying any reports or data that the Settling Defendants submit to the Trustees.

c. Settling Defendants acknowledge the right of the Trustees and their designated representatives to be present at all times that the Settling Defendants, including their contractor(s) or subcontractor(s), are performing any work or activity involved in implementing the Restoration Project. The Trustees may designate other representatives, including, but not limited to, Federal and State employees, and Federal and State contractors and consultants, to observe, monitor, assess or assist in overseeing the progress of the Restoration Project.

d. The Settling Defendants and/or their representatives may accompany the Trustees and/or their representatives whenever and wherever they are present at the Restoration Project Site but may not delay or impede any access or activities of the Trustees authorized under this Section. If the Trustees conduct any sampling for the purpose of oversight of the

Settling Defendant's implementation of the Restoration Project or enforcement of this Consent Decree, the Trustees will provide, upon timely request, splits of such sample to Settling Defendants' Restoration Project Manager or other designated representative. Further, with respect to any samples taken from the Restoration Project Site for the purpose of oversight of the Settling Defendants' implementation of the Restoration Project or enforcement of this Consent Decree, copies of the results of any analyses or tests on such samples shall be provided to the Trustee Council and the Settling Defendants' Restoration Project Manager regardless of which Party collected the samples and conducted, or paid for, the testing or analyses.

e. Access to Persons. When requested and upon reasonable notice by the Trustees, the Settling Defendants shall make available to the Trustees, at an appropriate location, any of their employees, agents, or representatives with knowledge of material facts concerning the implementation of the Restoration Project for purposes of investigations, information gathering, or interviews by the Trustees.

VII. PAYMENT OF PAST ASSESSMENT COSTS AND FUTURE COSTS

13. Within 30 days of the Effective Date of this Decree, the Settling Defendants shall reimburse the Federal and State Trustees for their past assessment costs as set forth in Paragraphs 14 and 15 below.

14. Past Assessment Costs Incurred by NOAA and DOI/USFWS. Settling Defendants shall pay the United States' Past Assessment Costs incurred by NOAA and the DOI/USFWS, in the manner and amounts described herein. Payment shall be made by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice account in accordance with current EFT

procedures. Payment shall be made in accordance with instructions provided to the Settling Defendants by the Financial Litigation Unit of the United States Attorney's Office for the Western District of Louisiana. Any payments received by the Department of Justice after 4:00 p.m. (Eastern Time) will be credited on the next business day:

a. FOR DOI: The Settling Defendants shall pay \$253,622.45 to reimburse Past Assessment Costs incurred by DOI, referencing "DOJ Case Number 90-11-2-1284/1, USAO File Number ____ [to be provided upon filing of Complaint] and Account Number 14X5198 (NRDAR), CALCASIEU Bayou Verdine/Coon Island Loop Natural Resource Damages Settlement, Louisiana." The Settling Defendants shall also send notice that such payment has been made to the DOJ and DOI persons listed in Section XVI (Notice), as well as to:

U.S. Department of the Interior
Natural Resource Damage Assessment and Restoration Program
Attention: Restoration Fund Manager
1849 C Street, NW
Mail Stop 4449
Washington, DC 20240; and

b. FOR NOAA: The Settling Defendants shall pay \$890,717.90 to reimburse Past Assessment Costs incurred by NOAA, referencing "DOJ Case Number 90-11-2-1284/1, USAO File Number ____ [to be provided upon filing of Complaint] and CALCASIEU Bayou Verdine/Coon Island Loop Natural Resource Damages Settlement, Louisiana -NOAA's DARRF." The Settling Defendants shall also send notice that such payment has been made to the DOJ and NOAA persons listed in Section XVI (Notice), as well as to:

NOAA/NOS/OR&R
ATTN: Kathy Salter, DARRF Manager
1305 East West Highway
SSMC4, Room 9331
Silver Spring, MD 20910-3281,

15. Past Assessment Costs Incurred by the State Trustees

a. Assessment Costs Incurred by LDEQ. Settling Defendants shall pay \$41,102.98 to LDEQ to reimburse Past Assessment Costs incurred for the Site. Payment to LDEQ shall be made by certified check payable to the “Louisiana Department of Environmental Quality” and sent to Attn: Chris Piehler, Administrator, Water Quality Assessment Division, PO Box 4314, Baton Rouge LA 70821. Settling Defendants shall provide written notice of this payment to the State and LDEQ in accordance with Section XVI (Notice).

b. Assessment Costs Incurred by LDWF. Settling Defendants shall pay \$8,896.88 to LDWF to reimburse Past Assessment Costs incurred for the Site. Payment to LDWF shall be made by certified check payable to the “Louisiana Department of Wildlife and Fisheries” and sent to Attn: Heather Warner-Finley, Biologist Program Manager - Marine Habitat Program, P.O. Box 98000, Baton Rouge, LA 70898-9000. Settling Defendants shall provide written notice of this payment to the State and LDWF in accordance with Section XVI (Notice).

c. Assessment Costs Incurred by LDNR. Settling Defendants shall pay \$5299.88 to LDNR for costs it incurred in past participation, coordination and consultations with the Trustees as part of the natural resource damage assessment process for the Site. Payment to LDNR shall be made by certified check payable to the “Louisiana Department of Natural Resources” and sent to Attn: Robert D. Harper, Undersecretary, Louisiana Department of Natural Resources, P.O. Box 94396, Baton Rouge LA 70804-9396. Settling Defendants shall provide written notice of this payment to the State and LDNR in accordance with Section XVI (Notice).

16. Future Costs. Settling Defendants shall pay the sum of \$750,000 to the Trustees in satisfaction of their liability for the Trustees' Future Costs, in the amounts and manner set forth herein.

a. Within 30 days of the Effective Date of this Decree, the Settling Defendants shall pay a total of \$82,000, by making the following payments to each Trustee in accordance with payment procedures set forth in Paragraphs 14-15:

- (i) \$19,030 shall be paid to DOI/USFWS in accordance with Paragraph 14(a);
- (ii) \$59,380 shall be paid to NOAA in accordance with Paragraph 14(b);
- (iii) \$2,270 shall be paid to LDEQ in accordance with Paragraph 15(a); and
- (iv) \$1,320 shall be paid to LDWF in accordance with Paragraph 15(b).

b. Within 30 days of the date of issuance of the Construction Completion Certificate by the Trustee Council to the Settling Defendants, the Settling Defendants shall pay \$668,000 into DOI's Natural Resource Damage Assessment and Restoration Fund, for deposit and maintenance in a sub-account within that Fund to be known as the Calcasieu/Bayou Verdine Site Restoration Account. Settling Defendants shall make the payment identified in this Paragraph by EFT through the United States Treasury Department's Automated Clearing House, in accordance with the instructions to be provided to Settling Defendants by DOI no later than the date of issuance of the Construction Completion Certificate. The addenda record for such transfer shall be annotated "Calcasieu/Bayou Verdine Site Restoration Account". Settling Defendants shall provide written notice of this payment to all Federal and State parties in accordance with Section XVI (Notice). The funds paid into the DOI's Natural Resource Damage Assessment and Restoration Fund shall be held in that account for the Federal and State Trustees

and solely for use as agreed by the Trustees to pay Future Costs associated with the Restoration Project.

c. After issuance of the Construction Completion Certificate by the Trustee Council and upon payment of all sums identified in this Paragraph, together with any applicable Interest, Settling Defendants will have no further obligation for any Future Costs or future performance monitoring, corrective action or other restoration relating to the Restoration Project.

17. Interest on Late Payments. In the event any payment required by this Section is not made when due, Interest on the unpaid balance shall be paid commencing on the thirty-first (31st) day after the Effective Date of the Decree for Past Assessment Costs and on the thirty-first (31st) day after the due date(s) for payment of Future Costs, accruing through the date of full payment. Interest payments shall be paid in the same manner as the overdue principal amount, and shall be directed to the same fund or account as the overdue principal amount. Interest is in addition to any Stipulated Penalties accruing for late payments under Section XI (Stipulated Penalties).

VIII. INDEMNIFICATION

18. The United States and the State do not assume any liability by entering into this Consent Decree. The Settling Defendants shall indemnify, save and hold harmless the United States and the State and their officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action arising from, or on account of, (a) negligent or other wrongful acts or omissions of the Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any person acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree; or (b) any

contract, agreement, or arrangement between the Settling Defendants and any person for performance of any work or activity involved in implementing the Restoration Project including, but not limited to, claims on account of construction delays. Further, the Settling Defendants agree, individually and collectively, to reimburse the United States and the State for all costs each incurs, including but not limited to attorneys fees, other expenses of litigation and settlement, and costs incurred by the Trustees, as a result of claims made against the United States or the State, based on negligent or other wrongful acts or omissions of the Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree. Neither the United States nor the State shall be held out as a party to any contract entered into by or on behalf of the Settling Defendants in carrying out activities pursuant to this Consent Decree. Neither the Settling Defendants nor any of their contractors shall be considered an agent of the United States or the State.

19. The United States and the State shall give the Settling Defendants notice of any claim for which the United States or the State plans to seek indemnification pursuant to Paragraph 18 and shall notify the Settling Defendants prior to settling such claim.

20. The Settling Defendants waive all claims against the United States and the State for damages or reimbursement or for set-off of any payments made or to be made to the United States or the State arising from or on account of any contract, agreement, or arrangement between the Settling Defendants and any person for performance of any work or other activity involved in implementing Restoration Project, including, but not limited to, claims on account of construction delays.

IX. FORCE MAJEURE

21. “Force majeure” for the purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the Settling Defendants, or their contractor(s), or of any entity controlled by the Settling Defendants or controlling the Settling Defendants, that delays or prevents the performance of any obligation under this Consent Decree, despite the Settling Defendants’ best efforts, individually and collectively, to fulfill the obligation. The requirement that the Settling Defendants exercise “best efforts to fulfill the obligation” includes using the best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (1) as it is occurring and (2) following the force majeure, such that the delay is minimized to the greatest extent possible. “Force majeure” does not include financial inability to (a) make payments required by Section VII (Payment of Past Assessment Costs and Future Costs) or (b) implement the Restoration Project as set forth in the Restoration Implementation Plan.

22. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure, the Settling Defendants shall orally notify the Lead Administrative Trustee within 24 hours of the time that the Settling Defendants first knew that the event might cause a delay. Within five (5) days thereafter, the Settling Defendants shall provide in writing to the Trustees a detailed description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay or the effect thereof; a schedule for implementation of any measures to be taken to prevent or mitigate the delay; the Settling Defendants’ rationale for

attributing such a delay to a force majeure if they intend to assert such a claim; and state whether, in the opinion of the Settling Defendants, such circumstances may cause or contribute to an endangerment to public health or the environment. The Settling Defendants shall include with any such notice all available documentation supporting their claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude the Settling Defendants from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. The Settling Defendants shall be deemed to know of any circumstance that was known by, or should have been known by, the Settling Defendants, the Settling Defendants' contractors, or any entity controlled by the Settling Defendants or controlling the Settling Defendants.

23. If the Plaintiffs agree that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Consent Decree that are affected by the force majeure will be extended by the Plaintiffs for such time as necessary to complete the obligations. An extension of the time for performance of the obligations affected by the force majeure shall not, by itself, extend the time for performance of any other obligation. If the Plaintiffs agree that the delay is attributable to a force majeure, the Plaintiffs will notify the Settling Defendants in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure. If the Plaintiffs do not agree that the delay or anticipated delay has been or will be caused by a force majeure, the Plaintiffs will notify the Settling Defendants in writing of that decision, together with an explanation of the decision, within forty-five (45) days of receipt of Settling Defendants' written notice (subject to a 15-day extension of time upon timely notice to the Settling Defendants).

24. If the Settling Defendants elect to invoke the dispute resolution procedures set forth in Section X (Dispute Resolution), they shall do so no later than 15 days after receipt of the Plaintiffs' notice, as described in Paragraph 26. In any such proceeding, the Settling Defendants shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that the Settling Defendants complied with the requirements of Paragraphs 21 and 22. If the Settling Defendants carry this burden, the delay at issue shall not be deemed to be a violation by the Settling Defendants of the affected obligation of this Consent Decree identified to the Plaintiffs and the Court.

X. DISPUTE RESOLUTION

25. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedure of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree between the Settling Defendants and the Plaintiffs. However, the procedures set forth in this Section shall not apply to actions by the United States or the State to enforce obligations of the Settling Defendants that have not been disputed in accordance with this Section.

26. Informal Dispute Resolution. If, in the opinion of either the Trustees or the Settling Defendants, there is a dispute which arises under or with respect to this Consent Decree, that party shall send written notice to the other parties to the dispute outlining the nature of the dispute and requesting negotiations to resolve the dispute. The Settling Defendants and the

Trustees shall endeavor to resolve the dispute through good faith negotiations. The period for informal negotiations shall not exceed 60 days from the date the notice is sent, unless this time period is modified by written agreement of the Settling Defendants and the Trustees.

27. Formal Dispute Resolution.

a. In the event that the Settling Defendants and the Trustees cannot resolve a dispute by informal negotiations under Paragraph 26, then the position advanced by the Trustees, individually or jointly, shall be considered binding unless, within 30 days after the conclusion of the informal negotiation period, the Settling Defendants invoke the formal dispute resolution procedures of this Section by serving the Plaintiffs with a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by the Settling Defendants.

b. Within 60 days after receipt of Settling Defendants' Statement of Position, the Plaintiff(s) will serve its/their Statement of Position on Settling Defendants, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by the Plaintiff(s). Within 15 days after receipt of this Statement of Position, Settling Defendants may submit a Reply.

c. An administrative record of the dispute shall be maintained by the Plaintiff(s) and shall contain all statements of position, including supporting documentation, submitted pursuant to this Section. Where appropriate, the Plaintiff(s) may allow submission of supplemental statements of position by the parties to the dispute.

d. The Trustee(s) will issue a final administrative decision resolving the

dispute based on the administrative record described in Paragraph 27.c. This decision shall be binding on the Settling Defendants, subject only to the right to seek judicial review pursuant to Paragraph 27.e.

e. Any final administrative decision made by the Plaintiff(s) under Paragraph 27.d shall be reviewable by this Court, provided that a motion for judicial review of the decision is filed by the Settling Defendants with the Court and served on all Parties within 10 days of receipt of the Plaintiff(s)' final decision. The motion shall include a description of the matter in dispute, the efforts made by the Parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Consent Decree. The Plaintiff(s) may file a response to the Settling Defendants' motion within thirty (30) days of receipt of the Motion or such greater time as the Court allows.

28. In proceedings on any dispute governed by Paragraph 27, Settling Defendants shall have the burden of demonstrating that the decision of the Plaintiff(s) is either not in accordance with the requirements of this Consent Decree or otherwise not in accordance with applicable law. Judicial review of the decision of the Plaintiff(s) shall be on the administrative record compiled pursuant to Paragraph 27.c.

29. The invocation of informal or formal dispute resolution procedures pursuant this Section shall not extend, postpone or affect in any way any obligation of the Settling Defendants under this Consent Decree that is not directly in dispute, unless the Plaintiffs agree otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall still accrue from the first day of noncompliance with any applicable

provision of this Consent Decree. The Settling Defendants shall not be required to pay stipulated penalties if and to the extent that they prevail on the disputed issue(s). If the Settling Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XI (Stipulated Penalties).

XI. STIPULATED PENALTIES

30. Settling Defendants shall be liable for stipulated penalties in the amounts set forth in Paragraphs 31 to the United States and the State for failure to comply with the requirements of this Consent Decree as specified below, unless excused under Section IX (Force Majeure).

“Compliance” by Settling Defendants shall include the timely completion of the payments and activities established by and/or approved pursuant to the requirements of the Consent Decree, including those activities set forth in the Restoration Implementation Plan (Appendix A).

31. The following stipulated penalties shall accrue per violation per day for the Settling Defendants’ failure to comply with the following requirements:

a. Failure to comply with the construction completion schedule or access requirements; set forth in the Restoration Implementation Plan and this Consent Decree:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$750	15th through 30th day
\$1,000	31st day and beyond

b. Failure to submit timely or adequate reports [or other written documents] pursuant to the Restoration Implementation Plan and this Consent Decree, or to provide information in

accordance with Access to Information provisions of this Decree:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$250	1st through 14th day
\$500	15th through 30th day
\$1,000	31st day and beyond

- c. Failure to make the payments required by Section VII (Payment of Past Assessment Costs and Future Costs) in a timely manner:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$750	15th through 30th day
\$1,000	31st day and beyond

32. All penalties shall begin to accrue on the day after performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue with respect to judicial review by this Court of any dispute under Section X (Dispute Resolution), during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

33. Following the determination by the federal and/or state Plaintiff(s), individually or jointly, that the Settling Defendants have failed to comply with one of the requirements of this Consent Decree listed above, the Plaintiff(s) may give the Settling

Defendants written notice of same and describe the noncompliance. The Plaintiff(s) may send the Settling Defendants a written demand for the payment of the penalties. However, penalties shall accrue as provided in this Section regardless of whether Plaintiff(s) have notified the Settling Defendants of a violation.

34. All penalties accruing under this Section shall be due and payable to the United States and the State within 30 days of the Settling Defendants' receipt of a demand for payment of the penalties, unless Settling Defendants invoke the Dispute Resolution procedures under Section X (Dispute Resolution). In that case, Stipulated Penalties shall continue to accrue as provided in this Section but need not be paid until the following:

- a. If the dispute is resolved by agreement, accrued penalties agreed to be owed shall be paid to the United States and the State within 30 days of the agreement;
- b. If the dispute is appealed to this Court and the Plaintiff(s) prevail in whole or in part, the Settling Defendants shall pay all accrued penalties determined by the Court to be owed to the United States and the State within 30 days of receipt of the Court's decision or order.
- c. If the District Court's decision is appealed by any Party, Settling Defendants shall pay all accrued penalties determined by the District Court to be owing to the United States and the State into the court registry or an interest-bearing escrow account within 60 days of receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every 60 days. Within 15 days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to the United States and the State (as applicable) or to Settling Defendants if and to the extent that they prevail.

35. Stipulated penalties accruing and owed for Settling Defendants' failure to timely pay the identified Past Assessment Costs or Future Costs will be payable to the appropriate Plaintiff. Stipulated penalties otherwise accruing and due under this Section shall be paid as follows:

a. Fifty percent (50%) of any stipulated penalties payments shall be paid to the United States in accordance with payment instructions provided by the Financial Litigation Unit of the United States Attorney's Office for the Western District of Louisiana, and shall be deposited in the United States Treasury.

b. Twenty-five percent (25%) of any stipulated penalties payments shall be paid to LDEQ, in accordance with the instructions set forth in Paragraph 15.

c. Twenty-five percent (25%) of any stipulated penalties shall be paid to LDWF, in accordance with the instructions set forth in Paragraph 15.

36. In the event the Settling Defendants fail to pay stipulated penalties when due, the United States and/or the State, as appropriate, may institute a legal proceeding to collect such penalties, as well as Interest accruing on any unpaid balance, as provided by law. If Defendant(s) fail to comply with the Decree, Plaintiff(s) shall be entitled to collect the costs (including attorney's fees) incurred in any judicial action to enforce the terms of this Decree.

37. a. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States or the State to seek any other remedies or sanctions available by virtue of a violation of this Consent Decree by Settling Defendants.

b. Notwithstanding any other provision of this Section, the United States and/or the State may, in their unreviewable discretion, waive any portion of stipulated penalties owed to

that respective sovereign pursuant to this Consent Decree.

XII. COVENANTS NOT TO SUE BY PLAINTIFFS

38. In consideration of the payments to be made by Settling Defendants' under Section VII (Payment of Past Assessment Costs and Future Costs) and the implementation of the Restoration Project by the Settling Defendants in accordance with the terms of this Consent Decree, and except as specifically provided in Paragraph 39 (Reservations of Rights by Plaintiffs):

a. the United States hereby covenants not to sue or take any civil judicial or administrative action against Settling Defendants to recover Natural Resource Damages. This covenant not to sue shall take effect upon the Effective Date of this Consent Decree. However, it is expressly conditioned upon the satisfactory performance by Settling Defendants of all of their obligations under this Consent Decree. This covenant not to sue extends only to Settling Defendants and does not extend to any other person.

b. the State hereby covenants not to sue or take any civil judicial or administrative action against Settling Defendants to recover Natural Resource Damages. This covenant not to sue shall take effect upon the Effective Date of this Consent Decree. However, it is expressly conditioned upon the satisfactory performance by Settling Defendants of all of their obligations under this Consent Decree. This covenant not to sue extends only to Settling Defendants and does not extend to any other person.

39. **Reservation of Rights by Plaintiffs.**

a. Notwithstanding any other provision of this Consent Decree, the United

States and the State reserve the right to institute civil judicial or administrative proceedings as applicable against Settling Defendants in this action or in a new action, seeking recovery of additional Natural Resource Damages, if:

- (I) conditions at the Site previously unknown to the Trustees are discovered;
- or
- (ii) information that previously was unknown to the Trustees is received, in whole or in part,

and the Trustees determine that these previously unknown conditions or this information, together with any other relevant information, indicates that there is new or additional injury to, loss of, or destruction of natural resources, or resource service losses, of a type unknown or of a magnitude greater than was known by the Trustees that is at least partly attributable to the Settling Defendants.

b. For purposes of subparagraph a, the information and the conditions known to the Trustees includes only that information and those conditions known to the Trustees as of the date the Final DARP was made available to the public.

c. Nothing in the Consent Decree is intended to be, nor shall be construed as, a release from liability or a covenant not to sue for any claim or cause of action of the United States or the State, administrative or judicial for:

- (i) Settling Defendants' failure to comply with any obligation or requirement of this Consent Decree;
- (ii) claims brought on behalf of the United States and the State, including State and Federal agencies, for costs, damages, and expenses of any sort,

other than for Natural Resource Damages, Past Assessment and Future Costs that are the subject of this Consent Decree;

- (iii) liability arising from any past, present, or future releases of hazardous substances other than the releases at or from the Site that are the subject of this Consent Decree;
- (iv) liability arising from any releases of hazardous substances from any site or location that is not the subject of this Consent Decree, including but not limited to, any hazardous substance taken from the Site and disposed of at another site or location;
- (v) liability based upon the Settling Defendants' future ownership or operation of the Site, or upon the Settling Defendants' future transportation, treatment, storage, or disposal, or the arrangement for the transportation, treatment, storage, or disposal of hazardous substances at or in connection with the Site other than as provided in the work to be performed under the Consent Decree for Removal Action and Recovery of Response Costs, after signature of this Consent Decree by the Settling Defendants;
- (vi) criminal liability; and
- (vii) liability for violations of federal or state law which occur during or incident to performance of any work or other activity involved in implementing the Restoration Project pursuant to this Consent Decree.

XIII. COVENANTS NOT TO SUE BY SETTLING DEFENDANTS

40. Except as provided in Paragraphs 41 and 42 and as may be required to enforce its rights under this Consent Decree (as limited by Section X. Dispute Resolution), Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against the United States or the State for any claims arising from or relating to the Restoration Project or any claims arising from or relating to the Natural Resource Damages resulting from the release of hazardous substances from the Site, pursuant to any federal, state, or common law, including, but not limited to any direct or indirect claim for reimbursement for Natural Resource Damages from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through Sections 107, 111, 112, and 113 of CERCLA, 42 U.S.C. §§ 9607, 9611, 9612, and 9613, or any other provision of law.

41. Settling Defendants' Federal Reservation of Rights. Settling Defendants reserve, and this Consent Decree is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671. Nor shall any such claim include a claim based on the Trustees' selection of the Restoration Project, or, except as permitted in this Consent Decree, their

oversight of the Restoration Project, or their approval of Settling Defendants' plans or activities associated with the Restoration Project. The reservation of rights described in this paragraph applies only to claims that are brought pursuant to a statute other than CERCLA and the CWA and which other statute expressly provides for the waiver of sovereign immunity necessary to permit such claim against the United States.

42. Settling Defendants' State Reservation of Rights. Settling Defendants reserve, and this Consent Decree is without prejudice to, claims against the State, subject to the provisions of the Louisiana Governmental Claims Act, La. R.S. 13:5101 et seq., for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the State while acting within the scope of his office or employment; however, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a state employee; nor shall any such claim include a claim based on the Trustees' selection of the Restoration Project, and, except as permitted in this Consent Decree, their oversight of the Restoration Project, nor their approval of Settling Defendants' plans or activities associated with the Restoration Project.

43. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XIV. EFFECT OF SETTLEMENT AND CONTRIBUTION PROTECTION

44. Nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this Consent Decree may have under applicable law. Each of the Parties expressly reserves any and all rights (including but not limited to any right of contribution against third parties), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to Natural Resource Damages against any person not a Party hereto.

45. The Parties agree, and by entering this Consent Decree this Court finds, that Settling Defendants are entitled, as of the Effective Date of this Consent Decree, to protection from contribution actions or claims as provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), for Natural Resource Damages as addressed in this Decree.

46. In any subsequent administrative or judicial proceeding initiated by the Plaintiffs with respect to the Site, Settling Defendants may contest any claims reserved by the United States and the State in this Consent Decree, and the Settling Defendants may claim any defense available to them, except they shall not assert, and may not maintain any defense or claim based on the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or any other defenses based upon the contention that the claims raised by the Plaintiffs in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Section XII (Covenants Not to Sue by Plaintiffs).

47. The failure of any of the Plaintiffs to insist upon strict and prompt performance of any provision of this Consent Decree shall not operate as a waiver of any requirement of this Consent Decree or of the Plaintiff(s)' right to insist on prompt compliance in the future with such provision, and shall not prevent a subsequent action by any of the Plaintiffs to enforce such a provision.

XV. ACCESS TO INFORMATION

48. Until 3 (three) years after the issuance of the Construction Completion Certificate by the Trustee Council, subject to Paragraphs 49 and 50, and excepting records, documents, and other information prepared in anticipation of litigation, protected by the attorney-client privilege or any other privilege recognized by federal law, Settling Defendants shall make available to the Trustees, or their representatives, within 30 days of a written request by the Trustees, copies of any records, documents, data or information, whether in written or electronic form, maintained by or in the possession of Settling Defendants, their contractors, agents or representatives, which relate to any work or activity undertaken in implementing any portion of the Restoration Project that is reasonably requested by the Trustees or their representatives under this Decree.

49. Any record, document, data and other information that Settling Defendants are required by this Consent Decree to provide directly to the Trustees, or their representatives, shall be considered a public record and shall not be withheld or protected from release. No claim of privilege or confidentiality shall be made with respect to any sampling, analytical, monitoring, hydrologic, hydrogeologic, scientific, chemical, or engineering data generated through any work or activity undertaken in implementing any portion of the Restoration Project pursuant to this

Consent Decree. Such non-privileged records, documents, data and other information includes those used in surveying, design, construction, analysis of data, chain of custody records, receipts, final reports, correspondence, or other records or materials related to the Restoration Project.

50. a. Except as provided in Paragraph 49 above, Settling Defendants may assert that certain records, documents or other information provided to the Trustees include or constitute confidential business information that is subject to legal protection under federal or state law (“CBI”). Whenever Settling Defendants submit a record, document or other information to the Trustees which Settling Defendants assert includes or constitutes CBI, Settling Defendants shall identify the record, document or information, or portion thereof, which is asserted to be CBI with particularity and demonstrate a proper basis in fact and law why the information is considered to be CBI. Records, documents or information, or portions thereof, that the Trustees determine to be CBI under applicable federal or state laws or regulations will be protected from further release to the extent and in the manner afforded by such laws. If CBI is not identified by Settling Defendants at the time a record, document or information is submitted to the Trustees, or if the Trustees notify Settling Defendants that the record, document or information is not determined to be CBI under applicable federal or state laws or regulations, the public may be given access to such documents or information without further notice to Settling Defendants.

b. In the event the Settling Defendants believe that information, data, or other material accessible to the Trustees and/or their representatives under this Consent Decree is privileged, the Settling Defendants may assert that claim by providing to the Trustees within thirty (30) days after the request the following information for each item as to which a privilege is claimed:

(I) A description of the information, data, or other material which contains sufficient information to allow the District Court to determine whether the claimed privilege applies. If the material at issue is a document, the Settling Defendants shall, at a minimum, provide the following information in as much detail as possible without revealing any information claimed privileged: (1) the title of the document; (2) the date of the document; (3) the name and title of the author of the document; (4) the name and title of each addressee and recipient; and (5) a description of the contents of the document; and

(ii) A statement of the specific privilege(s) claimed and the basis for the claim. If the Settling Defendants fail without good cause to timely provide the information required by this Subparagraph, it waives any claim of privilege with respect to the specific information, data, or other material for which it failed to timely provide the information. If the Trustees object to the Settling Defendants' claim that the information, data, or other material is privileged, Plaintiff(s) may file a motion with the Court to compel access to the material.

51. Settling Defendants' employees, contractors, agents, or representatives with knowledge of facts relating to the performance of any work or activity undertaken to implement the Restoration Project under this Consent Decree shall be available to provide information to the Trustees, including their representatives under this Decree, with regard to any investigation,

information gathering, dispute resolution or other proceeding concerning the Restoration Project performed under this Consent Decree.

XVI. NOTICE

52. Whenever, under the terms of this Consent Decree, a notice, report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses set forth in Appendix B, unless those individuals or their successors give notice of a change to the other Parties in writing. All notices and submissions shall be considered effective upon receipt unless otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States and the State, and the Settling Defendants, respectively.

XVII. MODIFICATION

53. Material Modifications: Any modification to this Consent Decree that materially alters the Restoration Project or any other requirements set forth herein requires the written approval of the Parties and the Court. A modification to the Restoration Project is material if it is potentially inconsistent with the requirements specified in Appendix A.

54. Modifications That Are Not Material: Any modification to the Consent Decree that does not materially alter the Restoration Project or any other requirement set forth herein may be made by written agreement between the Parties.

XVIII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

55. The Parties agree and acknowledge that final approval by the United States and entry of this Consent Decree are subject to a thirty day (30) period for public notice and comment in accordance with U.S. Department of Justice policy. The Parties agree and acknowledge that final approval by the State and entry of this Consent Decree are subject to a forty-five day (45) period for public notice and comment. Each Plaintiff reserves the right to withdraw or withhold its consent to entry of this Decree if comments regarding the Consent Decree disclose facts or considerations that indicate that the Consent Decree is inappropriate, improper, or inadequate.

56. If for any reason the Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

57. The Settling Defendants consent to the entry of this Consent Decree without further notice.

XIX. EFFECTIVE DATE AND RETENTION OF JURISDICTION

58. This Consent Decree and the Consent Decree for Removal Action and Recovery of Response Costs filed contemporaneously will each be effective only upon the approval and entry of both decrees by the Court. Accordingly, the effective date of this Consent Decree (the "Effective Date") shall be the date upon the occurrence of the later of (a) the date upon which this Consent Decree is entered by the Court, or (b) the date upon which the Removal Action and Recovery of Response Costs Consent Decree is entered by the Court.

59. This Court shall retain jurisdiction over both the subject matter of this Consent Decree and the Parties for the duration of the performance of the terms and provisions of this Consent Decree for the purpose of modifying or enforcing the terms and conditions of this Consent Decree, and to resolve disputes arising hereunder as may be necessary or appropriate for the construction, execution or enforcement of this Consent Decree in accordance with Section X (Dispute Resolution).

XX. TERMINATION

60. Upon thirty days prior notice to all Parties, any Party may apply to the Court to terminate this Consent Decree after the Project Completion Certificate is issued pursuant to the Restoration Implementation Plan and Settling Defendants have fulfilled their obligations under Section VII (Payment of Past Assessment Costs and Future Costs) and Section XI (Stipulated Penalties). Termination of this Consent Decree shall not affect the covenants, reservations, and effects of settlement set forth in Section XII (Covenants Not to Sue by the Plaintiffs); Section XIII (Covenants Not to Sue by Settling Defendants); and Section XIV (Effect of Settlement and Contribution Protection).

XXI. APPENDICES

61. The following appendices are attached to and incorporated into this Consent Decree:

“Appendix A” is the Restoration Implementation Plan.

“Appendix B” is the list of persons and addresses for Notices (Section XVI).

“Appendix C” is a map generally depicting the Calcasieu Estuary Superfund Site.

“Appendix D” is the Administrative Record Index for the Final DARP.

“Appendix E” is the Special Use Permit issued by the Sabine National Wildlife Refuge.

XXII. SIGNATORIES/SERVICE

62. Each undersigned representative of the Settling Defendants to this Consent Decree, of the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice, and of LDEQ and LDWF certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such Party to this document.

63. Each Defendant hereby agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree unless the United States or the State has notified the Settling Defendants in writing that it no longer supports entry of the Consent Decree.

64. Each Defendant shall identify, on the attached signature page, the name, address and telephone number of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to the service of the Complaint, Consent Decree, and any related filings with the Court. Settling Defendants hereby agree to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including, but not limited to, service of a summons. The Parties agree that Settling Defendants need not file an answer to the Complaint in this action unless or until the Court expressly declines to enter this Consent Decree.

65. This Consent Decree may be executed in any number of counterparts and, as executed, shall constitute one agreement, binding on all of the Parties hereto, even though all of the Parties do not sign the original or the same counterpart.

XXIII. FINAL JUDGMENT

66. This Consent Decree and its appendices constitute the final, complete, and exclusive understanding among the Parties with respect to the settlement embodied in the Consent Decree. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment between and among the United States, the State, and the Settling Defendants. The Court enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED THIS ____ DAY OF _____, 2010.

UNITED STATES DISTRICT JUDGE

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

FOR THE UNITED STATES OF AMERICA:

7/29/10
Date

Ignacia S. Moreno
Ignacia S. Moreno
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
Washington, D.C.

9/30/2010
Date

Kenneth G. Long
Kenneth G. Long
Senior Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
202-514-2840
Kenneth.long@usdoj.gov

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

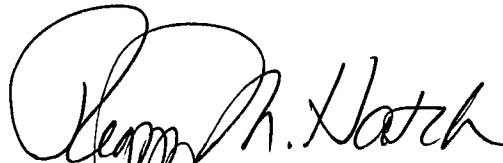
Stephanie A. Finley
United States Attorney
Western District of Louisiana

s/ Katherine W. Vincent
Katherine W. Vincent (#18717)
Assistant United States Attorney
Western District of Louisiana
U.S. Department of Justice
United States Attorney's Office
800 Lafayette Street, Suite 2200
Lafayette, Louisiana 70501

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

FOR LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY:

6/21/2010
Date



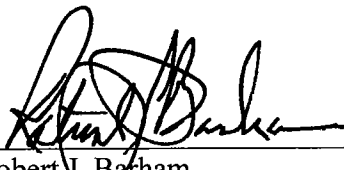
Peggy M. Hatch

Secretary
Louisiana Department of Environmental Quality

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

FOR LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES:

07/19/2010
Date



Robert J. Barham
Secretary
Louisiana Department of Wildlife and Fisheries

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

FOR CONOCOPHILLIPS COMPANY

May 12, 2010

Date

 _____ 

Robert A. Herman
Vice President, Health Safety & Environment
ConocoPhillips Company
600 N. Dairy Ashford
Houston, Texas 77079


Agent Authorized to Accept Service on Behalf of COP:

Thomas A. Campbell
Counsel for ConocoPhillips Company
Pillsbury Winthrop Shaw Pittman LLP
909 Fannin Street, Suite 2000
Houston, TX 77010
(713) 276-7676 (Phone)
(713) 276-7673 (Fax)
tom.campbell@pillsburylaw.com

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

FOR SASOL NORTH AMERICA INC.

April 22, 2010
Date



Michael S. Thomas
President
Sasol North America, Inc.
900 Threadneedle, Suite 100
Houston, Texas 77079

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: _____
Kyle Beall
Title: Counsel for Sasol North America
Address: Kean Miller LLP
18th Floor, One American Place
P.O. Box 3513
Baton Rouge, LA 70821
phone: (225)382-3493
fax: (225)388-9133
e-mail: kyle.beall@keanmiller.com

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and the State of Louisiana v. ConocoPhillips Company and Sasol North America Inc.*, relating to the Calcasieu Estuary Superfund Site.

FOR SASOL NORTH AMERICA INC.

Date

Michael S. Thomas
President
Sasol North America, Inc.
900 Threadneedle, Suite 100
Houston, Texas 77079

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name:

Kyle Beall

Title:

Kyle Beall
Counsel for Sasol North America
Kean Miller LLP

Address:

18th Floor, One American Place
P.O. Box 3513
Baton Rouge, LA 70821
phone: (225)382-3493
fax: (225)388-9133
e-mail: kyle.beall@keanmiller.com

APPENDIX A

IMPLEMENTATION PLAN FOR SABINE UNIT 1999 RESTORATION PROJECT

1.0 INTRODUCTION

This document specifies the requirements applicable to the construction of the Sabine Unit 1999 Restoration Project (the "Restoration Project") by Settling Defendants under the Consent Decree settlement of natural resource damage claims in United States of America and the State of Louisiana v. ConocoPhillips Company, et al. This document is incorporated by reference therein and is an attachment to that Decree.

2.0 PROJECT OBJECTIVES & CONSTRUCTION REQUIREMENTS

2.1 Project Site - The Restoration Project will be implemented in the mid-Calcasieu Estuary watershed, within the Sabine National Wildlife Refuge ("Sabine NWR"), at the Unit 1999 Site ("Project Site"). The Sabine NWR is publicly owned and managed by the USFWS. The general location of the Project Site is depicted in Figure 1-1, attached hereto.

2.2 Project Goals - The goals of the Restoration Project are to:

- a. Extend the longevity and enhance the ecological services of the 247 acres of existing marsh at the Site through increased tidal exchange that will (i) increase the rate of accretion, (ii) decrease the rate of elevation change across the Site, and (iii) improve the functional quality of the habitat; and
- b. Create an additional 14.7 acres of sustainable, functionally equivalent brackish marsh.

2.3 Construction Requirements - The Restoration Project will include Levee Degradation, Levee Gapping, and Marsh Creation (generally depicted in Figure 1-2, attached hereto). The Levee Degradation and Levee Gapping activities are designed to increase tidal exchange, allow for increased deposition of mineral sediments onto the marsh surface, and enhance tidal flushing of the marsh. The Marsh Creation activities are designed to create additional substrate for the natural recruitment and re-colonization of native, desirable marsh vegetation. These actions will be performed in accordance with the following requirements and specifications:

2.3.1 Levee Degradation – At least 2,500 feet of the nearly 10,000 feet of the levees (i.e., those constructed in 1999 to contain a created marsh platform) will be degraded to achieve elevations similar to the interior marsh. Levee elevations (El.) greater than 1.75 feet NAVD (ft NAVD) will be reduced to between El. 0.85 ft. NAVD and El. 1.75 ft. NAVD. Material will be excavated from the levees using a marsh buggy or similar track-propelled machinery. Material excavated from the levees will be deposited in adjacent floatation channels (i.e. those located

between the excavated levee area and the marsh) in order to increase the elevation in the channels to between El. 0.85 ft. NAVD and El. 1.75 ft. NAVD for the purpose of creating new wetlands. The volume of material excavated for Levee Degradation and for Levee Gapping, in combination, will be sufficient to meet Marsh Creation requirements¹. Levee Degradation will otherwise be constructed in accordance with the plan and specifications for this action presented in the attached Drawings for Marsh Restoration Project, May 2008 (Attachment A).

2.3.2 Levee Gapping - Five gaps (“cuts”) will be created in the remaining levees - one each in the west, north, and east levees; and two in the south levee. These gaps will be constructed at the locations and to the lines and grades depicted in Attachment A and each will be constructed near where a channel previously existed, to the extent practical. The dimensions of the gaps, as designed, will produce an average velocity through each of less than 5 centimeters/second, as identified in Tables 2-1 and 2-2². The volume of material excavated for Levee Degradation and for Levee Gapping, in combination, must be sufficient to meet Marsh Creation requirements. Levee Gapping will otherwise occur in accordance with the plan and specifications for this action presented in Attachment A.

2.3.3 Marsh Creation - Material from the Levee Degradation and the Levee Gapping will be deposited in adjacent flotation channels (i.e. those located between the excavated levee area and the existing marsh platform)². The deposition of this material will increase the elevation in the channels to between El. 0.85 ft. NAVD and El. 1.75 ft. NAVD to provide at least 14.7 acres (5.95 hectares) of additional substrate or platform suitable for the natural recruitment and recolonization of native, desirable marsh vegetation. Estimated excavation and fill calculations performed to identify the approximate expected area of new wetlands is provided in Table 2-2.

The surface of all excavated and fill areas will be graded to a constant elevation (to the extent practicable) such that it will not retain a depth of ponded water on the graded surface in excess of 0.5 feet. Surfaces between excavated and filled areas will be graded to drain at a reasonably constant slope between the limits of the constant elevation surfaces at slopes not exceeding 10H:1V. Excavation and fill surfaces will be graded to allow for substantially unobstructed water to flow into and out of the entire Project Site through each of the existing and new levee gaps. The surface of all excavated and fill areas will be compacted to the extent practical to minimize soft or unstable material while remaining suitable for native marsh vegetative recruitment across new marsh surface areas. The surface of all excavated and filled areas will also be lightly roughened after compaction and grading to facilitate volunteer seeding and establishment of native marsh vegetation. The surface grading and compaction work will be

¹ Site surfaces to be excavated and filled and associated excavation and fill volumes have been determined via a digital terrain model (DTM), using Autodesk AutoCAD Land Development software and levee topographic cross section data from a 2005 survey. With this information, the total linear levee footage to be degraded to create surface grades suitable for Marsh Creation in the adjacent channels is estimated at approximately 3500 ft (significantly larger than the required 2500 linear feet minimum).

² Except where fill is required to meet proposed grades for marsh creation, the fill will be placed in the existing canal between the gap and the existing marsh on either side of the gaps. The existing levees will be cut to form the gaps and, to the extent practicable, the existing levee material, the relatively short ends of the channel fill, and the existing marsh interior will be the only material exposed at the gap.

staged to limit vehicular and pedestrian traffic in these areas after completing the work to prevent displacement, erosion or further compaction of the soil. Marsh Creation will otherwise be constructed in accordance with the plan and specifications for this action presented in the attached "Drawings for Marsh Restoration Project, May 2008".

3.0 TRENASSES

Following completion of the Levee Degradation, Levee Gapping and fill work for Marsh Creation, a series of continuous trenasses (i.e., ditches) may be constructed to further improve hydrologic flow and connectivity within the marsh. The trenasse work is not a Construction Requirement, but the Settling Defendants have agreed to perform this additional work as requested by the Sabine NWR Managers.

To the extent practical, the trenasses will be designed to mimic natural channels and will be constructed in the area of old tidal channels. They will be created by compression and/or displacement of the surface (by a load imposed by a flotation crawler or tractor) to create one or more continuous channels, with the channel bottoms approximately 1.0 foot lower than adjacent marsh elevations. Fill material displaced by construction of the trenasses will be spread, if needed, to make piles with side slopes no steeper than 3H:1V and in a manner that allows substantially unobstructed water flow through the trenasses. The locations and configurations of the trenasses will be identified during the construction phase through consensus with the Sabine NWR Managers.

4.0 PROJECT IMPLEMENTATION

4.1 Project Construction - Settling Defendants shall construct the Restoration Project, in accordance with the Project Requirements and Construction Schedule specified herein, and all applicable laws and Project permits.

4.2 Schedule for Implementation

ACTION	SCHEDULE
Restoration Project Construction Activities	Completed within 180 days of Effective Date of Consent Decree
Construction Report to Trustee Council	Within 45 days of Completion of All Construction Activities

The above Schedule for Implementation may be adjusted by agreement of the Trustee Council and the Settling Defendants, as needed for Project implementation to occur consistent with applicable permits. In the absence of any such agreement, and provided the Settling Defendants are otherwise in compliance with the Restoration Implementation Plan, the period for Restoration Project Construction time period will be tolled for the period of any moratorium on

work imposed by applicable permits.

4.3 Notice of Construction Start Date - The Settling Defendants shall provide written notice to the Trustee Council, through the Lead Administrative Trustee, of the specific date construction will begin at least twenty-one (21) days prior to that date.

4.4 Interim Construction Reports - Following the start of construction activities at the Project Site, reports documenting the progress of all construction work will be prepared and sent to the Trustee Council monthly. These reports will include the locations of any construction work then on-going, the restoration work completed, the restoration work scheduled for the upcoming month and other information relevant to demonstrating full progress toward construction completion.

4.5 Notice of Construction End Date - The Settling Defendants shall provide written notice to the Trustee Council, through the Lead Administrative Trustee, at least fifteen (15) days in advance of the expected date for completion of all construction activities at the Project Site.

4.6 Field Modifications - In the course of performing any work or activity involved in implementing the Restoration Project, minor modifications to the Restoration Project may be required to address or adapt to field conditions or circumstances, or may otherwise be desirable to achieve, enhance or expedite the successful completion of the Restoration Project. Such field changes are permissible provided such changes do not materially alter, and are not otherwise inconsistent with the requirements set forth in the Consent Decree or the construction requirements identified in this Restoration Implementation Plan. Settling Defendants shall obtain the concurrence of the Sabine NWR Managers prior to implementing such changes and shall promptly notify the Lead Administrative Trustee of all such changes, including the reasons for same, when they occur.

4.7 Preliminary Inspection - Within ten (10) days of receipt of the Notice of Construction End Date, at least one representative of the Trustee Council will visit and visually inspect the Project Site. Such representative(s) will identify and verbally communicate to the Settling Defendants' Restoration Project Manager, or his/her designated on-site representative(s), any deficiencies, defects in or concerns pertaining to the construction work that are obvious from visual inspection only.

4.8 Construction Report - No later than forty five (45) days after completing all Restoration Project construction activities, Settling Defendants shall provide the Trustee Council with written notice and a report documenting the completion of all Restoration Project construction activities. Such report will be signed the Settling Defendants' Restoration Project Manager and include information sufficient to document that all activities necessary for construction of the Restoration Project have been completed in accordance with this Implementation Plan. The Construction Report will include, at a minimum:

- a. "Record" drawings of the degraded levees, the levee gaps, and the created

- marsh stamped by a registered professional engineer;
- b. "Record" topographic and bathymetric surveys, including all topographic and bathymetric data (in .xls format);
- c. Calculations of the actual sizes of the levee degradation, levee gaps and created marsh size, average elevations, and other information necessary to evaluate or determine whether the Restoration Project as constructed is in accordance with all Construction Requirements.
- d. Descriptions and photographs of all survey benchmark(s) used with geographic coordinates of their location and datum.
- e. Certification by a registered professional engineer that the Restoration Project was constructed in accordance with the materials and specifications presented in this Implementation Plan, including Tables 2-1 and 2-2 and the "Drawings for Marsh Restoration Project, May 2008" attached hereto.
- f. Description of all non-material changes or differences in design, methods, specifications or other Restoration Project details, and the reasons for same, from those found in this Implementation Plan.

The Construction Report shall be accompanied by the following statement, signed by a responsible corporate official of each Settling Defendant:

To the best of my/our knowledge, after thorough investigation, I/we certify that the information contained in or accompanying this submission is true, accurate and complete. I am/we are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

4.9 Certification of Construction Completion - Within thirty (30) working days of receipt of the Settling Defendants' Construction Report, the Trustee Council will review the Construction Report and conduct an inspection of the Restoration Project for the purpose of verifying that construction of the Restoration Project is in accordance with the requirements of this Implementation Plan ("Verifying Inspection"). The Trustees will coordinate the inspection of the Restoration Project with the Defendants' Restoration Project Manager so that he/she may attend the inspection with the Trustees' representatives.

If the Trustee Council determines that construction of the Restoration Project is in accordance with this Implementation Plan, the Trustee Council will provide written notice to the Settling Defendants' Restoration Project Manager certifying that construction of the Restoration Project is complete ("Certificate of Construction Completion"). Such Certificate will be issued by the Trustee Council within thirty (30) days of the date of the Verifying Inspection or, if the Trustee Council submits written comments on the Construction Report that Settling Defendants' must address before that report can be accepted as complete by the Trustee Council, within twenty (20) days of the Trustee Council's receipt of the revised Construction Report, whichever is later.

If the Trustee Council determines that the Restoration Project has not been constructed in accordance with this Implementation Plan, the Trustee Council will provide written notice to Settling Defendants' Restoration Project Manager identifying any Restoration Project deficiencies and the additional activities or actions that must be undertaken by the Settling Defendants for construction to conform to the requirements of this Implementation Plan, with a schedule for completion. This notice will be provided within thirty (30) days of the date of the Verifying Inspection. The Trustee Council and the Settling Defendants will also schedule a meeting to discuss the Restoration Project deficiencies. Settling Defendants shall perform all activities described in the Trustee Council's notice, in accordance with the identified schedule, subject only to the dispute resolution procedures set forth in Section X of the Consent Decree.

List of Attachments:

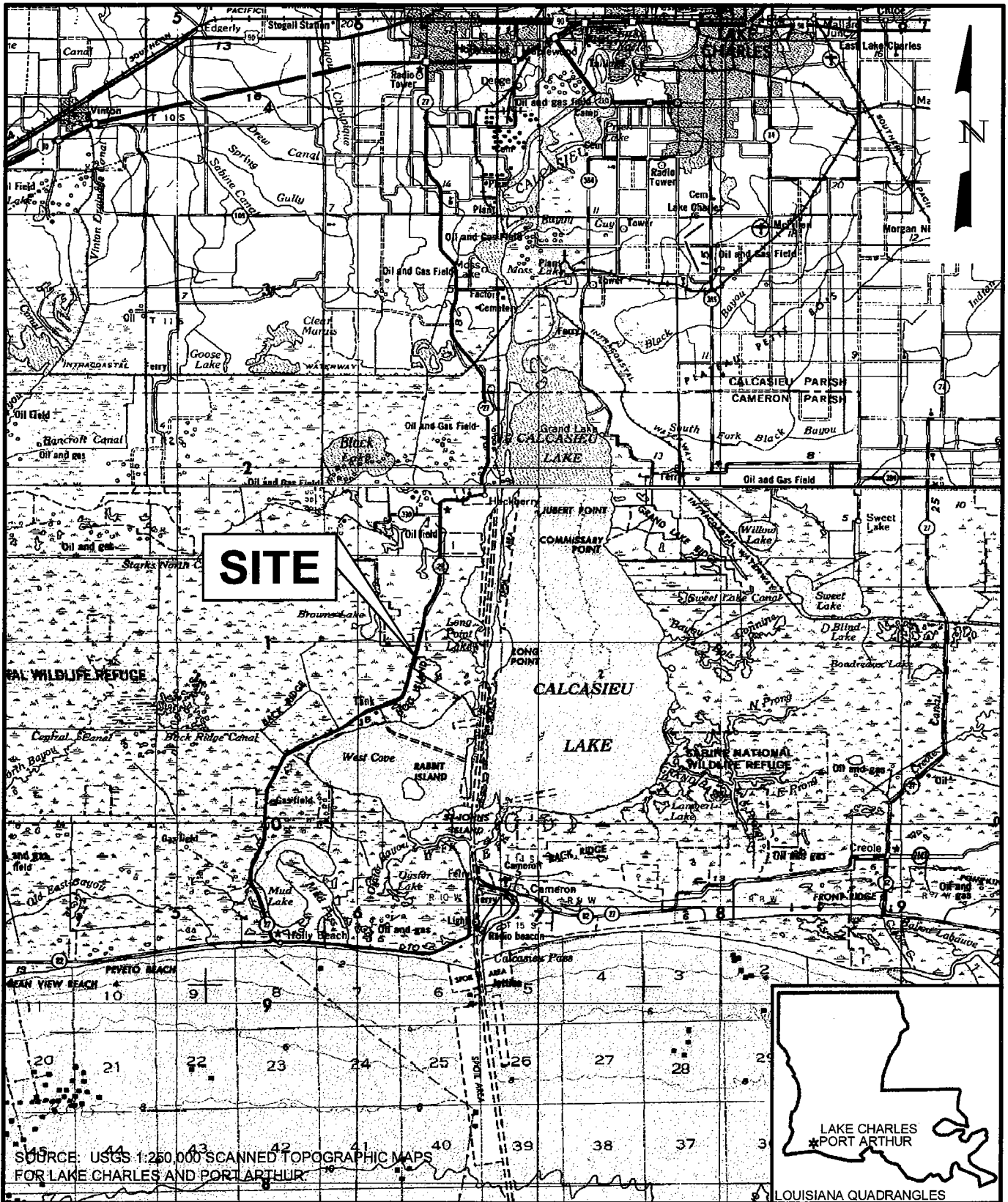
Figure 1-1

Figure 1-2

Drawings for Marsh Restoration Project, May 2008 (Attachment A)

Table 2-1

Table 2-2



SOURCE: USGS 1:250,000 SCANNED TOPOGRAPHIC MAPS FOR LAKE CHARLES AND PORT ARTHUR.

LOUISIANA QUADRANGLES

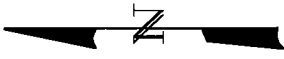
RCM ERM Remediation & Construction Management

FIGURE 1-1
SITE VICINITY MAP




Sabine National Wildlife Refuge
Cameron Parish, Louisiana

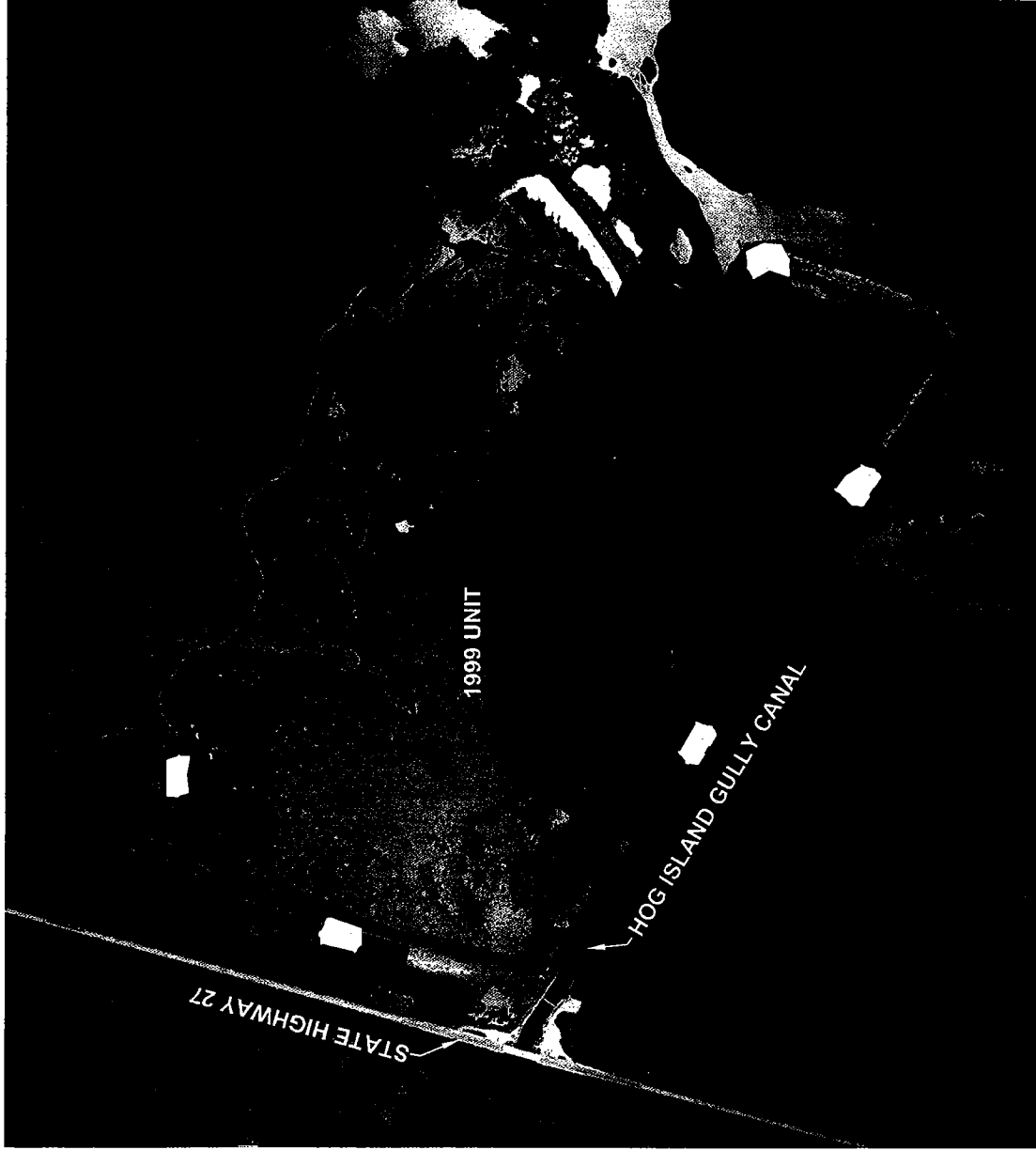
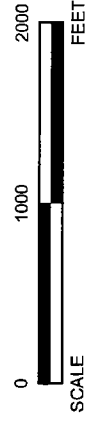


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DATE: 2/3/2009	SCALE: AS SHOWN	REV.:
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LEGEND

-  OPEN WATER CHANNEL FILLED TO MARSH LEVEL
-  SPOIL BANK EXCAVATED TO MARSH LEVEL
-  SPOIL BANK REGRADED TO OPEN WATER IN CUT



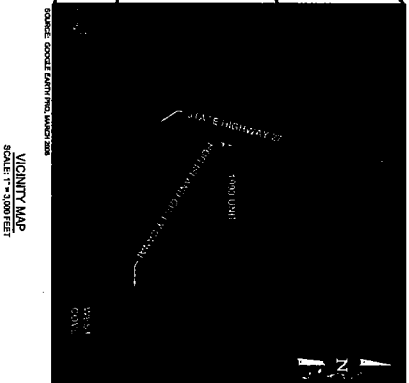
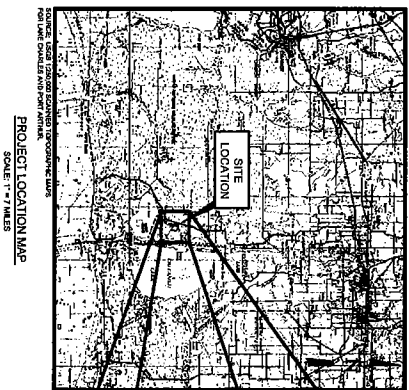
RCM ERM Remediation & Construction Management

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FIGURE 1-2
SITE LAYOUT
 1999 Unit Marsh Restoration Project
 Sabine National Wildlife Refuge
 Cameron Parish, Louisiana



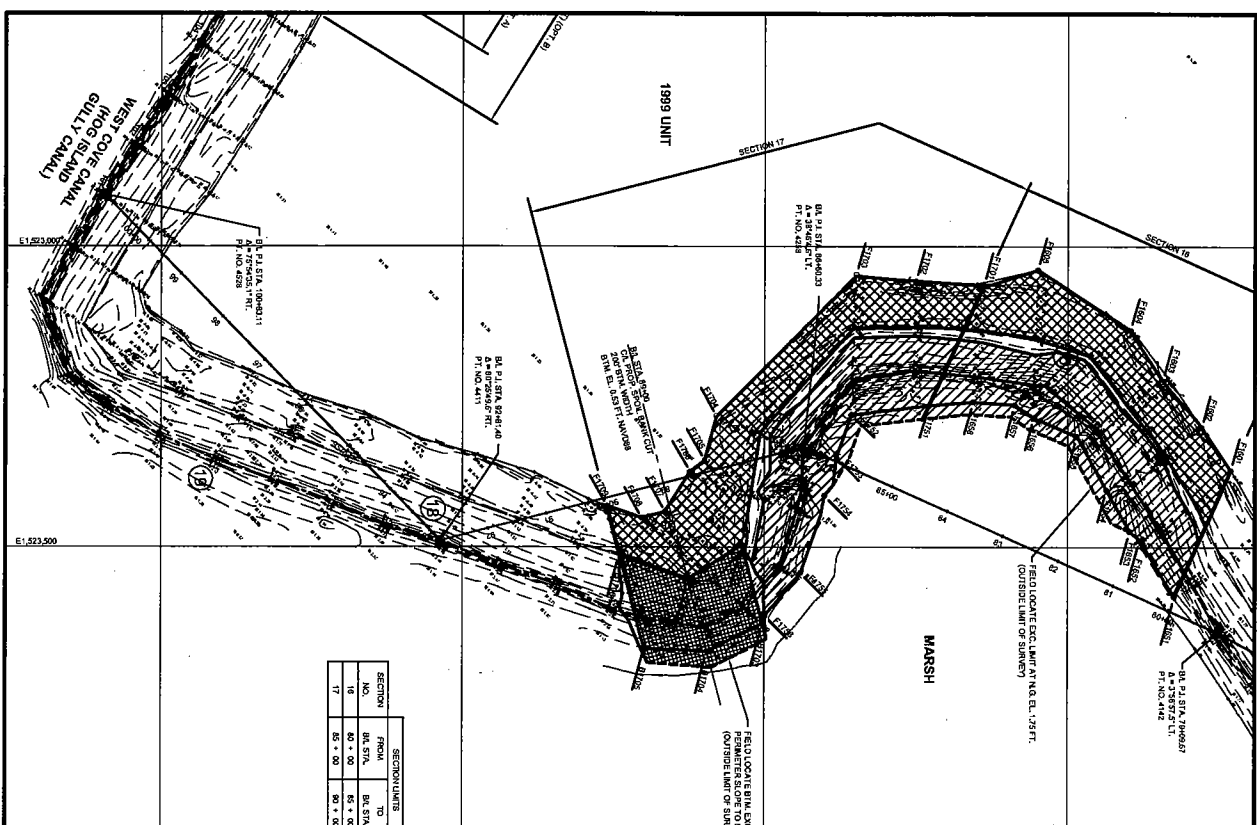
ConocoPhillips
 Drawings For
MARSH RESTORATION PROJECT
 1999 Unit
 Sabine National Wildlife Refuge
 Cameron Parish, Louisiana



SHEET NO.	TITLE
1	COVER SHEET
2	BASE MAP
3	SPOIL BANK GRADING PLAN - SHEET 1 OF 3
4	SPOIL BANK GRADING PLAN - SHEET 2 OF 3
5	SPOIL BANK GRADING PLAN - SHEET 3 OF 3
6	SPOIL BANK PROFILE
7	SPOIL BANK GRADING SECTIONS AND DETAILS

Environmental Resources Management

 Project No. 0081769
 May 2008



SECTION	FROM	TO	SPOL BANK	PROPOSED	NEW MARSH	BOTTOM	NEW SPOL BANK CUT	EXTERIOR	INTERIOR	CHANNEL TRL	BALANCED	NET
NO.	ST. + 00	ST. + 00	CO. EL.	FT. INCHES	NEW + EL. 1/2	FT. INCHES	NEW + EL. 0.85	FT. INCHES	FT. INCHES	NEW + EL. 0.85	BORROW	SPOL BANK
17	45 + 00	50 + 00	48 + 50	1/2	72/70	300	23/20	0/0	0/0	0/0	CV	NEW + ADDED

SPOL BANK CUT AT STA. 49+00

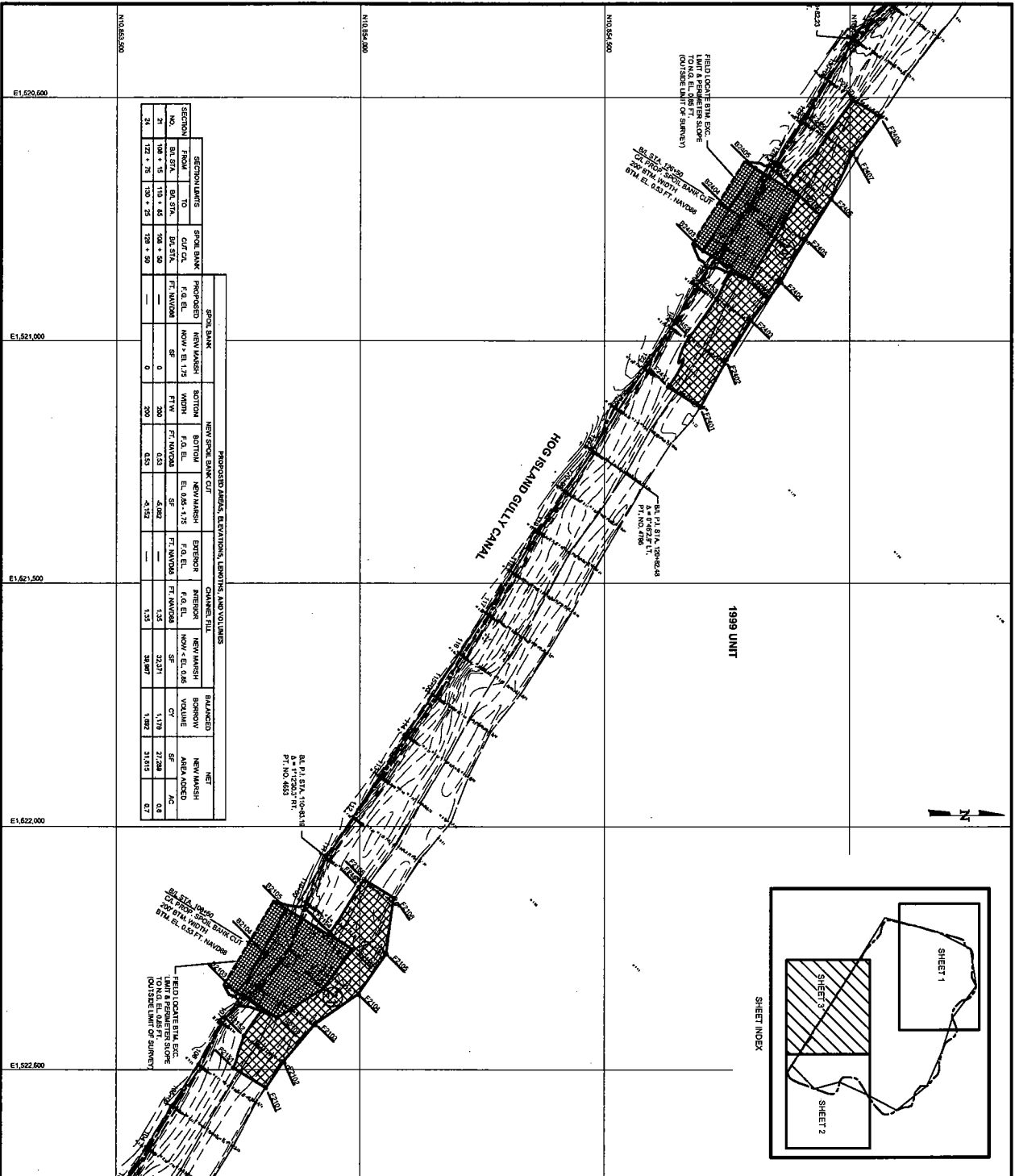
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B1705	10,004,576.70	1,520,581.46
B1706	10,004,627.60	1,520,581.46
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B1746	10,006,663.60	1,520,581.46
B1747	10,006,714.50	1,520,581.46
B1748	10,006,765.40	1,520,581.46
B1749	10,006,816.30	1,520,581.46
B1750	10,006,867.20	1,520,581.46
B1751	10,006,918.10	1,520,581.46
B1752	10,006,969.00	1,520,581.46
B1753	10,007,019.90	1,520,581.46
B1754	10,007,070.80	1,520,581.46
B1755	10,007,121.70	1,520,581.46
B1756	10,007,172.60	1,520,581.46
B1757	10,007,223.50	1,520,581.46
B1758	10,007,274.40	1,520,581.46
B1759	10,007,325.30	1,520,581.46
B1760	10,007,376.20	1,520,581.46
B1761	10,007,427.10	1,520,581.46
B1762	10,007,478.00	1,520,581.46
B1763	10,007,528.90	1,520,581.46
B1764	10,007,579.80	1,520,581.46
B1765	10,007,630.70	1,520,581.46
B1766	10,007,681.60	1,520,581.46
B1767	10,007,732.50	1,520,581.46
B1768	10,007,783.40	1,520,581.46
B1769	10,007,834.30	1,520,581.46
B1770	10,007,885.20	1,520,581.46
B1771	10,007,936.10	1,520,581.46
B1772	10,007,987.00	1,520,581.46
B1773	10,008,037.90	1,520,581.46
B1774	10,008,088.80	1,520,581.46
B1775	10,008,139.70	1,520,581.46
B1776	10,008,190.60	1,520,581.46
B1777	10,008,241.50	1,520,581.46
B1778	10,008,292.40	1,520,581.46
B1779	10,008,343.30	1,520,581.46
B1780	10,008,394.20	1,520,581.46
B1781	10,008,445.10	1,520,581.46
B1782	10,008,496.00	1,520,581.46
B1783	10,008,546.90	1,520,581.46
B1784	10,008,597.80	1,520,581.46
B1785	10,008,648.70	1,520,581.46
B1786	10,008,699.60	1,520,581.46
B1787	10,008,750.50	1,520,581.46
B1788	10,008,801.40	1,520,581.46
B1789	10,008,852.30	1,520,581.46
B1790	10,008,903.20	1,520,581.46
B1791	10,008,954.10	1,520,581.46
B1792	10,009,005.00	1,520,581.46
B1793	10,009,055.90	1,520,581.46
B1794	10,009,106.80	1,520,581.46
B1795	10,009,157.70	1,520,581.46
B1796	10,009,208.60	1,520,581.46
B1797	10,009,259.50	1,520,581.46
B1798	10,009,310.40	1,520,581.46
B1799	10,009,361.30	1,520,581.46
B1800	10,009,412.20	1,520,581.46

LEGEND

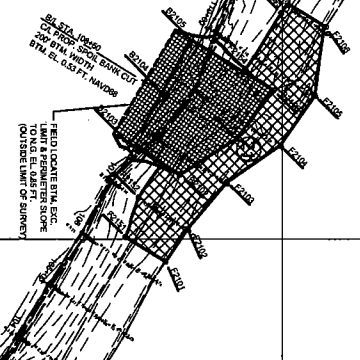
- BL. MONUMENTAL
- BL. SPOL BANK CREST
- SHOULDER LINE (FROM SURVEY)
- N.G. CONTOUR (FROM SURVEY)
- N.G. EL. (FROM SURVEY)
- BL. AREA BOUNDARY (SECTION LIMIT)
- NEW MARSH AREA NOW + EL. 1.75 FT. ABOVE FIELD LOCATE EXC. LIMIT (SEE SHEET 1)
- FIELD LOCATE EXC. LIMIT (SEE SHEET 1)
- BL. AREA NO. INT. 1.001

ABBREVIATIONS AND ACRONYMS - SEE SHEET 2
REFERENCES - SEE SHEET 2
GENERAL CONSTRUCTION NOTES - SEE SHEET 2
EXPLANATORY CONSTRUCTION NOTES - SEE SHEET 2
SPOL BANK PROFILES - SEE SHEET 6
SPOL BANK GRADING SECTIONS AND DETAILS - SEE SHEET 7

SPOL BANK GRADING PLAN SHEET 03
 1999 Unit, Cedar Hill, Louisiana
 Carron Park, Louisiana
 Environmental Resources Management
 4 of 7

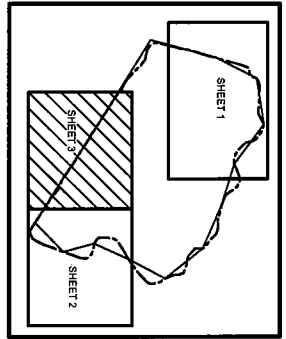


SECTION	FROM STA.	TO STA.	SPOIL BANK		NEW SPOIL BANK CUT		PROPOSED MEDICAL, RECREATION, AND VOLUNTARY		CHANNEL FILL		BALANCED		NET
			PROPOSED	NEW WASH	BOTTOM	NEW WASH	EXTERIOR	INTERIOR	NEW WASH	BORROW	NEW WASH	AMOUNT	
NO.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	CU YD
24	127 + 32	130 + 25	138 + 50	138 + 50	0	0	0	0	133	36,801	1,982	1,982	0
21	127 + 32	130 + 25	138 + 50	138 + 50	0	0	0	0	133	36,801	1,982	1,982	0



STATION	TO	FROM	TO	FROM
10+85.00	10+85.00	10+85.00	10+85.00	10+85.00
10+85.00	10+85.00	10+85.00	10+85.00	10+85.00
10+85.00	10+85.00	10+85.00	10+85.00	10+85.00
10+85.00	10+85.00	10+85.00	10+85.00	10+85.00
10+85.00	10+85.00	10+85.00	10+85.00	10+85.00

SECTION 24		SECTION 21	
EXTERIOR	INTERIOR	EXTERIOR	INTERIOR
F2401	F2402	F2101	F2102
10,854.928.18	10,854.928.18	10,854.928.18	10,854.928.18
10,854.928.18	10,854.928.18	10,854.928.18	10,854.928.18
10,854.928.18	10,854.928.18	10,854.928.18	10,854.928.18
10,854.928.18	10,854.928.18	10,854.928.18	10,854.928.18



- LEGEND**
- BA. MOUND/GRIP
 - BL. AREA BOUNDARY (SECTION LIMIT)
 - CA. SPOIL BANK CREST
 - SHORE LINE FROM SURVEY
 - N.G. CONTROL FROM SURVEY
 - N.G. FROM SURVEY
 - NEW WASH/AREA NOW > EL. 1.35 FT. ABOVE - EXCAVATE TO E.C. F.O. EL. SHOWN, THIS SHEET (FIELD LOCATE LIMIT)
 - NEW WASH/AREA NOW < EL. 0.85 FT. ABOVE - FILL TO FILL F.O. EL. SHOWN, THIS SHEET (BL. AREA NO. INT. & EXT.)

ABBREVIATIONS AND ACRONYMS: SEE SHEET 2.
 BENCHMARK REFERENCE: SEE SHEET 2.
 GENERAL CONTRIBUTION NOTES: SEE SHEET 2.
 EXISTING CONSTRUCTION NOTES: SEE SHEET 2.
 SPOIL BANK PROFILE: SEE SHEET 1.
 SPOIL BANK GRADING SECTIONS AND DETAILS: SEE SHEET 7.

Environmental Resources Management

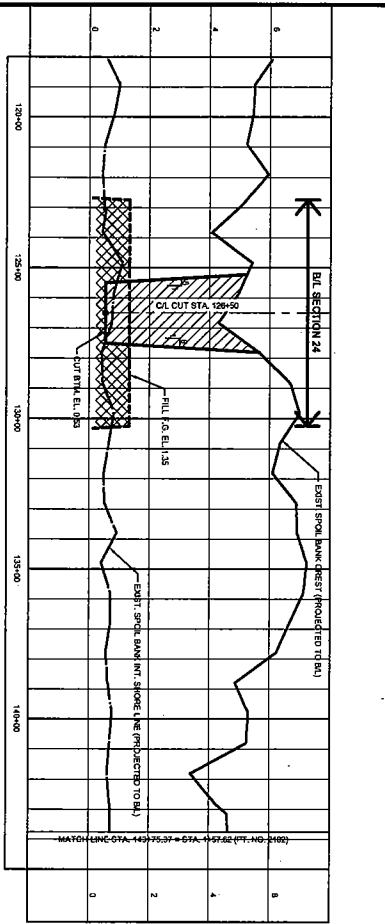
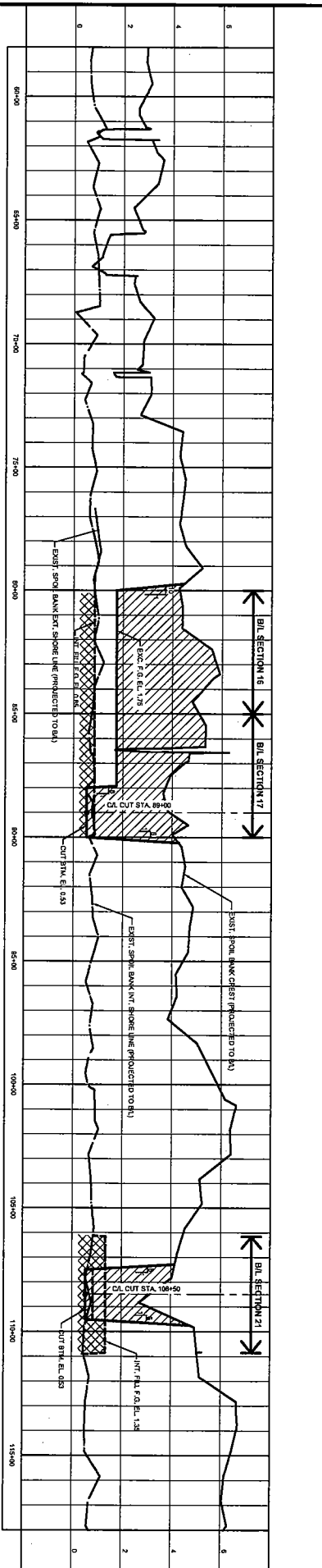
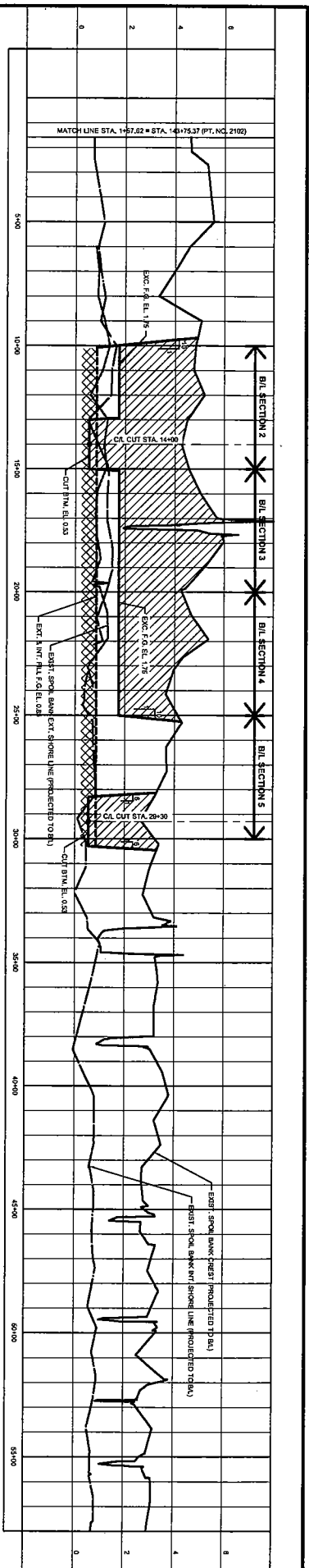
SPOIL BANK GRADING PLAN, SHEET 1 OF 3
 1999 Unit, Station Numbered Within Change
 Station 127+32 to 130+25

DATE: 04/11/00
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 SCALE: AS SHOWN

REV. DISCREPANCY

DATE: 04/11/00

5 of 7



- LEGEND**
- NEW MANSION AREA NOW ± E.L. 1.75 FT. ABOVE EXISTING TO EXC. F.O. E.L. SHOWN, THIS SHEET (FIELD LOCATE DIRT)
 - NEW MANSION AREA NOW ± E.L. 0.85 FT. ABOVE EXISTING TO EXC. F.O. E.L. SHOWN, THIS SHEET (FIELD LOCATE DIRT)
- ABBREVIATIONS AND ACRONYMS:** SEE SHEET A
BENCHMARK REFERENCE: SEE SHEET 2
GENERAL CONSTRUCTION NOTES: SEE SHEET 1
EARTHWORK CONSTRUCTION NOTES: SEE SHEET 2
SHOULDER BANK GRADING SECTIONS AND DETAILS: SEE SHEET 7



DESIGN	DATE	SCALE	DATE	SCALE	DATE	SCALE
4/8/06	4/8/06	AS SHOWN	4/8/06	AS SHOWN	4/8/06	AS SHOWN

Environmental Resources Management

SOIL BANK PROJECT
 189 U.L. Station Victoria Water Bridge
 Channel Point, Canada

DATE: 4/8/06
 SCALE: AS SHOWN
 SHEET NO: 6 of 7

TABLE 2-1
WETLANDS RESTORATION TIDAL FLOW AND SPOIL BANK CUT CALCULATIONS [1]
1999 Unit Marsh Restoration Project
Sabine National Wildlife Refuge
Cameron Parish, Louisiana

Spoil Bank Cut No.	B/L Sta. of Cut C/L	Interior Wetlands		Avg. Tide Flux [10]	Btm. El. [14]	Cut Depth [15]	Cut Width [16]		Spoil Bank Cut Design Values Used			
		Tidal Flow Subarea [5]	sq ft				m	FT W	Avg. Flow Depth [17]	Avg. Flow Area [18]	Avg. Velocity [19]	
—	100-ft Sta.	SF	m ²	m ³ /s	ft. NAVD88	m	m	FT W	m	m	m ²	m/s
Cut 1	14 + 00	1,983,000	184,000	1.02	0.53	0.25	61	200	0.31	19	0.05	
Cut 2	29 + 30	1,983,000	184,000	1.02	0.53	0.25	61	200	0.31	19	0.05	
Cut 3 [2]	34 + 20	2,873,000	267,000	0.33	0.9	0.14	30	100	0.20	6	0.05	
Cut 4 [3]	38 + 20			0.13	0.9	0.14	12	40	0.20	2	0.05	
	45 + 50			0.03	0.9	0.14	3	10	0.20	1	0.05	
	49 + 50			0.03	0.9	0.14	3	10	0.20	1	0.05	
	52 + 70			0.03	0.9	0.14	3	10	0.20	1	0.05	
	55 + 20			0.03	0.9	0.14	3	10	0.20	1	0.05	
Cut 5 [4]	61 + 40			0.18	0.9	0.14	17	55	0.20	3	0.05	
	66 + 50			0.63	0.9	0.14	59	195	0.20	12	0.05	
	85 + 90			0.08	1.0	0.11	9	30	0.17	2	0.05	
Cut 6	88 + 50	1,983,000	184,000	1.02	0.53	0.25	61	200	0.31	19	0.05	
Cut 7	108 + 50	1,983,000	184,000	1.02	0.53	0.25	61	200	0.31	19	0.05	
Cut 8	126 + 50	1,983,000	184,000	1.02	0.53	0.25	61	200	0.31	19	0.05	
Totals		12,788,000	1,187,000	6.6						122	0.05	

ABBREVIATIONS AND ACRONYMS

- Avg. average
- Btm. bottom
- El. Elevation
- FT W feet wide
- HR hours
- Int interior
- m meters
- m/s meters per second
- m² square meters
- m³/s cubic meters per second
- NAVD88 North American Vertical Datum, 1988
- SF square feet
- V velocity
- VF vertical feet
- WS water surface

Avg. Interior Wetlands Surface Elevation [6]	Max. Water Depth Over Int. Wetlands [7]	Avg. Int. W.S. [8]	Tidal Cycle [9]
m NAVD88	cm	ft. NAVD88	HR
0.41	1.35	1.55	6.3

Spoil Bank Cut Target Design Values			
Depth Over Wetlands [11]	Velocity [12]	Depth [13]	
Min., cm	m/s	m	
10	20	0.05	0.25

TABLE 2-1
WETLANDS RESTORATION TIDAL FLOW AND SPOIL BANK CUT CALCULATIONS [1]

1999 Unit Marsh Restoration Project
Sabine National Wildlife Refuge
Cameron Parish, Louisiana

NOTES

- [1] Source: "A Rationale for Coastal Wetland Restoration through Spoil Bank Management in Louisiana, USA," Turner, R., Swenson, E., and Lee, J., *Env. Mgt.*, v. 18, no. 2 (Turner et al. 1994).
- [2] Existing spoil bank cut group (two cuts as shown). The tide flow subarea and flow rate was assumed to be based on a total flow through the cut group, with the flow distributed between the cuts in proportion to the average flow cross section area in that cuts to the total average cross section area in the group.
- [3] Existing spoil bank cut group (five cuts as shown). The tide flow subarea and flow rate was assumed to be based on a total flow through the cut group, with the flow distributed between the cuts in proportion to the average flow cross section area in that cuts to the total average cross section area in the group.
- [4] Existing spoil bank cut group (two cuts as shown). The tide flow subarea and flow rate was assumed to be based on a total flow through the cut group, with the flow distributed between the cuts in proportion to the average flow cross section area in that cuts to the total average cross section area in the group.
- [5] The subarea contributing to the tidal flux through each cut was assumed to be an equal part of the total area inside the spoil bank as the average cut open area is to the total cut open area.
- [6] The Marsh surface elevation was assumed to be the average of the range described in the DARI; i.e. the average of El. 0.30 m and 0.53 m.
- [7] The water depth over the marsh was assumed to be the average of the range reported observed in Turner et al. 1994.
- [8] The average water surface El. was calculated as the sum of the average marsh surface elevation plus half of the water depth over the marsh.
- [9] The tidal cycle length is half of the value reported in Turner et al. 1994, equal to the value between high tide and low tide (outflow) or between low tide and high tide (inflow).
- [10] The average tide flux was calculated as the product of the marsh subarea and the water depth over the marsh divided by the semi-diurnal tide cycle length (i.e. high tide to low tide or from low tide to high tide).
- [11] Observed range of water depth over wetlands cited in Turner et al. 1994, p. 273.
- [12] The target average tidal flux velocity recommended in Turner et al. 1994, p. 273.
- [13] The target depth of spoil bank cut recommended in Turner et al. 1994, p. 273.
- [14] The cut bottom El. was entered as a design value to be confirmed by comparison of the resulting calculation of the average tidal flux velocity to the target velocity.
- [15] The cut depth was calculated as the difference between the average Interior Wetlands Surface El. and the Bm. El.
- [16] The cut width was entered as a design value to be confirmed by comparison of the resulting calculation of the average tidal flux velocity to the target velocity.
- [17] The average flow depth was calculated as the difference between the Avg. Int. Wetlands W.S. El. and the design cut Bm. El.
- [18] The average flow cross section area was calculated as the product of the Avg. Int. Wetlands W.S. El. and the cut width.
- [19] The average velocity was calculated by dividing the average tide flux by the product of the cut width and the flow depth.

TABLE 2-2
 SPOIL BANK AND SPOIL BANK CUT EXCAVATION AND FILL CALCULATIONS
 1999 Unit Marsh Restoration Project
 Sabine National Wildlife Refuge
 Cameron Parish, Louisiana

Section No.	Section B/L Sta.		Length Filled LF	Cut C/L B/L Sta.	Spoil Bank			New Spoil Bank Cut			Channel Fill			Balanced Borrow Volume CY	Net New Wetlands Area Added	
	From 100-Ft. Sta.	To 100-Ft. Sta.			Proposed F.G. El.	New Wetlands Now > El. 1.75 SF	Bottom Width FT W	Bottom F.G. El.	New Wetlands Now < El. 0.85 SF	Exterior F.G. El.	Interior F.G. El.	New Wetlands Now < El. 0.85 SF	SF		AC	
2	5 + 00	10 + 00			0.85	44,359	200	0.53	-29,568	0.85	0.85	121,504	4,041	136,295	3.1	
3	10 + 00	15 + 00			1.35	47,056			0	0.85	0.85	125,924	3,581	172,980	4.0	
4	15 + 00	20 + 00			1.50	37,179			0	0.85	0.85	92,472	2,041	129,651	3.0	
5	20 + 00	25 + 00			1.75	18,954	200	0.53	-23,723	0.85	0.85	22,561	1,193	17,792	0.0	
16	75 + 00	80 + 00			1.75	56,047			0	0.85	0.85	44,957	3,350	101,004	2.3	
17	80 + 00	85 + 00			1.75	73,770	200	0.53	-32,570	0.85	0.85	69,046	4,146	110,246	2.5	
21	106 + 15	110 + 85	470		-----	0	200	0.53	-5,082	-----	1.35	32,371	1,179	27,289	0.6	
24	122 + 75	130 + 25	750		-----	0	200	0.55	-8,152	-----	1.35	39,967	1,692	31,815	0.7	
Total:													28,287		16.3	

ABBREVIATIONS AND ACRONYMS

- AC acres
- B/L baseline
- Btm. bottom
- CY cubic yards
- El. elevation
- F.G. finished grade
- Ft. feet
- FT W feet width
- ft. NAVD feet, North American Vertical Datum, 1988 (based on local Control Monument)
- No. number
- SF square feet
- Sta. station
- W width

Appendix B
Addresses for Notices Pursuant to Section XVI (Notices)

As to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ # 90-11-2-1284/1

As to NOAA:

NOAA Office of General Counsel
Attn: Stephanie Willis
263 13th Ave. South, Suite 177
St. Petersburg, FL 33701

NOAA Restoration Center
Attn: Jean Cowan
LSU Sea Grant Bldg., Room 124C
Baton Rouge, LA 70803

As to DOI/USFWS:

US DOI/FWS
Regional Solicitor's Office
Attn: Holly Deal
75 Spring Street, S.W., Rm 304
Atlanta GA 30303

Terry Delaine
Refuge Manager
SW LA NWR Complex
1428 Hwy 27
Bell City, LA 70630

Robert Gosnell
Complex Wildlife Biologist
SW LA NWR Complex
1428 Hwy 27
Bell City, LA 70630

As to LDEQ:

Betty Brousseau, Administrator
LDEQ/OEC/Enforcement
P.O. Box 4312
Baton Rouge, LA 70821-4302

Dwana King
Attorney, LDEQ
P.O. Box 4302
Baton Rouge, LA 70821-4302

As to LDWF:

Heather Finley
Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

Frederick C. Whitrock
LA Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

As to the Settling Defendants:

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420 South Keeler Avenue
Bartlesville, OK 74004

William Beck
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Risk Management & Remediation
ConocoPhillips Company
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Westlake, LA 70669

Joseph Ledvina
Manager, Special Projects
Sasol North America Inc.
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Houston, Texas 77079

Paul Hamada (legal notices)
Senior Counsel
ConocoPhillips Company
600 Dairy Ashford, McLean Building
Houston, Texas 77079

Ann McWatters (legal notices)
Sasol North America Inc.
Vice President & General Counsel
900 Threadneedle, Suite 100
Houston, Texas 77079

APPENDIX D:
Bayou Verdine Site – Administrative Record Index for the Final DARP

1 Laws and Regulations/Legal Documents

1.01. Consent Decrees/Related Documents

1.02 Federal Register Notices/Public Notices

- Notice of Intent to Perform Damage Assessment & Develop Restoration Plan/Public Input on Restoration Alternatives Invited/Notice of 9/29/2004 Public Meetings, published September 26, 2004 in American Press, Lake Charles, LA, with Affidavit of Publication. *Document ID 2455*
- Notice of Availability of Draft Damage Assessment and Restoration Plan for Bayou Verdine Site, published March 26, 2009 in the Federal Register. 74 Fed. Reg. 13193. *Document ID 2528*
- Notice of Availability of Draft Damage Assessment and Restoration Plan for Bayou Verdine Site, published March 27, 2009 in American Press, Lake Charles, LA, with Affidavit of Publication. *Document ID 2533*

1.03 Referenced Laws, Regulations, and Agreements

- Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq. *Document ID 2457*
- Natural Resource Damage Assessment Regulations, 43 C.F.R. Part 11. *Document ID 2454*

2 Injury Assessment Phase

2.01 Injury Assessment

- Draft Technical Memorandum: Reasonable Worst Case Analysis Injury Assessment For Bayou Verdine and Coon Island Loop, June 1, 2004. *Document ID 2459*
- Draft Technical Memorandum: Hurricanes Katrina & Rita – Review of Potential Affect on Injury Assessment Proposed for Bayou Verdine, June 22, 2006. *Document ID 2470*
- Draft Damage Assessment & Restoration Plan for Bayou Verdine Site, March 27, 2009. *Document ID 2462*

2.02 Benthic Resources (incl. Sediment Habitats, Bottom-Dwelling Fish and Shellfish)

- Draft Technical Memorandum: Reasonable Worst Case Analysis Injury Assessment For Bayou Verdine and Coon Island Loop. *Document ID 2459*
- Draft Damage Assessment & Restoration Plan for Bayou Verdine Site, March 27, 2009. *Document ID 2462*

2.03 Higher Trophic Level Resources (incl. Piscivorous Fish, Birds and Wildlife)

- Draft Technical Memorandum: Reasonable Worst Case Analysis Injury Assessment For Bayou Verdine and Coon Island Loop. *Document ID 2459*.
- Draft Damage Assessment & Restoration Plan for Bayou Verdine Site, March 27, 2009. *Document ID 2462*

2.04 Lost Human Use (Recreational)

- Draft Technical Memorandum: Reasonable Worst Case Analysis Injury Assessment For Bayou Verdine and Coon Island Loop. *Document ID 2459*
- Draft Damage Assessment & Restoration Plan for Bayou Verdine Site, March 27, 2009. *Document ID 2462*

2.05 Surface Water Resources (Planktonic Organisms)

- Draft Technical Memorandum: Reasonable Worst Case Analysis Injury Assessment For Bayou Verdine and Coon Island Loop. *Document ID 2459*
- Draft Damage Assessment & Restoration Plan for Bayou Verdine Site, March 27, 2009. *Document ID 2462*

2.06 Response Phase Investigations/Documents Important to Injury Assessment

NOTE TO READER: THIS SECTION OF THE TRUSTEES' AR INDEX LISTS THOSE EPA RECORDS WITH INFORMATION THAT THE TRUSTEES CONSIDERED AS PART OF THE INJURY ASSESSMENT PHASE OF THE BAYOU VERDINE SITE NRDA.

SUBSECTION A LISTS THOSE RECORDS OF THIS NATURE THAT ARE PART OF EPA'S AR FOR THE REMOVAL ACTIONS WITHIN THE CALCASIEU ESTUARY SUPERFUND SITE, WITH THE CORRESPONDING DOCUMENT ID NUMBER IN EPA'S AR. THESE DOCUMENTS MAY BE VIEWED IN EPA'S AR. EPA'S AR IS MAINTAINED TOGETHER WITH THE TRUSTEES' NRDA AR AT THE CALCASIEU PARISH CENTRAL BRANCH LIBRARY, 301 WEST CLAUDE STREET, LAKE CHARLES LA.

SUBSECTION B LISTS OTHER EPA RECORDS WITH INFORMATION THE TRUSTEES CONSIDERED. THESE HAVE NOT BEEN INCLUDED IN EPA'S AR FOR THE REMOVAL ACTIONS AND, AS SUCH, THESE DOCUMENTS ARE INCLUDED AND CAN BE VIEWED IN THE TRUSTEES' NRDA AR, AND HAVE A SEPARATE DOCUMENT ID NUMBER ASSIGNED BY THE TRUSTEES.

A. Information/Records found in EPA AR:

- Bayou Verdine Investigation Volume I, Nature and Extent Investigation, Lake Charles, Louisiana, Part 1 & 2, October 1999, prepared by ENTRIX, Inc for Conoco, Inc. [*EPA Administrative Record, Document ID 150586*]
- Bayou Verdine Investigation Volume II, Screening Level Ecological Risk Assessment – Project Appendices, Lake Charles, Louisiana, November 1999, prepared by ENTRIX, Inc for Conoco, Inc. [*EPA Administrative Record, Document ID 908101*]
- Bayou Verdine Investigation Volume III, Baseline Ecological Risk Assessment, Bayou Verdine, Louisiana, March 2001, prepared by ENTRIX, Inc for Conoco, Inc. [*EPA Administrative Record, Document ID 905334*]
- Bayou Verdine Investigation Volume IV, Baseline Human Health Risk Assessment, Bayou Verdine, Louisiana, April 2001, prepared by ENTRIX, Inc for Conoco, Inc. [*EPA Administrative Record, Document ID 915005*]
- Calcasieu Estuary Remedial Investigation/Feasibility Study (RI/FS): Volumes I and II, Baseline Ecological Risk Assessment Problem Formulation, May 2001 (revised September 2001), prepared by MacDonald, et al. for EPA, Region VI, Dallas, TX. [*EPA Administrative Record, Document ID 913079*]
- EPA Comments on Bayou Verdine Investigation Volume IV, Baseline Human Health Risk Assessment, June 2001 [*EPA Administrative Record, Document ID 914969*]
- Response to EPA Comments on Bayou Verdine Investigation Volume IV, Baseline Human Health Risk Assessment, October 2001 [*EPA Administrative Record, Document ID 914976*]

- EPA EE/CA Approval Memorandum for Bayou Verdine Area of Concern (BVAOC), February 2002. [*EPA Administrative Record, Document ID 913094*]
- EPA Administrative Order on Consent for an Engineering Evaluation and Cost Analysis (EE/CA) to support a Non-Time Critical Removal Action for BVAOC, February 2002. [*EPA Administrative Record, Document ID 913096*]
- EPA Request for Removal Action at the BVAOC, June 2002. [*EPA Administrative Record, Document ID 913097*]
- Draft Final EE/CA for BVAOC, July 2002, [*EPA Administrative Record, Document ID 917456*]

B. Information/Records Not Found in EPA AR:

- South Terminal Offshore Sediment Sampling Report, October 1995, prepared by International Technology Corporation for PPG Industries, Inc. *Document ID 2507*
- Curry, M.S., M.T. Huguenin, A.J. Martin, and T.R. Lookingbill. 1997. Contamination extent report and preliminary injury evaluation for the Calcasieu Estuary. Prepared for the National Oceanic and Atmospheric Administration, National Ocean Service, Damage Assessment Center. *Document ID 2508*
- Calcasieu Estuary Remedial Investigation/ Feasibility Study (RI/FS): Baseline Ecological Risk Assessment (BERA), EPA 2003. *Document ID 2461*
- Letter re Evaluation of Hurricane Rita Impacts to West Ditch and Bayou Verdine Removal areas, March 2, 2006. *Document ID 2484*

3 Restoration Planning Phase

- Baumann, R.H. and DeLaune, R.D. 1982. Sedimentation and apparent sea-level rise as factors affecting land loss in coastal Louisiana. Proceeding- Conference on Coastal Erosion and Wetland Modification in Louisiana: Causes, Consequences, and Options. Published by the U.S.Dept. of Interior, Fish and Wildlife Service. FWS/OBS-82/59, pp. 2-13. *Document ID 2468*
- Gornitz, V., S. Lebedeff, and J.Hansen. 1982. Global sea level trend in the past century. *Science* 215(4540):1611-1614. *Document ID 2467*
- Penland, S., K.E.Ramsey , R.A. McBride, T.F. Moslow, and K.A. Westphal. 1989. Relative sea level rise and subsidence in Louisiana and the Gulf of Mexico. Louisiana Geological Survey, Coastal Geology Technical Report No. 3 *Document ID 2466*
- White, W.A. Morton, and C.W. Homes. 2002. A comparison of factors controlling sedimentation rates and wetland loss in fluvial-deltaic systems, Texas Gulf coast. *Geomorphology* 44:47-66. *Document ID 2460*
- Summary of subsidence rate data collected from Sabine NWR, 2002-2004 provided by B.Hoffpauir, former graduate student at McNeese State University, per personal communication to J. Rapp, NOAA. *Document ID 2464*
- Bayou Verdine NRDA, informational presentation developed by the PRP's consultants on potential compensatory restoration projects, June 15 2004. *Document ID 2458*
- Notice of Intent to Perform Damage Assessment & Develop Restoration Plan/Public Input on Restoration Alternatives Invited/Notice of 9/29/2004 Public Meetings, published September 26, 2004 in American Press Lake Charles, LA with Affidavit of Publication. *Document ID 2455*
- Bayou Verdine NRDA Public Meeting PowerPoint Presentation – September 29, 2004 *Document ID 2485*

- Bayou Verdine NRDA September 29, 2004 Public Meeting, summary notes, *Document ID 2486*
- Conceptual compensatory restoration project alternatives submitted by representative of Arabie Environmental Solutions, October 7, 2004. *Document ID 2452*
- Conceptual compensatory restoration project alternatives submitted by Coastal Conservation Association, Lake Charles Chapter, October 18, 2004. *Document ID 2487*
- Conceptual compensatory restoration project alternatives submitted by representative of RESTORE, October 18, 2004. *Document ID 2488*
- Summary of conceptual compensatory restoration project alternatives received as a result of 9/29/04 public meetings and noticed period for public submissions ending October 28, 2004. *Document ID 2489*
- Memorandum to AR confirming letters sent January 18, 2004 to Federally-recognized Tribes in Louisiana inquiring as to the presence of Traditionally Cultural Properties in Cameron Parish areas considered for restoration. *Document ID 2469*
- Letter to and concurrence from the Louisiana State Historic Preservation Officer, dated January 18, 2005, and January 28, 2005, respectively, confirming no known recorded sites of cultural significance or registered historic places in the vicinity of the preferred restoration project. *Document ID 2495*
- Letter from the Cultural Director of the Chitimacha Tribe, dated January 25, 2005, stating Cameron Parish was outside its aboriginal homeland. *Document ID 2463*
- Letter from the Environmental Director of the Jena Band of Choctaw Indians, dated February 1, 2005, stating that the Traditional Cultural Properties of the Jena Band of Choctaw Indians would not be impacted if a project were implemented in areas of Cameron Parish being considered for restoration. *Document ID 2490*
- Bayou Verdine PRP consultant's presentation of conceptual design options for the Sabine NWR 1999 project alternative - June 15, 2005. *Document ID 2491*
- Aerial image of the Sabine NWR 1999 alternative overlain with the locations of the topographic data collection effort - July 11, 2005. *Document ID 2492*
- Topographic data collected in 2005 by John Chance Land Surveys, Inc. on behalf of ConocoPhillips and Sasol NA from Sabine 99 Project site, Sabine National Wildlife Refuge, Cameron Parish, LA. *Document ID 2456*
- Revised conceptual design option for the Sabine NWR 1999 alternative submitted by the PRP- January 12, 2006. *Document ID 2493*
- Letter to NOAA National Marine Fisheries Service, dated December 8, 2008, stating implementation of preferred restoration project will not result in net adverse impacts on Essential Fish Habitat. *Document ID 2502*
- Letter to U.S. Fish and Wildlife Service, dated December 8, 2008, stating Trustees determined implementation of the preferred restoration project is not likely to adversely impact threatened or endangered species under USFWS jurisdiction. *Document ID 2504*
- Letter from NOAA National Marine Fisheries Service, dated December 18, 2008, concurring with Trustees' determination that implementation of preferred restoration project will have no net adverse impacts on Essential Fish Habitat. *Document ID 2505*
- Letter from the U.S. Fish and Wildlife Service, dated December 12, 2008, concurring with Trustees' determination that implementation of preferred

- Memorandum to AR, dated January 16, 2009, documenting Trustees' determination that implementation of preferred project will have no effect on threatened or endangered species under the jurisdiction of NOAA National Marine Fisheries Service. *Document ID 2501*
- Draft Technical Memorandum: Restoration Credit Analysis of Marsh Creation and Enhancement via Hydraulic Restoration of the 1999 Unit Near West Cover Canal, in the Sabine National Wildlife Refuge, March 27, 2009. *Document ID 2494*
- Draft Damage Assessment & Restoration Plan for Bayou Verdine Site, March 27, 2009. *Document ID 2462*
- Notice of Availability of Draft Damage Assessment and Restoration Plan for Bayou Verdine Site, published March 26, 2009 in the Federal Register. 74 Fed. Reg. 13193. *Document ID 2528*
- Notice of Availability of Draft Damage Assessment and Restoration Plan for Bayou Verdine Site, published March 27, 2009 in American Press, Lake Charles, LA, with Affidavit of Publication. *Document ID 2533*
- Letter from NOAA National Marine Fisheries Service, dated April 10, 2009, to LDNR Office of Coastal Restoration and Management submitting federal determination that preferred restoration project is consistent with Louisiana's approved Coastal Zone Management Program (LCMP). *Document ID 2529*
- Letter from LDNR Office of Coastal Restoration and Management, dated June 12, 2009, requesting 15 day extension for state review of federal determination of consistency with LCMP. *Document ID 2530*
- Letter from LDNR Office of Coastal Restoration and Management, dated June 16, 2009, concurring with federal determination of consistency with LCMP. *Document ID 2531*
- Letter from the U.S. Fish and Wildlife Service, dated February 18, 2010, concurring in analysis, determination, and NOAA's issuance of Finding of No Significant Impact for the Sabine 1999 Project on behalf of the Service. *Document ID 2535*
- Finding of No Significant Impact for the Sabine 1999 Project as executed & issued by NOAA National Marine Fisheries Service, March 9, 2010. *Document ID 2536*

4 Restoration Implementation Phase

- 4.01 Restoration Implementation Plan(s)
- 4.02 Restoration Construction Reports/Certifications

5 Restoration Monitoring

- 5.01 Restoration Monitoring Plan
- 5.02 Monitoring Reports
- 5.03 Technical Reviews of Monitoring Reports
- 5.04 Corrective Action Plans/Decisions

6 Restoration Completion

- 6.01 Final Restoration Report/Certifications

7 Public Outreach and Involvement

7.01 Public Outreach

- Notice of Intent to Perform Damage Assessment & Develop Restoration Plan/Public Input on Restoration Alternatives Invited/Notice of 9/29/2004 Public Meetings, published September 26, 2004 in American Press Lake Charles, LA, with Affidavit of Publication. *Document ID 2455*
- Bayou Verdine NRDA Public Meeting PowerPoint Presentation- September 29, 2004. *Document ID 2485*
- Bayou Verdine NRDA September 29, 2004 Public Meeting, summary notes. *Document ID 2486*
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- Conceptual compensatory restoration project alternatives submitted by Coastal Conservation Association, Lake Charles Chapter, October 18, 2004. *Document ID 2487*
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7.02 Public Comments on Draft DARP/EA

- NOTE: The Trustees received no comments on the Draft Damage Assessment & Restoration Plan for Bayou Verdine Site during the 60 day period provided for its public review.

7.03 Press Releases

7.04 Media Coverage