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ADVERTISEMENT FOR BIDS

Sealed bids will be received for the State of Louisiana by the Coastal Protection and Restoration Authority, 150 Terrace Avenue, 4th Floor Conference Center, Baton Rouge, Louisiana 70802 until 2:00 P.M., Wednesday, August 2, 2017.

ANY PERSON REQUIRING SPECIAL ACCOMMODATIONS SHALL NOTIFY THE COASTAL PROTECTION AND RESTORATION AUTHORITY OF THE TYPE(S) OF ACCOMMODATION REQUIRED NOT LESS THAN SEVEN (7) DAYS BEFORE THE BID OPENING.

FOR: Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp Project
St. James Parish, Louisiana

PROJECT NUMBER: BA-34-2

Complete Bid Documents for this project are available in electronic form. They may be obtained without charge and without deposit from http://coastal.la.gov/resources/rfps-rsigs-contracts/bids/. Printed copies can also be obtained from:

COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA)
The Water Campus
150 Terrace Avenue
Baton Rouge, LA 70804
Attn: Renee McKee
E-mail: cpra.bidding@la.gov Phone: (225) 342-0811 Fax: (225) 800-5596

All bids shall be accompanied by bid security in an amount of five percent (5.0%) of the sum of the base bid and all alternates. The form of this security shall be as stated in the Instructions to Bidders included in the Bid Documents for this project.

The successful Bidder shall be required to furnish a Performance and Payment Bond written as described in the Instructions to Bidders included in the Bid Documents for this project.

The successful Bidder shall be required to furnish a Performance and Payment Bond written as described in the Instructions to Bidders included in the Bid Documents for this project.

A MANDATORY PRE-BID CONFERENCE WILL BE HELD
at 9:30 am on Tuesday, July 18, 2017 at CPRA Thibodaux Regional Office, 1440 Tiger Drive, Suite B, Thibodaux, LA 70301.

A HIGHLY ENCOURAGED JOB SITE VISIT WILL BE HELD
at 1:00 pm on Tuesday, July 18, 2017 at Public Boat Launch at 1598 LA Highway 20, Thibodaux, LA 70301

The Job Site is located within the Barataria Basin, is bounded by Bayou Chevreuil, Louisiana Highway 20 (LA20), the Vacherie Canal Levee, and a natural ridge. It is the responsibility of all potential bidders to visit the Job Site to assess the location and conditions prior to bidding. Bidders are advised that they will be required to state on the bid form that they have personally inspected and are familiar with the project site. The Job Site Visit being conducted by CPRA will facilitate access to project features that are located on private property. Outside of the Highly Encouraged Site Visit, the Contractor may not have access to the features located on private property. Contractors shall be responsible for providing their own boat and any rental and boat launching fees.

Contact Renee Bennett at (225) 342-4592 if directions are needed to the Mandatory Pre-Bid Conference or Benjamin Hartman (985) 449-5073 if directions are needed to the recommended Job Site Visit.

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2192 for the classification of Heavy Construction and/or Coastal Restoration Habitat and Enhancement. In accordance with LA. R.S. 37:2163(D), anyone objecting to the classification must send a certified letter to both the Louisiana State Licensing Board for Contractors and the CPRA at the address listed above. The letter must be received no later than ten (10) working days prior to the day on which bids are to be opened.

Bidder is required to comply with provisions and requirements of LA R.S.38:2212(B)(5). No bid may be withdrawn for a period of forty-five (45) calendar days after receipt of bids, except under the provisions of LA. R.S. 38:2214.

The Owner reserves the right to reject any and all bids for just cause. In accordance with La. R.S. 38:2212(B)(1), the provisions and requirements of this Section; and those stated in the bidding documents shall not be waived by any entity.

When this project is financed either partially or entirely with State Bonds or financed in whole or in part by federal or other funds which are not readily available at the time bids are received, the award of this Contract is contingent upon the granting of lines of credit, or the sale of bonds by the Bond Commission or the availability of federal or other funds. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is fully executed.

Coastal Protection and Restoration Authority is a participant in the Small Entrepreneurship (SE) Program (the Hudson Initiative) and the Veteran-Owned and Service-Connected Disabled Veteran-Owned (LaVet) Small Entrepreneurships Program. Bidders are encouraged to consider participation. Information is available from Coastal Protection and Restoration Authority or on its website at http://www.coastal.la.gov/.

STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY
MICHAEL R. ELLIS, EXECUTIVE DIRECTOR
INSTRUCTIONS TO BIDDERS

COMPLETION TIME:
The Bidder shall agree to fully complete the contract within One-Hundred-Sixty (160) consecutive calendar days for the Base Bid, Twelve (12) consecutive calendar days for Alternate No. 1 and Ten (10) consecutive calendar days for Alternate No. 2. Extensions may be granted under Section GP-44 of the General Provisions and acknowledges that this construction time will start on or before the date specified in the written “Notice to Proceed” from the Owner.

LIQUIDATED DAMAGES:
The Bidder shall agree to pay as Liquidated Damages the amount of One-Thousand-Six-Hundred Dollars ($1,600.00) for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the “Notice to Proceed” or as amended by change order.

ARTICLE 1

DEFINITIONS

1.1 The Bid Documents include the following:

Advertisement for Bids
Instructions to Bidders
Bid Form
Bid Bond
General Provisions
Special Provisions
Technical Specifications
Construction Drawings
Contract Between Owner and Contractor
and Performance and Payment Bond
Affidavit
User Agency Documents (if applicable)
Change Order Form
Recommendation of Acceptance
Other Documents (if applicable)
Addenda issued during the bid period and acknowledged in the Bid Form

1.2 All definitions set forth in the General Provisions and the Special Provisions are applicable to the Bid Documents, unless otherwise specifically stated or written.

1.3 Addenda are written and/or graphic instruments issued by the Engineer prior to the opening of bids.

1.4 A bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.

1.5 Base bid is the sum stated in the bid for which the Bidder offers to perform the work described as the base, to which work may be added, or deleted for sums stated in alternate bids.

1.6 An alternate bid (or alternate) is an amount stated in the bid to be added to the amount of the base bid if the corresponding change in project scope or materials or methods of construction described in the Bid Documents is accepted.

1.7 A Bidder is one who submits a bid for a prime Contract with the Owner for the work described in the Bid Documents.

1.8 A Sub-bidder is one who submits a bid to a Bidder for materials and/or labor for a portion of the work.

1.9 Where the word "Engineer" is used in any of the documents, it shall refer to the Prime Designer of the project, regardless of discipline.
ARTICLE 2
PRE-BID CONFERENCE

2.1 A Pre-Bid Conference may be held at the time and location described in the Advertisement for Bids. The purpose of the Pre-Bid Conference is to familiarize Bidders with the requirements of the Project and the intent of the Bid Documents, and to receive comments and information from interested Bidders. If the Pre-Bid Conference and/or Job Site Visit is stated in the Advertisement for Bids to be a Mandatory Pre-Bid Conference and/or Mandatory Job Site Visit, bids shall be accepted only from those bidders who attend the Pre-Bid Conference and/or Job Site Visit. Contractors who are not in attendance for the entire Pre-Bid Conference and/or Job Site Visit will be considered to have not attended.

2.2 Any revision of the Bid Documents made as a result of the Pre-Bid Conference shall not be valid unless included in an addendum.

ARTICLE 3
BIDDER'S REPRESENTATION

3.1 Each Bidder by making his bid represents that:

3.1.1 He has read and understands the Bid Documents and his bid is made in accordance therewith.

3.1.2 He has visited the site and has familiarized himself with the local conditions under which the work is to be performed.

3.1.3 His bid is based solely upon the materials, systems and equipment described in the Bid Documents as advertised and as modified by addenda.

3.1.4 His bid is not based on any verbal instructions contrary to the Bid Documents and addenda.

3.1.5 He is familiar with the Code of Governmental Ethics requirement that prohibits public servants and/or their immediate family members from bidding on or entering into contracts; he is aware that the Designer and its principal owners are considered Public Servants under the Code of Governmental Ethics for the limited purposes and scope of the Design Contract with the State on this Project (see Ethics Board Advisory Opinion, No. 2009-378 and 2010-128); and neither he nor any principal of the Bidder with a controlling interest therein has an immediate family relationship with the Designer or any principal within the Designer’s firm. (see La. R.S. 42:1113). Any Bidder submitting a bid in violation of this clause shall be disqualified and any contract entered into in violation of this clause shall be null and void.

3.2 The Bidder must be fully qualified under any State or local licensing law for Contractors in effect at the time and at the location of the work before submitting his bid. In the State of Louisiana, Revised Statutes 37:2150, et seq. will be considered, if applicable.

The Contractor shall be responsible for determining that all of his Sub-bidders or prospective Subcontractors are duly licensed in accordance with law.

ARTICLE 4
BID DOCUMENTS

4.1 Copies

4.1.1 Bid Documents may be obtained from the Coastal Protection and Restoration Authority as stated in the Advertisement for Bids.

4.1.1.1 In addition to the availability of printed Bid Documents, the Coastal Protection and Restoration Authority will provide the Bid Documents in electronic format. They may be obtained without charge and without deposit as stated in the Advertisement for Bids.

4.1.2 Where electronic distribution is provided, all other plan holders are responsible for their own reproduction costs.

4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.
4.1.3 The Owner or Engineer in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining bids on the work and do not confer a license or grant for any other use.

4.2 Interpretation or Correction of Bid Documents

4.2.1 Bidders shall promptly notify the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids of any ambiguity, inconsistency or error which they may discover upon examination of the Bid Documents or of the site and local conditions.

4.2.2 Bidders requiring clarification or interpretation of the Bid Documents shall make a written request to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids, to reach him at least seven days prior to the date for receipt of bids.

4.2.3 Any interpretation, correction or change of the Bid Documents will be made by addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding and Bidders shall not rely upon such interpretations, corrections and changes.

4.3 Substitutions

4.3.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitutions shall be allowed after bids are received.

4.3.2 No substitution will be considered unless written request for approval has been submitted by the Proposer and has been received by the Engineer at least seven (7) working days prior to the opening of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including model numbers, drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It shall be the responsibility of the proposer to include in his proposal all changes required of the Bid Documents if the proposed product is used. Prior approval of the Engineer is given contingent upon supplier being responsible for any costs which may be necessary to modify the space or facilities needed to accommodate the materials and equipment approved.

4.3.3 If the Engineer approves any proposed substitution, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner.

4.4 Addenda

4.4.1 Addenda will be mailed or delivered to all who are known by the Coastal Protection and Restoration Authority to have received a complete set of Bid Documents.

4.4.2 Copies of addenda will be made available for inspection wherever Bid Documents are on file for that purpose.

4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying the Bid Documents within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven but no more than twenty-one (21) working days, without the requirement of re-advertising. The revised time and date for the opening of bids shall be stated in the addendum.

4.4.4 Each Bidder shall ascertain from the Coastal Protection and Restoration Authority prior to submitting his bid that he has received all addenda issued, and he shall acknowledge their receipt on the Bid Form.

4.4.5 The Owner shall have the right to extend the bid date by up to thirty (30) days without the requirement of re-advertising. Any such extension shall be made by addendum issued by the Coastal Protection and Restoration Authority.
ARTICLE 5

BID PROCEDURE

5.1 Form and Style of Bids

5.1.1 Bids shall be submitted on the Louisiana Uniform Public Work Bid Form provided by the Engineer.

5.1.2 All blanks on the Bid Form shall be filled in manually in ink or typewritten.

5.1.3 Bid sums shall be expressed in both words and figures, and in case of discrepancy between the two, the written words shall govern.

5.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the bid or his authorized representative.

5.1.5 Bidders are cautioned to complete all alternates should such be required in the Bid Form. Failure to submit alternate prices will render the bid non responsive and shall cause its rejection.

5.1.6 Bidders are cautioned to complete all unit prices should such be required in the Bid Form. Unit prices represent a price proposal to do a specified quantity and quality of work.

5.1.7 Bidders are strongly cautioned to ensure that all blanks on the bid form are completely and accurately filled in.

5.1.8 Bidder shall make no additional stipulations on the Bid Form nor qualify his bid in any other manner.

5.1.9 The bid shall include the legal name of Bidder. Written evidence of the authority of the person signing the bid shall be submitted at the time of bidding.

The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable under any of the following conditions:
(a) Signature on bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability partnership, or other legal entity listed in the most current business records on file with the Secretary of State.
(b) Signature on bid is that of authorized representative as documented by the legal entity certifying the authority of the person.
(c) Legal entity has filed in the appropriate records of the Secretary of State, an affidavit, resolution or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office. A bid submitted by an agency shall have a current Power of Attorney attached certifying agent's authority to bind Bidder. The name and license number on the envelope shall be the same as the entity identified on the Bid Form.

5.1.10 On any bid in excess of fifty thousand dollars ($50,000.00), the Contractor shall certify that he is licensed under R.S. 37:2150-2173 and show his license number on the bid above his signature or his duly authorized representative.

5.2 Bid Security

5.2.1 No bid shall be considered or accepted unless the bid is accompanied by bid security in an amount of five percent (5.0%) of the base bid and all alternates.

The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a Bid Bond written by a surety company licensed to do business in Louisiana and signed by the surety's agent or attorney-in-fact. The Bid Bond shall be written on the Coastal Protection and Restoration Authority Bid Bond Form, and the surety for the bond must meet the qualifications stated thereon. The Bid Bond shall include the legal name of the bidder be in favor of the State of Louisiana, Coastal Protection and Restoration Authority, and shall be accompanied by appropriate power of attorney. The Bid Bond must be signed by both the bidder/principal and the surety in the space provided on the Coastal Protection and Restoration Authority Bid Bond Form. Failure by the bidder/principal or the surety...
to sign the bid bond shall result in the rejection of the bid.

Bid security furnished by the Contractor shall guarantee that the Contractor will, if awarded the work according to the terms of his proposal, enter into the Contract and furnish Performance and Payment Bonds as required by these Bid Documents, within ten (10) days after written notice that the instrument is ready for his signature.

Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as penalty.

5.2.2 The Owner will have the right to retain the bid security of Bidders until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

5.3 Submission of Bids

5.3.1 The Bid shall be sealed in an opaque envelope. The bid envelope shall be identified on the outside with the name of the project, and the name, address, and license number of the Bidder. The envelope shall contain only one bid form and will be received until the time specified and at the place specified in the Advertisement for Bids. It shall be the specific responsibility of the Bidder to deliver his sealed bid to the Coastal Protection and Restoration Authority at the appointed place and prior to the announced time for the opening of bids. Late delivery of a bid for any reason, including late delivery by United States Mail, or express delivery, shall disqualify the bid.

If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "Bid Enclosed" on the face thereof. Such bids shall be sent by Registered or Certified Mail, Return Receipt Requested, addressed to:

Coastal Protection and Restoration Authority
P. O. Box 44027
Baton Rouge, Louisiana, 70804-4027.

Bids sent by express delivery shall be delivered to:
Coastal Protection and Restoration Authority
Suite 100
150 Terrace Avenue
Baton Rouge, Louisiana 70802

5.3.2 Bids shall be deposited at the designated location prior to the time on the date for receipt of bids indicated in the Advertisement for Bids, or any extension thereof made by addendum. Bids received after the time and date for receipt of bids will be returned unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at location designated for receipt of bids.

5.3.4 Oral, telephonic or telegraphic bids are invalid and shall not receive consideration. Owner shall not consider notations written on outside of bid envelope which have the effect of amending the bid. Written modifications enclosed in the bid envelope, and signed or initialed by the Contractor or his representative, shall be accepted.

5.4 Modification or Withdrawal of Bid

5.4.1 A bid may not be modified, withdrawn or canceled by the Bidder during the time stipulated in the Advertisement for Bids, for the period following the time and bid date designated for the receipt of bids, and Bidder so agrees in submitting his bid, except in accordance with R.S. 38:2214 which states, in part, "Bids containing patently obvious mechanical, clerical or mathematical errors may be withdrawn by the Contractor if clear and convincing sworn, written evidence of such errors is furnished to the public entity within forty eight hours of the Bid Opening excluding Saturdays, Sundays and legal holidays".

5.4.2 Prior to the time and date designated for receipt of bids, bids submitted early may be modified or withdrawn only by notice to the party receiving bids at the place and prior to the time designated for receipt of bids.

5.4.3 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.

5.4.4 Bid Security shall be in an amount sufficient for the bid as modified or resubmitted.
ARTICLE 6

CONSIDERATION OF BIDS

6.1 Opening of Bids

6.1.1 The properly identified Bids received on time will be opened publicly and will be read aloud, and a tabulation abstract of the amounts of the base bids and alternates, if any, will be made available to Bidders.

6.2 Rejection of Bids

6.2.1 The Owner shall have the right to reject any or all bids and in particular to reject a bid not accompanied by any required bid security or data required by the Bid Documents or a bid in any way incomplete or irregular.

6.3 Acceptance of Bid

6.3.2 It is the intent of the Owner, if he accepts any alternates, to accept them in the order in which they are listed in the Bid Form. Determination of the Low Bidder shall be on the basis of the sum of the base bid and the alternates accepted. However, the Owner shall reserve the right to accept alternates in any order which does not affect determination of the Low Bidder.

ARTICLE 7

POST-BID INFORMATION

7.1 Submissions

7.1.1 The Contractor shall submit all required deliverables in conformance with Section SP-4 of the Special Provisions.

It is the preference of the Owner that, to the greatest extent possible or practical, the Contractor utilize Louisiana Subcontractors, manufacturers, suppliers and labor.

7.1.2 The Contractor will be required to establish to the satisfaction of the Engineer the reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the sections of the Specifications pertaining to such proposed Subcontractor's respective trades. The General Contractor shall be responsible for actions or inactions of Subcontractors and/or material suppliers.

The General Contractor is totally responsible for any lost time or extra expense incurred due to a Subcontractor's or Material Supplier's failure to perform. Failure to perform includes, but is not limited to, a Subcontractor's financial failure, abandonment of the project, failure to make prompt delivery, or failure to do work up to standard. Under no circumstances shall the Owner mitigate the General Contractor's losses or reimburse the General Contractor for losses caused by these events.

7.1.3 Subcontractors and other persons and organizations selected by the Bidder must be used on the work for which they were proposed and shall not be changed except with the written approval of the Owner and the Engineer.

In accordance with La. R.S. 38:2227, LA. R.S. 38:2212.10 and LA. R.S. 23:1726(B) the low bidder on this project must submit the completed Attestations Affidavit (Past Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package. The Attestations Affidavit form shall be submitted to Coastal Protection and Restoration Authority contact person listed in the Advertisement For Bids within 10 days after the opening of bids.

ARTICLE 8

PERFORMANCE AND PAYMENT BOND

8.1 Bond Required

8.1.1 The Contractor shall furnish and pay for a Performance and Payment Bond written by a company licensed to do business in Louisiana, which shall be signed by the surety's agent or attorney-in-fact, in an amount equal to 100% of the Contract amount. Surety must be listed currently on the U. S. Department of Treasury Financial Management Service List (Treasury List) as approved for an amount equal to or greater than the contract amount, or must be an insurance company domiciled in Louisiana or owned by
Louisiana residents. If surety is qualified other than by listing on the Treasury list, the contract amount may not exceed fifteen percent of policyholders’ surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance and may not exceed the amount of $500,000. However, a Louisiana domiciled insurance company with at least an A-rating in the latest printing of the A. M. Best's Key Rating Guide shall not be subject to the $500,000 limitation, provided that the contract amount does not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide nor fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance. The Bond shall be signed by the surety's agent or attorney-in-fact. The Bond shall be in favor of the Coastal Protection and Restoration Authority.

8.2 Time of Delivery and Form of Bond

8.2.1 The Bidder shall deliver the required bond to the Owner simultaneous with the execution of the Contract.

8.2.2 Bond shall be in the form furnished by the Coastal Protection and Restoration Authority, entitled CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND, a copy of which is included in the Bid Documents.

8.2.3 The Bidder shall require the Attorney-in-Fact who executes the required bond on behalf of the surety to affix thereto a certified and current copy of his power of Attorney.

ARTICLE 9

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

9.1.1 Form of the Contract to be used shall be furnished by the Coastal Protection and Restoration Authority, an example of which is bound in the Bid Documents.

9.2 Award

9.2.1 Before award of the Contract, the successful Bidder shall furnish to the Owner a copy of a Disclosure of Ownership Affidavit stamped by the Secretary of State, a certified copy of the minutes of the corporation or partnership meeting which authorized the party executing the bid to sign on behalf of the Contractor.

9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the Non-Collusion Affidavit included in the Contract Documents.

9.2.3 When this project is financed either partially or entirely with State Bonds, the award of this Contract is contingent upon the sale of bonds by the State Bond Commission. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is duly executed.
TO:   Coastal Protection and Restoration Authority
      150 Terrace Avenue
      Suite 100
      Baton Rouge, LA  70802
      (Owner to provide name and address of owner)

BID FOR:  Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp Project (BA-34-2)
      (Owner to provide name of project and other identifying information)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: CPRA and dated: June, 2017.

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following ADDENDA: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging)

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated “Base Bid” * but not alternates) the sum of:

Dollars ($____________________)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1: Addition for Alternate Gap 1 for the lump sum of:

Dollars ($____________________)

Alternate No. 2: Addition for Alternate Gap 2 for the lump sum of:

Dollars ($____________________)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

NOT APPLICABLE (SNOT APPLICABLE)

NAME OF BIDDER:

ADDRESS OF BIDDER:

LOUISIANA CONTRACTOR’S LICENSE NUMBER:

NAME OF AUTHORIZED SIGNATORY OF BIDDER:

TITLE OF AUTHORIZED SIGNATORY OF BIDDER:

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **:

DATE: ____________________

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(A)(1)(c) or RS 38:2212(O) .

BID SECURITY in the form of a bid bond, certified check or cashier’s check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.
TO: Coastal Protection and Restoration Authority  
150 Terrace Avenue
Suite 100
Baton Rouge, LA 70802
(Owner to provide name and address of owner)

BID FOR: Hydrologic Restoration and Vegetative  
Planting in the Des Allemands Swamp  
Project  
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>REF. NO.</th>
<th>QUANTITY</th>
<th>UNIT OF MEASURE</th>
<th>UNIT PRICE</th>
<th>UNIT PRICE EXTENSION (Quantity times Unit Price)</th>
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</thead>
<tbody>
<tr>
<td>MOBILIZATION AND DEMOBILIZATION (TS-100)</td>
<td>1</td>
<td>1</td>
<td>Lump Sum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SURVEYS (TS-210)</td>
<td>2</td>
<td>1</td>
<td>Lump Sum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DAILY BIRD ABATEMENT (TS-211)</td>
<td>3</td>
<td>67</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLEAR AND GRUB (TS-330)</td>
<td>4</td>
<td>1</td>
<td>Lump Sum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TREE REMOVAL AND DISPOSAL (TS-335)</td>
<td>5</td>
<td>1</td>
<td>Lump Sum</td>
<td></td>
<td></td>
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<tr>
<td>EXCAVATION AND PLACEMENT (TS-340)</td>
<td>6</td>
<td>9,488</td>
<td>Cubic Yards</td>
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<td></td>
</tr>
<tr>
<td>BALD CYPRUS TREES (TS-1200)</td>
<td>7</td>
<td>600</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WATER TUPELO TREES (TS-1201)</td>
<td>8</td>
<td>600</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wording for “DESCRIPTION” is to be provided by the Owner.  
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.
TO: Coastal Protection and Restoration Authority  
150 Terrace Avenue  
Suite 100  
Baton Rouge, LA 70802  
(Owner to provide name and address of owner)

BID FOR: Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp Project  
(BA-34-2)  
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

<table>
<thead>
<tr>
<th>DESCRIPTION:</th>
<th>REF. NO.</th>
<th>QUANTITY:</th>
<th>UNIT OF MEASURE:</th>
<th>UNIT PRICE</th>
<th>UNIT PRICE EXTENSION (Quantity times Unit Price)</th>
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</thead>
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<tr>
<td>Base Bid or Alt.# ___ TREE SHELTERS (TS-1220)</td>
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<td>1,200</td>
<td>Each</td>
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<td>Base Bid or Alt.# 1_ ADDITION FOR ALTERNATE GAP 1</td>
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<td>Lump Sum</td>
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<td></td>
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<tr>
<td>Base Bid or Alt.# 2_ ADDITION FOR ALTERNATE GAP 2</td>
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<td>1</td>
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<td></td>
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<td>Not Applicable</td>
<td>UNIT PRICE</td>
<td>UNIT PRICE EXTENSION (Quantity times Unit Price)</td>
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<td>UNIT PRICE EXTENSION (Quantity times Unit Price)</td>
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<td>UNIT PRICE EXTENSION (Quantity times Unit Price)</td>
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<td>Not Applicable</td>
<td>UNIT PRICE</td>
<td>UNIT PRICE EXTENSION (Quantity times Unit Price)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Wording for “DESCRIPTION” is to be provided by the Owner.  
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.
BID BOND
FOR
COASTAL PROTECTION AND RESTORATION AUTHORITY PROJECTS

Date: ______________

KNOW ALL MEN BY THESE PRESENTS:

That ___________________________ of __________________________, as Principal, and __________________________, as Surety, are held and firmly bound unto the State of Louisiana, Coastal Protection and Restoration Authority (Obligee), in the full and just sum of five (5%) percent of the total amount of this proposal, including all alternates, lawful money of the United States, for payment of which sum, well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Surety represents that it is listed on the current U. S. Department of the Treasury Financial Management Service list of approved bonding companies as approved for an amount equal to or greater that the amount for which it obligates itself in this instrument or that it is a Louisiana domiciled insurance company with at least an A - rating in the latest printing of the A. M. Best's Key Rating Guide. If surety qualifies by virtue of its Best's listing, the Bond amount may not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide.

Surety further represents that it is licensed to do business in the State of Louisiana and that this Bond is signed by surety's agent or attorney-in-fact. This Bid Bond is accompanied by appropriate power of attorney.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas said Principal is herewith submitting its proposal to the Obligee on a Contract for:

________________________________________________________________________________

NOW, THEREFORE, if the said Contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the Contract in writing and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract with surety acceptable to the Obligee, then this obligation shall be void; otherwise this obligation shall become due and payable.

PRINCIPAL (BIDDER)       SURETY

BY: _________________________       BY: _________________________
AUTHORIZED OFFICER-OWNER-PARTNER       AGENT OR ATTORNEY-IN-FACT(SEAL)
Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp

Name of Project

BA-34-2

Project No.

STATE OF Louisiana

PARISH OF St. James

ATTESTATIONS AFFIDAVIT

Before me, the undersigned notary public, duly commissioned and qualified in and for the parish and state aforesaid, personally came and appeared Affiant, who after being duly sworn, attested as follows:

LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:23)

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67.16)
- (c) Theft of a business record (R.S. 14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Issuing worthless checks (R.S. 14:71)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Contractors; misapplication of payments (R.S. 14:202)
- (i) Malfeasance in office (R.S. 14:134)

LA. R.S. 38:2212.10 Verification of Employees

A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new hires in the state of Louisiana are legal citizens of the United States or are legal aliens.

B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.
Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp

Name of Project

BA-34-2

Project No.

L.A. R.S. 23:1726(B) Certification Regarding Unpaid Workers Compensation Insurance

A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.

B. By signing this bid/proposal, Affiant certifies that no such assessment is in effect against the bidding/proposing entity.

____________________________________
NAME OF BIDDER

________________________________________________
NAME OF AUTHORIZED SIGNATORY OF BIDDER

____________________
DATE

____________________
TITLE OF AUTHORIZED SIGNATORY OF BIDDER

_________________________________________________
SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER/AFFIANT

Sworn to and subscribed before me by Affiant on the _____ day of _____________ , 20__ .

_________________________________________________
Notary Public
CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND

This agreement entered into this _____ day of ______________, 2017, by (CONTRACTOR NAME) hereinafter called the "Contractor", whose business address is ______________, and the State of Louisiana Coastal Protection and Restoration Authority, herein represented by its Executive Director executing this contract, and hereinafter called the "Owner".

Witnesseth that the Contractor and the Owner, in consideration of premises and the mutual covenants; consideration and agreement herein contained, agree as follows:

Statement of Work: The contractor shall furnish all labor and materials and perform all of the work required to build, construct and complete in a thorough and workmanlike manner:

Project No. ____________________________
State ID No. ____________________________
Site Code ____________________________

in strict accordance with Contract Documents prepared by Owner.

It is recognized by the parties herein that said Contract Documents, including by way of example and not of limitation, the Plans, Specifications (including General Provisions, Special Provisions, and Technical Specifications), Any Addenda thereto, Instructions To Bidders, this Contract, Advertisement For Bids, Affidavit, Bid Form, Bonds (Bid, Performance, and Payment), any Submitted Post-Bid Documentation, Notice of Award, Notice to Proceed, Change Orders, and Claims, if any, impose duties and obligations upon the parties herein, and said parties thereby agree that they shall be bound by said duties and obligations. For these purposes, all of the provisions contained in the aforementioned Contract Documents are incorporated herein by reference with the same force and effect as though said Contract Documents were herein set out in full.

Time for Completion: The work shall be commenced on a date to be specified in a written order of the Owner and shall be completed within ________ consecutive calendar days from and after the said date.

Liquidated Damages: Contractor shall be assessed Liquidated Damages in the amount of $________ per day for each consecutive calendar day which work is not complete beginning with the first day beyond the completion time.

Compensation to be paid to the Contractor: The Owner will pay and the Contractor will accept in full consideration for the performance of the contract the sum of ____________________________ Dollars ($) which sum represents the Contract Price.
Performance and Payment Bond: To these presents personally came and intervened __________________________, herein acting for __________________________, a corporation organized and existing under the laws of the State of __________________________, and duly authorized to transact business in the State of Louisiana, as surety, who declared that having taken cognizance of this contract and of the Construction Documents mentioned herein, he hereby in his capacity as its Attorney in Fact obligates his said company, as Surety for the said Contractor, unto the said Owner, up to the sum of __________________________ Dollars ($). By issuance of this bond, the surety acknowledges they are in compliance with R.S. 38:2219.

The condition of this performance and payment bond shall be that should the Contractor herein not perform the contract in accordance with the terms and conditions hereof, or should said Contractor not fully indemnify and save harmless the Owner, from all cost and damages which he may suffer by said Contractor's non-performance or should said Contractor not pay all persons who have and fulfill obligations to perform labor and/or furnish materials in the prosecution of the work provided for herein, including by way of example workmen, laborers, mechanics, and furnishers of materials, machinery, equipment and fixtures, then said Surety agrees and is bound to so perform the contract and make said payment(s).

Provided, that any alterations which may be made in the terms of the contract or in the work to be done under it, or the giving by the Owner of any extensions of time for the performance of the contract, or any other forbearance on the part of either the Owner or the Contractor to the other shall not in any way release the Contractor or the Surety from their liability hereunder, notice to the Surety of any such alterations, extensions or other forbearance being hereby waived.

The Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1972, and contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Contractor agrees not to discriminate in its employment practices, and will render services under this contract without regard to race, color, sex, religion, national origin, genetic information, age or disabilities. Any act of discrimination committed by Contractor or failure to comply with these statutory obligations when applicable shall be grounds for termination of this contract.

In Witness whereof, the parties hereto on the day and year first above written have executed this agreement in ________ eight (8) ________ counterparts, each of which shall, without proof or accountancy for the other counterparts, be deemed an original thereof.
WITNESSES:

STATE OF LOUISIANA
COASTAL PROTECTION AND
RESTORATION AUTHORITY

________________________________________
BY: ______________________________________
    Michael R. Ellis, Executive Director

________________________________________
BY: ______________________________________

________________________________________
BY: ______________________________________

SURETY: __________________________________

________________________________________
BY: ______________________________________
    ATTORNEY IN FACT

________________________________________
ADDRESS

(____ )

TELEPHONE NUMBER
STATE OF Louisiana
PARISH OF St. James

PROJECT NO.: BA-34-2

NAME: Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp

LOCATION: Vacherie, LA

AFFIDAVIT

Before me, the undersigned authority, duly commissioned and qualified within and for the State and Parish aforesaid, personally came and appeared representing who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

PART I.

Section 2224 of Part II of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the Contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.

PART II.

Section 2190 of Part I of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

That affiant, if an architect or engineer, or representative thereof, does not own a substantial financial interest, either directly or indirectly, in any corporation, firm, partnership, or other organization which supplies materials for the construction of a public work when the architect or engineer has performed architectural or engineering services, either directly or indirectly, in connection with the public work for which the materials are being supplied.

For the purposes of this Section, a "substantial financial interest" shall exclude any
interest in stock being traded on the American Stock Exchange or the New York Stock Exchange.

That affiant, if subject to the provisions of this section, does hereby agree to be subject to the penalties involved for the violation of this section.

___________________________________
AFFIANT

SWORN TO AND SUBSCRIBED BEFORE ME THIS _______ DAY OF ___________________, 2017.

___________________________________
NOTARY
PART I  GENERAL PROVISIONS

GP-1  DEFINITION OF TERMS

Whenever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to the singular or plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs and the titles of other documents or forms.

Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

a. Acceptance: A written approval from the Engineer which certifies that specific items of work in the Contract have been completed and/or obligations have been fulfilled by the Contractor.

b. Addenda: Those written or graphic documents which are issued prior to opening of Bids in accordance with the Bidding Requirements and clarify or change the bidding requirements or the proposed Contract Documents.

c. Application of Payment: That form which is used by the Contractor to request partial and final payment and is deemed acceptable to the Owner. It shall be accompanied by any supporting documentation required by the Contract Documents.


e. Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.

f. Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.

g. Bidding Requirements: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.

h. Change Order: A written order which is submitted to the Contractor, signed by the Owner, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time issued after the effective date of the Contract.

i. Claim: A written demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both or other relief with respect to the terms of the Contract.

j. Contract: The written agreement between the Owner and the Contractor which defines the work to be completed and shall be understood to also include all Contract Documents.
k. **Contract Documents**: The Contract, all addenda which pertains to the Contract Documents, Bid Documents and specified Attachments accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award, Contractor’s Bid when attached as an exhibit to the Agreement, the Bonds (Bid and Performance/Payment), General Provisions, Special Provisions, Technical Specifications, Plans, and all Field or Change Orders issued after the execution of the Agreement. Shop Drawings and other submittals by the Contractor are not Contract Documents.

l. **Contract Price**: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.

m. **Contract Time**: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.

n. **Contractor**: The person, association of persons, firm, or corporation entering into the duly awarded Contract.

o. **Contracting Agency**: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).

p. **Day**: When any period of time is referred to in the Contract Documents using days, it will be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, that day will be omitted from the computation. A calendar day is measured as twenty-four (24) hour period starting at midnight and ending the following midnight.

q. **Design Report**: A written report by the Engineer which provides the design methodology for the Work.

r. **Effective Date of the Contract**: The date indicated in the Contract on which it becomes effective.

s. **Engineer**: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.

t. **Equipment**: All machinery, implements, and power-tools, in conjunction with the necessary supplies for the operation, upkeep, maintenance, and all other tools and apparatuses necessary for the proper construction and acceptable completion of the Work.

u. **Extension of Contract**: Any extension of time for completion of Work beyond the Contract Time which is granted by the Owner, recommended by the Engineer and approved by the Coastal Protection and Restoration Authority in the form of a Change Order.

v. **Federal Sponsor**: The federal agency which has been tasked, if applicable, to manage the implementation of the project.
w. **Field Order:** A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or Contract Time.

x. **Laboratory:** The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.

y. **Laws and Regulations; Laws or Regulations:** Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

z. **Materials:** Any substance used in the Work to build structures, but does not include material used in false work or other temporary structures not incorporated in the Work.

aa. **Milestone:** A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.

bb. **Notice of Award:** A written notice to the successful Bidder stating that the Bid has been accepted by the Owner and that the successful Bidder is required to execute the Contract and furnish the Payment and Performance Bond and Non-Collusion Affidavit.

c. **Notice to Proceed:** The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.

dd. **Owner:** The Owner is the State of Louisiana (State) which acts through the Contracting Agency.

ee. **Performance and Payment Bond:** The approved form of security furnished by the Contractor and Surety for the faithful performance of the Work, and the payment for all labor, materials, and/or obligations incurred by the Contractor in the prosecution thereof.

ff. **Plans:** That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, intent, and character of the Work to be completed by the Contractor.

gg. **Project Site:** The location where the Work is to be performed as stated in the Contract Documents.

hh. **Resident Project Representative:** An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.

ii. **Right-of-way:** That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.

jj. **Samples:** Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portions of the Work will be judged.
kk. **Shop Drawings**: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work to be performed.

ll. **Specifications**: That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work to be performed and certain administrative details applicable thereto.

mm. **State**: The State of Louisiana.

nn. **Structures**: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.

oo. **Subcontractor**: Any person, association of persons, firm, or corporation who contracts with the Contractor to perform any part of the project covered by the Contract.

pp. **Submittals**: Certificates, samples, shop drawings, and all other project data which are submitted to the Engineer in order to verify that the correct products will be installed on the project.

qq. **Successful Bidder**: The lowest responsible Bidder whom the Owner makes an award.

rr. **Special Provisions**: That part of the Contract Documents which amends or supplements these General Provisions.

ss. **Surety**: The corporate body, licensed to do business in Louisiana, bound with and for the Contractor’s primary liability, and engages to be responsible for payment of all obligations pertaining to acceptable performance of the Work contracted.

tt. **Temporary Structures**: Any non-permanent structure required while engaged in the prosecution of the Contract.

uu. **Work**: All work specified herein or indicated on the Plans.

vv. **Work Plan**: A written plan by the Contractor that details how the Work will be provided including layout drawings, projected schedule (Initial Progress Schedule), and a list of labor hours, materials, and equipment.

**GP-2 BID REQUIREMENTS**

The Contract and Bonds which govern the Work shall be performed in accordance with the Plans, Specifications, and the Louisiana Standard Specifications for Roads and Bridges, 2006 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

2.1. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;
2.2. Visit the Project Site to become familiar with the local conditions if they are believed to affect cost, progress, or the completion of the Work;

2.3. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;

2.4. Study and correlate all information known to the Bidder including observations obtained from Bidder’s visits, if any, to the Project Site, with the Bidding Documents;

2.5. Submit a written notice to the Engineer within three (3) days regarding any conflicts, errors, ambiguities, or discrepancies discovered in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and

2.6. Determine that the Bidding Documents are generally sufficient to convey an understanding of all terms and conditions for completing the required Work.

The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of these Specifications. The Bidder shall comply with all other requirements specified in the Advertisement For Bids and the Instruction To Bidders.

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

One (1) set of Plans and Specifications shall be furnished to each Bidder. Three (3) sets of the Plans and Specifications shall be furnished to the Contractor upon award of the Contract. Additional sets may be furnished to the Contractor upon request from the Coastal Protection and Restoration Authority, 150 Terrace Avenue, Suite 100, Baton Rouge, Louisiana 70802.

GP-4 LAWS, REGULATIONS, STANDARDS, SPECIFICATIONS, AND CODES

Bidders are required to become familiar and remain in compliance with all Federal, State, and local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority which may affect those employed for the execution of the Work or which may affect the conduct of the Work. The Contractor shall indemnify the Owner and its representatives against any claim or liability arising from all violations of any laws, bylaws, ordinances, codes, regulations, orders, or decrees, whether by the Contractor or by the Contractor’s employees. The filing of a bid will be presumptive evidence that the Bidder has complied with this requirement. The Owner will not be responsible for any inaccurate interpretations or conclusions drawn by the Contractor from information and documentation provided by the Owner.

References to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws and Regulations, whether such reference be specific or by implication, may not be in effect at the time of opening the Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents. No provision of any such standard, specification, manual, or code, or any instruction of a supplier shall be effective to change the duties or responsibilities of the Owner or Engineer, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Bid Documents. No such provision shall be effective to assign to the Owner or Engineer, or any of their consultants, agents, or employees any duty or authority to
supervise or direct the performance of the Contractor’s obligations or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

The obligations imposed by these specifications are in addition to and are not to be construed in any way as a limitation of any rights available to the Engineer or Owner which are otherwise imposed by any laws or regulations or other provisions within the Contract Documents.

The Contractor shall abide by laws set forth in the Davis-Bacon Act of 1931 which states that all laborers and mechanics employed by recipients, the recipient’s contractors, or subcontractors on this project shall be paid wages at rates no less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with Subchapter IV of Chapter 31 of Title 40 United States Code. Additionally, with respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Number 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and The Copeland Act of Title 40 (40 U.S.C. § 3145). Prevailing Wage Determination Schedules, as determined by the United States Department of Labor, are provided in the Appendix. Prevailing Wage Determination Schedules are subject to modification by the United States Department of Labor. The Contractor is responsible for utilizing the most current Prevailing Wage Determination Schedule. These documents can be downloaded from the following link: http://www.wdol.gov/dba.aspx#3. Modifications to Prevailing Wage Determination Schedules shall be effective if received (or posted) no less than 10 days prior to bid opening.

GP-5 PRE-BID CONFERENCE AND SITE VISIT

A Pre-Bid Conference will be held at the location and on the date provided in the Advertisement For Bids. If the Pre-Bid Conference is stated in the Advertisement for Bids to be a MANDATORY Pre-Bid Conference, bids shall be accepted only from those bidders who attend the Pre-Bid Conference in its entirety. Failure to attend a mandatory Pre-Bid Conference in its entirety will result in a null or void Bid.

A Site Visit may also be held at the Project Site as specified in the Advertisement For Bids or at the Pre-Bid Conference. If held, bidders will be required to furnish their own transportation to the Project Site. Representatives of the Owner and Engineer will attend the Pre-Bid Conference and Site Visit, if held, to discuss the Work.

All questions shall be in writing and faxed or emailed to the Coastal Protection and Restoration Authority contact person listed in the Advertisement For Bids after the Pre-Bid Conference and by the due date announced at the Pre-Bid Conference. In order to ensure adequate response time, all questions and/or requests for clarification or interpretation of the Bid Documents should be received by the Coastal Protection and Restoration Authority at least seven days prior to the date for receipt of bids. Oral statements will not be binding or legally effective. The Coastal Protection and Restoration Authority will issue addenda in response to all questions arising at the Pre-Bid Conference and Site Visit to all prospective Bidders on record. All prospective Bidders on record may contact the Coastal Protection and Restoration Authority contact person for any additional information.
GP-6 NOTICE OF AWARD

The Owner, or its designated bidding agent, shall provide written notice to the Successful Bidder stating that the Owner will sign and deliver the Contract upon compliance with the conditions enumerated therein and within the time specified.

GP-7 NOTICE TO PROCEED AND CONTRACT TIME

The Contractor shall start the Work and begin the Contract Time on the dates provided in the Notice to Proceed. The Work shall be conducted using sufficient labor, materials, and equipment as necessary to ensure completion within the Contract Time. The Contract Time for completion of the Base Bid for the Work is provided in the Instructions To Bidders, unless an extension is granted to the Contract Time as specified in GP-44. If the Bid contains an Alternate Bid(s), and the Alternate Bid(s) is awarded and included in the Contract, the Contract Time associated with the Alternate Bid(s) will be as provided in the Instructions To Bidders.

GP-8 WORK PLAN

The Contractor shall develop a written Work Plan which accounts for all of the construction activities required by the Contract Documents. The Work Plan shall include a list of the individual construction tasks to be completed and the estimated dates for beginning and completing the tasks. It shall also include all other items which are applicable to completing the Work such as, but not limited to, the following:

a. Typical report form for the Bi-Weekly Progress Meeting;

b. Typical form for Daily Progress Report;

c. Hurricane and Severe Storm Plan;

d. Site-specific Health and Safety Plan;

e. The delivery method and source(s) of all construction materials (company or producer name, mailing and physical address, phone number, and name of contact person).

f. The personnel, material, subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction;

g. Shop drawings, test results, and sample submittals;

h. Survey layout and stakeout;

i. All supplemental items specified in the Special Provisions.

The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall review the Work Plan and have the Contractor make any necessary revisions prior to acceptance of the plan.
payment for mobilization will be made until the Work Plan has been accepted by the Engineer.

GP-9 PROGRESS SCHEDULE

The Contractor shall develop a written Progress Schedule which provides for an orderly progression of the Work, submittals, tests, and deliveries in order to complete the Work within the specified Milestones and Contract Time. All of the items listed in the Work Plan shall be integrated into the Progress Schedule. The format of the schedule shall be composed using Microsoft Project®, or any other software deemed acceptable by the Engineer. It shall be updated weekly by the Contractor, at a minimum. The Progress Schedule shall also include, but not be limited to the following:

a. All of the elements in the Work Plan, including updates;

b. A work order issued from Louisiana One Call ordering all their subscribers in the project area to mark their utilities;

c. A telephone log verifying that all property owners and utilities have been contacted. This log should list the time, date, and names of the personnel representing the property owners, utilities, and Contractor;

The following table defines the monthly anticipated adverse weather days that are expected to occur during the Contract Time and will constitute the baseline monthly weather time for evaluations. The schedule is based upon National Oceanic and Atmospheric Administration (NOAA) or similar data for the regional geographic area.

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The Progress schedule must reflect these anticipated adverse weather delays on all weather dependent activities. Adverse weather days must prevent Work for fifty percent (50%) or more of the work day and delay work critical to the timely completion of the project. The number of actual adverse weather days shall be calculated chronologically from the first to the last day of each month.

The Progress Schedule shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall perform a review and have the Contractor make any necessary revisions prior to acceptance of the schedule. Acceptance will not impose responsibility on the Owner or Engineer for the sequencing, scheduling, or progression of the Work. The Contractor is fully responsible for progression of the Work in order to maintain the compliance with the Progress Schedule.
GP-10 DAILY PROGRESS REPORTS

The Contractor shall record the following daily information on Daily Progress Reports:

a. Date and signature of the author of the report;

b. Dollar amount of all bid items that are fabricated, installed, backfilled, pumped, constructed, damaged, replaced, etc. The amount of material shall be expressed in the units stated in the bid;

c. Field notes of all surveys;

d. Notes on all inspections;

e. Details of Health and Safety meetings;

f. A brief description of any Change Orders, Field Orders, Claims, Clarifications, or Amendments;

g. Condition of all navigation aides (I.E., warning signs, lighted marker buoys) and any repairs performed on them;

h. Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);

i. The amount of time lost to severe weather or personnel injury, etc;

j. Notes regarding compliance with the Progress Schedule;

k. Visitor log (Instructions for format will be furnished by the Field Engineer).

The daily progress reports shall be submitted to the Engineer at the Bi-Weekly Progress Meetings specified in GP-13 in both hard copy and digital format (Adobe Acrobat® Format, or approved equal). The typical form for Daily Progress Reports shall be developed by the Contractor and incorporated into the Work Plan.

GP-11 HURRICANE AND SEVERE STORM PLAN

The Contractor shall develop and maintain a written Hurricane and Severe Storm Plan. The Plan shall include, but not be limited to, the following:

a. What type of actions will be taken before storm strikes at the Project Site. The plan should specify what weather conditions or wave heights will require shutdown of the Work and removal of equipment, personnel, etc.

b. Notes from continuous monitoring of NOAA marine weather broadcasts and other local commercial weather forecasts.
c. Equipment list with details on their ability to handle adverse weather and wave conditions.

d. List of safe harbors or ports and the distance and travel time required to transfer equipment from the Project Site.

e. Hard copies of any written approvals or operations schedules associated with the use of the safe harbors or ports.

f. Method of securing equipment at the safe harbors or ports.

g. List of tug boats and work boats and their respective length, horsepower, etc. which will adequately transfer the equipment to safe harbor or port under adverse weather conditions.

h. Methods which will be used to secure equipment left onsite during adverse weather conditions.

i. Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.

j. Operations procedures which will be used to secure critical dredging equipment such as spuds, swing wires, anchor wires, or tugs during adverse weather conditions.

k. Communications protocol with local law enforcement and fire and rescue agencies.

The Contractor shall incorporate the Hurricane and Severe Storm Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

The Contractor shall develop and maintain a written Health and Safety Plan which allows the Work to be performed in compliance with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the safety of personnel or property. This includes maintaining compliance with the Code of Federal Regulations, Title 29, Occupational Safety and Health Administration (OSHA) and all applicable Health and Safety Provisions of the State of Louisiana.

The Contractor shall institute a daily inspection program to assure that the requirements of the Health and Safety Plan are being fulfilled. Inspections shall include the nature of deficiencies observed, corrective action taken or to be taken, location of inspection, date, and signature of the person responsible for its contents. The results of the inspections shall be recorded on Daily Progress Reports and kept at the Project Site during the Work.

The Contractor shall incorporate the Health and Safety Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.
GP-13 PROGRESS MEETINGS AND REPORTS

The Engineer shall schedule meetings to review the progress of the Work, coordinate future efforts, discuss compliance with the Progress Schedule and resolve miscellaneous problems. The Engineer or Resident Project Representative, Contractor, and all Subcontractors actively working at the Project Site shall attend each meeting. Representatives of suppliers, manufacturers, and other Subcontractors may also attend at the discretion of the Contractor. The Contractor shall record the details of each meeting in a Progress Report. The format of this report shall be developed by the Contractor, approved by the Engineer, and included in the Work Plan. The progress meetings and reports shall be scheduled according to the Special Provisions.

GP-14 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be held by the Contractor, Owner, Engineer, local stakeholders, and other appropriate personnel prior to starting construction on the date specified in the Special Provisions. This conference shall serve to establish a mutual understanding of the Work to be performed, the elements of the Progress Schedule and Work Plan, expectations for bi-weekly progress meetings, the Plans and Specifications, processing Applications for Payment, and any other items of concern. If any subcontractors are not present, another pre-construction conference will be required.

GP-15 CONTRACT INTENT

The Bid Documents are complementary; what is called for by one is as binding as if called for by all. Clarifications and interpretations or notifications of minor variations and deviations of the Contract Documents will be issued by Engineer as provided in these Specifications. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Bid Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided at no additional cost to the Owner.

GP-16 ENGINEER AND AUTHORITY OF ENGINEER

The Engineer will be the designated representative of the Owner, the initial interpreter of the Contract Documents and the judge over acceptability of all the Work. Claims, disputes, and other matters relating to the acceptability of the Work, performance by the Contractor or the interpretation of the requirements of the Contract Documents must be submitted to the Engineer in writing. Upon written request from the Contractor, the Engineer shall issue written clarifications or interpretations which are consistent with the overall intent of the Contract Documents. Such written clarifications and interpretations will be binding on the Owner and the Contractor. Either the Owner or the Contractor may make a Claim if a written clarification or interpretation justifies an adjustment in the Contract Price or Contract Times.

The Engineer has the authority to suspend the Work in whole or in part due to failure of the Contractor to correct conditions unsafe for workmen or the general public, carry out provisions of the Contract, perform conformance work, or to carry out orders. The Engineer shall submit a written order to the Contractor for work which must be suspended or resumed.
Nothing in this provision shall be construed as establishing responsibility on the part of the Engineer for safety which is the responsibility of the Contractor.

The Engineer or Resident Project Representative shall keep a daily record of weather and flood conditions and may suspend the Work as deemed necessary due to periods of unsuitable weather, conditions considered unsuitable for execution of the Work, or for any other condition or reason deemed to be in the public interest.

GP-17 CONFORMITY WITH PLANS AND SPECIFICATIONS

All work and materials involved with the Work shall conform with the lines, grades, cross sections, dimensions, and other requirements shown on the Plans or indicated in these Specifications unless otherwise approved by the Engineer.

GP-18 CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS

The Contract Documents may be clarified or amended by the Engineer to account for additions, deletions, and revisions to the Work after the Effective Date of the Contract. The clarifications and amendments shall be addressed by either a Change Order or a written clarification by the Engineer. The Contractor shall not proceed with the Work until the Change Order or clarification has been issued by the Engineer. The Contractor shall not be liable to the Owner or Engineer for failure to report any such discrepancy unless the Contractor had reasonable knowledge.

The Contractor may request a clarification or amendment for the following:

a. Any conflict, error, ambiguity, or discrepancy within the Contract Documents; or

b. Any conflict, error, ambiguity, or discrepancy between the Bid Documents and the provision of any Law or Regulation applicable to the performance of the Bid; or

c. Any standard, specification, manual, or code (whether or not specifically incorporated by reference in the Bid Documents); or

d. Instructions by a supplier.

The official form for a written clarification is provided in Appendix C. This form shall be filled out appropriately by the Contractor and submitted to the Engineer. The Engineer shall clarify the issue in writing on either the clarification form, Field Order or a Change Order and submit it to the Contractor.

GP-19 SUBCONTRACTS

The Contractor shall provide the names of all Subcontractors to the Engineer in writing before awarding any Subcontracts. The Contractor shall be responsible for the coordination of the trades and Subcontractors engaged in the Work. The Contractor is fully responsible to the Owner for the acts and omissions of all the Subcontractors. The Owner and Engineer will not settle any differences between the Contractor and Subcontractors or between Subcontractors. The Contractor shall have appropriate provisions in all Subcontracts to bind
Subcontractors to the Contractor by the terms of the General Provisions and other Contract Documents, as applicable to the Work of Subcontractors. The provisions should provide the Contractor the same power regarding termination of Subcontracts that the Owner may exercise over the Contractor under any provisions of the Contract Documents.

GP-20 WORKERS, METHODS, AND EQUIPMENT

The Contractor shall provide competent, qualified, and trained personnel to perform the Work. The Contractor shall not employ any person found objectionable by the Engineer. Any person employed by the Contractor or any Subcontractor who, in the opinion of the Engineer, does not perform the Work in a proper, skillful, and orderly manner shall be immediately removed upon receiving a written order by the Engineer. The Engineer may also suspend the Work until the Contractor removes the employee or provides a suitable replacement. Such an employee shall not be re-employed in any portion of the Work without written approval from the Engineer.

The on-site superintendent for the Contractor shall be competent, English-speaking, and qualified to receive orders, supervise, and coordinate all Work for the Contractor and any Subcontractors. The qualifications of the superintendent must be established and approved by the Engineer prior to commencement of the Work. The superintendent shall be furnished by the Contractor regardless of how much Work may be sublet. In the performance of the Work under this Contract, the Contractor shall conduct operations to avoid interference with any other Contractors.

All equipment, products, and material incorporated into the Work shall be as specified, or if not specified, shall be new, of good quality, and protected, assembled, used, connected, applied, cleaned, and conditioned in accordance with the manufacturer’s instructions, except as otherwise may be provided in the Bid Documents. All equipment shall be of sufficient size and mechanical condition to meet the requirements of the Work and produce a satisfactory quality of work. Equipment shall not damage adjacent property throughout the performance of the Work. The Plant and Equipment Schedule should be completed by the Contractor.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures used to complete the Work in conformance with the Contract Documents.

The Contractor shall obtain permission from the Engineer if a method or type of equipment other than specified in the Contract is desired. The request shall be in writing and shall include a full description of the methods, equipment proposed, and reasons for the modification. A proposed item of material or equipment may be considered by the Engineer to be functionally equal to an item specified in the Contract if:

a. It is at least equal in quality, durability, appearance, strength, and design characteristics;

b. There is no increase in any cost including capital, installation, or operating to the Owner;
c. The proposed item will conform substantially, even with deviations, to the detailed requirements of the item named in the Bid Documents.

If, after trial use of the substituted methods or equipment, the Engineer determines that the Work produced does not meet Contract requirements, the Contractor shall discontinue use of the substituted methods or equipment and shall complete the Work with the specified methods and equipment. The Contractor shall remove the deficient Work and replace it with Work of specified quality or take other corrective action as directed. No change will be made in basis of payment for construction items involved or in Contract Time as a result of authorizing a change in methods or equipment.

GP-21 ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING

The Contractor shall be responsible to develop and maintain all safeguards and safety precautions necessary to prevent damage, injury, or loss throughout the performance of the Work. All accidents at the Project Site shall be investigated by the immediate supervisor of employee(s) involved and reported to the Engineer or Resident Project Representative within one (1) working day. A complete and accurate written report of the accident including estimated lost time days shall be submitted to the Engineer within four (4) calendar days. A follow-up report shall be submitted to the Engineer if the estimated lost time days differ from the actual lost time days.

GP-22 PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC.

The Contractor shall comply with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the preservation and protection of public and private property. The Contractor shall install and maintain suitable safeguards and safety precautions during the Work as necessary to prevent damage, injury, or loss to property. This responsibility shall remain with the Contractor until the Work has been completed and accepted. Any damage, injury, or loss to property which is caused by the Contractor or Subcontractors shall be repaired or replaced at the expense of the Contractor.

The Contractor shall protect all land monuments, State and United States bench marks, geodetic and geological survey monuments, and property markers from disturbance or damage until an authorized agent has witnessed or otherwise referenced their location. The Contractor shall also provide protection for all public and private property including trees, utilities, pipes, conduits, structures, etc. These items shall not be removed unless directed by the Engineer.

The Contractor shall be responsible to completely repair all damages to public or private property due to any act, omission, neglect, or misconduct in the execution of the Work unless it is due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, public enemies, or governmental authorities. The damage must be repaired at the expense of the Contractor before final acceptance of the Work can be granted by the Engineer. If the Contractor fails to repair the damage within forty-eight (48) hours, the Owner may independently proceed with the repairs at the expense of the Contractor by deducting the cost from the Contract. If the Contractor cannot provide for the cost of repairs, the Surety of the Contractor shall be held until all damages, suits, or claims have been settled.

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GP-23 PROTECTION OF THE WORK, MATERIALS, AND EQUIPMENT

It shall be the responsibility of the Contractor to protect the Work, materials, and equipment from damages or delays due to inflows, tidal rise, and storm water runoff which may occur at the Project Site. The Owner shall not be held liable or responsible for these types of delays or damages.

GP-24 LAND RIGHTS

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from public and private landowners in order to perform the Work. A land rights memorandum which lists all known responsible contacts and required stipulations is provided in Appendix E. The Contractor is responsible to notify all of the contacts and abide by stipulations listed in that memorandum.

GP-25 UTILITIES

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from known public and private utilities in order to perform the Work. The utilities include, but are not limited to telephone, telegraph, power poles or lines, water or fire hydrants, water or gas mains and pipelines, sewers, conduits, and other accessories or appurtenances of a similar nature which are fixed or controlled by a city, public utility company or corporation.

The Contractor shall conduct the Work in such a manner as to cooperate and minimize inconveniences with utilities. Prior to commencement of the Work, the Contractor is responsible to notify all of the utilities and abide by stipulations required by the utility company(s). The Contractor shall also call Louisiana One Call at 1-800-272-3020 a minimum of 5 working days prior to construction to locate existing utilities at the Project Site.

Any damage to utilities that is caused by the Contractor within the Project Site shall be repaired at the expense of the Contractor. The Owner will not be responsible for any delay or damage incurred by the Contractor due to working around or joining the Work to utilities left in place or for making adjustments.

Any unidentified pipes or structures which may be discovered within the limits of the Project Site shall not be disturbed and shall be reported to the Engineer as soon as possible. Construction or excavation shall not be performed around unidentified utilities without prior approval from the Engineer.

GP-26 PERMITS

Federal and State permits that are required to perform the Work, such as the Department of the Army Permit, Coastal Use Permit, LDEQ Clean Water Permit, LDWF Fill Material License, and LADOTD highway crossing permit have been secured by the Owner. Permit conditions affecting the construction processes have been included in these Specifications. Copies of these permits will be provided to the Contractor at the pre-construction conference.
These permits will not relieve the responsibility of the Contractor from obtaining any additional permits which may be needed to complete the Work. Copies of any special permits that are obtained by the Contractor must be submitted to the Owner. The Contractor shall conform to the requirements therein and display copies of the permits in a public setting at the Project Site at all times.

**GP-27 PROJECT SITE CLEAN-UP**

The Contractor shall keep the Project Site free from accumulations of waste material or trash at all times. All trash and waste materials shall be removed by the Contractor and disposed off-site in an approved waste disposal facility. In addition, all equipment, tools, and non-conforming work shall also be removed prior to the Work being accepted. No materials shall be placed outside of the Project Site.

**GP-28 OWNER INSPECTION**

The Owner, Resident Project Representative, and Federal Sponsor shall have the right to perform reasonable inspections and testing of the Work at the Project Site. Access shall be granted to the entire Project Site including all materials intended for use in the Work. The Contractor shall allow reasonable time for these inspections and tests to be performed. The inspections shall not relieve the Contractor from any obligation in accordance with the requirements of the Contract.

The Owner shall notify the Contractor prior to all tests, inspections, and approvals of the Work which are to be conducted at the Project Site. The Owner shall also provide the Contractor with the written results of all inspections and tests. Inspections, tests, or Payments made by the Owner shall not constitute acceptance of non-conforming Work or prejudice the Owner’s rights under the Contract.

**GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE**

A Resident Project Representative shall be assigned by the Engineer to the Project Site to observe the Contractor and monitor the progress and manner in which the Work is being performed. The Resident Project Representative will also report to the Engineer and Contractor whenever materials or Work fail to comply with the Contract. The Resident Project Representative is authorized to reject any materials or suspend work which does not comply with the Contract until the issue is resolved by the Engineer.

However, the Resident Project Representative is not authorized to revoke, alter, enlarge, relax, or release any requirements of the Contract, or to approve or accept any portion of the Work, or to issue instructions contrary to the Plans and Specifications. The Resident Project Representative shall not manage or perform duties for the Contractor.

**GP-30 CONSTRUCTION STAKES, LINES, AND GRADES**

The Engineer shall direct the Contractor to all control points necessary for setting stakes and establishing lines and grades as shown on the Plans. The Contractor shall be responsible for laying out all of the Work. All layouts shall be witnessed and verified by the Engineer or Resident Project Representative prior to beginning the Work. The Contractor shall be
responsible for proper execution of the Work according to the layouts after receiving verification from the Engineer.

The Contractor shall be responsible for furnishing and maintaining stakes such that the Work can be verified for acceptance. The Engineer may suspend the Work at any time if it cannot be adequately verified due to the number, quality, or condition of the stakes.

GP-31 CONTRACTOR’S RESPONSIBILITY FOR WORK

The Contractor shall execute all items covered by the Contract, and shall furnish, unless otherwise definitely provided in the Contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to complete the Work. The Contractor shall pay constant attention to the progress of the Work and shall cooperate with the Engineer in every way possible. The Contractor shall maintain a complete copy of the Contract at all times, including the Plans, Specifications, and any authorized modifications.

GP-32 ENVIRONMENTAL PROTECTION

The Contractor shall comply with and abide by all federal, state, and local laws and regulations controlling pollution of the environment, including air, water, and noise. The Contractor shall take precautions to prevent pollution of waters and wetlands with fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials and contaminants, and to prevent pollution of the atmosphere from particulate and gaseous matter, in accordance with all terms and conditions of federal, state, and local air and water pollution control laws and programs and their rules and regulations, including the federal Clean Air Act and the federal Clean Water Act.

The Contractor shall adhere to the provisions which require compliance with all standards, orders, or requirements contained under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, which prohibit the use under non-exempt Federal contracts, grants, or loans, of facilities included on the Environmental Protection Agency (EPA) list of Violating Facilities.

Construction operations in rivers, streams, lakes, tidal or coastal waters, reservoirs, canals, wetlands, and any other impoundments shall be restricted to areas where it is necessary to accomplish the Work and performed in accordance with any applicable federal, state, and local laws, regulations, permit requirements, and guidelines, and the Contractor shall conduct the Work in a manner that will not cause damaging concentrations of silt or pollution to water.

Contractor shall maintain and operate equipment to minimize noise, dust, and vibration near noise, dust and vibration-sensitive areas such as churches, hospitals, schools, and residential areas, and assure that any activities conducted near such areas are not unduly disruptive. Contractor shall maintain all equipment with properly functioning mufflers.

The Contractor shall be responsible for determining and utilizing any erosion and pollution control features or methods that may be necessary to comply with all federal, state, and local laws and regulations.
GP-33 SANITARY PROVISION

The Contractor shall provide and maintain sanitary accommodations for use by all employees and Subcontractors. Facilities shall comply with the requirements of the Louisiana State Board of Health and Hospitals and other authorities having jurisdiction. Committing public nuisance on the Project Site is prohibited.

GP-34 PAYMENT OF TAXES

The Contractor shall be responsible for all taxes and duties that maybe levied under existing State, Federal, and local laws during the completion of the Work. The Owner will presume that the amount of such taxes is included in the unit prices bid by the Contractor and will not provide additional reimbursement.

GP-35 RADIO AND TELEPHONES

The Contractor shall furnish and maintain radio and telephone equipment throughout the Contract Time which will allow communication between the Contractor and the Engineer or Resident Project Representative.

GP-36 NAVIGATION

All marine vessels shall comply with the following Federal Laws and Regulations:

a. The International Navigational Rules Act of 1977 (Public Law 95-75, 91 Stat. 308, or 33 U.S.C. 1601-1608); and


These rules can be found on the Internet at: http://www.navcen.uscg.gov/?pageName=navRulesContent.

All marine vessels shall display the lights and day shapes required by Part C- Lights and Shapes of the Inland Navigation Rules. The location, type, color, and size of the lights and day shape shall be in accordance with Annex I - Positioning and Technical Details of Lights and Shapes. Any vessel engaged in dredging is considered a “Vessel restricted in her ability to maneuver” and shall display all the lights and shapes required in Rule 27, “Vessel Not Under Control.”
GP-37 OBSTRUCTION TO NAVIGATION

The Contractor shall minimize all obstructions to navigation in compliance with pertinent U.S. Coast Guard regulations while conducting the Work. The Contractor shall promptly move any floating equipment or marine vessels which obstruct safe passage of other marine vessels. Upon completion of the Work, the Contractor shall remove all marine vessels and other floating equipment such as temporary ranges, buoys, piles, and other marks or objects that are not permanent features of the Work.

GP-38 MARINE VESSELS AND MARINE ACTIVITIES

All marine vessels regulated by the USCG shall have the required USCG documentation that is current before being placed in service. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be made available to the Owner and Engineer and a copy shall be on board the vessel. All officers and crew shall possess valid USCG licenses as required by USCG regulations. These certificates, classifications, and licenses shall be posted in a public area on board each vessel.

All dredges and quarter boats not subject to USCG inspection and certification or not having a current ABS classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least 5 years’ experience in commercial marine plant and equipment. The inspection certificate shall be posted in a public area on board each dredge and/or quarter boat.

All other plant and support vessels shall be inspected before being placed in service and at least annually by a qualified person. The inspection certificate shall be posted in a public area on board each plant and/or vessel.

GP-39 RECORD KEEPING

The Contractor shall maintain orderly records of the Progress Schedule, Daily Progress Reports, Progress Meetings, correspondence, submittals, reproductions of original Contract Documents, Change Orders, Field Orders, certificates, additional drawings issued subsequent to the executed Contract, clarifications and interpretations of the Contract Documents by the Engineer, and other related documents at the Project Site until all of the Work is accepted by the Engineer.

GP-40 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in three (3) copies. Each certificate shall be certified by an authorized agent of the supplying company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date of shipment. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the testing date. The Contractor shall also certify that all materials and test reports conform to the requirements of the Contract. Certification
shall not be construed as relieving the Contractor from furnishing satisfactory material if the material is tested and determined to be in nonconformance.

GP-41 SUBMITTALS

The Contractor shall review all Submittals for compliance with the requirements of the Contract prior to delivery to the Engineer. Each Submittal shall contain a signed statement by the Contractor that it complies with the Contract requirements with any exceptions explicitly listed. The Contractor shall comply with these requirements for Submittals from Subcontractors, manufacturers, and suppliers.

All Submittals shall include sufficient data to demonstrate that the requirements of the Contract are met or exceeded. All submittals shall be legible and marked with the project title and clearly identify the item submitted. Each submittal package shall include an itemized list of the items submitted.

All Submittals will be reviewed within fourteen (14) days after being received by the Engineer. The Contractor shall allow the Engineer sufficient time for review, corrections, and resubmission of all Submittals prior to beginning the associated Work. The Contract Time shall not be extended based on incorrect or incomplete Submittals.

GP-42 CLAIMS FOR EXTRA COST

The Contractor is expected to complete the Work according to the Contract Price specified in the Bid Documents. If the Contractor deems additional compensation is due for work, materials, delays or other additional costs/expenses not covered in the Contract or not ordered as extra work, the Contractor shall give the Engineer written notice thereof within fourteen (14) calendar days after the receipt of such instructions and, in any event, before commencing the procedure. The Contractor shall justify the claim for extra cost by providing supporting data and calculations. The Engineer shall determine whether the Contractor is entitled to be compensated for such extra cost and shall make any required adjustments of the Contract in accordance with GP-43. If no written claim is made within this fourteen (14) calendar-day period, the Contractor will be deemed to have waived any claim for extra cost for such work.

Claim for damages or delays of the Work shall not be made by the Contractor for a relocation of the construction operation or portions thereof to other locations within the geographical scope of the project, when in the opinion of the Engineer, such relocation is necessary for the most effective prosecution of the Work and may be accomplished without undue hardship.

GP-43 ALTERATION OF THE CONTRACT AND COMPENSATION

Using Change Orders, Field Orders, or Written Amendments, the Owner may order extra work or make changes by altering the details of construction, add to or deduct from the Work. The requirements and stipulations of these documents shall be binding on the Owner and Contractor throughout the remainder of the Contract. Any claim for an extension of Contract Time caused thereby shall be adjusted at the time of ordering such change.
The value of any such extra work or change shall be determined in one or more of the following ways and in the following priority:

a. By application of the unit prices in the Contract to the quantities of the items involved or subsequently agreed upon; or

b. By mutual acceptance between the Owner and Contractor of a lump sum.

If none of the above methods is agreed upon, the Contractor, provided he is so ordered by the Owner in writing, shall proceed with the Work on a “force account” basis. In such a case, the Contractor shall keep and preserve in such form as the Engineer may direct, a correct itemized account of the direct cost of labor, materials, equipment, together with vouchers bearing written certification by the Contractor. In any case, the Engineer shall certify to the amount, including an allowance of fifteen percent (15%) for project site and home office overhead indirect expenses and profit due to the Contractor. Where such change involves a subcontractor, an allowance of fifteen percent (15%) for overhead and profit shall be due the subcontractor and an allowance of ten percent (10%) shall be due the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer’s estimate and as approved in an executed Change Order.

If the Contractor is prevented from completing the Work according to the Contract Price due to the Owner, the Contractor may be entitled to any reasonable and necessary addition of cost as determined by the Engineer. Neither the Owner nor the Contractor shall be entitled to any damages arising from events or occurrences which are beyond their control, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, acts of war, and other like matters. The provisions of this section exclude recovery for damages caused by the Contractor and compensation for additional professional services by either party.

GP-44 EXTENSION OF CONTRACT TIME

The Contractor is expected to complete the Work within the Contract Time specified in the Bid Documents. A legitimate increase of the Contract time may be requested by the Contractor throughout the course of the Work. This Claim must be submitted to the Engineer in writing within fourteen (14) days of the event which caused the time delay to the Contractor. If an extension of Contract Time involves an increase in Contract Price, both claims shall be submitted together. The Contractor shall justify the increase of the Contract Time in the Claim using supporting data and calculations. The Engineer may deny the claim if there is insufficient information to make a determination. If the Claim is approved, the Engineer shall issue a Change Order within thirty (30) days of the Claim. The Contract Time shall be increased on a basis that is commensurate with the amount of additional or remaining Work. For example, the Contract Time can be increased where the number of actual adverse weather days exceeds the number of days estimated in the Contract.
GP-45 OWNER’S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE

45.1 TERMINATION FOR CAUSE

The Owner shall submit a written notice to the Contractor and Surety which justifies placement of the Contractor in default if:

a. The Work is not begun within the time specified in the Notice to Proceed; or

b. The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion; or

c. The Contractor performs unsuitable, neglected or rejected work, refuses to remove materials; or

d. The Work is discontinued; or

e. The Work is not completed within the Contract Time or time extension; or

f. Work is not resumed within a reasonable time after receiving a notice to continue; or

g. The Contractor becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or

h. The Contractor allows any final judgment to stand unsatisfied for a period of ten (10) days; or

i. The Contractor makes an assignment for the benefit of creditors; or

j. The Work is not performed in an acceptable manner.

If the Contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the Contractor will be in default and the Owner shall remove the Contractor from the Work. If the Contractor is placed into default, the Owner may obtain the necessary labor, materials, and equipment or enter into a new Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the Contractor. If the expense exceeds the sum payable under the Contract, the Contractor and Surety shall be liable to pay the Owner the difference.

45.2 TERMINATION FOR CONVENIENCE

Owner may, at any time, terminate this Contract or any portion thereof, for Owner’s convenience, upon providing written notice to the Contractor. In such case, Contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the Contractor be entitled to payment of overhead and profit on work not performed. In the
event it is determined that the Contractor was wrongfully terminated for cause, pursuant to Section GP 45.1 above, such termination shall be automatically converted to a termination for convenience under and payment made as provided under this Section.

GP-46 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to temporarily suspend the Work in whole or in part. A Field Order shall be issued to the Contractor for any of the Work that is suspended for periods exceeding one (1) calendar day. The Field Order shall include the specific reasons and details for the suspension. The Contract Time shall not be extended if the Work is suspended due to failure by the Contractor to comply with a Field Order or with the Plans and Specifications. If the Work is suspended in the interest of the Owner, the Contractor shall make due allowances for the lost time.

GP-47 NON-CONFORMING AND UNAUTHORIZED WORK

Work not conforming to the Plans, Specifications, Field Orders, or Change Orders shall not be accepted for payment. Unacceptable or unauthorized work shall be removed and replaced in an acceptable manner at the expense of the Contractor in order to obtain final acceptance of the Work.

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner after seven (7) calendar days written notice to the Contractor, may correct such deficiencies itself or by use of other contractors without prejudice to any other remedy it may have, and may deduct the cost thereof from the payment then or thereafter due to the Contractor.

GP-48 CONTRACTOR’S RIGHT TO TERMINATE CONTRACT

The Contractor may terminate the Contract or Work and recover payment from the Owner for labor and materials if the Work is stopped through no act or fault of the Contractor for more than three (3) months. For example, such an occurrence could be caused by a court order or other public authority. In any case, the Contractor shall submit a written notice to the Engineer at the beginning of the occurrence, and a written Claim to the Owner at the end of the occurrence.

GP-49 BREACH OF CONTRACT

The Owner shall submit a written Claim to the Contractor regarding any breach of the Contract. The Contractor must provide a written response to the Owner regarding the breach of Contract within ten (10) days after the Claim. This response must provide either an admission to the Claim or a detailed denial based on relevant data and calculations. The failure of the Contractor to provide a proper response within ten (10) days shall result in justification of the Claim by default.

GP-50 NO WAIVER OF LEGAL RIGHTS

The Owner shall not be prevented from recovering costs from the Contractor, Surety, or both due to failure of the Contractor to fulfill all of the obligations under the Contract. If a waiver
is provided to the Contractor for a breach of Contract by the Owner, it shall not apply to any other breach of Contract. Final acceptance of the Work shall not prevent the Owner from correcting any measurement, estimate, or certificate. The Contractor shall be liable to the Owner without prejudice to the terms of the Contract or any warranty for latent defects, fraud, or gross negligence.

GP-51 LIABILITY FOR DAMAGES AND INJURIES

To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner, Engineer, and their officers, employees, representatives, and/or agents from all suits, actions, claims, costs, losses, demands, and judgments (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) brought because of injuries or damage sustained by an person or property due to the operations of Contractor; due to negligence in safeguarding the Work, or use of unacceptable materials in constructing the Work; or any negligent act, omission, or misconduct of the Contractor; or claims or amounts recovered under the Workmen’s Compensation Act or other law, ordinance, order, or decree; any money due the Contractor as considered necessary by the Owner for such purpose may be retained for use of the State or in case no money is due, the performance and payment bond may be held until such suits, actions, claims for injuries or damages have been settled and suitable evidence to that effect furnished to the Owner; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that adequate Workman’s Compensation, Public Liability, and Property Damage Insurance are in effect.

The indemnification obligations of the Contractor shall not extend to the liability of the Owner, Engineer, and their affiliates arising out of the preparation or approval of the Plans, Specifications, maps, opinions, reports, surveys, or Change Orders, or for providing directions or instructions which are the primary cause of the injury or damage.

Should the Owner or Contractor suffer from any injury or damage due to an error, omission, or act of the other party or their legally liable affiliates, a written Claim shall be submitted to the other party within ten (10) days. The Claim shall provide all details regarding the injury or damage, the results of any investigations, and the action to be taken to prevent any reoccurrence.

GP-52 LIABILITY FOR LOSSES BY ACTS OF THE GOVERNMENT

The Owner shall not be liable for any loss or damage suffered by the Contractor arising out of a cessation of Work under this Contract due to any act or order of any local, state, or federal government agency. If this cessation occurs, the Contractor may request an extension of the Contract Time according to the provisions in GP-44.

GP-53 SUBSTANTIAL COMPLETION

Upon notice from the Contractor that it believes the project has reached substantial completion, and before final acceptance, the Engineer will make an inspection of the Work. “Substantial Completion” is defined as the date on which the Work is complete in accordance with the Contract Documents in order that the Owner can occupy and use the project for its
intended use. The date of Substantial Completion shall be specified in the Notice of Acceptance.

If the Owner or its representative determines the Project is substantially complete, the Owner will issue a Notice of Acceptance identifying the date the Project reached Substantial Completion and attach a punch list, if applicable, identifying the remaining items that must be completed before final payment. The Contractor shall then file the executed Notice of Acceptance with the Clerk of Court in the Parish(s) where the work is performed and shall forward one complete copy of the recorded acceptance to the Owner and Engineer.

If the inspection discloses any work as being unsatisfactory or incomplete and such work generates a formal punch list, the Engineer will give the Contractor instructions for correction of same, and the Contractor shall immediately comply with such instructions. Upon satisfactory completion of the corrections, when a “Punch List” is generated, the Engineer shall prepare a “Recommendation of Acceptance” incorporating the punch list and submit to the Owner. Upon approval of the Recommendation of Acceptance, the Owner may issue a Notice of Acceptance of the Contract which shall establish the date of Substantial Completion.

Any punch list generated by the Engineer shall be accompanied by a cost estimate to correct the particular items of work the Engineer has developed. The cost estimate shall be developed based on mobilization, labor, material, and equipment costs of correcting each punch list item and shall be retained from monies owed to the Contractor, above and beyond the standard retainage. The Engineer shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The Owner shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five (45) day lien period. After that payment, none of the remaining funds shall be due the Contractor until all punch list items are completed and are accepted by the Engineer.

If the dollar value of the punch list exceeds the amount of funds, less retainage amount, in the remaining balance of the Contract, the Project shall not be accepted as Substantially Complete. If the funds remaining are less than required to complete the punch list work, the Contractor shall pay the difference. The provisions listed above shall not be subject to waiver.

Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work/project as provided in the Notice of Acceptance, unless otherwise agreed to in writing by the Owner and Contractor. In the instance where the Owner has accepted the Work/project as substantially complete and issued a Notice of Acceptance, and the Contractor must remain on the premises to complete the “Punch List” or for whatever reason, the Contractor shall maintain Commercial General Liability insurance, Auto Liability insurance and Worker’s Compensation insurance as set forth herein until the expiration of the forty-five (45) day lien period or upon the completion of the work/project, whichever is later. Builder’s Risk insurance, if applicable, may be cancelled only with the written permission of the Owner or the Owner’s representative at Substantial Completion.

If the punch list is not completed within forty-five (45) days, through no fault of Owner or Engineer, the Owner may, but is not required, to place the Contractor in default. Thereafter,
the Owner shall notify the Surety. If the Surety has not completed the punch list within forty-five days of receipt of notification, the Owner may, but is not required to, complete the remaining punch list items. Any costs incurred shall be paid for first out of any remaining Contract funds. If the costs incurred exceed the remaining Contract funds, the Contractor and its Surety shall be liable for such costs.

Upon completion of the punch list, Contractor shall request Final Inspection.

GP-54 FINAL INSPECTION AND ACCEPTANCE

Whenever the work provided for, or contemplated by the contract, have been satisfactorily completed, all punch list items completed and the final cleaning up is performed, the Engineer shall be notified in writing that said work is completed and ready for final inspection. The Engineer shall, unless otherwise provided, make the final inspection within a reasonable length of time after the receipt of such notification.

If all construction provided for in the contract is found completed to the Engineer’s satisfaction, that inspection shall constitute the final inspection and the Engineer will make recommendation to the Owner for final acceptance and notify the Contractor in writing of this recommendation of acceptance.

GP-55 AS-BUILT DRAWINGS

The Contractor shall submit all originals and copies of the As-Built Drawings to the Engineer for review and acceptance in accordance with the Special Provisions. The As-Built Drawings shall provide complete data for quantities, dimensions, specified performance and design criteria, and similar items which clearly represent the services, materials, and equipment the Contractor has provided. All revision sheets shall be clearly stamped with the words “As-Built”.

GP-56 COMPLETION OF CONTRACT

Notwithstanding any other provision of this Contract and all applicable and necessary time delays under Louisiana law, completion of the Contract requires all of the Work to be complete, inspected by the Engineer, accepted by the Owner as recommended by the Engineer, and after final payment is made. After the Contract is complete, the Contractor will then be released from further obligation except as set forth in the Contract Bond and Contractor’s Guarantee.

GP-57 CONTRACTOR’S GUARANTEE

The Contractor is obligated to provide a written guarantee to the Owner that all of the Work conforms to the Contract Documents. The Work shall be guaranteed to survive for a minimum period of 1 year after final acceptance, unless otherwise specified in the Technical Specifications.

a. The guarantee shall include:

1. A written warranty by the manufacturer for each piece of installed project
equipment or apparatus furnished under the Contract.

2. Any necessary repair of replacement of the warranted equipment during the guarantee period at no cost to the Owner.

3. Satisfactory operation of installed equipment including, but not limited to, any mechanical and electrical systems furnished and constructed under the Contract during the guarantee period. The Contractor shall repair all equipment which fails due to defective materials or faulty workmanship during the guarantee period. The Contractor shall also be liable for all other ancillary expenses incurred by the Owner due to the failure.

b. The guarantee shall exclude defects or damage caused by:

1. Abuse or improper modification, maintenance, or operation by anyone other than the Contractor; or

2. Wear and tear under normal usage.

c. This obligation by the Contractor shall be absolute. The following actions will not constitute acceptance of non-conformance Work or release the Contractor from obligation to furnish the Work in accordance with the Contract Documents:

1. Observations by the Owner or Engineer; or

2. Recommendations by the Engineer or payment by the Owner; or

3. Use of the Work by the Owner; or

4. Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-53, or failure to do so; or

5. Any inspection, test, or approval by others; or

6. Any correction to non-conforming work by the Owner.

GP-58 DISPUTE RESOLUTION

The parties shall use their best efforts to resolve all disputes in an amicable fashion. Prior to filing suit by either party with respect to any claims, or disputes arising between the parties, the disputes shall be submitted first to non-binding mediation. The mediation shall be conducted in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. If the parties cannot agree to a private mediator, then the mediator shall be selected by the American Arbitration Association, upon the filing of a demand for mediation.

If the dispute is not resolved by mediation within 60 days from the request for mediation, then either party may institute legal proceedings. Any litigation involving the Owner and arising under or related to the Contract or the bidding or award thereof shall be instituted
exclusively in the 19th Judicial District Court in and for the Parish of East Baton Rouge, State of Louisiana.

GP-59  PAYMENT

The Owner hereby agrees to pay to the Contractor as full compensation for all work performed under the contract, and/or supplemental agreements thereto, the monetary value of the actual quantities in the completed work according to the schedule of unit prices and/or lump sum prices set forth in attached bid proposal and/or duly authorized supplements thereto, and made a part of the Contract.

Partial payments under the Contract shall be made at the request of the Contractor not more than once each month, based upon partial estimates agreed to by the Contractor and Engineer and shall be furnished to the Engineer and approved by the Engineer prior to transmittal to the Owner for approval and payment.

A Subcontractor Report (Appendix A, Attachment A1) should be submitted by the Contractor with each request for partial payment, to be used for informational purposes only by CPRA.

The partial estimates will be approximately stated, and all partial estimates and payments shall be subject to corrections in the estimate rendered following the discovery of any error in any previous estimates.

The payment of the partial estimate shall be taken as verification that the work has been performed and that its quality is satisfactory, however it will in no way serve as a release to the Contractor for the responsibility of any portions thereof. The work and any particulars relating thereto shall be subject to revision and adjustment by the Engineer and/or the Owner at any time prior to final payment, regardless of any previous action taken.

There shall be reserved from the payments provided for the Contract ten percent (10%) for contracts less than $500,000 or five percent (5%) for contracts of $500,000 or more, of the estimates submitted, said sum to constitute a trust fund for the protection of and payment to any person or persons, mechanic, subcontractor or materialmen who shall perform any labor upon such contract, or the doing of said work, and all persons who shall supply such person or persons or subcontractors with provisions and supplies for the carrying on of such work, and shall be withheld for a minimum of forty-five (45) calendar days after final acceptance of the completed contract.

After the expiration of the forty-five (45) calendar day period, the reserve in excess of a sum sufficient to discharge the claims of materialmen and laborers who have filed their claims, together with a sum sufficient to defray the cost of such action and to pay attorneys' fees, shall be paid to the Contractor.

The Contractor shall be responsible for obtaining and furnishing a clear lien and privilege certificate to the Owner at the expiration of the retainage period, and prior to payment of any reserve withheld.
GP-60 PAYMENTS WITHHELD

In addition to the percentage provided for in Section GP-58 of these General Provisions and in accordance with any other provision of this Contract, the Owner may withhold such amounts from any payment as may be necessary to protect himself from loss on account of:

a) Defective work not remedied;

b) Claims filed or reasonable evidence indicating probable filing of claims;

c) Failure of the Contractor to make payments properly to subcontractors or for material or labor;

d) Reasonable evidence that the Work will not be completed within the Contract time and that the unpaid balance would not be adequate to cover damages for the anticipated delay;

e) A reasonable doubt that the contract can be completed within the time period remaining under the contract;

f) Damage to another contractor;

g) Failure to submit required reports; or

h) Modifications of the contract which necessitate the execution of change orders prior to payment of funds.

Furthermore, nothing contained in this Section shall be deemed to limit the right of the Owner to withhold liquidated damages, as stated in the Instructions to Bidders, from any amounts which may be due and owed the Contractor for work performed under the contract.

GP-61 LIENS

Neither the final payment nor any part of the retained percentage shall come due until the Contractor shall deliver to the Owner a complete release of all liens arising out of this contract, or receipts in full in lieu thereof, and, if required by the Owner, an affidavit that so far as he has knowledge or information, the releases and receipts include all labor and material for which a lien could be filed; but if any subcontractor refuses to furnish a release or receipt in full, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against any lien, construction cost, or attorney's fees.

GP-62 EQUAL EMPLOYMENT OPPORTUNITY

The State of Louisiana is an equal opportunity employer, and looks to its Contractor, subcontractors, vendors and suppliers to take affirmative action to effect this commitment in its operations.

By submitting the bid proposal and executing the Contract, the Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of

The Contractor agrees not to discriminate in its employment practices, and will render services the Contract, without regard to their race, age, color, religion, sex, national origin, veteran status, political affiliation or disabilities. Any act of discrimination committed by the Contractor, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of the Contract.

GP-63 ANTI-KICKBACK CLAUSE

The Contractor agrees to adhere to the mandate dictated by the Copeland “Anti-Kickback” Act which provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the completion of the work, to give up any part of the compensation to which he is otherwise entitled.

GP-64 SUSPENSION/DEBARMMENT

Contractor certifies, by signing and submitting any bid, that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133. A list of parties who have been suspended or debarred can be viewed via the internet at www.epls.gov.

Contractor agrees to secure from any contractor(s) and subcontractor(s) for the captioned project, certification that such contractor(s) and subcontractor(s) are not suspended, debarred or declared ineligible from entering into contracts with any department or agency of the Federal Government or of the State of Louisiana, or in receipt of a notice of proposed debarment or suspension.

Contractor shall provide immediate notice to Owner in the event of it or its contractor(s) or any subcontractor(s) being suspended, debarred or declared ineligible by any department or agency of the Federal Government or of the State of Louisiana, or upon receipt of a notice of a proposed debarment or suspension, either prior to or after execution of this Contract.

Upon receipt of notice of suspension, debarment, or declaration that Contractor or its contractor(s) or any subcontractor(s) is/are ineligible to enter into contracts with any department or agency of the Federal Government or of the State of Louisiana, either prior to or after execution of this Contract, Owner reserves the right to review cause for said debarment, suspension, or declaration of ineligibility, and to terminate this Contract pursuant to the terms of GP-45 OWNER’S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE, or take such other action it deems appropriate under this Contract.

GP-65 LOUISIANA FIRST HIRING ACT

Contractor shall comply with the Louisiana First Hiring Act (La. R.S. 39:2201-2204), which requires that within ten (10) days of executing the Contract, Contractor shall submit the
following information to the Louisiana Workforce Commission:

1. The number and types of jobs anticipated for the Work.

2. The skill level of the jobs anticipated for the Work.

3. The wage or salary range for each job anticipated for the Work.

4. Methods, if any, that the Contractor will use to recruit unemployed persons or person employed in low wage jobs to fill job openings for the Work.

END OF PART I - GENERAL PROVISIONS
PART II  SPECIAL PROVISIONS

SP-1  LOCATION OF WORK

The project is located west of Lac Des Allemands in St. James Parish, Louisiana and is positioned in South Vacherie. Bayou Chevreuil forms the southern boundary and LA Highway 20 lies on the western perimeter of the project area.

The Project Site is only accessible by boat. A boat launch is available in Vacherie and directions to the launch are shown in Appendix J.

SP-2  WORK TO BE DONE

The Contractor shall provide all labor, materials, and equipment necessary to perform the Work. The Work shall include, but not be limited to, mobilization and demobilization to the Project Site, tree removal, clear and grubbing, excavation and placement of material from the gaps, and vegetative plantings. The Work shall be performed in accordance with these Specifications and in conformity to the lines, grades, and elevations shown on the Plans or as directed by Engineer. Quantity calculations, layouts, shop drawings, and construction sequencing of these items shall be provided in the Work Plan. The major tasks associated with the Work are described as follows:

2.1  Site Examination: The Contractor shall examine the Project Site and make determinations of the character of the material to be excavated other than trees. Material such as logs, stumps, snags, tires, scrap, debris and other obstructions may be encountered within the Project Site. No separate payment for removal and disposal of these obstructions shall be made. No consideration shall be given to any claims for additional payments based on the failure of the Contractor to inspect the Project Site.

2.2  Surveying: Prior to construction, a Pre-Construction Survey shall be performed on the gaps and spoil placement areas. During construction, process surveys shall be performed for partial Acceptance and payment. After construction is complete, the Contractor shall develop an As-Built Survey for final Acceptance of the Work.

2.3  Clear and Grub: Prior to excavation, brush and saplings shall be cut from both the gap locations and spoil placement areas and spread across the placement areas as shown on the Plans.

2.4  Tree Removal and Disposal: Large trees, defined as trees with a diameter greater than or equal to six (6) inches and a height greater than or equal to six (6) feet, shall be cut. The Contractor shall dispose of the trees at an offsite site location or grind them in place and spread over the spoil placement areas.

2.5  Excavation and Placement: Material shall be mechanically excavated from the gaps and placed along the adjacent banks as shown on the Plans.

2.6  Bald Cypress and Water Tupelo Trees: At the completion of construction activities cypress and tupelo trees shall be planted in the placement areas with tree shelters.

2.7  Use of Equipment: The equipment used for the Work shall be operated within the boundaries
of the Project Site and away from existing vegetated wetlands or any other sensitive areas. The Contractor shall be responsible for returning all disturbed wetlands material external to the project site to pre-existing conditions at no expense to the Owner.

2.8 **Existing Infrastructure:** The Contractor shall be responsible for investigating, locating and protecting all existing facilities, structures, services, and pipelines on, above, or under the surface of the Project Site. The Owner will not be held responsible for damage to the Contractor’s equipment, employees, subcontractors, adjacent property owners, or anyone else connected with this project due to encountering objects above and below the water line.

Existing infrastructure, where indicated on the Plans, is shown only to the extent such information was made available to or discovered by the Engineer during preparation of the Plans. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for the accuracy and completeness is expressly disclaimed. If the Contractor fails to discover an underground installation and damages the same, the contractor shall be responsible for the cost of the repair.

The Contractor shall call **Louisiana One Call** at **1-800-272-3020** at least five (5) working days prior to mobilization to locate any unknown utility lines in the area.

### SP-3 CONTRACT MILESTONES

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Location or Recipient</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Advertisement</td>
<td>Publications</td>
<td>As advertised</td>
</tr>
<tr>
<td>Mandatory Pre-Bid Conference and Highly Encouraged Site Visit (GP-5)</td>
<td>Location provided in Advertisement for Bids</td>
<td>Provided in Advertisement for Bids</td>
</tr>
<tr>
<td>Questions on Bid Documents (GP5 and SP-5)</td>
<td>Submit to CPRA</td>
<td>Provided in Instructions to Bidders</td>
</tr>
<tr>
<td>Effective Date of Contract</td>
<td>Contractor and Owner</td>
<td>Stated in Contract</td>
</tr>
<tr>
<td>Start of Contract Time</td>
<td>Contractor and Owner</td>
<td>Stated in Notice to Proceed</td>
</tr>
<tr>
<td>List of all Subcontractors (GP-19)</td>
<td>Submit to Engineer</td>
<td>Prior to awarding any subcontracts</td>
</tr>
<tr>
<td>Work Plan (GP-8 and SP-7)</td>
<td>Submit to Engineer</td>
<td>14 days prior to Pre-Construction Conference</td>
</tr>
<tr>
<td>Progress Schedule (GP-9)</td>
<td>Submit to Engineer</td>
<td>14 days prior to starting construction, monthly thereafter</td>
</tr>
<tr>
<td>Daily Progress Report (GP-10)</td>
<td>Submit to Resident Project Representative</td>
<td>12:00 pm each day from mobilization to demobilization</td>
</tr>
<tr>
<td>USCG Notice to Mariners (SP-16)</td>
<td>Submit to Engineer</td>
<td>Prior to mobilization</td>
</tr>
<tr>
<td>Milestone</td>
<td>Location or Recipient</td>
<td>Due Date</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Pre-Construction Conference (GP-14)</td>
<td>Contractor, Engineer and Resident Project Representative</td>
<td>Scheduled by the Engineer after the Notice to Proceed is issued</td>
</tr>
<tr>
<td>Progress Meetings and Reports (GP-13, GP-39)</td>
<td>Engineer and Resident Project Representative</td>
<td>Bi-weekly</td>
</tr>
<tr>
<td>Daily Bird Abatement (TS-211)</td>
<td>Submit to Engineer</td>
<td>Daily</td>
</tr>
<tr>
<td>Pre-Construction Survey (TS-210)</td>
<td>Submit to Engineer</td>
<td>14 working days prior to anticipated start of Construction</td>
</tr>
<tr>
<td>Process Surveys (TS-210)</td>
<td>Submit to Engineer</td>
<td>5 working days after notification that field data collection for each process survey is complete</td>
</tr>
<tr>
<td>As-Built Survey (TS-210)</td>
<td>Submit to Engineer</td>
<td>Draft due five (5) working days prior to Final Inspection. Final due fourteen (14) working days after Final Inspection.</td>
</tr>
<tr>
<td>As-built Drawings</td>
<td>Submit to Engineer</td>
<td>Five (5) working days prior to Final Inspection</td>
</tr>
<tr>
<td>Written Notice of Completion of Work (GP-53)</td>
<td>Submit to Engineer</td>
<td>Upon substantial completion of the Work</td>
</tr>
<tr>
<td>End of Contract Time</td>
<td>Contractor and Owner</td>
<td>Provided in Instructions to Bidders</td>
</tr>
</tbody>
</table>

**SP-4 DELIVERABLES**

4.1 **Prior to Construction:** The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference:

4.1.1 Updates to the Work Plan and Progress Schedule based on comments from the Engineer;

4.1.2 Updates to the equipment data sheets;

4.1.3 Proposed changes to the layout of the Work;

4.1.4 Records of communication between the Contractor and private property owners, pipeline operators, government agencies, etc.

4.2 **During Construction:** The Contractor shall provide the following information to the Engineer during construction:

4.2.1 The results of all surveys and calculations as specified in TS-210;

4.2.2 Progress Schedule as specified in GP-9;
4.2.3 Daily Progress Reports as specified in GP-10;

4.2.4 Copies of all inspection and monitoring reports;

4.2.5 All Change Orders, Field Orders, Claims, Clarifications, and Amendments;

4.2.6 The Contractor shall contact the Engineer a minimum of five (5) working days prior to the anticipated completion of the Work in order to schedule the final inspection.

4.3 Post Construction: The following documents shall also be submitted to the Engineer after completion of the Work:

4.3.1 As-Built Drawings shall show revisions such as field or change orders shall be noted, shown in red and be easily distinguishable from the original design.

SP-5 CONTACT INFORMATION

Prior to Bid opening date, the Contractor shall send all questions and requests for clarification or interpretation of the Bid Documents in writing to the attention of Renee McKee of the Coastal Protection and Restoration Authority. The address and contact information is as follows:

Coastal Protection and Restoration Authority (CPRA)
150 Terrace Ave.
Baton Rouge, LA 70802
Attn: Renee McKee
Phone: (225) 342-0811
Fax: (225) 342-4674
Email: cpra.bidding@la.gov

After execution of the Contract between Owner and Contractor, the successful Contractor shall direct all communications to the following:

Benjamin Hartman, E.I.
1440 Tiger Drive, Suite B
Thibodaux, LA 70301
Phone: 985-449-5073
Fax: 985-447-0997
E-mail: Benjamin.Hartman@LA.GOV

The Owner and Engineer shall submit all written Claims, Field Orders, Change Orders and all other documents to the Contractor at the address indicated on the Bid.

SP-6 INSURANCE AND BONDS

The Contractor shall purchase and maintain without interruption for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, its agents, representatives, employees, or subcontractors. The duration of the Contract shall
be from the inception of the Contract until the date of final payment.

6.1 Minimum Scope and Limits of Insurance

6.1.1 Worker’s Compensation

Worker’s Compensation insurance shall be in compliance with the Worker’s Compensation law of the State of Louisiana. Employers Liability is included with a minimum limit of $500,000 per accident/per disease/per employee. If Work is to be performed over water and involves maritime exposure, applicable LHWCA, Jones Act or other maritime law coverage shall be included and the Employers Liability limit increased to a minimum of $1,000,000. A.M. Best’s insurance company rating requirement may be waived for Worker’s compensation coverage only.

6.1.2 Commercial General Liability

Commercial General Liability insurance, including Personal and Advertising Injury Liability and Products and Completed Operations Liability, shall have a minimum limit per occurrence based on the project value. The Insurance Services Office (ISO) Commercial General Liability occurrence coverage form CG 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. Claims-made form is unacceptable.

The aggregate loss limit must apply to each project. ISO form CG 25 03 (current form approved for use in Louisiana), or equivalent, shall also be submitted. The State project number, including part number, and project name shall be included on this endorsement.

**COMBINED SINGLE LIMIT (CSL) PER OCCURRENCE**

The required minimum combined single limit amount of insurance shall be as provided below:

<table>
<thead>
<tr>
<th>Initial Contract Amount</th>
<th>Minimum Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to $1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>From $1,000,001 to $2,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Over $2,000,000</td>
<td>$5,000,000</td>
</tr>
</tbody>
</table>

6.1.3 Automobile and Watercraft Liability

Automobile Liability Insurance and Watercraft Liability Insurance shall have a minimum combined single limit per occurrence of $1,000,000. ISO form number CA 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. This insurance shall include third-party bodily injury and property damage liability for owned, hired and non-owned automobiles and/or watercraft. If any non-licensed motor vehicles and/or watercraft are engaged in operations within the terms of the contract on the site of the work to be performed thereunder, such insurance
shall cover the use of any such vehicles.

NOTE: If the Contractor does not own automobiles and/or watercraft, and such vehicles are utilized in the execution of the contract, then hired and non-owned coverage is acceptable. If automobiles and/or watercraft are not utilized in the execution of the contract, then automobile and/or watercraft coverage is not required.

6.1.4 Excess Umbrella

Excess Umbrella Insurance may be used to meet the minimum requirements for General Liability, Automobile Liability, and Watercraft Liability only.

6.1.5 Pollution Liability (required when asbestos or other hazardous material abatement is included in the contract)

Pollution Liability insurance, including gradual release as well as sudden and accidental, shall have a minimum limit of not less than $1,000,000 per claim. A claims-made form will be acceptable. A policy period inception date of no later than the first day of anticipated Work under this contract and an expiration date of no earlier than 30 days after anticipated completion of all Work under the contract shall be provided. There shall be an extended reporting period of at least 24 months, with full reinstatement of limits, from the expiration date of the policy. The policy shall not be cancelled for any reason, except non-payment of premium.

6.1.6 Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and accepted by the Owner. The Contractor shall be responsible for all deductibles and self-insured retentions.

6.2 Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

6.2.1 Worker’s Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the Owner, its officers, agents, employees, and volunteers for losses arising from Work performed by the Contractor for the Owner.

6.2.2 General Liability Coverage

The Owner, its officers, agents, employees and volunteers are to be added as additional insureds as respects liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor, premises owned, occupied, or used by the Contractor. ISO Form CG 20 10 (current form approved for use in Louisiana), or equivalent, is to be used.
The Contractor’s insurance shall be primary as respects the Owner, its officers, agents, employees and volunteers. The coverage shall contain no special limitations on the scope of protection afforded to the Owner, its officers, officials, employees, or volunteers. Any insurance or self-insurance maintained by the Owner shall be excess and non-contributory of the Contractor’s insurance.

The Contractor’s insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the policy limits.

6.2.3 All Coverages

Coverage shall not be canceled, suspended, or voided by either party (the Contractor or the insurer) or reduced in coverage or in limits except after 30 days written notice has been given to the Owner. Ten-day written notice of cancellation is acceptable for non-payment of premium. Notifications shall comply with the standard cancellation provisions in the Contractor’s policy.

Neither the Acceptance of the completed Work nor the payment thereof shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.

The insurance companies issuing the policies shall have no recourse against the Owner for payment of premiums or for assessments under any form of the policies.

Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Owner, its officers, agents, employees and volunteers.

6.2.4 Acceptability of Insurers

All required insurance shall be provided by a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located. Insurance shall be placed with insurers with an A.M. Best’s rating of A-:VI or higher. This rating requirement may be waived for Worker’s compensation coverage only.

If at any time an insurer issuing any such policy does not meet the minimum A.M. Best rating, the Contractor shall obtain a policy with an insurer that meets the A.M. Best rating and shall submit another certificate of insurance as required in the contract.

6.2.5 Verification of Coverage

Contractor shall furnish the Owner with Certificates of Insurance reflecting proof of required coverage. The Certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.
The Certificates are to be received and approved by the Owner before Work commences and upon any contract renewal thereafter. The Certificate Holder must be listed as follows:

State of Louisiana
Name of Owner
Owner Address
City, State, Zip
Attn: Project # BA-34-2 Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp

In addition to the Certificates, Contractor shall submit the declarations page and the cancellation provision endorsement for each insurance policy. The Owner reserves the right to request complete certified copies of all required insurance policies at any time.

Upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be suspended, discontinued or terminated. Failure of the Contractor to purchase and/or maintain any required insurance shall not relieve the Contractor from any liability or indemnification under the contract.

If the Contractor does not meet the insurance requirements at policy renewal, at the option of the Owner, payment to the Contractor may be withheld until the requirements have been met, OR the Owner may pay the renewal premium and withhold such payment from any monies due the Contractor, OR the contract may be suspended or terminated for cause.

6.2.6 Subcontractors

Contractor shall include all subcontractors as insureds under its policies OR shall be responsible for verifying and maintaining the certificates provided by each subcontractor. Subcontractors shall be subject to all of the requirements stated herein. The Owner reserves the right to request copies of subcontractor’s certificates at any time.

If Contractor does not verify subcontractors’ insurance as described above, Owner has the right to withhold payments to the Contractor until the requirements have been met.

6.2.7 Worker’s Compensation Indemnity

In the event Contractor is not required to provide or elects not to provide Worker’s compensation coverage, the parties hereby agree the Contractor, its Owners, agents and employees will have no cause of action against, and will not assert a claim against, the State of Louisiana, its departments, agencies, agents and employees as an employer, whether pursuant to the Louisiana Worker’s Compensation Act or otherwise, under any circumstance. The parties also hereby agree that the State of Louisiana, its departments, agencies, agents and employees shall in no circumstance be, or considered as, the employer or statutory employer of Contractor, its Owners, agents and employees. The parties further agree that Contractor is a wholly independent Contractor and is exclusively responsible for its employees, Owners, and agents. Contractor hereby agrees to protect, defend, indemnify and hold the State of Louisiana, its departments, agencies,
agents and employees harmless from any such assertion or claim that may arise from the performance of this contract.

6.2.8 Indemnification/Hold Harmless Agreement

Contractor agrees to protect, defend, indemnify, save, and hold harmless, the State of Louisiana, all State Departments, Agencies, Boards and Commissions, its officers, agents, servants, employees and volunteers, from and against any and all claims, damages, expenses and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur, or in any way grow out of, any act or omission of Contractor, its agents, servants and employees, or any and all costs, expenses and/or attorney fees incurred by Contractor as a result of any claims, demands, suits or causes of action, except those claims, demands, suits or causes of action arising out of the negligence of the State of Louisiana, all State Departments, Agencies, Boards, Commissions, its officers, agents, servants, employees and volunteers.

Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands, suits or causes of action at its sole expense and agrees to bear all other costs and expenses related thereto, even if the claims, demands, suits, or causes of action are groundless, false or fraudulent.

6.3 Performance and Payment Bond

**Recordation of Contract and Bond [38:2241A(2)]**

The Owner shall record within thirty (30) days the Contract between Owner and Contractor and Performance and Payment Bond with the Clerk of Court in the Parish in which the Work is to be performed.

SP-7 WORK PLAN SUPPLEMENTAL

The following items shall be included in the Work Plan in addition to those required by those required by GP-8:

7.1 The field equipment, methodology and software to be used for survey data collection, post-processing, and calculations of quantities;

7.2 Equipment Data Sheet in Appendix M;

7.3 Layout of equipment staging areas;

7.4 Layout for all equipment access routes;

7.5 Layout and schedule for clearing and grubbing, tree removal, excavation of the gaps and spoil placement;

7.6 Layout and schedule for the placement of all excavated material;

7.7 Layout and schedule for tree plantings;
SP-8  FAILURE TO COMPLETE ON TIME

For each day the Work remains incomplete beyond the Contract Time, as specified in SP-3, or Extension of Contract Time, as specified in GP-44, the sum of one-thousand six-hundred dollars ($1,600) per calendar day will be deducted from any money due to the Contractor as liquidated damages. The Contractor and Surety shall be liable for any liquidated damages that are in excess of the amount due the Contractor.

SP-9  TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation to and from the Project Site for the Engineer and the federal sponsor throughout the Work. The schedule and pickup location shall be arranged by the Engineer and the Contractor prior to mobilization. The Contractor shall provide daily access to a boat (minimum 4 passenger capacity), as necessary, to properly inspect the various project features during the duration of construction activities. The Contractor shall supply the fuel and maintain the boat.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other necessary boats at the expense of the Contractor. The costs associated with providing the boats shall be included in the lump sum price for Bid Item No. 1, “Mobilization and Demobilization”.

SP-10  OFFICE FOR OWNER

No office is required for this project.

SP-11  LANDOWNER AND PIPELINE REQUIREMENTS

The Owner has executed temporary easement, servitude, or right-of-way agreements required to perform the Work at the Project Site from the landowners, utilities and pipeline operators (Grantors) at the Project Site. Copies of the executed agreements with the grantors are included in the Landrights Memorandum in Appendix E. The Contractor shall abide by the stipulations set forth by the executed agreements. The Contractor shall notify all grantors at least five (5) days prior to performing the Work or as otherwise stipulated in the executed agreements.

The Contractor shall add all grantors as additional insured. It is also agreed and understood that the Contractor will at all times indemnify and hold harmless all landowners from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney’s fees, by reason of personal injury, death (including but not limited to injuries to and death of employees of the landowners and the Contractor’s employees) or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of your rights hereunder, or to your presence upon or use of the landowners’ premises above referred to, or to the use or existence of your facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim, or cause of action is caused by the negligence of the landowners, their employees, agents, or representatives.

No access, excavation, anchors or spuds shall be permitted within fifty (50) feet of the right-of-way of any pipeline or utility unless specified otherwise in the Contract Documents.
SP-12 OYSTER LEASE RESTRICTIONS

There are no known existing oyster leases near or within the boundaries of the Project Site.

SP-13 THREATENED AND ENDANGERED SPECIES

The Environmental Protection Agency consulted with the United States Fish and Wildlife Service and the Louisiana Department of Wildlife and Fisheries about possible endangered species in the area. The documentation from the consultation is provided in Appendices F, G, and H. The Contractor shall comply with the conditions listed therein regarding the protected species throughout the performance of the Work. The conditions include instruction of construction personnel, signage, work stoppage, reporting, etc.

Bald and Golden Eagles

Bald and Golden Eagles are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Act. Construction activities will ensure that bald and golden eagle nest trees are not adversely affected, including their root systems through soil compaction or disturbance. The only existing bald eagle nest tree is to the north of the Project Site well outside the boundaries of any work areas (Appendix G), but other nests may be present that are not currently listed in the database maintained by the LDWF.

a. All on-site project personnel are responsible for observing access and construction activities for the presence of bald eagles.
b. If any nests are identified, they must be immediately reported and avoided.
c. The contractor shall not come within 330 feet of a nest, and shall not use motorized vehicles within 660 feet of the nest, and access within 660 feet shall be on foot.

Other Species of Birds

Construction activities are located in an area where colonial nesting, wading, or other species of birds may be present. Colonies and/or rookeries may be present that are not currently listed in the database maintained by the LDWF. To minimize disturbance to the birds, the following restrictions on activities will be observed:

a. For colonies containing birds, all activities occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on the species present).
b. On-site contract personnel will be informed of the need to identify nesting birds and their nests, and will avoid affecting them during the breeding season.
c. Land clearing associated with project features will be conducted during the fall or winter to minimize impacts to nesting migratory birds.
SP-14 NOTIFICATION OF DISCOVERY OF HISTORICAL OR CULTURAL SITES

If during construction activities the Contractor observes items that may have prehistoric, historical, archeological, or cultural value, the Contractor shall immediately cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources. Such observations shall be reported immediately to the Owner and Engineer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special dispositions of the finds should be made. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Owner and Engineer so the appropriate State of Louisiana authorities can be notified. The Contractor shall not resume work at the Project Site in question until State authorities have rendered judgment concerning the artifacts of interest.

SP-15 NAVIGATION

Navigable waterways shall not be impaired except as allowed by applicable laws or regulations. Excavation of access channels shall not be permitted unless otherwise specified in the Contract Documents. It is the responsibility of the Contractor to select equipment that can navigate within the maintained navigation channel to the Project Site without deepening or widening existing water bottoms unless otherwise specified in the Contract Documents. All equipment shall remain floating at all times during transit to the Project Site. The Contractor shall obtain NOAA Nautical Charts and/or other charts to become familiar with the water bottom depths in the vicinity of the Project Site.

SP-16 NOTICE TO MARINERS

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard (USCG) at least 30 days prior to excavating and provide all necessary information regarding the layout and schedule for the Work. The United States Coast Guard shall publish this information in the local notice to mariners. A copy of the original notice and all updates shall be provided to the Engineer as per SP-3.

SP-17 AIDS TO NAVIGATION

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard (USCG) and determine the type and location of aids to navigation that may be required to be installed or removed in order to safely perform the Work. The types of aids to navigation may include warning signs, buoys, beacons or lights. The USCG typically requires that aids to navigation be installed along temporary spoil banks and access channels. The Contractor shall also submit a permit application and obtain a permit from the USCG prior to installation or removal of any aids to navigation. The permit application shall include the type, position, color, and dates for installation or removal of all aids to navigation. New aids to navigation shall not be installed in a manner which conflicts with existing aids to navigation. The Contractor shall not otherwise remove, modify, obstruct, willfully damage, make fast to or interfere with any existing aids to navigation. The Contractor shall provide a copy of the permit and permit application to the Engineer at least seven (7) days prior to performing any excavation.

END OF PART II – SPECIAL PROVISIONS
PART III  TECHNICAL SPECIFICATIONS

TS-100 MOBILIZATION AND DEMOBILIZATION

100.1 Scope: The Contractor shall furnish all labor and equipment necessary to move personnel, equipment, supplies and incidentals to and from the Project Site, establish facilities necessary for the Work, obtain bonds, required insurance and any other pre-construction expenses necessary to perform the Work. The Contractor shall demobilize this equipment from the Project Site upon Acceptance of the Work.

100.2 Arbitrary Mobilization by Contractor: The Owner shall pay for only one mobilization and demobilization effort. Should the Contractor demobilize prior to completing the Work, subsequent remobilization shall be performed at no cost to the Owner.

100.3 Ratio of Mobilization and Demobilization Effort: Sixty (60) percent of the mobilization/demobilization Lump Sum price will be paid to the Contractor upon complete mobilization to the Project Site. The remaining forty (40) percent will be paid to the Contractor upon final Acceptance of the Work and removal of all equipment and unused materials.

100.4 Justification of Costs: The Contractor will be required to submit a written Claim to the Engineer if the cost of mobilization and demobilization is unreasonable in relation to the total cost of the Work. The Engineer shall make a determination on the justification of the Claim. Failure to adequately justify this relation in the Claim shall result in payment of actual mobilization and demobilization costs. The determination by the Engineer is not subject to appeal.

100.5 Measurement and Payment: Payment shall be made at the Contract lump sum price for Bid Item No. 1, “Mobilization and Demobilization (TS-100)”. Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of the Work. The Engineer may require remobilization of the equipment at no cost to the Owner if additional Work is required to attain the specified tolerances for the excavated gaps or placement areas.

TS-210 SURVEYS

210.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to perform the Pre-Construction, Process, and As-Built Surveys of the various construction features specified on the Plans and these Specifications. All surveys shall be performed by personnel who are approved by the Engineer and under the direct supervision of a professional engineer or surveyor licensed in the state of Louisiana. The Contractor shall provide the schedule for the surveys and deliverables in the Work Plan.

210.2 Notifications to the Engineer: The Contractor shall notify the Engineer a minimum of two (2) working days prior to performing the Pre-construction, Process and As-built Surveys. The Contractor shall also notify the Engineer immediately after field data collection for each survey is complete. The Owner may stop the respective portions of the Work if the notifications are not made. The Contractor shall not submit a Claim for this type of Work stoppage.
210.3 **Reference and Control:** Survey data shall reference the North American Datum of 1983 (NAD 83), Louisiana South Zone, U.S. Survey Feet, and the North American Vertical Datum of 1988 (NAVD 88), U.S. Survey Feet. Horizontal and vertical control shall be established by using the CPRA monument provided in Appendix K. Temporary Bench Marks (TBMs) shall be installed as deemed necessary by the Contractor to perform all surveys.

210.4 **Method:** Surveys shall utilize conventional RTK surveying methods or an appropriate GNSS or GPS Real Time Network such as the Gulfnet Virtual Real-time Network (VRS).

210.5 **Survey Equipment:** The Contractor shall utilize appropriate equipment to survey the Work as follows:

210.5.1 **Topographic Surveys:** Topographic survey equipment shall have a minimum vertical and positional accuracy of one-tenth (0.1) of a foot. A six (6) inch diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking below ground level.

210.5.2 **Magnetometer Surveys:** Magnetometer survey equipment shall have a minimum accuracy of 3 gammas throughout its operational range.

210.5.3 **Survey Stakes:** Survey stakes utilized for topographic stakeout shall consist of forty-eight (48) inch long survey laths and be composed of #1 grade pine wood or approved equal. Survey Stakes utilized for bathymetric stakeout shall consist of bamboo cane of sufficient length to remain a minimum of two (2) feet above mean water level.

210.6 **Design Survey:** The Design Survey Report is provided in Appendix L. The layout of the design survey shown on the Plans is for informational purposes only.

210.7 **Pre-Construction Survey:** The Pre-Construction Survey shall be used to verify the existing conditions at the Project Site, adjust quantities of the Bid items and modify the layout of the Work as deemed necessary by the Engineer, and lay out and stake out the Work. The Pre-Construction Survey shall show the existing bathymetry, topography, existing infrastructure and magnetic detections in plan and profile using markers, spot elevations, coordinates, contours, lines and grades. The Pre-Construction Survey shall be consistent with the Construction Survey Layout shown on the Plans and shall include the following items:

210.7.1 **Quantities:** The Pre-construction Survey shall provide the projected quantities of all the bid items. The methodology or software that is proposed to be used to calculate quantities shall be provided in the Work Plan and shall be preapproved by the Engineer.

210.7.2 **Temporary Aids to Navigation:** All temporary aids to navigation shall be surveyed after installation.
210.7.3 **Existing Infrastructure:** All infrastructure (Pipelines, power lines, etc.) that is located within one-hundred-fifty (150) feet of the project features shall be surveyed and marked at a minimum of fifty (50) foot intervals. The proposed methods for marking the infrastructure shall be included in the Work Plan. Pipelines shall also be probed for depth of cover (Top of pipe to existing ground) at fifty (50) foot intervals.

210.7.4 **Significant Magnetic Detections:** For anomalies that exhibit amplitudes greater than 50 gammas, the depth and source of the anomalies shall be determined by running a 30 foot closed loop path and by probing. The Contractor shall determine if the sources of all anomalies will interfere with the performance of the Work and provide proposed corrective measures in the Progress Schedule. Failure by the Contractor to identify the sources of anomalies and provide corrective measures shall not provide grounds for any Claims against the Owner.

210.7.5 **Gaps:** A topographic and magnetometer survey of the gaps shall be performed along the transects shown on the Plans. The transects shall extend twenty-five (25) feet beyond the outside boundaries of the gaps. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the profiles and transects.

Survey stakes shall be placed at points of intersection of the gaps and placement areas and one-hundred (100) foot intervals along the entire perimeter of each gap area.

210.7.6 **Placement Areas:** A topographic and magnetometer survey shall be performed along the transects shown on the Plans. The transects shall extend twenty-five (25) feet beyond the outside boundaries of the placement areas. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the profiles and transects.

Survey stakes shall be placed at points of intersection of the gaps and placement areas and one-hundred (100) foot intervals along the entire perimeter of each placement area.

210.8 **Process Surveys:** The Process Surveys shall be used to verify partial payments and Acceptance for completed portions of the Work, and to adjust quantities of the Bid items as deemed necessary by the Engineer. The Process Surveys shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades. The Process Surveys shall be consistent with the Pre-Construction Survey and shall include the following items:

210.8.1 **Quantities:** The Process Survey shall show the constructed quantities for each bid item. The calculation methodology used to determine the quantities shall be consistent with the Preconstruction Survey.

210.8.2 **Gaps:** The topography of the portions of the gaps which have been excavated shall be surveyed for Acceptance and payment. This survey shall be consistent with the Preconstruction Survey.
210.8.3 **Placement Areas:** The topography of the placement areas shall be surveyed for acceptance to ensure the material is placed to the specified tolerance. This survey shall be consistent with the Preconstruction Survey.

210.8.4 **Survey Stakes:** The elevations of the placed material shall be surveyed at each stake at the end of construction.

210.8.5 **Bald Cypress and Water Tupelo Trees:** The locations of the planted trees shall be surveyed to verify correct placement.

210.9 **As-Built Survey:** The As-Built Survey shall be used to verify final payments and acceptance for all Work. Accepted Process Surveys may be included as part of the As-Built Survey. The As-Built Survey shall show all constructed bid items in plan and profile using elevations, coordinates, lines and grades and shall include the following items:

- **Quantities:** The As-Built Surveys shall show the constructed quantities for each bid item.
- **Gaps:** Those portions of the gaps which have been reworked due to exceedance of the specified elevation tolerances shall be resurveyed.
- **Placement Areas:** Those portions of the placement areas which have been reworked due to exceedance of the specified placement elevation tolerances shall be resurveyed.
- **Bald Cypress and Water Tupelo Trees:** The locations of the trees that have been relocated due to improper placement shall be resurveyed.

210.10 **Deliverables:** The Contractor shall submit two (2) digital and two (2) hard copies of the survey data and drawings to the Engineer for review and acceptance by the dates specified in SP-3. The Owner may stop the respective portions of the Work if the surveys are not submitted by the specified date. The Contractor shall not submit a Claim for an adjustment to either the Contract Time or Price on any bid item for failure to submit the surveys by the specified date.

210.10.1 **Survey Data:** Digital copies of the survey data shall be provided on USB flash drive or CD in Microsoft Excel and Adobe Acrobat, or approved equal. Digital and hard copies shall utilize 8.5” x 11” borders. Survey data shall be presented as follows:

- **Survey data shall be provided in tables and include separate columns for the transect number, point number, point description, northing coordinate, easting coordinate and elevation.**
210.10.1.2 Magnetometer detections shall be provided in tables and include the transect number, shot point number, northing coordinate, easting coordinate, sensor height, signature type, amplitude and duration. Elevations and depth of cover shall be provided for all pipelines and magnetic detections higher than 50 gammas. Descriptions shall also be provided for the probable causes of all magnetic detections higher than 50 gammas.

210.10.2 Survey Drawings: Digital copies of the surveys shall be provided in the latest edition of AutoCAD and Adobe Acrobat, or approved equal. Digital and hard copies shall utilize 11” x 17” borders. All survey drawings shall conform to CPRA drafting standards and be presented as follows:

210.10.2.1 All sheets shall include the project name, number and seal of a professional engineer or surveyor licensed in the State of Louisiana

210.10.2.2 The location of all secondary survey monuments and temporary benchmarks shall appear in plan view;

210.10.2.3 Survey transects, spot elevations and +/-1.0 foot contours shall be shown in plan view. Transects shall also be shown in profile;

210.10.2.4 Magnetic anomalies and infrastructure (Pipelines, power lines, etc.) shall be shown in plan view. Infrastructure and magnetic anomalies higher than 50 gammas shall also be shown in profile;

210.10.2.5 All plan views shall be overlaid onto the most recent geo-rectified Digital Orthophoto Quarter Quadrangle aerial color photographs;

210.10.2.6 Revisions such as field or change orders shall be noted, shown in red and be easily distinguishable from the original design.

210.11 Acceptance: The Contractor shall request for Acceptance after completion of each survey. The Engineer shall determine Acceptance based on these surveys and the conformance of the Work to the Plans and Specifications. The Engineer shall be afforded a minimum of five (5) working days from the date of receipt to review and either grant or deny Acceptance of the surveys.

210.11.1 Preconstruction Survey: The Contractor may mobilize equipment but shall not start construction until the Preconstruction Survey is accepted by the Engineer.

210.11.2 Process Surveys: Those bid items which are required to be re-worked, repaired or replaced due to non-compliance with the Plans and these Specifications shall be resurveyed for Acceptance.

210.11.3 As-built Survey: A draft of the As-built Survey shall be submitted to the Engineer for review prior to the Final Inspection as per SP-3. A final version of the As-built Survey shall be submitted to the Engineer for Acceptance after the Final Inspection as per SP-3. Final payment for this bid item will not be received until the As-Built Survey has gained Acceptance from the Engineer.
210.12 **Ratio of Effort:** Forty (40) percent of the Contract cost for this bid item will be paid to the Contractor upon Acceptance of the Pre-Construction Survey. Forty (40) percent will be paid to the Contractor upon Acceptance of all Process Surveys. The remaining twenty (20) percent will be paid to the Contractor upon Acceptance of the As-built Survey.

210.13 **Measurement and Payment:** The Contractor shall submit Applications for Payment after gaining Acceptance. Payment shall be made at the Contract Lump Sum price for Bid Item No. 2, “Surveys (TS-210)”. Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work. If awarded Bid Alternate 1, payment for surveys of Alternate Gap 1 shall be made at the Contract Lump Sum price for Bid Item No. 10, “Addition for Alternate Gap 1”. If awarded Bid Alternate 2, payment for surveys of Alternate Gap 2 shall be made at the Contract Lump Sum price for Bid Item No. 11, “Addition for Alternate Gap 2”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and material necessary to conduct the surveying. The Contractor may request partial payment on a monthly basis per each gap that is accepted.

TS-211 **DAILY BIRD ABATEMENT**

211.1 **Scope:** The Contractor shall furnish all of the materials, labor, and equipment necessary to abate all birds within the Work areas and a 1,000 foot buffer area around the Project Site. If no birds are found to be present, no abatement measures are required. The Contractor shall comply with the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and conditions established by the Louisiana Department of Wildlife and Fisheries and United States Fishes and Wildlife Service provided in Appendices F, G and H.

211.2 **Buffer Areas:** The Contractor shall carefully mark and stake the boundaries of the buffer areas prior to construction. Stakes utilized for topographic stakeout shall be composed of #1 grade pine wood or approved equal and be of sufficient length to remain a minimum of two (2) feet above grade. Survey Stakes utilized for the bird abatement boundaries shall consist of bamboo cane of sufficient length to remain a minimum of two (2) feet above mean water level. The Contractor shall submit within the Work Plan the materials proposed for the construction of the markers for approval by the Engineer. The Contractor shall maintain the markers maintain in good order for the duration of construction. All markers shall be removed from the Project Site and properly disposed by the Contractor prior to demobilization.

211.3 **Abatement Methods for Birds:** To minimize impacts to birds, the Contractor shall employ a qualified biologist to allow for easy identification of birds encountered during the execution of Work under this Contract. The nesting period for the bird species varies, however, February 15th through September 1st is a conservative timeframe. There is the potential for nocturnal species; therefore, all abatement activities should take place 24 hours a day, 7 days a week. It is advised that passive and/or active abatement techniques be deployed before the onset of the nesting season regardless of whether any active bird use is observed.
All abatement techniques/methods should be coordinated with the Engineer prior to use. To increase the effectiveness of the efforts, a combination of abatement measures should be employed. Additionally, the types of abatement measures, as well as their spatial and temporal deployment, should be changed frequently to reduce the chances that birds become habituated to the abatement methods.

Passive measures such as scare eye balloons or predator decoys may deter birds from nesting. In the event that initiation of nesting birds is discovered, then the Engineer shall be contacted and abatement measures should be altered to include more active methods such as continual human presence. More aggressive methods of hazing (i.e., cannons, flares) could also be used if necessary. Timing, persistence, organization, and diversity of abatement measures are crucial in deterring birds from establishing active nests. All abatement measures should be conducted by wildlife biologists who are familiar with the proposed abatement methods.

In the event that an egg is spotted the Engineer should be contacted immediately. Buffer areas shall be established and abatement within the buffer areas must cease.

211.4 **Bald and Golden Eagles:** Abatement methods cannot be used on Bald or Golden Eagles. If the presence of a bald or golden eagle nest is confirmed a buffer area of 660 feet should be established and the Engineer should be contacted immediately.

211.5 **Notification:** In the event that the Contractor discovers the initiation of bird nesting within 1,000 feet of the Work Area or discovers an egg, then the Engineer should be contacted immediately and more aggressive abatement measures should be deployed within the Work Area.

211.6 **Deliverables:** The Contractor shall submit daily reports for all activities at the Project Site including, but is not limited to, bird surveys, nest locations, weather conditions, abatement activities, etc. In addition, photographs and GPS coordinates shall be provided for each identified nest. Maps should include, but are not limited to, identified bird nests, aerial extent of abatement activities, required buffer of identified bird nests, location of pre-nesting activities, GPS coordinates of bird nests or other pertinent features, etc.

211.7 **Measurement and Payment:** Payment for daily bird abatement shall be made at the Contract unit price per Each for Bid Item No. 3, “Daily Bird Abatement (TS-211)”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and other incidentals related to this item of work.

TS-330 CLEAR AND GRUB

330.1 **Scope:** The Contractor shall provide all the labor, materials and equipment necessary to clear and grub small trees, shrubs and other organic matter from the gaps and placement areas as shown on the Plans.

330.2 **Equipment:** All equipment shall be operated within the boundaries of the Project Site and be prohibited from operating within any areas external to the Project Site. All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications, and shall be subject to inspection by the Engineer or Resident Project Representative at all times.
330.3 **Equipment Access:** Equipment shall only access the placement areas through the proposed gaps and shall only access the proposed gaps through Bayou Chevreuil. No access shall be across the existing spoil bank, the board road levee or any parts of the swamp.

330.4 **Clear and Grub:** The contractor shall cut all organic material within two (2) inches of the ground surface within the limits of the gaps and placement areas prior to excavation the gaps. All stumps, roots or logs shall be removed to a depth of six (6) inches below subgrade. The organic material shall be spread evenly within the limits of the placement areas or removed prior to excavating the gaps. Any inorganic material that is encountered within the limits of the gaps and placement areas shall be disposed off-site in an approved waste disposal facility. Burning of organic or inorganic material is strictly prohibited.

330.4.1 **Organic Material:** Organic material shall include all saplings less than six (6) inches in diameter and less than six (6) feet tall, shrubs, brush, weeds, vegetation and other organic matter, whether alive, dead or decaying.

330.4.2 **Inorganic Material:** Inorganic material shall include all trash, refuse, and other deleterious items that weigh greater than five (5) pounds.

330.5 **Acceptance:** The Contractor shall request for Acceptance after clearing and grubbing the gaps and spoil placement areas. Clearing and grubbing of these areas shall gain Acceptance after the Engineer or Resident Project Representative performs an inspection and confirms the Work to be in compliance with the Plans and Specifications. The Engineer may require additional clearing and grubbing to be performed if the gaps or placement areas are in noncompliance with the Plans and Specifications.

330.6 **Measurement and Payment:** Payment for clearing and grubbing of Gaps 1 through 6 shall be made at the Contract Lump Sum price for Bid Item No. 4, “Clear and Grub (TS-330)”.

TS-335 **TREE REMOVAL AND DISPOSAL**

335.1 **Scope:** The Contractor shall provide all the labor, materials and equipment necessary to cut and remove or grind in place all large trees from the gaps and placement areas as shown on the Plans.

335.2 **Equipment:** All equipment shall be operated within the boundaries of the Project Site and be prohibited from operating within any areas external to the Project Site. All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications, and shall be subject to inspection by the Engineer or Resident Project Representative at all times.
335.3 Equipment Access: Equipment shall only access the placement areas through the proposed gaps and shall only access the proposed gaps through Bayou Chevreuil. No access shall be across the existing spoil bank, the board road levee or any parts of the swamp.

335.4 Tree Cutting: The Contractor shall cut all trees greater than six (6) inches in diameter and greater than six (6) feet tall within the project Work area prior to excavating the gaps and placing the material. All stumps and roots shall be removed to a depth of six (6) inches below subgrade. Trees shall not be fallen beyond the limits of the gaps or placement areas.

335.5 Tree Removal: The trees shall be removed or ground in place. If removed, trees shall be transported and either disposed off-site in an approved waste placement facility, or sold to the Contractor’s benefit. Burning of trees is strictly prohibited.

335.6 Acceptance: The Contractor shall request for Acceptance after removing the trees from the gaps and spoil placement areas and disposal off-site. Removal and disposal of the trees from these areas shall gain Acceptance after the Engineer or Resident Project Representative performs and inspection and confirms the Work to be in compliance with the Plans and Specifications. The Engineer may require additional cutting and disposal to be performed if the gaps or placement areas are in noncompliance with the Plans and Specifications.

335.7 Measurement and Payment: Payment for tree removal and disposal of Gaps 1 through 6 shall be made at the Contract Lump Sum price for Bid Item No. 5, “Tree Removal and Disposal (TS-335)”. If awarded Bid Alternate 1, payment for tree removal for Alternate Gap 1 shall be made at the Contract Lump Sum price for Bid Item No. 10, “Addition for Alternate Gap 1”. If awarded Bid Alternate 2, payment for tree removal for Alternate Gap 2 shall be made at the Contract Lump Sum price for Bid Item No. 11, “Addition for Alternate Gap 2”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and material necessary to remove and dispose of large trees. The Contractor may request partial payment on a monthly basis per each gap that is accepted.

TS-340 EXCAVATION AND PLACEMENT

340.1 Scope: The Contractor shall furnish all of the materials, labor, and equipment necessary to mechanically excavate the gaps and place the material into the placement areas in accordance with these Specifications and in conformity to the lines, grades and elevations shown on the Plans. The gaps shall be excavated and material shall be placed in such a manner to insure that negative impacts caused by the Work are minimized.

340.2 Equipment: All equipment shall be operated within the boundaries of the Project Site and be prohibited from operating within any areas external to the Project Site. All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications, and shall be subject to inspection by the Engineer or Resident Project Representative at all times.

340.2.1 Excavation Equipment: The equipment used to excavate the gaps shall be a track-mounted mechanical bucket.
340.2.2 **Placement Equipment:** The equipment used to transfer and place the material excavated from the gaps to the placement areas shall be a track mounted mechanical bucket or dozer.

340.2.3 **Equipment Data Sheet:** The Equipment Data Sheet in Appendix M shall be included in the Work Plan for all equipment that is proposed to perform the Work. Submittal of an Equipment Data Sheet shall constitute a certification that the described equipment is available to, and under control of, the Contractor. The Contractor may omit data or information that is considered to be proprietary.

340.3 **Equipment Access:** Equipment shall only access the placement areas through the gaps and shall only access the proposed gaps through Bayou Chevreuil. No access shall be across the existing spoil bank, the board road levee or any parts of the swamp. It is the responsibility of the Contractor to select equipment that can navigate to the Project Site without excavating an access channel. Navigable waterways shall not be impaired except as allowed by applicable laws or regulations. The Contractor shall obtain NOAA Nautical Charts and/or other available data, and conduct field reconnaissance to become familiar with the depths in the vicinity of the Project Site. The Contractor is responsible for contacting the owners of any infrastructure that will be crossed by equipment.

340.4 **Excavation and Placement Limits:** Excavation of the gaps and placement into the placement areas shall only occur within the limits shown on the Plans. The tolerance for the excavated depth shall be +/-0.50 feet and the tolerance for the material placement shall be +/-0.50 feet from the elevations shown on the Plans. The Contractor will be required to pay any costs, fines, or other expenses related to excavation outside of the permitted boundaries of the gaps and placement areas. Otherwise, the Owner reserves the right to make deductions to payments and the Contractor’s bond.

340.5 **Materials:** The materials to be excavated may consist of gravel, sand, silt, clay, and muck. No surface or subsurface soils investigation was performed during design.

340.6 **Acceptance:** The gaps and placement areas shall be accepted by the Engineer if the process surveys show compliance with the lines, grades and dimensions shown on the Plans. The Engineer may require that the gaps and placement areas be reworked and resurveyed in order to gain Acceptance.

340.7 **Measurement and Payment:** Payment for excavation and placement of material for Gaps 1 through 6 shall be made at the Contract unit price per cubic yard excavated from the gaps for Bid Item No. 6, “Excavation and Placement (TS-340)”. If awarded Bid Alternate 1, payment for excavation and placement of material for Alternate Gap 1 shall be made at the Contract Lump Sum price for Bid Item No. 10, “Addition for Alternate Gap 1”. If awarded Bid Alternate 2, payment for excavation and placement of material for Alternate Gap 2 shall be made at the Contract Lump Sum price for Bid Item No. 11, “Addition for Alternate Gap 2”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and material necessary to excavate the gaps and place the excavated material into the placement areas. The Contractor may request partial payment on a monthly basis per each gap that is accepted.
TS-1200 BALD CYPRESS TREES

1200.1 **Scope:** The Contractor shall provide all the labor, materials and equipment necessary to plant Bald Cypress (Taxodium distichum (L.) L.C. Rich.) trees at the spoil placement locations as shown on the Plans.

1200.2 **Equipment:** All equipment shall be operated within the boundaries of the Project Site and be prohibited from operating within any areas external to the Project Site. All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications, and shall be subject to inspection by the Engineer or Resident Project Representative at all times.

1200.3 **Equipment Access:** Equipment shall only access the placement areas through the proposed gaps and shall only access the proposed gaps through Bayou Chevreuil. No access shall be across the existing spoil bank, the board road levee or any parts of the swamp.

1200.4 **Tree Size:** The Contractor shall provide trees with a minimum height of twenty-four (24) inches and a maximum height of sixty (60) inches. The diameter of the tree at the root collar shall be a minimum of three-eighths (3/8) of an inch. Trees of larger size than specified may be used if acceptable to the Engineer.

1200.5 **Containers:** The Contractor shall use rigid containers that will hold ball shape and protect root mass during shipping. The trees shall be established in containers of three (3) gallons in size. Other size containers may be used if approved by the Engineer. The Contractor is responsible for the disposal of the containers.

1200.6 **Fertilization:** The Contractor is not required to fertilize the trees.

1200.7 **Watering and Transport:** Trees shall not become water or heat stressed prior to planting. Trees shall retain their stem and leaf rigidity at all times indicating adequate moisture is being received. The Contractor must take the necessary precautions to insure that the trees receive adequate water during all phases of the Contract prior to actual planting. Trees must stay moist during mobilization and while on site prior to planting. Trees appearing discolored, shriveled, dehydrated, or otherwise stressed shall be rejected.

1200.8 **Inspection of Delivered Trees:** The Contractor shall notify the Engineer upon delivery of the trees. The trees shall be inspected by the Engineer or Resident Project Representative to ensure quality. Trees appearing discolored, shriveled, dehydrated, or otherwise stressed shall be rejected and replaced by the Contractor.

1200.9 **Planting Schedule:** The Contractor shall only plant trees between November 1st and February 28th. Trees shall be grown and fostered accordingly.

1200.10 **Installation:** The Contractor shall plant trees to a depth so that the root collar is even with the ground surface, trimming any roots that grow over the collar. The root ball shall be planted approximately three (3) inches below the ground surface. Shallow flooding is acceptable; however the seedling shall not be fully submerged when planted.
1200.10.1 **Layout:** Trees shall be planted on fifteen (15) foot centers with rows fifteen (15) feet apart. Alternating rows shall be planted with a fifteen (15) foot offset.

1200.10.2 **Stakes:** The Contractor shall provide two (2) inch by two (2) inch untreated wood stakes to secure tree root ball. The Contractor shall stake trees immediately after planting as shown on the Plans.

1200.10.3 **Mulch:** The Contractor shall provide shredded cypress bark mulch or hardwood bark mulch to a depth of at least three (3) inches in the planting basin to cover root ball. Mulch used from trees ground on site is permissible. The Contractor shall not place mulch directly against the trunk of the tree.

1200.11 **Acceptance:** The Contractor shall request for Acceptance after planting the trees in the placement areas. Planting of the trees in these areas shall gain Acceptance after the Engineer or Resident Project Representative performs and inspection and confirms the Work to be in compliance with the Plans and Specifications. The Engineer reserves the right to reject any tree not meeting the minimum specification and may require additional plantings if trees are in noncompliance.

1200.12 **Measurement and Payment:** The Contractor shall submit an Application for Payment for furnishing and planting Bald Cypress trees after gaining Acceptance. Payment shall be made at the Contract unit price per Each for Bid Item No. 7, “Bald Cypress Trees (TS-1200)”. If awarded Bid Alternate 1, payment for Bald Cypress trees for Alternate Gap 1 shall be made at the Contract Lump Sum price for Bid Item No. 10, “Addition for Alternate Gap 1”. If awarded Bid Alternate 2, payment for Bald Cypress trees for Alternate Gap 2 shall be made at the Contract Lump Sum price for Bid Item No. 11, “Addition for Alternate Gap 2”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and material necessary to plant the Bald Cypress trees. No payment shall be made for trees that are rejected or damaged due to fault or negligence by the Contractor.

**TS-1201 WATER TUPELO TREES**

1201.1 **Scope:** The Contractor shall provide all the labor, materials and equipment necessary to plant Water Tupelo (*Nyssa aquatica* L.) trees at the spoil placement locations as shown on the Plans.

1201.2 **Equipment:** All equipment shall be operated within the boundaries of the Project Site and be prohibited from operating within any areas external to the Project Site. All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications, and shall be subject to inspection by the Engineer or Resident Project Representative at all times.

1201.3 **Equipment Access:** Equipment shall only access the placement areas through the proposed gaps and shall only access the proposed gaps through Bayou Chevreuil. No access shall be across the existing spoil bank, the board road levee or any parts of the swamp.
1201.4 **Tree Size:** The Contractor shall provide trees with a minimum height of twenty-four (24) inches and a maximum height of sixty (60) inches. The diameter of the tree at the root collar shall be a minimum of three-eighths (3/8) of an inch. Trees of larger size than specified may be used if acceptable to the Engineer.

1201.5 **Containers:** The Contractor shall use rigid containers that will hold ball shape and protect root mass during shipping. The trees shall be established in containers of three (3) gallons in size. Other size containers may be used if approved by the Engineer. The Contractor is responsible for the disposal of the containers.

1201.6 **Fertilization:** The Contractor is not required to fertilize the trees.

1201.7 **Watering and Transport:** Trees shall not become water or heat stressed prior to planting. Trees shall retain their stem and leaf rigidity at all times indicating adequate moisture is being received. The Contractor must take the necessary precautions to insure that the trees receive adequate water during all phases of the Contract prior to actual planting. Trees must stay moist during mobilization and while on site prior to planting. Trees appearing discolored, shriveled, dehydrated, or otherwise stressed shall be rejected.

1201.8 **Inspection of Delivered Trees:** The Contractor shall notify the Engineer upon delivery of the trees. The trees shall be inspected by the Engineer or Resident Project Representative to ensure quality. Trees appearing discolored, shriveled, dehydrated, or otherwise stressed shall be rejected and replaced by the Contractor.

1201.9 **Planting Schedule:** The Contractor shall only plant trees between November 1st and February 28th. Trees shall be grown and fostered accordingly.

1201.10 **Installation:** The Contractor shall plant trees to a depth so that the root collar is even with the ground surface, trimming any roots that grow over the collar. The root ball shall be planted approximately three (3) inches below the ground surface. Shallow flooding is acceptable; however the seedling shall not be fully submerged when planted.

1201.10.1 **Layout:** Trees shall be planted on fifteen (15) foot centers with rows fifteen (15) feet apart. Alternating rows shall be planted with a fifteen (15) foot offset.

1201.10.2 **Stakes:** The Contractor shall provide two (2) inch by two (2) inch untreated wood stakes to secure tree root ball. The Contractor shall stake trees immediately after planting as shown on the plans.

1201.10.3 **Mulch:** The Contractor shall provide shredded cypress bark mulch or hardwood bark mulch to a depth of at least three (3) inches in the planting basin to cover root ball. Mulch used from trees ground on site is permissible. The Contractor shall not place mulch directly against the trunk of the tree.

1201.11 **Acceptance:** The Contractor shall request for Acceptance after planting the trees in the placement areas. Planting of the trees in these areas shall gain Acceptance after the Engineer or Resident Project Representative performs and inspection and confirms the Work to be in compliance with the Plans and Specifications. The Engineer reserves the right to reject any tree not meeting the minimum specification and may require additional plantings if trees are in noncompliance.
1201.12 **Measurement and Payment**: The Contractor shall submit an Application for Payment for furnishing and planting Water Tupelo trees after gaining Acceptance. Payment shall be made at the Contract unit price per each for Bid Item No. 8, “Water Tupelo Trees (TS-1201)”. If awarded Bid Alternate 1, payment for Water Tupelo trees for Alternate Gap 1 shall be made at the Contract Lump Sum price for Bid Item No. 10, “Addition for Alternate Gap 1”. If awarded Bid Alternate 2, payment for Water Tupelo trees for Alternate Gap 2 shall be made at the Contract Lump Sum price for Bid Item No. 11, “Addition for Alternate Gap 2”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and material necessary to plant the Water Tupelo trees. No payment shall be made for trees that are rejected or damaged due to fault or negligence by the Contractor.

**TS-1220 TREE SHELTERS**

1220.1 **Scope**: The Contractor shall provide all the labor, materials and equipment necessary to install Tree Shelters and stakes on the Bald Cypress and Water Tupelo trees in the spoil placement areas as shown on the Plans.

1220.2 **Equipment**: All equipment shall be operated within the boundaries of the Project Site and be prohibited from operating within any areas external to the Project Site. All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications, and shall be subject to inspection by the Engineer or Resident Project Representative at all times.

1220.3 **Equipment Access**: Equipment shall only access the placement areas through the excavated gaps. No access shall be across the existing spoil bank, the board road levee or any parts of the swamp.

1220.4 **Tree Shelter Installation**: The Contractor shall install Tubex Standard Tree Shelters or approved equal to protect Bald Cypress and Water Tupelo trees from nutria and other wildlife. Tree Shelters shall be three (3) to five (5) inches in diameter and thirty (30) to forty-eight (48) inches in height and cut in the field to fit the height of the tree.

1220.4.1 **Stakes**: Stakes shall be a minimum of six (6) inches longer than the Tree Shelter. The Contractor shall install stakes with a stake driver. The stakes shall be installed to a depth so that the top releasable ratchet tie can still be tightened and so that the stake is stable.

1220.4.2 **Tree Shelters**: The Contractor shall install Tree Shelters over Bald Cypress and Water Tupelo trees sliding the releasable ratchet ties over the stake. Tree Shelters shall be pushed into the ground two (2) to five (5) inches or to a depth at which the bottom ratchet tie is still exposed to prevent nutria from burrowing under the shelters. The two releasable ratchet ties shall be tightened and the tie ends inserted into the holes to prevent wildlife from damaging.
1220.5 **Acceptance**: The Contractor shall request for Acceptance after Tree Shelters have been installed in the spoil placement areas. Installation of the tree shelters in these areas shall gain Acceptance after the Engineer or Resident Project Representative performs and inspection and confirms the Work to be in compliance with the Plans and Specifications. The Engineer may require additional work if Tree Shelters are installed in noncompliance with the Plans and Specifications.

1220.6 **Measurement and Payment**: The Contractor shall submit an Application for Payment for installing Tree Shelters after gaining Acceptance. Payment shall be made at the Contract unit price per each for Bid Item No. 9, “Tree Shelters (TS-1220)”. If awarded Bid Alternate 1, payment for Tree Shelters for Alternate Gap 1 shall be made at the Contract Lump Sum price for Bid Item No. 10, “Addition for Alternate Gap 1”. If awarded Bid Alternate 2, payment for Tree Shelters for Alternate Gap 2 shall be made at the Contract Lump Sum price for Bid Item No. 11, “Addition for Alternate Gap 2”. Price and payment shall constitute full compensation for furnishing all equipment, labor, and material necessary to install the Tree Shelters. No payment shall be made if the tree shelter is rejected or damaged due to fault or negligence by the Contractor.

**END OF PART III – TECHNICAL SPECIFICATIONS**
APPENDIX A: SUBCONTRACTOR REPORT
APPELLIX A, ATTACHMENT A1

COASTAL CONSTRUCTION AND VEGETATIVE PROJECTS

SUBCONTRACTOR REPORT

PRIME CONTRACTOR ____________________

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APPENDIX B: REQUEST FOR INFORMATION FORM
Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp Project (BA-34-2)

Request for Information (RFI) No. __________

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<thead>
<tr>
<th>Summary of RFI by Contractor</th>
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Signature:  
Date:  

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<th>Response to RFI by Engineer</th>
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Signature:  
Date:  

SAMPLE
APPENDIX C: CHANGE ORDER FORM
# Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp Project (BA-34-2)

**CHANGE ORDER NO.: **

**OWNER:** State of Louisiana, Coastal Protection & Restoration Authority (CPRA)

**CONTRACTOR:**

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**RECOMMENDED:**

CPRA Project Manager

**ACCEPTED:**

Contractor

**RECOMMENDED:**

CPRA Engineer

Date

Date

Date

The following changes are hereby proposed to be made to the Contract Documents:

[Blank lines for additional details]
APPENDIX D: RECOMMENDATION OF ACCEPTANCE FORM
RECOMMENDATION OF ACCEPTANCE

TO: Coastal Protection and Restoration Authority
FROM: ______________________
150 Terrace Ave, Suite 100
Baton Rouge, LA 70802

DATE: _________________

PROJECT NAME & NUMBER: _______________________
SITE CODE: ________ STATE ID: ________ CFMS:________________

CONTRACTOR: ______________________

ORIGINAL CONTRACT AMOUNT: $ _______________________
FINAL CONTRACT AMOUNT: $ _______________________

DATE OF ACCEPTANCE: _______________________

CONTRACT DATE OF COMPLETION: _______________________

NUMBER OF DAYS (OVERRUN) (UNDERRUN) (As of Acceptance Date) _______________________

LIQUIDATED DAMAGES PER DAY STIPULATED IN CONTRACT $ __________

VALUE OF PUNCH LIST $ __________ (Attach punch list)

Signed: ______________________
DESIGNER

FOR USE OF PROJECT MANAGER:

Signed: ______________________
PROJECT MANAGER

❖ NOT FOR RECODATION PURPOSES ❖
APPENDIX E: LANDRIGHTS MEMORANDUM
MEMORANDUM

October 20, 2016

To: Renee Bennett, CPRA Project Manager

From: V. J. Marretta, CPRA Land Rights Division

RE: Completion of Landrights
Hydrologic Restoration & Vegetative Planting in the Lac Des Allemands Swamp BA-34-2
St. James Parish, Louisiana

The CPRA Land Division has completed landrights necessary to proceed to construction contracting on the above referenced project. The following information has already been provided to you.

- Servitude Agreements - St. James Parish Govt, Bayou Chevreuil Land Co.
- Pipeline Notices of Construction
- Oil/Gas Operator Agreement(s)
- Memorandum(s) of Agreement
- CWPPRA Section 303(e) approval
- Right(s) of Entry for Construction
- Mineral Operations Agreement(s)
- Grant of Particular Use
- State Land Office Letter of No Objection
- Assignment of Rights to Federal Sponsor
- Landrights Certification Letter

Please note the following information that will need to be included in the contract specifications and/or for future monitoring, operations and maintenance site visits:

I. Landowner Information

St. James Parish Government ("St. James")
Attn: Timothy Roussel, President
P.O. Box 106
Convent, LA 70723

Bayou Chevreuil Land Co., L.L.C. ("Bayou Chevreuil Land")
Attn: Danny Moran
7920 Wrenwood Blvd, Suite C
Baton Rouge, LA
II. Landowner (Grantor) Notification Requirements (NOTE: Landowners must be contacted before you access their property).

A. The following notice language is in Paragraph 6 of the Grant of Particular Use and Right of Entry for Construction (the “GPU”) between CPRA and SLO: “Pursuant to the Permits and Responsibilities clause, you are required to contact the Administrator of the State Land Office or his representative at (225) 342-4575, to notify the Office when construction will commence on the State-owned seashore, State lands and/or State water bottoms.”

B. The following notice language is in Article II of the CPRA standard form Temporary Easement, Servitude and Right-of-Way Agreement (the “Agreement”) with all of the above referenced private landowners: “STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.”

III. General Provisions in Agreements

A. Article III in the Agreements provides that... “To the extent permitted by Louisiana law, STATE shall, indemnify, and hold GRANTOR harmless against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys’ fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees.”

B. Article III in the Agreements also provides that ...“ Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by Act No. 734 of the 2010 Regular Session of the Louisiana Legislature. This clause shall survive the term of this agreement.”

C. Article IV in the Agreements provides that ... “STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE’s activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.”
D. Article X in the private Agreements states that the “Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of twenty-five (25) years unless sooner released by STATE.”

Pipelines

A. The Contractor shall notify all pipeline companies at least seventy-two (72) hours in-advance of any construction work. All pipelines located within 150 feet of the borrow, excavation and spoil bank placement areas shall be probed and their locations marked, prior to excavation and for the duration of construction activities. No excavation shall be permitted within 50 feet of any pipeline. It is the Contractor’s responsibility to locate all pipelines for purposes of determining areas where excavation is not permitted.

B. NOTE: Special care and extremely close coordination by the construction contractor with any pipeline and/or utility companies will be crucial in order to avoid impacting any pipelines and/or utilities within or near the project area. Due to the limited time available to obtain landrights coverage for same the contractor(s) will need to acquire any permission for crossings of lines outside of those that may not have been previously found. It is recommended that confirmation in the field, including, but not limited to, use of a magnetometer survey(s) be a requirement of the contractor(s) to ensure that any lines in the area are identified and will not be impacted. No dredging over any pipeline right-of-ways can be permitted. Verification of pipelines, their depths and draft of the equipment to be used will be essential. The assumption resulting from current investigations does not include oil and gas operation that might commence in the future.

The construction contractor will also need to contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.

This landrights completion memo will be sent to you in “pdf” electronic format, which we request that you forward to project team members and any additional persons you deem necessary.

V.J. Marretta, CPRA Land Rights Division

c(sent via email): Adrian Chavarria, EPA Project Manager
Renee’ Bennett, CPRA Project Manager
Greg Mattson, CPRA Project Engineer
Glen Curole, CPRA Project Construction/Operations & Maintenance Manager
Susan Dunham, CPRA Land Rights Attorney
James Altman, CPRA Land Rights Manager
St. James Parish Recording Page

Edmond E. Kinler Jr
Clerk of Court
PO Box 63
5800 Highway 44
Convent, LA 70723
(225) 962-2270

Received From:
GCR INC

First VENDOR
BAYOU CHEVREUIL LAND CO LLC

First VENDEE
COASTAL PROTECTION AND RESTORATION AUTHORITY

Index Type: CONVEYANCE
Type of Document: RIGHT OF WAY
File Number: 170757
Book: 480
Page: 606
Recording Pages: 12

Recorded Information

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for St. James Parish, Louisiana

On (Recorded Date): 10/11/2016
At (Recorded Time): 12:51:13PM

CLERK OF COURT
EDMOND E. KINLER JR
Parish of St. James
I certify that this is a true copy of the attached document that was filed for registry and
Recorded 10/11/2016 at 12:51:13
Recorded in Book 480 Page 606
File Number 170757

Deputy Clerk

Doc ID - 001906530012

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TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTING IN THE LAC DES ALLEMANDS SWAMP PROJECT BA-0034-2
ST. JAMES PARISH, LOUISIANA

STATE OF LOUISIANA

PARISH OF ST. JAMES

THIS AGREEMENT, made and entered into this 9th day of September, 2016, by and between: BAYOU CHEVREUIL LAND CO., L.L.C., with the business address of 4520 South Sherwood Forest Blvd., No. 104-241, Baton Rouge, Louisiana 70816, herein represented by Martin D. Moran, Jr., its Authorized Agent, hereinafter called the “GRANTOR” (whether one or more), as owner(s) of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The COASTAL PROTECTION AND RESTORATION AUTHORITY (“CPRA”), as authorized and directed by the policy of the Coastal Protection and Restoration Authority Board, herein represented by and appearing through the Executive Director of CPRA, Michael Ellis, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70801, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, et seq., as amended by Act 523 of the 2009 Regular Session and as amended by Act 604 of the 2012 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as “STATE”.

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR’S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called “the Agreement”), together with the right to enter in, on, and over, GRANTOR’S property interests, for integrated coastal protection purposes as defined in La. R.S. 49.214.2(11) as part of the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2 (hereinafter called the “Project”) located in, on, or over GRANTOR’S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called “said Lands”), to-wit:

Lands located in Sections 27, 34, 35, and 36, T13S-R17E, Parish of St. James, Louisiana, as shown on Exhibit A, attached hereto and made a part hereof.

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project.

I. This Agreement grants the rights to enter said Lands, (further identified on Exhibit A and A-1, attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.

II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.
III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold GRANTOR harmless against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys’ fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by Act No. 734 of the 2010 Regular Session of the Louisiana Legislature. This clause shall survive the term of this agreement.

IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE’s activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.

V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.

VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.

VII. Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement.

VIII. GRANTOR does not warrant title. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or
limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of twenty-five (25) years unless sooner released by STATE.

XI. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.

XIII. This Agreement does not confer or waive any rights except as provided herein.

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:

Print: Rhodes Moran

Print: Amy Sutton

BAYOU CHEVREUIL LAND COMPANY, L.L.C.

By: [Signature]

Print: MARTIN D. MORAN, JR.

Title: [Position]

Date: 8 Sep 2016

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:

Print: Joann D. Hicks

Print: Ann E. Williams

COASTAL PROTECTION AND RESTORATION AUTHORITY

By: [Signature]

Print: MICHAEL ELLIS

Title: Executive Director

Date: 9/23/16
ACKNOWLEDGMENT

STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 28th day of SEP, 2016, personally came and appeared Martin D. Moran, Jr., to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he is the Authorized Agent of the Bayou Chevreuil Land Company, L.L.C., that as such duly authorized officer, by and with authority of the Board of Directors of said corporation, he signed, and executed the foregoing instrument, as the free and voluntary act and deed of said corporation, for and on behalf of said corporation, and for the object and purposes therein set forth.

[Signature]
Print: [Signature]
Notary Public

Notary or Bar # 14369
My commission expires: 1/4/2021
(SEAL)
ACKNOWLEDGMENT

STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 23rd day of September, 2016, personally came and appeared Michael Ellis, me known, who declared that he is the Executive Director of the Coastal Protection and Restoration Authority, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

Print Name: David A. Peterson

NOTARY PUBLIC

Notary or Bar # 92591
My commission expires: with life
(SEAL)
Exhibit A

(Map of Project)

Attached to and made a part of that certain Temporary Easement, Servitude and Right-of-Way Agreement by and between Bayou Chevreuil Land Co., L.L.C. (called the “GRANTOR”) and the Coastal Protection and Restoration Authority, dated \( 29 \text{th} \) day of \( \text{September} \) 2014, for the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2.
Exhibit B

Attached to and made a part of that certain Temporary Easement, Servitude and Right-of-Way Agreement by and between Bayou Chevreuil Land Co., L.L.C. and the Coastal Protection and Restoration Authority dated 31st day of September, 2016, for the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2:

The Agreement includes the right to enter said Lands to perform the following activities for the purposes authorized by Federal (16 U.S.C. 3951 et seq) and State (R.S. 49:214.1 – 214.6.10) law at the sites or locations identified on the attached Exhibits A and A-1:

a. The right to construct (including the necessary excavation) spoil bank gaps at the locations shown on Exhibits A and A-1;

b. The right to use sediment dredged from the spoil bank gaps in the above Item a. to create spoil disposal areas as shown on Exhibits A and A-1;

c. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands, as may be deemed necessary by STATE and approved by GRANTOR;

d. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands;

e. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;

f. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;

g. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;

h. The right to enter and traverse said Lands to access Project features located on adjacent Lands; and

i. The right to make modifications to the Project, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.
CERTIFICATION OF AUTHORITY TO ACT

BAYOU CHEVREUIL LAND CO., LLC

The undersigned, BAYOU CHEVREUIL LAND CO., LLC, a Louisiana Limited Liability Company, HOLCOMB RESOURCES, INC. represented by MARTIN D. MORAN, JR., and TY-BAR INDUSTRIES, INC. represented by William C. Barron, Sr., being The “Company”, declares that:

1. The undersigned members of BAYOU CHEVREUIL LAND CO., LLC, and as such, have the authority to provide a certificate on which all persons contracting or dealing with the Company may rely to establish the membership of any member of the Company, the authenticity of any records of the Company, and/or the authority of any person to act on behalf of the Company.

2. The undersigned hereby certifies that Martin D. Moran, Jr., is the Authorized Agent of the company.

3. The undersigned hereby certifies that MARTIN D. MORAN, JR., Authorized Agent of BAYOU CHEVREUIL LAND CO., LLC, ACTING ALONE is authorized and empowered for and on behalf of the limited liability company, to borrow money for the limited liability company in such amounts and payable in such a manner and bearing such interest rates as he may determine proper. In connection with the authority herein granted, he is authorized and empowered to mortgage any of the property owned by the limited liability company in the State of Louisiana, to secure any loan, such acts of mortgage to contain all of the usual and customary clauses contained in mortgage instruments in Louisiana, including the confession of judgment, waiver of appraisement and the pact de no alienando.

4. The undersigned hereby certified that MARTIN D. MORAN, JR., Authorized Agent of BAYOU CHEVREUIL LAND CO., LLC, ACTING ALONE, is authorized and empowered for and on behalf of the limited liability company, to buy, purchase, and/or grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called “the Agreement”), together with the right to enter in, on, and over, GRANTOR’S property interests, for integrated coastal protection
purposes as defined in La. R.S. 49.214.2(11) as part of the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2 (hereinafter called the “Project”) located in, on, or over GRANTOR’S property interests. on behalf of the limited liability company, and to execute any and all contracts and documents containing and upon such terms and conditions as he may determine fit and proper.

5. The undersigned hereby certifies that MARTIN D. MORAN, JR., Authorized Agent of BAYOU CHEVREUIL LAND CO., LLC, ACTING ALONE, is authorized and empowered for and on behalf of the limited liability company, to sign any leases, acts of sale, acts of transfers, acts of mortgage, acts of sale with mortgage, acts of assumption of mortgage, contract, promissory notes, and any other documents necessary to carry out the authority granted in this Certificate of Authority to Act. All acts and deeds of Martin D. Moran, Jr. taken prior to the date hereof to carry out the intent and accomplish the purpose of the foregoing authorizations are hereby approved, adopted, ratified, and confirmed in all respects as the acts and deeds of the Company. This authorization is continuous and all third parties may rely on this unless this authorization is revoked in writing.

Baton Rouge, Louisiana, this 12th day of September 2016

BAYOU CHEVREUIL LAND CO., LLC

MEMBERS:

TY-BAR INDUSTRIES, INC.

BY: Wm. Barron, President

AND

HOLCOMB RESOURCES, INC.

BY: ____________________________
M. Daniel Moran, Jr., President
St. James Parish Recording Page

Edmond E. Kinler Jr
Clerk of Court
PO Box 63
5800 Highway 44
Convent, LA 70723
(225) 562-2270

Received From:
CSRS INC

First VENDOR
ST JAMES PARISH GOVERNMENT

First VENDEE
COASTAL PROTECTION AND RESTORATION AUTHORITY

Index Type: CONVEYANCE
Type of Document: EASEMENT
Recording Pages: 10

File Number: 169818
Book: 479 Page: 215

Recorded Information

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for St. James Parish, Louisiana.

On (Recorded Date): 06/23/2016
At (Recorded Time): 1:04:53PM

CLERK OF COURT
EDMOND E. KINLER JR
Parish of St. James
I certify that this is a true copy of the attached document that was filed for registry and recorded 06/23/2016 at 1:04:53.
Recorded in Book: 479 Page: 215 File Number: 169818

Return To: CSRS INC

Do not Detach this Recording Page from Original Document
TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTING IN THE LAC DES ALLEMANDS SWAMP PROJECT BA-0034-2
ST. JAMES PARISH, LOUISIANA

STATE OF LOUISIANA
PARISH OF ST. JAMES

THIS AGREEMENT, made and entered into this 9th day of June, 20X6, by and between: ST. JAMES PARISH GOVERNMENT, with the business address of P. O. Box 106, Convent, Louisiana 70723, herein represented by Timothy P. Roussel, its President, hereinafter called the "GRANTOR" (whether one or more), as owner(s) of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The COASTAL PROTECTION AND RESTORATION AUTHORITY ("CPRA"), as authorized and directed by the policy of the Coastal Protection and Restoration Authority Board, herein represented by and appearing through the Executive Director of CPRA, Michael Ellis, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70801, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, et seq., as amended by Act 523 of the 2009 Regular Session and as amended by Act 604 of the 2012 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as "STATE".

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter into, on, and over, GRANTOR'S property interests, for integrated coastal protection purposes as defined in La. R.S. 49:214.2(11) as part of the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2 (hereinafter called the "Project") located in, on, or over GRANTOR'S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

Lands located in Sections 27, 34, 35, and 36, T13S-R17E, Parish of St. James, Louisiana, as shown on Exhibit A, attached hereto and made a part hereof.

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project.

I. This Agreement grants the rights to enter said Lands, (further identified on Exhibit A and A-1, attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.

II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.
III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold GRANTOR harmless against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by Act No. 734 of the 2010 Regular Session of the Louisiana Legislature. This clause shall survive the term of this agreement.

IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.

V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.

VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.

VII. Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement.

VIII. GRANTOR does not warrant title. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or
limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of twenty-five (25) years unless sooner released by STATE.

XI. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.

XIII. This Agreement does not confer or waive any rights except as provided herein.

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:

[Signatures]

Print: [Names]

ST. JAMES PARISH GOVERNMENT

By: [Signature]

Print: TIMOTHY P. ROUSSEL

Title: President

Date: 05/31/2016

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:

[Signatures]

Print: [Names]

COASTAL PROTECTION AND RESTORATION AUTHORITY

By: [Signature]

Print: MICHAEL ELLIS

Title: Executive Director

Date: 6/9/16
ACKNOWLEDGMENT

STATE OF LOUISIANA
PARISH OF ST. JAMES

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 1ST day of JUNE, 2016, personally came and appeared Timothy P. Roussel, to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he is President of the St. James Parish Government, that as such duly authorized representative, by and with authority of said entity, he signed, and executed the foregoing instrument, as the free and voluntary act and deed of said entity, for and on behalf of said entity, and for the object and purposes therein set forth.

Print: EDMOND E. KINLER JR.

EDMON E. KINLER, JR.
Notary Public, St. James Parish
My Commission is for Life
ID Number 15256

(SEAL)
ACKNOWLEDGMENT

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this __________ day of June, 2012, personally came and appeared Michael Ellis, me known, who declared that he is the Executive Director of the Coastal Protection and Restoration Authority, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

[Stamp]

[Signature]

Clifton O. Bingham, Jr.

Print Name: Clifton O. Bingham, Jr.

NOTARY PUBLIC

Notary or Bar #________________________
My commission expires: with life
(SEAL)
Exhibit A

(Map of Project)

Attached to and made a part of that certain Temporary Easement, Servitude and Right-of-Way Agreement by and between St. James Parish Government (called the "GRANTOR") and the Coastal Protection and Restoration Authority, dated ___th, day of ___, June 2016, for the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2.
Exhibit B

Attached to and made a part of that certain Temporary Easement, Servitude and Right-of-Way Agreement by and between St. James Parish Government (called the "GRANTOR") and the Coastal Protection and Restoration Authority dated 9th day of June, 2010 for the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2:

The Agreement includes the right to enter said Lands to perform the following activities for the purposes authorized by Federal (16 U.S.C. 3951 et seq) and State (R.S. 49:214.1 – 214.6.10) law at the sites or locations identified on the attached Exhibits A and A-1:

a. The right to construct (including the necessary excavation) spoil bank gaps at the locations shown on Exhibits A and A-1;

b. The right to use sediment dredged from the spoil bank gaps in the above Item a. to create spoil disposal areas as shown on Exhibits A and A-1;

c. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands, as may be deemed necessary by STATE and approved by GRANTOR;

d. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands;

e. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;

f. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;

g. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;

h. The right to enter and traverse said Lands to access Project features located on adjacent Lands; and

i. The right to make modifications to the Project, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.
Received From:
MARK A O'NEAL & ASSOCIATES INC
7732 GOODWOOD BLVD
SUITE 211
BATON ROUGE, LA 70806

First VENDOR
BAYOU CHEVREUIL LAND CO LLC

First VENDEE
COASTAL PROTECTION AND RESTORATION AUTHORITY

Index Type: CONVEYANCE
Type of Document: AMENDMENT

File Number: 172990
Book: 485 Page: 355

Recording Pages: 5

Recorded Information
I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for St. James Parish, Louisiana

On (Recorded Date): 06/07/2017
At (Recorded Time): 4:07:13PM

CLERK OF COURT
EDMOND E. KINLER JR
Parish of St. James
I certify that this is a true copy of the attached document that was filed for registry and recorded 06/07/2017 at 4:07:13
Recorded in Book 485 Page 355
File Number: 172990

Deputy Clerk

Doc ID - 0019295900005

Return To:
MARK A O'NEAL & ASSOCIATES INC
7732 GOODWOOD BLVD
SUITE 211
BATON ROUGE, LA 70806

Do not Detach this Recording Page from Original Document
FIRST AMENDMENT TO A TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTING IN THE LAC DES ALLEMANDS SWAMP PROJECT BA-0034-2
ST. JAMES PARISH, LOUISIANA

STATE OF LOUISIANA

PARISH OF ST. JAMES

WHEREAS, pursuant to that certain TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT, (herein referred to as "Agreement"), executed on or about September 23, 2016, by Bayou Chevreuil Land Co., L.L.C., thereinafter referred to as "GRANTOR", and delivered to the State of Louisiana, through its Coastal Protection and Restoration Authority (herein referred to as "STATE"), which instrument was filed of record with the Clerk of Court in the Parish of St. James, recorded October 11, 2016, under File Number 170757.

WHEREAS, GRANTOR and the STATE desire to amend and modify the original Agreement by amending and expanding the Land to allow for additional surveying and monitoring of the Project.

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and in the Agreement, and by agreement of said parties, the Agreement is hereby modified and amended as follows:

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over, GRANTOR'S property interests, for integrated coastal protection purposes as defined in La. R.S. 49:214.2(11) as part of the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2 (hereinafter called the "Project") located in, on, or over GRANTOR’S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

Lands located in Sections 27, 34, 35, and 36, T13S-R17E, Parish of St. James, Louisiana, as described in Exhibit A, in the original Agreement.

Exhibit A-1, which includes additional surveying and monitoring at the locations shown in Sections 22, 23, 27, 34, 35 and 36, T13S-R17E, St. James Parish, Louisiana, replaces Exhibit A of the original Agreement.

Exhibit A-1 excludes lands located in Sections 25, 26 and 27, T13S-R17E, which were owned by GRANTOR, but were subsequently acquired by St. James Parish Government.

The parties acknowledge that STATE intends to include surveying and monitoring at the locations in Exhibit A-1, to the extent funding will permit.

This amendment shall be incorporated into the original Agreement and become a part thereof as if originally written. Except as modified herein, all provisions of the original Agreement shall remain in full force and effect. This amendment shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

This amendment becomes effective upon the date of the signature of the STATE and shall remain in effect for the life of the Agreement. This amendment may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same.
IN WITNESS WHEREOF, the undersigned has signed these presents on the date set forth below and in the presence of the undersigned witnesses after due reading of the whole.

WITNESSES:

[Signatures of witnesses]

GRANTOR:

BAYOU CHEVREUIL LAND COMPANY,
L.L.C.

By: Martin D. Moran, Jr.

Title: Authorized Agent

Date: 16 May 2017

IN WITNESS WHEREOF, the undersigned has signed these presents on the date set forth below and in the presence of the undersigned witnesses after due reading of the whole.

WITNESSES:

[Signatures of witnesses]

STATE OF LOUISIANA
COASTAL PROTECTION AND
RESTORATION AUTHORITY

By: Michael Ellis

Title: Executive Director

Date: 5/24/17
ACKNOWLEDGMENTS

STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 12th day of May, 2017, personally came and appeared Martin D. Moran, Jr., to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he is the Authorized Agent of the Bayou Chevreuil Land Company, L.L.C., that as such duly authorized officer, by and with authority of the Board of Directors of said corporation, he signed, and executed the foregoing instrument, as the free and voluntary act and deed of said corporation, for and on behalf of said corporation, and for the object and purposes therein set forth.

[Signature]

Print: John L. Kemp

NOTARY PUBLIC

Notary or Bar # 14369
My commission expires: 12/20/2017
(SEAL)

STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 24th day of May, 2017, personally came and appeared Michael Ellis, to me known, who declared that he is the Executive Director of the Coastal Protection and Restoration Authority, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency, and that the instrument was signed pursuant to the authority granted to him by said State Agency, and that he acknowledged the instrument to be the free act and deed of said State Agency.

[Signature]

Print name: Susan Louise Dunham

Bar No: 29794
Notary ID # 33892
Parish of East Baton Rouge, State of LA
My Commission is Issued For Life
St. James Parish Recording Page

Edmond E. Kinler Jr
Clerk of Court
PO Box 63
5800 Highway 44
Convent, LA 70723
(225) 562-2270

Received From:
MARK A O'NEAL & ASSOCIATES INC
7732 GOODWOOD BLVD
SUITE 211
BATON ROUGE, LA 70806

First VENDOR
ST JAMES PARISH GOVERNMENT

First VENDEE
COASTAL PROTECTION AND RESTORATION AUTHORITY

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Recorded Information

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for St. James Parish, Louisiana

On (Recorded Date): 06/07/2017
At (Recorded Time): 4:06:11PM

CLERK OF COURT
EDMOND E. KINLER JR
Parish of St. James
I certify that this is a true copy of the attached document that was filed for registry and recorded 06/07/2017 at 4:06:11

Recorded in Book: 485
Page: 350
File Number: 172989

Doc ID - 0019295800005

Deputy Clerk

Return To: MARK A O'NEAL & ASSOCIATES INC
7732 GOODWOOD BLVD
SUITE 211
BATON ROUGE, LA 70806

Do not Detach this Recording Page from Original Document
FIRST AMENDMENT TO A TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTING IN THE LAC DES ALLEMANDS SWAMP PROJECT BA-0034-2
ST. JAMES PARISH, LOUISIANA

STATE OF LOUISIANA
PARISH OF ST. JAMES

WHEREAS, pursuant to that certain TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT, (herein referred to as "Agreement"), executed on or about June 9, 2016, by St. James Parish Government, thereafter referred to as "GRANTOR", and delivered to the State of Louisiana, through its Coastal Protection and Restoration Authority (herein referred to as "STATE"), which instrument was filed of record with the Clerk of Court in the Parish of St. James, recorded June 23, 2016, under File Number 169818.

WHEREAS, GRANTOR and the STATE desire to amend and modify the original Agreement by amending and expanding the Land to allow for additional surveying and monitoring of the Project.

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and in the Agreement, and by agreement of said parties, the Agreement is hereby modified and amended as follows:

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR's property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over, GRANTOR's property interests, for integrated coastal protection purposes as defined in La. R.S. 49.214.2(11) as part of the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2 (hereinafter called the "Project") located in, on, or over GRANTOR's property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

Lands located in Sections 27, 34, 35, and 36, T13S-R17E, Parish of St. James, Louisiana, as described in Exhibit A.

Exhibit A-1, which includes additional surveying and monitoring at the locations shown in in Sections 22, 23, 25, 27, and 34, T13S-R17E, St. James Parish, Louisiana, replaces Exhibit A of the original Agreement.

The parties acknowledge that STATE intends to include surveying and monitoring at the locations in Exhibit A-1, to the extent funding will permit.

This amendment shall be incorporated into the original Agreement and become a part thereof as if originally written. Except as modified herein, all provisions of the original Agreement shall remain in full force and effect. This amendment shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

This amendment becomes effective upon the date of the signature of the STATE and shall remain in effect for the life of the Agreement. This amendment may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same.
IN WITNESS WHEREOF, the undersigned has signed these presents on the date set forth below and in the presence of the undersigned witnesses after due reading of the whole.

WITNESSES:

Print: Raice Geavis
Print: Hope Borne

GRANTOR:

ST. JAMES PARISH GOVERNMENT

By: Timothy P. Roussel
Title: President
Date: 05/05/2017

IN WITNESS WHEREOF, the undersigned has signed these presents on the date set forth below and in the presence of the undersigned witnesses after due reading of the whole.

WITNESSES:

Print name: Joann D. Hicks
Print name: Shirley T. Long

State of Louisiana
Coastal Protection and Restoration Authority

By: Michael Ellis
Title: Executive Director
Date: 5/24/17
ACKNOWLEDGMENTS

STATE OF LOUISIANA

PARISH OF ST. JAMES

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 16th day of May, 2017, personally came and appeared Timothy P. Roussel, to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he is President of the St. James Parish Government, that as such duly authorized representative, by and with authority of said entity, he signed, and executed the foregoing instrument, as the free and voluntary act and deed of said entity, for and on behalf of said entity, and for the object and purposes therein set forth.

Print: __________________________

NOTARY PUBLIC

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 24th day of May, 2017, personally came and appeared Michael Ellis, to me known, who declared that he is the Executive Director of the Coastal Protection and Restoration Authority, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency, and that the instrument was signed pursuant to the authority granted to him by said State Agency, and that he acknowledged the instrument to be the free act and deed of said State Agency.

Print name: __________________________

NOTARY PUBLIC
Received From:
CSRS INC

First VENDOR
STATE OF LA STATE LAND OFFICE

First VENDEE
COASTAL PROTECTION AND RESTORATION AUTHORITY

Index Type: CONVEYANCE
Type of Document: AUTHORIZATION
Recording Pages: 7

File Number: 169819
Book: 479
Page: 225

Recorded Information

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for St. James Parish, Louisiana

On (Recorded Date): 06/23/2016
At (Recorded Time): 1:08:28PM

CLERK OF COURT
EDMOND E. KINLER JR
Parish of St. James
I certify that this is a true copy of the attached document that was filed for registry and recorded 06/23/2016 at 1:08:28
Recorded in Book 479 Page 225
File Number 169819

Deputy Clerk

Return To: CSRS INC
STATE OF LOUISIANA  
DIVISION OF ADMINISTRATION  
STATE LAND OFFICE  

GRANT OF PARTICULAR USE and RIGHT OF ENTRY  
FOR CONSTRUCTION OF THE  
HYDROLOGIC RESTORATION AND VEGETATIVE PLANTINGS IN THE LAC DES ALLEMANDS SWAMP PROJECT BA-0034-2  

St. James Parish, Louisiana  

STATE OF LOUISIANA  §  

PARISH OF ST. JAMES  §  

THE STATE OF LOUISIANA, acting through the State Land Office, Division of Administration (the “Owner”), hereby grants to The COASTAL PROTECTION AND RESTORATION AUTHORITY (“CPRA”), as authorized and directed by the policy of the Coastal Protection and Restoration Authority (“CPRA”), herein represented by and appearing through the Executive Director of CPRA, Michael Ellis, for the construction of the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp Project BA-0034-2 (the “Project”) (the “Grantee”) a Grant of Particular Use/Right and Authorization for Entry of the below-described State-owned seashore, State lands and State water bottoms, to the extent of any interest therein owned, claimed, or subject to claim by the State of Louisiana, upon the following terms and conditions:  

1. The Owner hereby grants to Grantee an irrevocable right to enter and use, within the project limits, upon the State-owned seashore, State lands and State water bottoms within the areas described specifically in the attached Exhibits A and A-1.  

2. This Grant of Particular Use is solely for the purposes of entry, construction (including, but not limited to, mining of dredge material), access, and survey work of the “Project”, as particularly described within the project limits, and attached hereto as Exhibits A and A-1, including all appurtenances thereto and the underground appurtenances; reserving, however, to the Owner, its successors, and assigns all such rights and privileges as may be used without interfering with or abridging the rights herein granted; subject, however, to existing easements for public utilities, and pipelines.  

3. This Grant of Particular Use includes the right of ingress and egress on other State-owned seashore, State lands and State water bottoms not described herein, provided such ingress and egress is necessary and not otherwise conveniently available to the Grantee, and provided that the Grantee gives sufficient notice to the Owner of the need for such ingress and egress.  

4. All tools, equipment, and other property (excluding project features) taken upon or placed upon the State-owned seashore, State lands and State water bottoms by the Grantee or its contractor(s) shall remain the property of the Grantee or its contractor(s). All such tools, equipment, and other property shall be removed by the Grantee or its contractor(s) within sixty days of completion of the work.  

5. The Grantee agrees to act in a reasonable manner in conducting its activities on the property covered by this Grant of Particular Use.  

6. This Grant of Particular Use applies to officers and employees of the Grantee, and to its agents, representatives, and private contractors. This Grant of Particular Use obviates the necessity for the Grantee and/or its contractors, employees and assigns to acquire any other permits from the State Land Office in order to proceed with the work described herein. The Grantee agrees to include the following paragraph to alert contractors that they must contact the State Land Office:  

Pursuant to the Permits and Responsibilities clause, you are required to contact the Administrator of the State Land Office or his representative at (225) 342-4575, to notify
the Office when construction will commence on the State-owned seashore, State lands and/or State water bottoms.

7. The State of Louisiana may own or claim and specifically reserves the right to claim any of the seashore, land and water bottoms within all project limits and spoil bank gaps and disposal areas shown on Exhibits A and A-1.

The land and water bottoms affected by this grant of particular use are further shown on Exhibits A and A-1 as project limits and spoil bank gaps and disposal areas.

8. The State-owned seashore, State land and State water bottom usage affected by this Grant of Particular Use is as follows:

   A. The right to access, construct, and survey the Project named in Paragraph One (1) of this Grant of Particular Use.

   B. The right to post signs or notices on or near appropriate project features on the State-owned seashore, State lands and State water bottoms, as may be necessary for reasons of public safety or identification.

   C. The right to alter or remove structures and/or appurtenances constructed on the State-owned seashore, State lands and State water bottoms pursuant to the Project named in Paragraph One (1) of this Grant of Particular Use.

   D. The right to patrol and police the State-owned seashore, State lands and State water bottoms during the period of this Grant of Particular Use.

9. The following restrictions apply:

   A. CPRA agrees to act in a reasonable manner in conducting their activities on the property covered by this Grant of Particular Use.

   B. To the extent required by and pursuant to La. R.S. 49:214.6.10, the State of Louisiana shall be held free and harmless from claims, for loss or damages to rights, arising as a consequence of this authorization from any diversions of freshwater or sediment, depositing of dredged or other materials, integrated coastal protection, or any other actions, taken for the purpose of management, preservation, enhancement, creation, protection, or restoration of coastal wetlands, water bottoms, or related renewable resources. This provision does not impose an indemnification obligation upon CPRA or its contractors.

   C. CPRA shall include the language of the above two paragraphs, which are labeled “A” and “B”, in any transfer or assignment of the right to use granted herein, and shall require the transferee or assignee to include and require said language in any subsequent transfer or assignment. Failure to do so shall not negate the protection provided the State of Louisiana and CPRA and all these entities’ agents and employees in La. R.S. 49:214.6.10.

   D. The restrictions in paragraphs A, B, and C above are not intended to contravene Louisiana law.

10. In the event of non-compliance with any of the above stipulations, the Owner shall notify the Grantees of any such non-compliance by certified mail directed to: Executive Director, Coastal Protection and Restoration Authority, 450 Laurel Street, Suite 1501, Baton Rouge, L.A. 70801. Thereafter, the Grantee shall have one hundred twenty (120) days from receipt of the certified mailing to achieve compliance. Should the Grantee fail to achieve compliance within those one hundred twenty (120) days, this Grant of Particular Use shall become null and void.
11. This Grant of Particular Use may be transferred or assigned to the agents, employees, and contractors of Grantee for the same purposes and upon the same terms as with respect to the Grantee.

12. Nothing herein shall constitute a waiver of any interests, claims, rights, actions, remedies, or privileges otherwise available to Owner or Grantee.

13. Exercise of the rights of entry conveyed herein in any manner by CPRA and/or its agents, employees, and contractors constitutes acceptance of the rights granted by this Authorization and any and all terms, restrictions, and conditions set forth herein.

{The remainder of this page intentionally left blank}
IN WITNESS WHEREOF, OWNER has executed this agreement in the presence of the undersigned notary and witnesses on this 26th day of May, 2016:

WITNESSES:

[Tripp Fairly (sign) (print)]

[Tripp Fairly (print)]

[Shirley T. Long (sign) (print)]

STATE OF LOUISIANA

By:

[SPENCER ROBINSON (print)]

Public Lands Administrator

STATE LAND OFFICE
DIVISION OF ADMINISTRATION

Notary Public

[SEAN PORTER (print)]

Bar Roll/Notary ID No. 34961

THUS DONE, PASSED, AND SIGNED on this 26th day of May, 2016, before the below-named notary and competent witnesses.

WITNESSES:

[Joann D. Hicks (sign) (print)]

[Joann D. Hicks (print)]

[Shirley T. Long (sign) (print)]

STATE OF LOUISIANA
COASTAL PROTECTION
AND RESTORATION AUTHORITY

By:

[MICHAEL ELLIS (print)]

Executive Director

Notary Public

[Clifton O. Bingham, Jr. (print)]

Bar Roll/Notary ID No. [illegible]
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<th><strong>Date</strong></th>
<th>September 8, 2015</th>
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<tbody>
<tr>
<td><strong>Name</strong></td>
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</tr>
<tr>
<td><strong>Company</strong></td>
<td>CPRA</td>
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<tr>
<td><strong>Street Address</strong></td>
<td>450 Laurel St., Suite 1500</td>
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<td>Baton Rouge, LA 70804</td>
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Personnel of the Coastal and Nongame Resource Division have reviewed the preliminary data for the captioned project.

Our records indicate there is one bald eagle (Haliaeetus leucocephalus) nesting site, as previously identified by USFWS, located within the project area. This species is protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (16 U.S.C. 703-712) and is protected by the state of Louisiana. All bald eagle nests (active, inactive, or seemingly abandoned) should be protected, and no large trees should be removed. Please refer to the U.S. Fish and Wildlife Service Bald Eagle Management Guidelines for more information on avoiding impacts to this species: http://www.fws.gov/southeast/es/baldeagle/.

Our database indicates the presence of the bird nesting colonies, as previously identified by USFWS, within the project area. Please be aware that entry into or disturbance of active breeding colonies is prohibited by the Louisiana Department of Wildlife and Fisheries. In addition, LDWF prohibits work within a certain radius of an active nesting colony.

Nesting colonies can move from year to year and no current information is available on the status of these colonies. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 400 meters (700 meters for brown pelicans) of the proposed project, no further consultation with LDWF will be necessary. If active nesting colonies are found within the previously stated distances of the proposed project, further consultation with LDWF will be required. In addition, colonies should be surveyed by a qualified biologist to document species present and the extent of colonies. Provide LDWF with a survey report which is to include the following information:

1. qualifications of survey personnel;
2. survey methodology including dates, site characteristics, and size of survey area;
3. species of birds present, activity, estimates of number of nests present, and general vegetation type including digital photographs representing the site; and
4. topographic maps and ArcView shapefiles projected in UTM NAD83 Zone 15 to illustrate the location and extent of the colony.

Please mail survey reports on CD to: Louisiana Natural Heritage Program
La. Dept. of Wildlife & Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000
To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

- For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, roseate spoonbills, anhingas, and/or cormorants), all project activity occurring within 300 meters of an active nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15).

- For colonies containing nesting gulls, terns, and/or black skimmers, all project activity occurring within 400 meters (700 meters for brown pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

If you have any questions, want additional information, or need to coordinate activities on waterbird nesting colonies or Brown Pelicans, please contact Michael Seymour at 225-763-3554.

The Louisiana Natural Heritage Program has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call Carolyn Michon, Assistant Data Manager at 225-765-2357.

Sincerely,

[Signature]

Amity Bass, Coordinator
Natural Heritage Program
While the U.S. Fish & Wildlife Service makes every effort to represent the data shown on these maps as completely and accurately as possible given existing data and resources constraints, the USFWS gives no warranty, expressed or implied, as to the accuracy, reliability, or completeness of these data. In addition, the USFWS shall not be held liable for improper or incorrect use of the data described or contained herein. Graphical representations provided by the use of this data do not represent any legal description of the data herein and are provided only as a general representation of the data.

These data are provided by the LDWF’s Natural Heritage Program. Please contact them for specific data waypoints or for more detailed information.

- Bald Eagle Nest
- 650-ft buffer
- Wading Bird Rookery
- 1000-ft buffer
APPENDIX G: NATIONAL BALD EAGLE MANAGEMENT GUIDELINES
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The Migratory Bird Treaty Act

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What do bald eagles eat?

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Existing Uses

Alternate nests

Temporary Impacts

RECOMMENDATIONS FOR AVOIDING DISTURBANCE AT FORAGING AREAS AND COMMUNAL ROOST SITES

ADDITIONAL RECOMMENDATIONS TO BENEFIT BALD EAGLES

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GLOSSARY

RELATED LITERATURE
INTRODUCTION

The bald eagle (*Haliaeetus leucocephalus*) is protected by the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). The MBTA and the Eagle Act protect bald eagles from a variety of harmful actions and impacts. The U.S. Fish and Wildlife Service (Service) developed these National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the Eagle Act may apply to their activities. A variety of human activities can potentially interfere with bald eagles, affecting their ability to forage, nest, roost, breed, or raise young. The Guidelines are intended to help people minimize such impacts to bald eagles, particularly where they may constitute “disturbance,” which is prohibited by the Eagle Act.

The Guidelines are intended to:

1. Publicize the provisions of the Eagle Act that continue to protect bald eagles, in order to reduce the possibility that people will violate the law,

2. Advise landowners, land managers and the general public of the potential for various human activities to disturb bald eagles, and

3. Encourage additional nonbinding land management practices that benefit bald eagles (see Additional Recommendations section).

While the Guidelines include general recommendations for land management practices that will benefit bald eagles, the document is intended primarily as a tool for landowners and planners who seek information and recommendations regarding how to avoid disturbing bald eagles. Many States and some tribal entities have developed state-specific management plans, regulations, and/or guidance for landowners and land managers to protect and enhance bald eagle habitat, and we encourage the continued development and use of these planning tools to benefit bald eagles.

Adherence to the Guidelines herein will benefit individuals, agencies, organizations, and companies by helping them avoid violations of the law. However, the Guidelines themselves are not law. Rather, they are recommendations based on several decades of behavioral observations, science, and conservation measures to avoid or minimize adverse impacts to bald eagles.

The U.S. Fish and Wildlife Service strongly encourages adherence to these guidelines to ensure that bald and golden eagle populations will continue to be sustained. The Service realizes there may be impacts to some birds even if all reasonable measures are taken to avoid such impacts. Although it is not possible to absolve individuals and entities from liability under the Eagle Act or the MBTA, the Service exercises enforcement discretion to focus on those individuals, companies, or agencies that take migratory birds without regard for the consequences of their actions and the law, especially when conservation measures, such as these Guidelines, are available, but have not been implemented. The Service will prioritize its enforcement efforts to focus on those individuals or entities who take bald eagles or their parts, eggs, or nests without implementing appropriate measures recommended by the Guidelines.
The Service intends to pursue the development of regulations that would authorize, under limited circumstances, the use of permits if “take” of an eagle is anticipated but unavoidable. Additionally, if the bald eagle is delisted, the Service intends to provide a regulatory mechanism to honor existing (take) authorizations under the Endangered Species Act (ESA).

During the interim period until the Service completes a rulemaking for permits under the Eagle Act, the Service does not intend to refer for prosecution the incidental “take” of any bald eagle under the MBTA or Eagle Act, if such take is in full compliance with the terms and conditions of an incidental take statement issued to the action agency or applicant under the authority of section 7(b)(4) of the ESA or a permit issued under the authority of section 10(a)(1)(B) of the ESA.

The Guidelines are applicable throughout the United States, including Alaska. The primary purpose of these Guidelines is to provide information that will minimize or prevent violations only of Federal laws governing bald eagles. In addition to Federal laws, many states and some smaller jurisdictions and tribes have additional laws and regulations protecting bald eagles. In some cases those laws and regulations may be more protective (restrictive) than these Federal guidelines. If you are planning activities that may affect bald eagles, we therefore recommend that you contact both your nearest U.S. Fish and Wildlife Service Field Office (see the contact information on p.16) and your state wildlife agency for assistance.

LEGAL PROTECTIONS FOR THE BALD EAGLE

The Bald and Golden Eagle Protection Act
The Eagle Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from taking any bald eagles, including their parts, nests, or eggs. The Act provides criminal and civil penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” “Disturb” means:

"Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.
A violation of the Act can result in a criminal fine of $100,000 ($200,000 for organizations), imprisonment for one year, or both, for a first offense. Penalties increase substantially for additional offenses, and a second violation of this Act is a felony.

**The Migratory Bird Treaty Act**
The MBTA (16 U.S.C. 703-712), prohibits the taking of any migratory bird or any part, nest, or egg, except as permitted by regulation. The MBTA was enacted in 1918; a 1972 agreement supplementing one of the bilateral treaties underlying the MBTA had the effect of expanding the scope of the Act to cover bald eagles and other raptors. Implementing regulations define “take” under the MBTA as “pursue, hunt, shoot, wound, kill, trap, capture, possess, or collect.”


**State laws and regulations**
Most states have their own regulations and/or guidelines for bald eagle management. Some states may continue to list the bald eagle as endangered, threatened, or of special concern. If you plan activities that may affect bald eagles, we urge you to familiarize yourself with the regulations and/or guidelines that apply to bald eagles in your state. Your adherence to the Guidelines herein does not ensure that you are in compliance with state laws and regulations because state regulations can be more specific and/or restrictive than these Guidelines.

**NATURAL HISTORY OF THE BALD EAGLE**

Bald eagles are a North American species that historically occurred throughout the contiguous United States and Alaska. After severely declining in the lower 48 States between the 1870s and the 1970s, bald eagles have rebounded and re-established breeding territories in each of the lower 48 states. The largest North American breeding populations are in Alaska and Canada, but there are also significant bald eagle populations in Florida, the Pacific Northwest, the Greater Yellowstone area, the Great Lakes states, and the Chesapeake Bay region. Bald eagle distribution varies seasonally. Bald eagles that nest in southern latitudes frequently move northward in late spring and early summer, often summering as far north as Canada. Most eagles that breed at northern latitudes migrate southward during winter, or to coastal areas where waters remain unfrozen. Migrants frequently concentrate in large numbers at sites where food is abundant and they often roost together communally. In some cases, concentration areas are used year-round: in summer by southern eagles and in winter by northern eagles.

Juvenile bald eagles have mottled brown and white plumage, gradually acquiring their dark brown body and distinctive white head and tail as they mature. Bald eagles generally attain adult plumage by 5 years of age. Most are capable of breeding at 4 or 5 years of age, but in healthy populations they may not start breeding until much older. Bald eagles may live 15 to 25 years in the wild. Adults weigh 8 to 14 pounds (occasionally reaching 16 pounds in Alaska) and have wingspans of 5 to 8 feet. Those in the northern range are larger than those in the south, and females are larger than males.
Where do bald eagles nest?
Breeding bald eagles occupy “territories,” areas they will typically defend against intrusion by other eagles. In addition to the active nest, a territory may include one or more alternate nests (nests built or maintained by the eagles but not used for nesting in a given year). The Eagle Act prohibits removal or destruction of both active and alternate bald eagle nests. Bald eagles exhibit high nest site fidelity and nesting territories are often used year after year. Some territories are known to have been used continually for over half a century.

Bald eagles generally nest near coastlines, rivers, large lakes or streams that support an adequate food supply. They often nest in mature or old-growth trees; snags (dead trees); cliffs; rock promontories; rarely on the ground; and with increasing frequency on human-made structures such as power poles and communication towers. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh more than 1,000 pounds. Nest sites typically include at least one perch with a clear view of the water where the eagles usually forage. Shoreline trees or snags located in reservoirs provide the visibility and accessibility needed to locate aquatic prey. Eagle nests are constructed with large sticks, and may be lined with moss, grass, plant stalks, lichens, seaweed, or sod. Nests are usually about 4-6 feet in diameter and 3 feet deep, although larger nests exist.

The range of breeding bald eagles in 2000 (shaded areas). This map shows only the larger concentrations of nests; eagles have continued to expand into additional nesting territories in many states. The dotted line represents the bald eagle’s wintering range.
When do bald eagles nest?
Nesting activity begins several months before egg-laying. Egg-laying dates vary throughout the U.S., ranging from October in Florida, to late April or even early May in the northern United States. Incubation typically lasts 33-35 days, but can be as long as 40 days. Eaglets make their first unsteady flights about 10 to 12 weeks after hatching, and fledge (leave their nests) within a few days after that first flight. However, young birds usually remain in the vicinity of the nest for several weeks after fledging because they are almost completely dependent on their parents for food until they disperse from the nesting territory approximately 6 weeks later.

The bald eagle breeding season tends to be longer in the southern U.S., and re-nesting following an unsuccessful first nesting attempt is more common there as well. The following table shows the timing of bald eagle breeding seasons in different regions of the country. The table represents the range of time within which the majority of nesting activities occur in each region and does not apply to any specific nesting pair. Because the timing of nesting activities may vary within a given region, you should contact the nearest U.S. Fish and Wildlife Service Field Office (see page 16) and/or your state wildlife conservation agency for more specific information on nesting chronology in your area.
Chronology of typical reproductive activities of bald eagles in the United States.

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<tr>
<td><strong>SOUTHEASTERN U.S.</strong> (FL, GA, SC, NC, AL, MS, LA, KY, AR, eastern 2 of TX)</td>
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<td>Nest Building</td>
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<td>Egg Laying/Incubation</td>
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<td>Fledging Young</td>
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</tbody>
</table>

| **CHESAPEAKE BAY REGION** (NC, VA, MD, DE, southern 2 of NJ, eastern 2 of PA, panhandle of WV) | | | | | | | | | | | | |
| Nest Building | | | | | | | | | | | | |
| Egg Laying/Incubation | | | | | | | | | | | | |
| Hatching/Rearing Young | | | | | | | | | | | | Fledging Young |

| **NORTHERN U.S.** (ME, NH, MA, RI, CT, NY, northern 2 of NJ, western 2 of PA, OH, WV exc. panhandle, IN, IL, MI, WI, MN, IA, MO, ND, SD, NB, KS, CO, UT) | | | | | | | | | | | | |
| Nest Building | | | | | | | | | | | | |
| Egg Laying/Incubation | | | | | | | | | | | | |
| Hatching/Rearing Young | | | | | | | | | | | | Fledging Young |

| **PACIFIC REGION** (WA, OR, CA, ID, MT, WY, NV) | | | | | | | | | | | | |
| Nest Building | | | | | | | | | | | | |
| Egg Laying/Incubation | | | | | | | | | | | | |
| Hatching/Rearing Young | | | | | | | | | | | | Fledging Young |

| **SOUTHWESTERN U.S.** (AZ, NM, OK panhandle, western 2 of TX) | | | | | | | | | | | | |
| Nest Building | | | | | | | | | | | | |
| Egg Laying/Incubation | | | | | | | | | | | | |
| Hatching/Rearing Young | | | | | | | | | | | | Fledging Young |

| **ALASKA** | | | | | | | | | | | | |
| Nest Building | | | | | | | | | | | | |
| Egg Laying/Incubation | | | | | | | | | | | | |
| Hatching/Rearing Young | | | | | | | | | | | | Fledging Young |

| Ing Young | | | | | | | | | | | | Fledg- |
How many chicks do bald eagles raise?
The number of eagle eggs laid will vary from 1-3, with 1-2 eggs being the most common. Only one eagle egg is laid per day, although not always on successive days. Hatching of young occurs on different days with the result that chicks in the same nest are sometimes of unequal size. The overall national fledging rate is approximately one chick per nest, annually, which results in a healthy expanding population.

What do bald eagles eat?
Bald eagles are opportunistic feeders. Fish comprise much of their diet, but they also eat waterfowl, shorebirds/colonial waterbirds, small mammals, turtles, and carrion. Because they are visual hunters, eagles typically locate their prey from a conspicuous perch, or soaring flight, then swoop down and strike. Wintering bald eagles often congregate in large numbers along streams to feed on spawning salmon or other fish species, and often gather in large numbers in areas below reservoirs, especially hydropower dams, where fish are abundant. Wintering eagles also take birds from rafts of ducks at reservoirs and rivers, and congregate on melting ice shelves to scavenge dead fish from the current or the soft melting ice. Bald eagles will also feed on carcasses along roads, in landfills, and at feedlots.

During the breeding season, adults carry prey to the nest to feed the young. Adults feed their chicks by tearing off pieces of food and holding them to the beaks of the eaglets. After fledging, immature eagles are slow to develop hunting skills, and must learn to locate reliable food sources and master feeding techniques. Young eagles will congregate together, often feeding upon easily acquired food such as carrion and fish found in abundance at the mouths of streams and shallow bays and at landfills.

The impact of human activity on nesting bald eagles
During the breeding season, bald eagles are sensitive to a variety of human activities. However, not all bald eagle pairs react to human activities in the same way. Some pairs nest successfully just dozens of yards from human activity, while others abandon nest sites in response to activities much farther away. This variability may be related to a number of factors, including visibility, duration, noise levels, extent of the area affected by the activity, prior experiences with humans, and tolerance of the individual nesting pair. The relative sensitivity of bald eagles during various stages of the breeding season is outlined in the following table.
### Nesting Bald Eagle Sensitivity to Human Activities

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
<th>Sensitivity to Human Activity</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Courtship and Nest Building</td>
<td>Most sensitive period; likely to respond negatively</td>
<td>Most critical time period. Disturbance is manifested in nest abandonment. Bald eagles in newly established territories are more prone to abandon nest sites.</td>
</tr>
<tr>
<td>II</td>
<td>Egg laying</td>
<td>Very sensitive period</td>
<td>Human activity of even limited duration may cause nest desertion and abandonment of territory for the breeding season.</td>
</tr>
<tr>
<td>III</td>
<td>Incubation and early nestling period (up to 4 weeks)</td>
<td>Very sensitive period</td>
<td>Adults are less likely to abandon the nest near and after hatching. However, flushed adults leave eggs and young unattended; eggs are susceptible to cooling, loss of moisture, overheating, and predation; young are vulnerable to elements.</td>
</tr>
<tr>
<td>IV</td>
<td>Nestling period, 4 to 8 weeks</td>
<td>Moderately sensitive period</td>
<td>Likelihood of nest abandonment and vulnerability of the nestlings to elements somewhat decreases. However, nestlings may miss feedings, affecting their survival.</td>
</tr>
<tr>
<td>V</td>
<td>Nestlings 8 weeks through fledging</td>
<td>Very sensitive period</td>
<td>Gaining flight capability, nestlings 8 weeks and older may flush from the nest prematurely due to disruption and die.</td>
</tr>
</tbody>
</table>

If agitated by human activities, eagles may inadequately construct or repair their nest, may expend energy defending the nest rather than tending to their young, or may abandon the nest altogether. Activities that cause prolonged absences of adults from their nests can jeopardize eggs or young. Depending on weather conditions, eggs may overheat or cool too much and fail to hatch. Unattended eggs and nestlings are subject to predation. Young nestlings are particularly vulnerable because they rely on their parents to provide warmth or shade, without which they may die as a result of hypothermia or heat stress. If food delivery schedules are interrupted, the young may not develop healthy plumage, which can affect their survival. In addition, adults startled while incubating or brooding young may damage eggs or injure their young as they abruptly leave the nest. Older nestlings no longer require constant attention from the adults, but they may be startled by loud or intrusive human activities and prematurely jump from the nest before they are able to fly or care for themselves. Once fledged, juveniles range up to ¼ mile from the nest site, often to a site with minimal human activity. During this period, until about six weeks after departure from the nest, the juveniles still depend on the adults to feed them.

**The impact of human activity on foraging and roosting bald eagles**

Disruption, destruction, or obstruction of roosting and foraging areas can also negatively affect bald eagles. Disruptive activities in or near eagle foraging areas can interfere with feeding, reducing chances of survival. Interference with feeding can also result in reduced productivity (number of young successfully fledged). Migrating and wintering bald eagles often congregate at specific sites for purposes of feeding and sheltering. Bald eagles rely on established roost sites because of their proximity to sufficient food sources. Roost sites are usually in mature trees where the eagles are somewhat sheltered from the wind and weather. Human activities near or within communal roost sites may prevent eagles...
from feeding or taking shelter, especially if there are not other undisturbed and productive
feeding and roosting sites available. Activities that permanently alter communal roost
sites and important foraging areas can altogether eliminate the elements that are essential
for feeding and sheltering eagles.

Where a human activity agitates or bothers roosting or foraging bald eagles to the degree
that causes injury or substantially interferes with breeding, feeding, or sheltering behavior
and causes, or is likely to cause, a loss of productivity or nest abandonment, the conduct
of the activity constitutes a violation of the Eagle Act's prohibition against disturbing
eagles. The circumstances that might result in such an outcome are difficult to predict
without detailed site-specific information. If your activities may disturb roosting or foraging
bald eagles, you should contact your local Fish and Wildlife Service Field Office (see page
16) for advice and recommendations for how to avoid such disturbance.

RECOMMENDATIONS FOR AVOIDING DISTURBANCE AT NEST SITES

In developing these Guidelines, we relied on existing state and regional bald eagle
guidelines, scientific literature on bald eagle disturbance, and recommendations of state
and Federal biologists who monitor the impacts of human activity on eagles. Despite
these resources, uncertainties remain regarding the effects of many activities on eagles
and how eagles in different situations may or may not respond to certain human activities.
The Service recognizes this uncertainty and views the collection of better biological data
on the response of eagles to disturbance as a high priority. To the extent that resources
allow, the Service will continue to collect data on responses of bald eagles to human
activities conducted according to the recommendations within these Guidelines to ensure
that adequate protection from disturbance is being afforded, and to identify circumstances
where the Guidelines might be modified. These data will be used to make future
adjustments to the Guidelines.

To avoid disturbing nesting bald eagles, we recommend (1) keeping a distance between
the activity and the nest (distance buffers), (2) maintaining preferably forested (or natural)
areas between the activity and around nest trees (landscape buffers), and (3) avoiding
certain activities during the breeding season. The buffer areas serve to minimize visual
and auditory impacts associated with human activities near nest sites. Ideally, buffers
would be large enough to protect existing nest trees and provide for alternative or
replacement nest trees.

The size and shape of effective buffers vary depending on the topography and other
ecological characteristics surrounding the nest site. In open areas where there are little or
no forested or topographical buffers, such as in many western states, distance alone must
serve as the buffer. Consequently, in open areas, the distance between the activity and
the nest may need to be larger than the distances recommended under Categories A and
B of these guidelines (pg. 12) if no landscape buffers are present. The height of the nest
above the ground may also ameliorate effects of human activities; eagles at higher nests
may be less prone to disturbance.

In addition to the physical features of the landscape and nest site, the appropriate size for
the distance buffer may vary according to the historical tolerances of eagles to human
activities in particular localities, and may also depend on the location of the nest in relation
to feeding and roosting areas used by the eagles. Increased competition for nest sites may lead bald eagles to nest closer to human activity (and other eagles).

Seasonal restrictions can prevent the potential impacts of many shorter-term, obtrusive activities that do not entail landscape alterations (e.g. fireworks, outdoor concerts). In proximity to the nest, these kinds of activities should be conducted only outside the breeding season. For activities that entail both short-term, obtrusive characteristics and more permanent impacts (e.g., building construction), we recommend a combination of both approaches: retaining a landscape buffer and observing seasonal restrictions.

For assistance in determining the appropriate size and configuration of buffers or the timing of activities in the vicinity of a bald eagle nest, we encourage you to contact the nearest U.S. Fish and Wildlife Service Field Office (see page 16).

**Existing Uses**

Eagles are unlikely to be disturbed by routine use of roads, homes, and other facilities where such use pre-dates the eagles’ successful nesting activity in a given area. Therefore, in most cases ongoing existing uses may proceed with the same intensity with little risk of disturbing bald eagles. However, some intermittent, occasional, or irregular uses that pre-date eagle nesting in an area may disturb bald eagles. For example: a pair of eagles may begin nesting in an area and subsequently be disturbed by activities associated with an annual outdoor flea market, even though the flea market has been held annually at the same location. In such situations, human activity should be adjusted or relocated to minimize potential impacts on the nesting pair.

**ACTIVITY-SPECIFIC GUIDELINES**

The following section provides the Service’s management recommendations for avoiding bald eagle disturbance as a result of new or intermittent activities proposed in the vicinity of bald eagle nests. Activities are separated into 8 categories (A – H) based on the nature and magnitude of impacts to bald eagles that usually result from the type of activity. Activities with similar or comparable impacts are grouped together.

In most cases, impacts will vary based on the visibility of the activity from the eagle nest and the degree to which similar activities are already occurring in proximity to the nest site. Visibility is a factor because, in general, eagles are more prone to disturbance when an activity occurs in full view. For this reason, we recommend that people locate activities farther from the nest structure in areas with open vistas, in contrast to areas where the view is shielded by rolling topography, trees, or other screening factors. The recommendations also take into account the existence of similar activities in the area because the continued presence of nesting bald eagles in the vicinity of the existing activities indicates that the eagles in that area can tolerate a greater degree of human activity than we can generally expect from eagles in areas that experience fewer human impacts. To illustrate how these factors affect the likelihood of disturbing eagles, we have incorporated the recommendations for some activities into a table (categories A and B).

First, determine which category your activity falls into (between categories A – H). If the activity you plan to undertake is not specifically addressed in these guidelines, follow the recommendations for the most similar activity represented.
If your activity is under A or B, our recommendations are in table form. The vertical axis shows the degree of visibility of the activity from the nest. The horizontal axis (header row) represents the degree to which similar activities are ongoing in the vicinity of the nest. Locate the row that best describes how visible your activity will be from the eagle nest. Then, choose the column that best describes the degree to which similar activities are ongoing in the vicinity of the eagle nest. The box where the column and row come together contains our management recommendations for how far you should locate your activity from the nest to avoid disturbing the eagles. The numerical distances shown in the tables are the closest the activity should be conducted relative to the nest. In some cases we have included additional recommendations (other than recommended distance from the nest) you should follow to help ensure that your activity will not disturb the eagles.

Alternate nests
For activities that entail permanent landscape alterations that may result in bald eagle disturbance, these recommendations apply to both active and alternate bald eagle nests. Disturbance becomes an issue with regard to alternate nests if eagles return for breeding purposes and react to land use changes that occurred while the nest was inactive. The likelihood that an alternate nest will again become active decreases the longer it goes unused. If you plan activities in the vicinity of an alternate bald eagle nest and have information to show that the nest has not been active during the preceding 5 breeding seasons, the recommendations provided in these guidelines for avoiding disturbance around the nest site may no longer be warranted. The nest itself remains protected by other provisions of the Eagle Act, however, and may not be destroyed.

If special circumstances exist that make it unlikely an inactive nest will be reused before 5 years of disuse have passed, and you believe that the probability of reuse is low enough to warrant disregarding the recommendations for avoiding disturbance, you should be prepared to provide all the reasons for your conclusion, including information regarding past use of the nest site. Without sufficient documentation, you should continue to follow these guidelines when conducting activities around the nest site. If we are able to determine that it is unlikely the nest will be reused, we may advise you that the recommendations provided in these guidelines for avoiding disturbance are no longer necessary around that nest site.

This guidance is intended to minimize disturbance, as defined by Federal regulation. In addition to Federal laws, most states and some tribes and smaller jurisdictions have additional laws and regulations protecting bald eagles. In some cases those laws and regulations may be more protective (restrictive) than these Federal guidelines.

Temporary Impacts
For activities that have temporary impacts, such as the use of loud machinery, fireworks displays, or summer boating activities, we recommend seasonal restrictions. These types of activities can generally be carried out outside of the breeding season without causing disturbance. The recommended restrictions for these types of activities can be lifted for alternate nests within a particular territory, including nests that were attended during the current breeding season but not used to raise young, after eggs laid in another nest within the territory have hatched (depending on the distance between the alternate nest and the active nest).
In general, activities should be kept as far away from nest trees as possible; loud and disruptive activities should be conducted when eagles are not nesting; and activity between the nest and the nearest foraging area should be minimized. If the activity you plan to undertake is not specifically addressed in these guidelines, follow the recommendations for the most similar activity addressed, or contact your local U.S. Fish and Wildlife Service Field Office for additional guidance.

If you believe that special circumstances apply to your situation that increase or diminish the likelihood of bald eagle disturbance, or if it is not possible to adhere to the guidelines, you should contact your local Service Field Office for further guidance.

**Category A:**
Building construction, 1 or 2 story, with project footprint of ½ acre or less.
Construction of roads, trails, canals, power lines, and other linear utilities.
Agriculture and aquaculture – new or expanded operations.
Alteration of shorelines or wetlands.
Installation of docks or moorings.
Water impoundment.

**Category B:**
Building construction, 3 or more stories.
Building construction, 1 or 2 story, with project footprint of more than ½ acre.
Installation or expansion of marinas with a capacity of 6 or more boats.
Mining and associated activities.
Oil and natural gas drilling and refining and associated activities.

<table>
<thead>
<tr>
<th>If there is no similar activity within 1 mile of the nest</th>
<th>If there is similar activity closer than 1 mile from the nest</th>
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</thead>
<tbody>
<tr>
<td><strong>If the activity will be visible from the nest</strong></td>
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<tr>
<td>660 feet. Landscape buffers are recommended.</td>
<td>660 feet, or as close as existing tolerated activity of similar scope. Landscape buffers are recommended.</td>
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<tr>
<td><strong>If the activity will not be visible from the nest</strong></td>
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<tr>
<td>Category A: 330 feet. Clearing, external construction, and landscaping between 330 feet and 660 feet should be done outside breeding season.</td>
<td>330 feet, or as close as existing tolerated activity of similar scope. Clearing, external construction and landscaping within 660 feet should be done outside breeding season.</td>
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<tr>
<td>Category B: 660 feet.</td>
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The numerical distances shown in the table are the closest the activity should be conducted relative to the nest.
Category C. Timber Operations and Forestry Practices

- Avoid clear cutting or removal of overstory trees within 330 feet of the nest at any time.

- Avoid timber harvesting operations, including road construction and chain saw and yarding operations, during the breeding season within 660 feet of the nest. The distance may be decreased to 330 feet around alternate nests within a particular territory, including nests that were attended during the current breeding season but not used to raise young, after eggs laid in another nest within the territory have hatched.

- Selective thinning and other silviculture management practices designed to conserve or enhance habitat, including prescribed burning close to the nest tree, should be undertaken outside the breeding season. Precautions such as raking leaves and woody debris from around the nest tree should be taken to prevent crown fire or fire climbing the nest tree. If it is determined that a burn during the breeding season would be beneficial, then, to ensure that no take or disturbance will occur, these activities should be conducted only when neither adult eagles nor young are present at the nest tree (i.e., at the beginning of, or end of, the breeding season, either before the particular nest is active or after the young have fledged from that nest). Appropriate Federal and state biologists should be consulted before any prescribed burning is conducted during the breeding season.

- Avoid construction of log transfer facilities and in-water log storage areas within 330 feet of the nest.

Category D. Off-road vehicle use (including snowmobiles). No buffer is necessary around nest sites outside the breeding season. During the breeding season, do not operate off-road vehicles within 330 feet of the nest. In open areas, where there is increased visibility and exposure to noise, this distance should be extended to 660 feet.

Category E. Motorized Watercraft use (including jet skis/personal watercraft). No buffer is necessary around nest sites outside the breeding season. During the breeding season, within 330 feet of the nest, (1) do not operate jet skis (personal watercraft), and (2) avoid concentrations of noisy vessels (e.g., commercial fishing boats and tour boats), except where eagles have demonstrated tolerance for such activity. Other motorized boat traffic passing within 330 feet of the nest should attempt to minimize trips and avoid stopping in the area where feasible, particularly where eagles are unaccustomed to boat traffic. Buffers for airboats should be larger than 330 feet due to the increased noise they generate, combined with their speed, maneuverability, and visibility.

Category F. Non-motorized recreation and human entry (e.g., hiking, camping, fishing, hunting, birdwatching, kayaking, canoeing). No buffer is necessary around nest sites outside the breeding season. If the activity will be visible or highly audible from the nest, maintain a 330-foot buffer during the breeding season, particularly where eagles are unaccustomed to such activity.
Category G. Helicopters and fixed-wing aircraft.
Except for authorized biologists trained in survey techniques, avoid operating aircraft within 1,000 feet of the nest during the breeding season, except where eagles have demonstrated tolerance for such activity.

Category H. Blasting and other loud, intermittent noises.
Avoid blasting and other activities that produce extremely loud noises within 1/2 mile of active nests, unless greater tolerance to the activity (or similar activity) has been demonstrated by the eagles in the nesting area. This recommendation applies to the use of fireworks classified by the Federal Department of Transportation as Class B explosives, which includes the larger fireworks that are intended for licensed public display.

RECOMMENDATIONS FOR AVOIDING DISTURBANCE AT FORAGING AREAS AND COMMUNAL ROOST SITES

1. Minimize potentially disruptive activities and development in the eagles’ direct flight path between their nest and roost sites and important foraging areas.

2. Locate long-term and permanent water-dependent facilities, such as boat ramps and marinas, away from important eagle foraging areas.

3. Avoid recreational and commercial boating and fishing near critical eagle foraging areas during peak feeding times (usually early to mid-morning and late afternoon), except where eagles have demonstrated tolerance to such activity.

4. Do not use explosives within ½ mile (or within 1 mile in open areas) of communal roosts when eagles are congregating, without prior coordination with the U.S. Fish and Wildlife Service and your state wildlife agency.

5. Locate aircraft corridors no closer than 1,000 feet vertical or horizontal distance from communal roost sites.
ADDITIONAL RECOMMENDATIONS TO BENEFIT BALD EAGLES

The following are additional management practices that landowners and planners can exercise for added benefit to bald eagles.

1. Protect and preserve potential roost and nest sites by retaining mature trees and old growth stands, particularly within ½ mile from water.

2. Where nests are blown from trees during storms or are otherwise destroyed by the elements, continue to protect the site in the absence of the nest for up to three (3) complete breeding seasons. Many eagles will rebuild the nest and reoccupy the site.

3. To avoid collisions, site wind turbines, communication towers, and high voltage transmission power lines away from nests, foraging areas, and communal roost sites.

4. Employ industry-accepted best management practices to prevent birds from colliding with or being electrocuted by utility lines, towers, and poles. If possible, bury utility lines in important eagle areas.

5. Where bald eagles are likely to nest in human-made structures (e.g., cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the eagles, equip the structures with either (1) devices engineered to discourage bald eagles from building nests, or (2) nesting platforms that will safely accommodate bald eagle nests without interfering with structure performance.

6. Immediately cover carcasses of euthanized animals at landfills to protect eagles from being poisoned.

7. Do not intentionally feed bald eagles. Artificially feeding bald eagles can disrupt their essential behavioral patterns and put them at increased risk from power lines, collision with windows and cars, and other mortality factors.

8. Use pesticides, herbicides, fertilizers, and other chemicals only in accordance with Federal and state laws.

9. Monitor and minimize dispersal of contaminants associated with hazardous waste sites (legal or illegal), permitted releases, and runoff from agricultural areas, especially within watersheds where eagles have shown poor reproduction or where bioaccumulating contaminants have been documented. These factors present a risk of contamination to eagles and their food sources.
## CONTACTS

The following U.S. Fish and Wildlife Service Field Offices provide technical assistance on bald eagle management:

<table>
<thead>
<tr>
<th>State</th>
<th>City</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Daphne</td>
<td>(251) 441-5181</td>
</tr>
<tr>
<td>Alaska</td>
<td>Anchorage</td>
<td>(907) 271-2888</td>
</tr>
<tr>
<td></td>
<td>Fairbanks</td>
<td>(907) 456-0203</td>
</tr>
<tr>
<td></td>
<td>Juneau</td>
<td>(907) 780-1160</td>
</tr>
<tr>
<td>Arizona</td>
<td>Phoenix</td>
<td>(602) 242-0210</td>
</tr>
<tr>
<td>Arkansas</td>
<td>Conway</td>
<td>(501) 513-4470</td>
</tr>
<tr>
<td>California</td>
<td>Arcata</td>
<td>(707) 822-7201</td>
</tr>
<tr>
<td></td>
<td>Barstow</td>
<td>(760) 255-8852</td>
</tr>
<tr>
<td></td>
<td>Carlsbad</td>
<td>(760) 431-9440</td>
</tr>
<tr>
<td></td>
<td>Red Bluff</td>
<td>(530) 527-3043</td>
</tr>
<tr>
<td></td>
<td>Sacramento</td>
<td>(916) 414-6000</td>
</tr>
<tr>
<td></td>
<td>Stockton</td>
<td>(209) 946-6400</td>
</tr>
<tr>
<td></td>
<td>Ventura</td>
<td>(805) 644-1766</td>
</tr>
<tr>
<td></td>
<td>Yreka</td>
<td>(530) 842-5763</td>
</tr>
<tr>
<td>Colorado</td>
<td>Lakewood</td>
<td>(303) 275-2370</td>
</tr>
<tr>
<td></td>
<td>Grand Junction</td>
<td>(970) 243-2778</td>
</tr>
<tr>
<td>Connecticut</td>
<td>(See New Hampshire)</td>
<td></td>
</tr>
<tr>
<td>Delaware</td>
<td>(See Maryland)</td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>Panama City</td>
<td>(850) 769-0552</td>
</tr>
<tr>
<td></td>
<td>Vero Beach</td>
<td>(772) 562-3909</td>
</tr>
<tr>
<td></td>
<td>Jacksonville</td>
<td>(904) 232-2580</td>
</tr>
<tr>
<td>Georgia</td>
<td>Athens</td>
<td>(706) 613-9493</td>
</tr>
<tr>
<td></td>
<td>Brunswick</td>
<td>(912) 265-9336</td>
</tr>
<tr>
<td></td>
<td>Columbus</td>
<td>(706) 544-6428</td>
</tr>
<tr>
<td>Idaho</td>
<td>Boise</td>
<td>(208) 378-5243</td>
</tr>
<tr>
<td></td>
<td>Chubbuck</td>
<td>(208) 237-6975</td>
</tr>
<tr>
<td>Illinois/Iowa</td>
<td>Rock Island</td>
<td>(309) 757-5800</td>
</tr>
<tr>
<td>Indiana</td>
<td>Bloomington</td>
<td>(812) 334-4261</td>
</tr>
<tr>
<td>Kansas</td>
<td>Manhattan</td>
<td>(785) 539-3474</td>
</tr>
<tr>
<td>Kentucky</td>
<td>Frankfort</td>
<td>(502) 695-0468</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Lafayette</td>
<td>(337) 291-3100</td>
</tr>
<tr>
<td>Maine</td>
<td>Old Town</td>
<td>(207) 827-5938</td>
</tr>
<tr>
<td>Maryland</td>
<td>Annapolis</td>
<td>(410) 573-4573</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>(See New Hampshire)</td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td>East Lansing</td>
<td>(517) 351-2555</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Bloomington</td>
<td>(612) 725-3548</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Jackson</td>
<td>(601) 965-4900</td>
</tr>
<tr>
<td>Missouri</td>
<td>Columbia</td>
<td>(573) 234-2132</td>
</tr>
<tr>
<td>Montana</td>
<td>Helena</td>
<td>(405) 449-5225</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Grand Island</td>
<td>(308) 382-6468</td>
</tr>
<tr>
<td>Nevada</td>
<td>Las Vegas</td>
<td>(702) 515-5230</td>
</tr>
<tr>
<td></td>
<td>Reno</td>
<td>(775) 861-6300</td>
</tr>
</tbody>
</table>

### State Agencies

To contact a state wildlife agency, visit the Association of Fish & Wildlife Agencies’ website at [http://www.fishwildlife.org/where_us.html](http://www.fishwildlife.org/where_us.html)
GLOSSARY

The definitions below apply to these National Bald Eagle Management Guidelines:

**Communal roost sites** – Areas where bald eagles gather and perch overnight – and sometimes during the day in the event of inclement weather. Communal roost sites are usually in large trees (live or dead) that are relatively sheltered from wind and are generally in close proximity to foraging areas. These roosts may also serve a social purpose for pair bond formation and communication among eagles. Many roost sites are used year after year.

**Disturb** – To agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

In addition to immediate impacts, this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

**Fledge** – To leave the nest and begin flying. For bald eagles, this normally occurs at 10-12 weeks of age.

**Fledgling** – A juvenile bald eagle that has taken the first flight from the nest but is not yet independent.

**Foraging area** – An area where eagles feed, typically near open water such as rivers, lakes, reservoirs, and bays where fish and waterfowl are abundant, or in areas with little or no water (i.e., rangelands, barren land, tundra, suburban areas, etc.) where other prey species (e.g., rabbit, rodents) or carrion (such as at landfills) are abundant.

**Landscape buffer** – A natural or human-made landscape feature that screens eagles from human activity (e.g., strip of trees, hill, cliff, berm, sound wall).

**Nest** – A structure built, maintained, or used by bald eagles for the purpose of reproduction. An **active** nest is a nest that is attended (built, maintained or used) by a pair of bald eagles during a given breeding season, whether or not eggs are laid. An **alternate** nest is a nest that is not used for breeding by eagles during a given breeding season.

**Nest abandonment** – Nest abandonment occurs when adult eagles desert or stop attending a nest and do not subsequently return and successfully raise young in that nest for the duration of a breeding season. Nest abandonment can be caused by altering habitat near a nest, even if the alteration occurs prior to the breeding season. Whether the eagles migrate during the non-breeding season, or remain in the area throughout the non-breeding season, nest abandonment can occur at any point between the time the eagles return to the nesting site for the breeding season and the time when all progeny from the breeding season have
dispersed.

**Project footprint** – The area of land (and water) that will be permanently altered for a development project, including access roads.

**Similar scope** – In the vicinity of a bald eagle nest, an existing activity is of similar scope to a new activity where the types of impacts to bald eagles are similar in nature, and the impacts of the existing activity are of the same or greater magnitude than the impacts of the potential new activity. Examples: (1) An existing single-story home 200 feet from a nest is similar in scope to an additional single-story home 200 feet from the nest; (2) An existing multi-story, multi-family dwelling 150 feet from a nest has impacts of a greater magnitude than a potential new single-family home 200 feet from the nest; (3) One existing single-family home 200 feet from the nest has impacts of a lesser magnitude than three single-family homes 200 feet from the nest; (4) an existing single-family home 200 feet from a communal roost has impacts of a lesser magnitude than a single-family home 300 feet from the roost but 40 feet from the eagles’ foraging area. The existing activities in examples (1) and (2) are of similar scope, while the existing activities in example (3) and (4) are not.

**Vegetative buffer** – An area surrounding a bald eagle nest that is wholly or largely covered by forest, vegetation, or other natural ecological characteristics, and separates the nest from human activities.
RELATED LITERATURE


Arizona Game and Fish Department. 1999. Bald Eagle Conservation Assessment and Strategy (draft).


Hansen, J.A. 1977. Population dynamics and night roost requirements of bald eagles wintering in the Nooksack River Valley, WA. Huxley College of Environmental Studies, Western Washington State College, Bellingham, WA. (Problem Series)


Maine (State of) Inland Fisheries and Wildlife Rules. Chapter 8.05 Essential Habitat for Species Listed as Threatened or Endangered.


APPENDIX H: LOUISIANA GUIDELINES FOR MINIMIZING DISTURBANCE TO COLONIAL NESTING BIRDS
Louisiana Guidelines for Minimizing Disturbance to Colonial Nesting Birds

Nesting colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries (LDWF). That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

1. For colonies containing nesting brown pelicans, all activity occurring within 2,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 15 through March 31). Nesting periods vary considerably among Louisiana’s brown pelican colonies, however, so it is possible that this activity window could be altered based upon the dynamics of the individual colony. The Louisiana Department of Wildlife and Fisheries’ Fur and Refuge Division should be contacted to obtain the most current information about the nesting chronology of individual brown pelican colonies. Brown pelicans are known to nest on barrier islands and other coastal islands in St. Bernard, Plaquemines, Jefferson, Lafourche, and Terrebonne Parishes, and on Rabbit Island in lower Calcasieu Lake, in Cameron Parish.

2. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present).

3. For colonies containing nesting gulls, terns, and/or black skimmers, all activity occurring within 650 feet of a rookery should be restricted to the non-nesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present).

Below is a table explaining the nesting chronology of species that are known to nest in Louisiana. The table is an excerpt from page 31 of:

Table 8. Nesting chronology for colonial-nesting waterbirds in Louisiana with suggested activity windows.

<table>
<thead>
<tr>
<th>Species</th>
<th>Incubation Season</th>
<th>Incubation Period (days)</th>
<th>Days to Fledging</th>
<th>Activity Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Pelican</td>
<td>1 Nov to 15 Jun</td>
<td>28-30</td>
<td>74-76</td>
<td>Aug to 31 Oct</td>
</tr>
<tr>
<td>Olivaceous Cormorant</td>
<td>15 Mar to 15 Apr</td>
<td>23-26</td>
<td>35-42</td>
<td>Jul to 1 Mar</td>
</tr>
<tr>
<td>American Anhinga</td>
<td>15 Mar to 15 Apr</td>
<td>25-28</td>
<td>?</td>
<td>Jul to 1 Mar</td>
</tr>
<tr>
<td>Great Blue Heron</td>
<td>1 Mar to 30 Apr</td>
<td>25-29</td>
<td>58-62</td>
<td>Aug to 15 Feb</td>
</tr>
<tr>
<td>Great Egret</td>
<td>1 Mar to 31 May</td>
<td>23-24</td>
<td>40-44</td>
<td>Aug to 15 Feb</td>
</tr>
<tr>
<td>Snowy Egret</td>
<td>16 Mar to 15 Jun</td>
<td>17-19</td>
<td>20-25</td>
<td>Aug to 1 Mar</td>
</tr>
<tr>
<td>Little Blue Heron</td>
<td>16 Mar to 15 Jun</td>
<td>22-24</td>
<td>28-32</td>
<td>Aug to 1 Mar</td>
</tr>
<tr>
<td>Tricolored Heron</td>
<td>16 Mar to 15 Jun</td>
<td>20-22</td>
<td>?</td>
<td>Aug to 1 Mar</td>
</tr>
<tr>
<td>Reddish Egret</td>
<td>16 Apr to 15 Jun</td>
<td>23-26</td>
<td>?</td>
<td>Aug to 1 Mar</td>
</tr>
<tr>
<td>Cattle Egret</td>
<td>16 Apr to 30 Jun</td>
<td>21-24</td>
<td>35-40</td>
<td>Sep to 1 Apr</td>
</tr>
<tr>
<td>Green-backed Heron</td>
<td>1 Apr to 30 Jun</td>
<td>19-21</td>
<td>16-17</td>
<td>Sep to 15 Mar</td>
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<tr>
<td>Black-crowned Night-Heron</td>
<td>16 Mar to 15 Jun</td>
<td>24-26</td>
<td>40-42</td>
<td>Sep to 1 Mar</td>
</tr>
<tr>
<td>Yellow-crowned Night-Heron</td>
<td>1 Apr to 15 Jun</td>
<td>?</td>
<td>?</td>
<td>Sep to 15 Mar</td>
</tr>
<tr>
<td>White Ibis</td>
<td>16 Apr to 30 Jun</td>
<td>21-23</td>
<td>35-42</td>
<td>Sep to 1 Apr</td>
</tr>
<tr>
<td>Glossy/White-faced Ibis</td>
<td>16 Apr to 30 Jun</td>
<td>21-23</td>
<td>42-49</td>
<td>Sep to 1 Apr</td>
</tr>
<tr>
<td>Roseate Spoonbill</td>
<td>16 Apr to 15 Jun</td>
<td>23-24</td>
<td>49-56</td>
<td>Aug to 1 Apr</td>
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<tr>
<td>Laughing Gull</td>
<td>16 Apr to 15 Jun</td>
<td>23-25</td>
<td>35-45</td>
<td>Aug to 1 Apr</td>
</tr>
<tr>
<td>Gull-billed Tern</td>
<td>16 May to 15 Jul</td>
<td>22-23</td>
<td>28-35</td>
<td>Sep to 1 May</td>
</tr>
<tr>
<td>Caspian Tern</td>
<td>1 May to 15 Jul</td>
<td>26-28</td>
<td>36-48</td>
<td>Sep to 15 Apr</td>
</tr>
<tr>
<td>Royal Tern</td>
<td>1 May to 15 Jul</td>
<td>28-31</td>
<td>36-48</td>
<td>Sep to 15 Apr</td>
</tr>
<tr>
<td>Sandwich Tern</td>
<td>1 May to 15 Jul</td>
<td>23-25</td>
<td>22-33</td>
<td>Sep to 15 Apr</td>
</tr>
<tr>
<td>Common Tern</td>
<td>1 May to 15 Jul</td>
<td>21-25</td>
<td>23-27</td>
<td>Sep to 15 Apr</td>
</tr>
<tr>
<td>Forster's Tern</td>
<td>1 Apr to 31 May</td>
<td>25-29</td>
<td>23-27</td>
<td>Aug to 15 Mar</td>
</tr>
<tr>
<td>Least Tern</td>
<td>1 May to 15 Jul</td>
<td>20-25</td>
<td>19-23</td>
<td>Sep to 15 Apr</td>
</tr>
<tr>
<td>Sooty Tern</td>
<td>16 May to 15 Jul</td>
<td>22-23</td>
<td>30-35</td>
<td>Sep to 15 Apr</td>
</tr>
<tr>
<td>Black Skimmer</td>
<td>16 May to 15 Jul</td>
<td>22-23</td>
<td>30-35</td>
<td>Sep to 1 May</td>
</tr>
</tbody>
</table>

aData are compiled from Bent (1921), Bent (1926), Palmer (1962), Harrison (1975), Portnoy (1977) and Terres (1980).

bSuggested project initiation and completion dates to minimize disturbance to nesting birds.
APPENDIX I: PERMITS OBTAINED BY OWNER
Mr. Sydney Dobson
Louisiana Coastal Protection and Restoration Authority
Post Office Box 44027
Baton Rouge, Louisiana 70804

RE: St. James Parish – Bayou Chevreuil Restoration Project – (State Project BA-34-2)
Water Quality Certification WQC 160519-01
Corps of Engineers Permit MVN-2016-00428-CQ
St. James Parish

Dear Mr. Dobson:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to clear, grade, excavate and place fill to restore hydrology to the Des Allemands swamp along the northern shore of Bayou Chevreuil near Vacherie, St. James Parish.

The information provided in the application and the additional information received August 9, 2016, has been reviewed in terms of compliance with State Water Quality Standards, the approved Water Quality Management Plan and applicable state water laws, rules and regulations. LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concludes the discharge of fill material will not violate water quality standards as provided for in LAC 33:IX,Chapter 11. Therefore, LDEQ hereby issues St. James Parish – Bayou Chevreuil Restoration Project – (State Project BA-34-2) Water Quality Certification, WQC 160519-01.

Should you have any questions concerning any part of this certification, please contact Elizabeth Hill at (225) 219-3225, or by email at elizabeth.hill@la.gov. Please reference Agency Interest (AI) number 102035 and Water Quality Certification 160519-01 on all future correspondence to this Department to ensure all correspondence regarding this project is properly filed into the Department’s Electronic Document Management System.

Sincerely,

Scott Guilliams
Administrator
Water Permits Division

c: IO-W
   Corps of Engineers – New Orleans District
Sydney Dobson, Agent
Coastal Protection and Restoration Authority
PO Box 44027
Baton Rouge, LA 70804

RE: C20160046, Coastal Zone Consistency
Environmental Protection Agency
Direct Federal Action
Hydrologic restoration and vegetative planting in the Lac des Allemands Swamp
(CWPPRA BA 34-2)
St. James Parish, Louisiana

Dear Mr. Dobson:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP. If you have any questions concerning this determination, please contact Carol Crapanzano of the Consistency Section at (225) 342-9425 or 1-800-267-4019.

Sincerely yours,

/S/ Don Haydel
Acting Administrator
Interagency Affairs/Field Services Division

DH/SK

cc: Dave Butler, LDWF
Ryan Donadieu, St. James
Craig Leblanc, OCM
Operations Division  
Central Evaluation Section

SUBJECT: MVN-2016-0428-CQ

Coastal Protection and Restoration Authority of Louisiana  
Post Office Box 44027  
Baton Rouge, Louisiana 70804

Gentlemen:

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Central Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee’s name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

John M. Herman  
Chief, Central Evaluation Section

Enclosures
DEPARTMENT OF THE ARMY PERMIT

Permittee: Coastal Protection and Restoration Authority of Louisiana

Permit No.: MVN-2016-0428-CQ

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Clear, grade, excavate, and place fill material to implement the Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp Project (CWPPRA Project BA-34-2) along Bayou Chevreuil through the gapping of spoil banks to restore hydrology, in accordance with drawings attached in 11 sheets, dated February 2016.

Project Location: Near Vacherie, Louisiana, in Saint James Parish.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on November 30, 2021. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions: See Page 4**

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
   
   (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
   
   (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
   

2. Limits of this authorization.
   
   a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
   
   b. This permit does not grant any property rights or exclusive privileges.
   
   c. This permit does not authorize any injury to the property or rights of others.
   
   d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
   
   a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
   
   b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
   
   c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
   
   d. Design or construction deficiencies associated with the permitted work.
   
   e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

   a. You fail to comply with the terms and conditions of this permit.

   b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

   c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(Permittee)  

x  

1/24/17  

(Date)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below:

John M. Herman, Chief, Central Evaluation Section

for Michael N. Clancy, District Commander

This permit is designed to expire 24 January 2017  

30 Jan 2017  

(Date)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(Transfereree)  

(Date)

(33 CFR 325 (Appendix A))
SPECIAL CONDITIONS: MVN-2016-0428-CQ

7. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the US Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch. CEMVN Regulatory Branch will initiate the required federal, state, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.

10. Construction activities shall not cause more than minimal and temporal water quality degradation of any adjacent wetland, stream, and/or water body. Appropriate erosion and siltation controls must be utilized during construction to prevent sediment runoff into adjacent wetlands and waterways. Sediment control techniques could include but are not limited to the use of secured hay bales, sediment fencing, wooden or vinyl barriers, and/or seeding of disturbed areas. These structures should be maintained in effective operating condition until sediments are stabilized by vegetation and other impervious surfaces.

10. Many local governing bodies have instituted laws and/or ordinances in order to regulate dredge and/or fill activities in floodplains to assure maintenance of floodwater storage capacity and avoid disruption of drainage patterns that may affect surrounding properties. Your project involves dredging and/or placement of fill, therefore, you must contact the local municipal and/or parish governing body regarding potential impacts to floodplains and compliance of your proposed activities with local floodplain ordinances, regulations or permits.

11. If the authorized project requires any additional work not expressly permitted herein, or impacts any wetlands other than the areas indicated on the attached drawings, the permittee must apply for an amendment to this authorization, prior to commencement of work in such areas.

12. The use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

13. The permittee must install and maintain, at permittee's expense, any safety lights, signs and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the authorized facilities.

14. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

15. If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, you are advised to notify the U.S. Coast Guard so that a Notice to Mariners, if required, may be prepared. Notification, with a copy of your permit approval and drawings, should be mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management, at (504) 671-2107.

25. Permittee shall submit as-built drawings with to CEMVN, within 60 days of project completion. These drawings must be forwarded to CEMVN-OD-SC referencing the Corps permit number.

26. Permittee shall perform on-site evaluations of the project site to ensure that it is meeting goals and objectives, in accordance with the attached on-site monitoring plan (Coastal Protection and Restoration Authority of Louisiana, Monitoring Plan for Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp (BA-34-2)), dated July 2016. If the proposed project requires any modifications or additional work not expressly permitted herein
and/or in the attached plan, the permittee must apply for an amendment from this office, prior to commencing that work.

27. Permitee shall implement appropriate control measures to ensure exotic/invasive vegetation propagation, such as Chinese tallow-tree (*Triadica sebifera*), will not exceed densities of 5% greater within the planted areas.
STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTINGS IN THE DES ALLEMANDS SWAMP

BA-34-2
ST. JAMES PARISH

COASTAL PROTECTION AND RESTORATION AUTHORITY
453 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

TITLE SHEET

STATE PROJECT NUMBER: BA-34-2
DATE: FEBRUARY 2018

APPLICATION BY:
ST. JAMES PARISH
P.O. BOX 109
CONVENT, LA 70723

DESIGNED BY: G. MATTSON, E.I.
APPROVED BY: S. HAYNES, P.E.

DRAWN BY: K. CANTU
LEGEND

SPOIL BANK GAP
SPOIL DISPOSAL AREA

NOTE:
ADDITIVE ALTERNATIVES 1 AND 2 WILL NOT BE CONSTRUCTED UNLESS ADDITIONAL FUNDING BECOMES AVAILABLE.

COASTAL PROTECTION AND RESTORATION AUTHORITY
950 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

APPLICATION BY:
ST. JAMES PARISH
P.O. BOX 195
CONVENT, LA 70334

DESIGNED BY: G. MATTSON, E.I.
APPROVED BY: S. HAYNES, P.E.

PROJECT LAYOUT

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTINGS IN THE DES ALLEMANDS SWAMP

STATE PROJECT NUMBER: BA-34-2
DATE: FEBRUARY 2016

FEDERAL PROJECT NUMBER

SHEET 2 OF 11
NOTE:
THE CONTRACTOR SHALL NOT CLEAR AND
GRUB BEYOND THE HATCHED AREAS SHOWN.
August 31, 2015

Barbara J. Aldridge, CWPPRA Project Manager, BA-34-2
Marine & Coastal Section 6WQ-EC
Ecosystems Protection Branch
Water Quality Protection Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas TX. 75202

Dear Ms. Aldridge:

RE: des Allemands Swamp Marsh Restoration Project (BA-34-2)

I am in receipt of your request for an overgrazing determination for the des Allemands Swamp Marsh Restoration Project (BA-34-2). I contacted our local district conservationist and our state grazing land specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

[Signature]

W. Britt Paul
Assistant State Conservationist/Water Resources

Cc: (electronic distribution only)
   Randolph Joseph, Assistant State Conservationist/Field Operations, Lafayette, Louisiana
   Arnelis Crespo, District Conservationist, Donaldsonville, Louisiana
   John Jurgensen, Civil Engineer, Alexandria, Louisiana
State of Louisiana

September 23, 2015

State Historic Preservation Officer
Office of Cultural Development
Capitol Annex Building
PO Box 44247 Capital Station
Baton Rouge, Louisiana 70804

Re: Final Report, Phase I Cultural Resources Investigation of Proposed CPRA Hydrologic Restoration Project

On behalf of the US Environmental Protection Agency, Region 6, Water Quality Division, CPRA submits for your records two copies and one electronic copy of the final report for the proposed Hydrologic Restoration and Vegetative Plantings (BA-34-2) project.

Should you have any comments or questions, please contact me at the information below.

Sincerely,

[Signature]

Elizabeth Davoli
Coastal Protection and Restoration Authority
450 Laurel St, Suite 1500
P.O. Box 44027
Baton Rouge, LA 70804-4027
Elizabeth.Davoli@la.gov
225-342-4616

RECEIVED
SEP 23 2015
ARCHAEOLOGY
Finding of No Significant Impact and Final Environmental Assessment

Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp

CWPPRA PROJECT BA-34-2

St. James Parish, Louisiana

Prepared by: U.S. Environmental Protection Agency, Region 6
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FINDING OF NO SIGNIFICANT IMPACT (FONSI)

To All Interested Agencies and Public Groups:

In accordance with the environmental review guidelines of the Council on Environmental Quality at 40 Code of Federal Regulations Part 1500, the U.S. Environmental Protection Agency (EPA) has performed an Environmental Assessment of the following proposed action under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) of November 1990, House Document 646, 101st Congress (Public Law 101-6-6).

Project Name: Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp, CWPPRA Project No. 34-2.

Location: Project BA-34-2 is located within Region 2, Barataria Basin, in the Coast 2050 management unit, “Des Allemands,” St. James Parish. The project area is bordered on the south by Bayou Chevreuil and on the west by Highway LA 20, and is south of the town of Vacherie, Louisiana.

Sponsors: The U.S. Environmental Protection Agency (EPA) Region 6, and the Louisiana Office of Coastal Protection and Restoration.

Introduction: Louisiana is experiencing a land loss crisis that has claimed some 1,883 square miles of land since the 1930s. Louisiana’s 2012 Comprehensive Master Plan for a Sustainable Coast characterizes this crisis as “nothing short of a national emergency.” The Master Plan estimates that expected annual damages from flooding by 2061 would be almost ten times greater than damages in 2012, from a coast-wide total of approximately $2.4 billion to a coast-wide total of $23.4 billion. Without action to mitigate the factors causing degradation, coastal Louisiana will continue to experience loss of coastal wetland forest functions (SWG, 2005).

Restoration projects such as the BA 34-2 project seek to offset losses by slowing or preventing the loss of wetland habitat. The proposed action is part of and consistent with the Louisiana Coastal Wetlands Conservation and Restoration Task Force, and the Wetlands Conservation and Restoration Authority’s ecosystem strategies to maintain shoreline integrity, dedicated dredging, and beneficial use of dredged material. CWPPRA provides federal funds for planning and implementing projects that create, protect, restore, and enhance wetlands in coastal Louisiana.

Proposed Action: The proposed action applies a hydrologic restoration strategy in the form of cuts to spoil banks to open up the impounded swamp. For mitigation efforts and increased benefits to the project, cypress and tupelo trees will be planted in the spoil disposal areas. These activities are in support of the objectives of CWPPRA, the Coastal Wetlands Planning, Protection and Restoration Act (Public Law 101-646, Title III). The proposed spoil bank cuts are expected to improve hydrologic circulation and improve swamp health and to improve cypress-tupelo productivity, survivorship, and regeneration (FTN 2015). The spoil removed from the gaps will be placed landward of the existing spoil bank to a maximum elevation of +2.5 ft. NAVD 88. This alternative offsets spoil placement a minimum 150 ft. landward of the
bayou and 25 ft. off the gap, and ensures that no material will slough off into the bayou or excavated gaps (CPRA 2015).

Summary of Environmental Consequences: The proposed action may cause short-term temporary impacts associated with the emissions of diesel engines that would power the construction equipment, including but not limited to marsh buggies, dozer, electric generators, backhoe, and watercraft. The duration of the impact is limited to a period of approximately 159 working days or less. These impacts are minor and would be limited to the construction phase of the project. Construction emissions will be minimized with appropriate mitigation measures. (EA Section 4.1.3).

A time-limited impact to water quality through a temporary increase in turbidity within Bayou Chevreuil near construction areas may occur. Any increases in turbidity would likely be diminished by the movement of the bayou, and any free-floating sediment would likely settle downstream. Hydrologic restoration should improve the water quality of aquatic bodies surrounding the swamp which are often hypoxic in the warm months (EA Section 4.1.4).

The cypress-tupelo habitats of the proposed project area will become sustainable if the impairments to hydrology are removed and impoundment of the swamp area is relieved (EA Section 4.1.5). Hydrologic restoration will reduce tree mortality, increase regeneration, and improve overall tree health (EA Section 4.2.1).

The improved hydrologic and vegetation features will improve the swamp habitat conditions for fish and wildlife resources, including migratory and resident waterfowl, wading birds, raptors, and mammals (EA Section 4.2.3). No direct or indirect impacts are anticipated for threatened and endangered species. No avoidance measures will be required (EA Section 4.2.4).

The proposed project will not significantly affect cultural resources. No archeological sites or historic standing structures were identified within the proposed project area during fieldwork (EA Section 4.3.1).

In summary, the EA finds that the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp, CWPPRA Project No. 34-2, will have long-term beneficial impacts in coastal Louisiana and will not result any significant direct, indirect, or cumulative adverse impacts. The EA describes construction-related adverse impacts as minor and not significant due to their limited duration, location, and/or mitigation. Positive impacts are minor to moderate but are not significant. The EA bases this finding on a comprehensive analytic review and relevant literature, site-specific data, project specific engineering and environmental reports, as well as cumulative experience gained through similar restoration projects in South Louisiana. The proposed action is projected to have no significant adverse impacts.

The action has some short-term, localized, adverse impacts and long-term beneficial impacts. These impacts will be mitigated in the short-term through avoidance measures and in the long-term by the hydrologic restoration and vegetative planting features. No long-term adverse impacts to the affected resources are expected.

Finding: On the basis of the Environmental Assessment of the proposed project, the EPA has determined that the proposed project is not a major Federal action significantly adversely
affecting the quality of the human environment, and that the preparation of an Environmental Impact Statement (EIS) is not warranted. The project individually, cumulatively over time, or in conjunction with other actions, will have a beneficial effect on the quality of the environment.

This preliminary Finding of No Significant Impact (FONSI) will become final 30 days after the issuance of the public notice if no new information is received to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Comments regarding this preliminary decision not to prepare an EIS, requests for copies of the EA or review of the administrative record containing the information supporting this decision, may be submitted to the U.S. Environmental Protection Agency, Ecosystems Protection Branch, Marine, Coastal, & Analysis Section, (6WQ-EC), 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.

Responsible Official.

Karen McCormick, Chief
Marine, Coastal, & Analysis Section
Ecosystems Protection Branch
Water Division
U.S. EPA, Region 6

[Signature]

2-8-16 Date
# Acronyms

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AOI</td>
<td>Area of Interest</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CPRA</td>
<td>Coastal Protection and Restoration Authority of Louisiana</td>
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<tr>
<td>CWA</td>
<td>Clean Water Act</td>
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<tr>
<td>CWPPRA</td>
<td>Coastal Wetlands Planning, Protection and Restoration Act</td>
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<td>DBH</td>
<td>Diameter at Breast Height</td>
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<td>Essential Fish Habitat</td>
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<td>Environmental Impact Statement</td>
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<td>FR</td>
<td>Federal Register</td>
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<tr>
<td>GPS RTK</td>
<td>Global Positioning System Real Time Kinematic satellite navigation</td>
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<td>HTRW</td>
<td>Hazardous, Toxic and Radiological Waste</td>
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<tr>
<td>LCA</td>
<td>Louisiana Coastal Area</td>
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<td>LCWCRTF</td>
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<td>MSL</td>
<td>Mean Sea Level</td>
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<td>MPO</td>
<td>Metropolitan Planning Organization</td>
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<td>Metropolitan Statistical Area</td>
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<td>MR</td>
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<td>RM</td>
<td>River Mile</td>
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<td>Abbreviation</td>
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<tr>
<td>RSLR</td>
<td>Relative Sea Level Rise</td>
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<td>State Historic Preservation Office</td>
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<td>WVA</td>
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# Units of Measure

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<td>ft</td>
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<td>ha</td>
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<tr>
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<td>Mean Sea Level</td>
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<td>Parts Per Billion</td>
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<td>yd³</td>
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Part 1. Purpose and Need for Proposed Action

1.1 Introduction

Wetland loss is a well-documented and widespread problem throughout coastal Louisiana. The land area loss rate in Louisiana coastal areas was approximately 17 square miles per year from 1985 to 2010. Some 1,883 square miles were lost from 1932 to 2010 (Couvillion et al., 2011). The causes of wetland loss in Louisiana are varied and complex and include subsidence, erosion, sediment deprivation, saltwater intrusion, altered hydrology, and sea level rise (Turner and Cahoon 1987). The effects of natural processes like subsidence and storms have combined with human actions at large and small scales to produce a system on the verge of collapse (LCWCRTF, 1998).

Congress recognized the ongoing severe coastal wetland losses in Louisiana and the increasing impacts on resources when it passed the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) in 1990 (Public Law 101-646, Title III). CWPPRA established a process to identify, assess, design, and fund the construction of coastal wetland restoration projects. CWPPRA seeks to provide long-term conservation of coastal wetlands through the restoration, creation, protection, and enhancement of wetlands. On a yearly cycle, projects are selected from a list of projects (“priority project lists” or PPLs) to fund planning, engineering and design, and construction.

CWPPRA identified five federal agencies as Task Force members to participate in the program. These include the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS) and the Natural Resource Conservation Service (NRCS). The other critical partner is the Coastal Protection and Restoration Authority of Louisiana (CPRA), which participates in CWPPRA project selection, planning, analysis, implementation, and funding.

There are currently 151 active CWPPRA projects. One hundred and one projects have been completed, benefitting over 112,000 acres. Seventeen (17) projects are currently under active construction with 33 additional projects currently in the engineering and design phase of development, three of which were scheduled for construction in FY2014 (lacoast.gov).

The EPA is the federal sponsor for the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Project (BA-34-2) and is responsible for oversight of the project, in partnership with the Coastal Protection and Restoration Authority of Louisiana (CPRA).

The proposed project BA-34-2 was approved for construction on the Tenth Priority Project List of the CWPPRA. The Task Force approved Phase 1 funding in January 2001. Originally authorized as the “Mississippi River Reintroduction into Northwestern Barataria Basin (BA-34),” the project was approved for a scope change by the CWPPRA Task Force in June 2013. The scope change eliminated a planned siphon feature and the project was renamed
“Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp” (BA-34-2) (Project Fact Sheet at lacoast.gov). Project BA-34-2 is located within Region 2, Barataria Basin, in the Coast 2050 management unit, “Des Allemands,” St. James Parish. The project area is bordered on the south by Bayou Chevreuil and on the west by Highway LA 20 (Figure 1), near the town of Vacherie, Louisiana. Forest plant species composition, basal area, and vegetative productivity in the project area reflect a degraded cypress-tupelo swamp (EPA 2013).

The CWPPRA Standard Operating Procedure (SOP) requires compliance with the National Environmental Policy Act (NEPA). A draft of the Environmental Assessment of the project is submitted with the approval package to the CWPPRA Technical Committee with the request for authorization of Phase II construction funding.

Figure 1. Location Map showing BA 34-2 project area.
1.2 Purpose of Proposed Action

The purpose of this project is to restore and maintain selected cypress-tupelo swamp tracts in the upper Barataria Basin, restore and maintain water quality in the swamp and in Bayou Chevreuil, in support of the coastal restoration objectives of CWPPRA. The project will enhance an area of swamp (2,395 acres with an expected 529.96 Average Annual Habitat Units (AAHUs) of benefit) that would be substantially degraded without the project. The project is expected to continue providing wetland benefits 30 to 40 years after construction. Benefits include reduced swamp submergence, increased regrowth of young trees, denser forests in currently stressed areas, increased swamp productivity, and improved water quality (EPA 2012).

Louisiana is experiencing a land loss crisis that has claimed 1,880 square miles of land since the 1930s. The 2012 Louisiana Master Plan (Master Plan) characterizes this crisis as “nothing short of a national emergency.” The Master Plan estimates that expected annual damages from flooding by 2061 would be almost ten times greater than damages in 2012, from a coast-wide total of approximately $2.4 billion to a coast-wide total of $23.4 billion. (Louisiana’s Comprehensive Master Plan for a Sustainable Coast, May 23, 2012). Without action to mitigate the factors causing degradation, coastal Louisiana will continue to experience loss of coastal wetland forest functions (SWG, 2005).

The Barataria Basin had a land area of 1,470 square miles in 1932. By 2010, the land area was 1,024, a loss of 455 square miles, or 30 percent over 78 years (Couvillion et al, 2011).

1.3 Problem: The Lac Des Allemands River Basin Initiative identified the following specific problems within the Lac des Allemands Watershed: 1) Drainage impairments; 2) Water quality impairments; 3) Loss of marsh; and 4) Decline of cypress forest. Many years of research in this basin by Louisiana State University and other researchers have demonstrated that the swamps throughout the basin will eventually change to open water, floating aquatic plants, or fresh marsh, due to the effects of subsidence and inadequate accretion of sediments and organic matter. Some areas are already highly stressed and converting to open water, floating aquatic plants, and fresh marsh due to the effects of impoundment, subsidence, and inadequate accretion of sediments and organic matter. The Coast 2050 Plan predicted that 60 percent of the swamps in the basin will change to open water or floating marsh by 2050. These problems are caused by the loss of river water, with its associated sediment and nutrients, due to the Mississippi River levee system. Impoundment caused by roads, drainage canals, and spoil banks is also a major cause of degradation (USDA, 2002).

Forest plant species composition, basal area and vegetative productivity in the project area reflect a degraded cypress-tupelo swamp. Degradation of the swamp forest is due to a combination of historical logging, hydrologic alteration, subsidence, and possibly nutria herbivory. Hydrologic alteration is due to a combination of the elimination of the connection of the swamp to the
Mississippi River, impoundment due to road construction, spoil bank placement, drainage canals, and an impoundment for crawfish aquaculture (EPA 2013).

The area defined as the Des Allemands mapping unit (Figure 2) in the Coast 2050: Towards a Sustainable Coastal Louisiana report has undergone rapid land loss rates in the past century. The mapping unit lost some 4,530 acres of the total 23,050 acres of land between 1932 and 1990, which represents approximately 20 percent of the mapping units in the land area. (LCWCRTF 1998).

**Historic Land Loss** - In 1932, this unit had 23,050 acres of marsh. From 1932 to 1956, approximately 590 acres of wetlands were lost. Most of this loss was due to shoreline erosion in the fresh marshes around Lac Des Allemands and altered hydrology as the Mississippi River levee has severed the flow of freshwater, sediment, and nutrients to the wetlands via natural distributaries and overbank flooding. Canal and levee construction also impeded the natural hydrology, causing impoundment of water which kills wetland vegetation and causes poor regeneration of cypress. The greatest wetland loss in this unit (3,020 acres) occurred from 1956 to 1983. An additional 920 acres of wetlands were lost from 1983 to 1990. The recent loss was caused mainly by wind erosion and altered hydrology. Also, herbivory, primarily by nutria, results in eat-outs of fresh marsh vegetation and poor plant regeneration. The problems that have led to the wetland loss within the mapping unit are part of a larger problem throughout all of coastal Louisiana. Currently, Louisiana loses approximately 70 km² of wetlands per year. The Deltaic Plain accounts for approximately 51 km² of these losses (Barras et al. 2008).

![Figure 2. Mapping Units inside CWPPRA Region 2 (LCWCRTF 1998).](image)

**Future Land Loss Projections** – In 1990, this unit contained 18,520 acres of marsh and 44,560 acres of swamp. By 2050, approximately 6,730 acres of marsh are projected to be lost, primarily due to altered hydrology, wind erosion, herbivory, and subsidence. Over 30 percent of the 1990
marsh will be lost, and over 60 percent (26,740 acres) of the swamp is projected to become open water or floating marsh (LCWCRTF 1998, Appendix D of Coast 2050).

**Beneficial Functions** - Coastal wetland forests provide a wide range of functions that benefit the human environment and are of significant economic, ecological, cultural, and recreational value to residents of Louisiana and the United States. These beneficial functions include:
- wildlife habitat (including migratory songbirds, waterfowl, and threatened and endangered species;
- flood protection, water quality improvement (including nitrate removal), and storm protection;
- carbon storage and soil stabilization;
- economic benefits of fishing, crawfishing, hunting, timber production, and ecotourism (SWG, 2005).

1.4 **Coordination and Consultation**

Coordination has been maintained with each of the CWPPRA Task Force agencies, the Louisiana Department of Natural Resources (LDNR), and the Louisiana Coastal Protection and Restoration Authority (CPRA). Consultation has been conducted with the USFWS and Louisiana Department of Wildlife and Fisheries (LDWF), in accordance with the Endangered Species Act of 1973 and the Fish and Wildlife Coordination Act. The EA has been prepared in coordination with NMFS in determining categories of Essential Fish Habitat (EFH) and associated fisheries species within the project vicinity. Submittal of the EA is provided to initiate formal federal consultation requirements pertaining to EFH under the MSFCMA. Federal, State, Tribal and local agencies, as well as other interested stakeholders, will receive a copy of this EA. Consultation has also been conducted with the State Historic Preservation Office (SHPO) in accordance with the National Historic Preservation Act of 1966, and Archaeological and Historic Preservation Act of 1974. Consultation has been initiated with the tribes in regards to cultural resource findings. The final cultural resources investigation report was shared with those tribes who requested it.

Under the development of CWPPRA PPL 10, the public, parish representatives, and state and federal agencies nominated projects across the nine identified hydrologic basins. Ten candidate projects were selected from the list of nominees proposed in the PPL 10 planning year. These PPL 10 candidate projects were evaluated to determine the long-term net wetlands benefits based on a 20-year project life. The candidate projects were also evaluated to determine conceptual project designs and cost estimates. Economic analyses were conducted to determine the total fully funded cost estimate for feasibility planning, construction, and 20 years of operations and maintenance. Cost-effectiveness was calculated for each project using the fully-funded cost estimate and net wetland benefits over the 20-year project life. At the end of the PPL 10 development process in 2001, the Task Force authorized the original BA 34 proposed project. The re-scoped BA-34-2 project was approved by the Task Force in June 2013 (LCWCRTF
October 2013). The 30 percent Engineering and Design Review was held in Baton Rouge on July 23, 2015. A 95 percent Engineering and Design Review was held in Baton Rouge on October 28, 2015. The project management team (PMT) requested approval for construction funding at the CWPPRA Technical Committee meeting on December 10, 2015. The CWPPRA Task Force approved the Technical Committee’s recommendation for Phase II funding by way of electronic vote on January 22, 2016.

The BA 34-2 PMT has coordinated and consulted with partners and stakeholders - SHPO, tribes, USFWS, LDWLF, USACE, St. James Parish, CPRA, and LDNR throughout the process. See Appendix A.

Part 2. Proposed Action and Alternatives

The no-action alternative (Alternative 1) and the proposed action (Alternative 2) are evaluated here. Construction alternatives are designed with a 20-year life span as per the requirements of CWPPRA. The proposed project features and benefits will likely remain after the 20-year life span but detailed analyses beyond the 20-year life span are not completed as a part of this analysis.

There were several alternatives that the project team considered but did not evaluate in greater detail. An explanation of those considered but not evaluated alternatives is given in Section 2.2, Alternatives Considered But Not Evaluated.

A number of data-gathering tasks have informed the alternatives analysis. To evaluate the circulation potential in the swamp under various project alternatives, FTN Associates Ltd. developed and utilized a two-dimensional, finite element, hydrodynamic model to simulate movement of water in the Lac des Allemands Swamp (FTN Associates, Ltd., 2015). See Figure 3.
Figure 3. Three scenarios were modeled to show water movement (FTN 2015).

In March and April of 2015, C & C Technologies, Inc., a sub-contractor to Stantec Consultants, conducted detailed topographic, bathymetric, and magnetometer and tree count surveys of the proposed work area (11 gaps), as well as a bathymetry and magnetometer survey of the center line of Bayou Chevreuil. The magnetometer survey was conducted to locate any magnetic anomalies in the project area. (C & C Technologies Inc., 2015a).

A cultural resources survey and investigation was conducted to identify any possible cultural resource sites in the project area. No archeological sites or standing structures were identified within 1.6 km (1.0 mi) of the proposed des Allemands Swamp Project (Royal/RCG&A 2015).

Topographic data was collected for eleven potential gap locations along the northern spoil bank of Bayou Chevreuil. The gaps had five (5) 400 ft. long profiles with the center profile line positioned along the gap centerline and additional profiles positioned at 25 ft. spacing on either side of the centerline. Profiles extended 50 ft. beyond the existing levee into Bayou Chevreuil. Seven (7) 150 ft. long and perpendicular transects spaced at 50 ft. intervals started at the outer levee boundary and extended into the swamp were also taken. Survey transects are shown in Figure 4.
Figure 4. Design Survey Layout (C & C, 2015a).

The design survey was performed from March 2015 to July 2015 by C & C Technologies. All horizontal coordinates are referenced to Louisiana State Plane Coordinate System, North American Datum of 1983 (NAD 83). All elevations are referenced to North American Vertical Datum of 1988 (NAVD 88) GEOID12A. The surveyors verified the Horizontal and Vertical position of the Secondary Monument designated “BA 34 SM 02” which was used as the primary benchmark for the survey (C & C Technologies Inc., 2015a).

2.1 No-Action Alternative 1

Under a no-action alternative, the proposed project would not be constructed. There would be a continuation of baseline conditions in the proposed project area and land loss would be expected to continue, with associated losses of wetland functions and values. The project area would continue to be impounded. Forest plant species composition, basal area, and vegetative productivity in the project area would continue to degrade.

2.2 Alternatives Considered But Not Evaluated

Alternatives that were considered but were eliminated without detailed environmental evaluation are presented here.

Elimination of Siphon Features. The BA 34-2 project was originally funded by the CWPPRA program as the “Mississippi River Reintroduction into Northwestern Barataria Basin, BA 34.”
The CWPPRA Task Force approved Phase I engineering and design in January of 2001. The original BA 34 project featured the installation of two siphons to divert water from the MR into the impounded swamp area (Lacoast.gov BA 34 Fact Sheet of June 2004). Modeling and preliminary design efforts conducted between 2001 and 2013 revealed that the planned siphon feature to reintroduce MR water into the project area would not be as efficient in terms of costs and benefits as envisioned (FTN 2011). The project was re-scoped to eliminate the siphon feature and was renamed “Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Project, BA 34-2” (EPA 2013).

Figure 5. Original BA 34 project, showing the larger project area using a freshwater diversion.
**Spoil Bank Cut Analysis.** The model evaluated the effectiveness of three project alternatives or scenarios to construct cuts to facilitate the exchange of water between the swamp and Bayou Chevreuil. Of the three scenarios, run number 3 with six cuts at -1.0 ft. NAVD88 produced the greatest water exchange between the swamp and the Bayou and was recommended by the modeling team as the preferred alternative. Two alternate gaps were identified in addition to the initial six gaps, as a fallback in case the cultural resources survey revealed any sites to avoid. The primary and alternate gaps are shown in Figure 6, below. (FTN Associates, 2015).

**Spoil Placement Alternatives.** The project management team evaluated three soil disposal alternatives for placement: Alternative 1- Offsite Disposal; Alternative 2- Landward of Existing Spoil Bank; Alternative 3- Top of Existing Spoil Bank. Alternative 1 transports the spoil offsite as to reduce the amount of cypress and tupelo trees removed. Alternative 2 places the material landward of the existing spoil bank creating additional upland habitat. Alternative 3 places material atop the existing spoil bank bolstering the existing upland habitat.

Based on cost-benefit analysis and ease of construction, spoil placement alternatives 1 and 3 were eliminated. Alternative 2 is the recommended alternative for the spoil placement portion of the project, and is discussed further in 2.3.1 below (CPRA 2015b).
2.3 Alternative 2 (Proposed Action)

Alternative 2, the proposed action, applies a hydrologic restoration strategy in the form of cuts to spoil banks to open up the impounded swamp. The proposed spoil bank cuts are expected to improve hydrologic circulation and improve swamp health (FTN 2015).

Since the primary goal is to increase water exchange between the swamp and Bayou Chevreuil, Scenario 3 (six (6) gap cuts at -1.0 ft. NAVD88), which produces the greatest exchange, is preferred. The modelers recommended this scenario as the preferred alternative of the three scenarios evaluated during modeling. Six (6) gap cuts induce circulation over a greater swamp area than the alternatives with four cuts (FTN, 2015). As noted above, two alternate gaps were identified in case the cultural resources survey revealed any sites to avoid (Figure 6).

The specifics of each component in this alternative are described below.

2.3.1 Hydrologic Restoration Design

The design of the gaps was determined from existing projects and from the hydrodynamic modeling that was conducted by FTN Associates, Ltd. The model was run for the three
scenarios as described above. Scenario 3, six (6) gaps with -1.0 ft. inverts NAVD 88 and bottom widths of 50 ft. provides the greatest benefit to the existing swamp. The side slopes are based on experience with existing projects with similar characteristics. A side slope of 1V:4H was used. The locations of the proposed gaps are shown in Figure 7 and a typical cross section is shown in Figure 8.

![Figure 7](image-url1.png)

**Figure 7.** Locations of six (6) proposed gaps (from the 30% Design Report, CPRA, 2015)

![Figure 8](image-url2.png)

**Figure 8.** Typical cross-section of spoil bank gap (from the 30% Design Report).
Figure 9. Photo of gap looking towards Bayou Chevreuil taken during field work in March 2015.

Three alternatives were analyzed to determine where to place the spoil that is removed from the gaps. Based on cost-benefit analysis and ease of construction, the alternative chosen places spoil landward of the existing spoil bank to maximum elevation of +2.5 ft. NAVD 88. This alternative offsets spoil placement a minimum 150 ft. landward of the bayou and 25 ft. off the gap, and ensures that no material will slough off into the bayou or excavated gaps (CPRA 2015).
2.3.2 Vegetative Plantings

Modeling data showed that although hydrodynamic activity will be greatly improved in the project area, the project area will more than likely not ever be completely drained for a period needed to foster the growth of trees. However, for mitigation efforts and increased benefits of the project, some trees will be planted in the spoil disposal areas as shown below. The O&M plan calls for additional trees to be planted during the O&M phase if monitoring data indicates more plantings to be beneficial.

Figure 10. Cross section of design drawing superimposed on photo of typical gap (CPRA 2015).

Figure 11. Tree layout, typical section (from 30% Design Report).
Part 3. Affected Environment

3.1 Physical Environment

The Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp proposed project is located in the Lac des Allemands River Basin, in the Mississippi River Alluvial Plain, Southern Holocene Meander Belt Ecoregion (Daigle et al., 2006).

3.1.1 Topography, Geomorphology, and Soils

Topography

The basin is situated between the Mississippi River (MR) and Bayou Lafourche. Elevations range from approximately +15.0 feet mean sea level (MSL) on the flanks of the natural levee of the Mississippi River and gradually decrease away from the river to approximately +1.0 MSL in the swamps and marshes. Elevations gradually increase towards the natural levee of Bayou Lafourche where they again reach +10.0 MSL. The area is laced with several small bayous with natural sand/silt ridges. The average height of these ridges is approximately +5.5 MSL. (USDA 2002).

Geomorphology and Soils

The basin is part of coastal Louisiana which was formed by the MR thousands of years ago as it frequently changed courses. With each course the MR took, the resulting sedimentation created several distinct delta lobes. The size of the soil particle determined when and where it would settle out of the river water. Sand, being the largest and the heaviest soil component of river water, tended to settle out first in a relatively short time frame. Silt and clay particles were respectively lighter and were carried further away from the main flow of the river channel. These processes determined the type of landform (ridge, swamp, marsh) and the corresponding hydrology and vegetative cover it would eventually have. Figure 12 shows a cross-sectional view of a typical successional pattern of land development for a river delta (USDA 2002).
The surface and shallow subsurface of the basin is composed of natural levee, marsh, swamp, interdistributary and prodelta deposits. The basin landscape contains a series of old tributary and distributary channels with natural ridges of varying elevations. Sediments deposited as the river overflowed its banks during floods formed these ridges. As these ridges developed and became more elevated, they began to isolate some of the basin areas from regular water movement. These relatively isolated areas became low-energy areas with only seasonal flooding. Floating and submerged aquatic vegetation thrived in these areas and the vegetative remains comprise the fibrous material found in the organic soils.

The soils in the basin are two basic types, organic and mineral. Some organic soils are flotant, or floating soil. This soil is very fragile and is subject to high rates of erosion if increased energy rates are encountered. This could occur when a healthy, protected freshwater, thin mat marsh is subjected to such forces as high winds or strong tidal fluctuations. Mineral soils in the basin are first encountered on the elevated, natural ridges.

This material is usually composed of sand and silt materials. As the ridge progresses down in elevation, loamy soils would be encountered about midway between the swamp areas and the ridge. Finally, the last form of mineral soil would be the heavy clays, which were created by the settling of the fine clay particles in the river water (USDA 2002).

The BA 34-2 proposed project area has mostly Barbary, frequently flooded soils. The Natural Resource Conservation Service (NRCS) produced a Custom Soil Resource Report for the BA 34 project dated December 12, 2012. The BA 34-2 project is contained within the area of interest (AOI) delineated in this report. The Barbary series (BA) consists of very deep, very poorly drained, very slowly permeable soils. These soils formed in recent, slightly fluid to very fluid
clayey sediments that have been deposited in water and are continuously saturated and flooded. These soils are mainly on low, broad, ponded backswamps of the lower Mississippi River Alluvial Plain. Slope is less than one percent. Cancienne silt loam (CmA) and Schriever clay (Sm) soil types also occur in the AOI (USDA 2012).

3.1.2 Climate and Weather

Most of Louisiana has a hot, humid, subtropical climate, and is one of the wettest states, with a yearly average of 57 inches of precipitation. Southern Louisiana has an average January temperature of 55 F°, and a July average of 82 F°. Hurricanes sometimes strike the coastal areas of Louisiana, causing loss of life and damage to property. Prevalent winds from the south/southeast bring in warm, moist air from the Gulf, resulting in abundant rainfall. (Crowe and Quayle 2000).

The Lac des Allemands River Basin has long summers which are hot and humid, and mild warm winters occasionally interrupted by incursions of cool air from the north. Rains occur throughout the year with an average annual precipitation of 58 to 62 inches. In winter, the average temperature is 54 degrees F, and the average daily minimum temperature is 44 degrees F. In 50 percent of winters, there is no measurable snowfall, and when snow does occur it is usually of short duration and no more than two to three inches. On occasion, a hurricane impacts the area, which can bring copious amounts of rainfall and strong damaging winds. River fogs are prevalent in the winter and spring, when the temperature of the Mississippi River is somewhat colder than the air temperature (USDA 2002).

3.1.3 Air Quality

National and state ambient air quality standards were developed for specific (criteria) pollutants as a result of the Federal Clean Air Act of 1970. The Clean Air Act Amendments of 1990 mandated a program by which air quality must be improved and maintained so as to meet the National Ambient Air Quality Standards (NAAQS). Under this program, regions are classified as to their attainment status with regard to each criteria pollutant. St. James Parish is currently in attainment of all NAAQS. A Clean Air Act general conformity analysis is not required. (40 CFR § 93.153(b))

3.1.4 Surface Water Resources

The proposed project area is in the East Central Louisiana Coastal Watershed. The USGS Hydrologic Unit Code is 08090301. The Barataria Basin, including the subsegment in which the project is located, consists largely of wooded lowlands and fresh to brackish marshes, with some saline marsh on the fringes of Barataria Bay. Elevation in this basin ranges from minus two feet to four feet above sea level. The BA 34-2 project area is located adjacent to Bayou Chevreuil in Louisiana Department of Environmental Quality (LDEQ) Subsegment Number LA020101_00. Subsegment LA020101_00 is defined by LDEQ as “Bayou Verret, Bayou Chevreuil, Bayou
According to the LA 2014 303(d) list, subsegment LA020101_00 currently supports the following beneficial uses: Agriculture; Primary Contact Recreation; and Secondary Contact Recreation. However, the Fish and Wildlife Propagation Use is not supported due to dissolved oxygen concentrations not meeting the water quality standard (i.e., depressed dissolved oxygen levels) with causes of impairment identified as nutrients and the presence of non-native aquatic species. A total maximum daily load (TMDL) for this segment is in effect to address the low dissolved oxygen levels (LDEQ, Final 2014 Louisiana Water Quality Integrated Report (305(b)/303(d), July 29, 2015).

**Jurisdictional Wetlands**

In response to EPA’s Solicitation of Views of January 17, 2014, the Corps of Engineers, New Orleans District, (USACE) commented in a letter to EPA on February 18, 2014. The USACE noted that the project site may be jurisdictional wetlands or Waters of the U.S., and may require a wetlands delineation. A jurisdictional finding would require a permit from the USACE under CWA Section 404 and Section 10 of the Rivers and Harbors Act. The USACE also noted that the proposed project is in the Louisiana Coastal Zone, and may require a coastal use permit from the Louisiana Department of Natural Resources.

**3.1.5 Hydrology**

In 1904, a dam was placed at the headwaters of Bayou Lafourche and later in the mid-20th century the Mississippi River was channelized by the construction of artificial levees along its banks for flood control, eliminating the sediment source and substantially impacting the freshwater supply to the northern Barataria forests (Reed 1995). Currently, the only freshwater source in the upper basin is precipitation [150 cm/yr (59 in/yr)] because no rivers or bayous discharge into these northern forests and marshes (Saucier 1994; Reed 1995; Park et al. 2004). The reduced sediment supply has resulted in an increase in subsidence causing water levels in the northern basin to elevate. As a result, the northern Barataria wetland forests have been found to be flooded for longer durations (Conner and Brody 1989; Keim et al. 2006).

The hydrology of the cypress-tupelo forest within the BA-34-2 project area has been further altered by the installation of artificial embankments on three sides. In 1931, an elevated roadbed was built on the western border of the proposed project area during the construction of LA Hwy. 20. In 1956, spoil banks were built along the Bayou Chevreuil shoreline (southern edge of the project area) with material excavated to deepen the channel (Conner and Day 1992a). In 1957, a drainage canal, the Vacherie Canal, was constructed immediately north of the proposed project area and an elevated berm was created with the excavated soil material. In 1969, Board Road was built on the northern perimeter of the proposed project area by excavating local material to build an oil field access road (Conner and Day 1992a). Since 1957, the duration of flooding events has increased to the point of almost constant impoundment of the proposed project area due to these elevated earthen embankments (Conner et al. 1981). Moreover, LA Hwy 20, Board Road, and the Vacherie Canal berm formed the guide levees for a crayfish pond that has since
ceased to operate (Conner and Day 1992a). In addition, the Cypress Gas Pipeline Company installed a 35.6 cm (14.0 in) gas pipeline and canal within the proposed project area sometime in the 1950’s. This pipeline canal bisects the proposed project area and is situated approximately 0.3-0.7 km (0.2-0.4 mi) from LA Hwy. 20. No spoil banks were built along the edges of the canal with the excavated material. Therefore, the pipeline canal is not thought to intensify the drainage restrictions in the project area.

Figure 13. Diagram of proposed project area, and Conner’s reference site, (“natural flooding”) as well as the adjacent former crawfish farm (“controlled flooding”). From Conner et al. (1981).

The scientific record shows that altered hydrological patterns and increased inundation affect cypress-tupelo habitats. Mature cypress-tupelo wetland forests have been found to be less productive and incur slower vegetative growth in deep-flooded stagnant waters (Conner and Day
Swamp structure and function also have been reported to be inversely impacted in impounded habitats (Conner and Day 1992a; Faulkner et al. 2007; Shaffer et al. 2009). Moreover, tree mortality in cypress-tupelo forest increases under impounded conditions (Conner and Day 1992b; Conner et al. 2002; Shaffer et al. 2009). Vegetative growth in these swamps is greater in flowing water (Conner and Day 1976; Donovan et al. 1988; Shaffer et al. 2009). Regeneration of cypress-tupelo forest is also negatively affected by deep-flooded stagnant waters. Seedlings require drainage to elongate their roots (Pezeshki 1991) and survive (Conner 1988; Pezeshki et al 1993; Keim et al. 2006; Faulkner et al. 2007; Faulkner et al. 2009). Moreover, natural or artificial (planting seedlings) regeneration is not possible in severely impounded swamps without drainage enhancements (Faulkner et al. 2009).

The Bayou Chevreuil swamp area has been the subject of long-term scientific study. Dr. William Conner has chronicled the effects of inundation on the proposed project area and its surroundings since the 1970s (Conner and Day 1976; Conner et al. 1981; Conner and Day 1988; Conner and Brody 1989; Conner and Day 1992a; Conner and Day 1992b; Conner et al. 2002; Conner et al. 2013). He studied three (3) distinct cypress-tupelo habitats - the impounded area (BA 34-2 project area), the crayfish pond (location described above), and the natural site, also known as the “LSU Pocket,” located off the south bank of Bayou Chevreuil (“natural flooding,” see figure 13).

One of Dr. Conner’s studies examined the effects of breaching the Bayou Chevreuil spoil bank (gap creation). This earthen embankment was breached in six (6) locations in 1978. The results of this five (5) year investigation provided evidence that the productivity of cypress-tupelo habitats can be enhanced in the immediate vicinity of gapped locations by improving water exchange. However, productivity in areas progressively further from the gaps did not increase because drainage did not improve (Conner and Day 1992b). Micro-topographical variation in the swamp surface has been suggested as a cause of this inhibited drainage (Conner and Day 1992a). Also, earthen gaps tend to silt in periodically and require maintenance. Currently, these gaps are only partially functioning due to siltation. Gaps alone will not improve drainage throughout most large, impounded swamps. Identification of relief, drainage enhancements, and maintenance are also required to improve cypress-tupelo productivity, survivorship, and regeneration (CPRA, 2015).

The “Controlled Flooding” area, also referred to as the “Crawfish Farm,” was previously impounded by the Vacherie Canal and its spoil banks on the north, LA20 on the west, the board road on the south, and a levee constructed to connect the board road and the Vacherie Canal on the east. This impounded area was managed for crawfish production in the 1980s, and the hydrology was managed using pumps. It was flooded to a depth of about 40 cm in the fall and drained from June through August or longer. Vegetation in the “Controlled Flooding” area was a dense, healthy forest when it was actively managed (Conner et al. 1981).
The draft Wetland Value Assessment (WVA) based on the Swamp Model discusses hydrology as ‘variable 3 – water regime.’ As noted in the discussion above, due to the impoundment from dredged material placed along the bayou shoreline, the project area does not naturally drain. Without draining, permanent flooding reduces the likelihood of cypress and tupelo regeneration. The impoundment also limits exchange between the bayou and the project area. This leads to poor water quality and unsuitable habitat for nekton that would normally be present (CPRA 2015c).

Figure 14 below shows the three water level gages for the project area. BA-34-01 and BA34-02 monitor the water levels in Bayou Chevreuil. BA34-08 monitors the water level within the impounded swamp. The existing low spots in the spoil bank along Bayou Chevreuil are currently about +1.5ft. NAVD88. The graph shows that after precipitation events the water level in the bayou rises and falls as expected. In the project area, the water rises, then drains to approximately +1.5ft. Without additional precipitation events, the water level can continue to decrease slowly through evaporation and evapotranspiration. Otherwise, the water level remains fairly consistently around +1.5ft. within the project area while water levels in the bayou fluctuate regularly with tides, precipitation events, and frontal passages.

Figure 14. Water level data from July 2004 to April 2005 (FTN 2011).
3.2 Biological Environment

The biological environment of coastal Louisiana is of national importance. The estuarine habitats across coastal Louisiana support approximately 735 species of birds, finfish, shellfish, reptiles, amphibians, and mammals at some point during that organism’s life cycle (USACE 2004). The biological characteristics of the proposed project area are described below.

3.2.1 Vegetation

The proposed project area habitats generally consist of cypress-tupelo wetland forest. The dominant soil Barbary association is classified as cypress-tupelo habitat. Reed (1995) cataloged the alluvial river swamps of the upper Barataria Basin as being dominated by *Taxodium distichum* (L.) Rich. (bald cypress) and *Nyssa aquatica* L. (water tupelo) with *Fraxinus profunda* (Bush) Bush (pumpkin ash) and *Acer rubrum* var. *drummondii* L. (swamp red maple) as subdominants. Sasser et al. (2007, 2013) classified the area as swamp habitat.

The virgin cypress forests of the upper Barataria Basin were harvested in the late 19th and early 20th centuries. The current wetland forests of the northern basin are second growth. These forests regenerated naturally and were estimated to be approximately 100 years in age in the 1980’s (Conner and Day 1976; Conner 1988; Faulkner et al. 2007). Conner and Day noted that in the impounded area, the only trees remaining are those capable of surviving the constant flooding such as *Taxodium distichum* (bald cypress) and *Nyssa aquatica* (water tupelo). Nearly all the *Fraxinus* spp. (ash) and *Acer rubrum* (red maple) had died and those that are surviving are stressed as evidenced by the dead and dying tops (Conner and Day, 1992b).

A mature tree count survey to count bald cypress and tupelo was conducted in June 2015. Mature trees were defined as having a fifteen (15) centimeter diameter measured at roughly six (6) feet above the soil surface. Trees were not catalogued, marked or geo-located. The survey showed 754 mature trees within the six (6) gaps with an average tree count of 92 trees per acre (C & C, 2015b).

The Wetland Value Assessment (WVA) for the proposed project is based on the Swamp Community Model and discusses two variables (V) related to vegetation: stand structure (V1) and stand maturity (V2). A description of the model variables in providing habitat to the modeled community based on available, contemporary peer-reviewed scientific literature can be found in the CWPPRA Wetland Value Assessment Methodology, Swamp Community Model, Version 1.2 (Louisiana Coastal Wetlands Conservation and Restoration Task Force, 2012).

Stand structure (Variable 1 in the model) is the composition of overstory closure, midstory cover, and herbaceous cover. Areas with higher percentages of all three stand components receive a higher suitability index value (SI) (Table 1). To determine stand structure, the PMT used aerial imagery to delineate the project area into different classes (Figure 15). We found that the project
area consisted of classes 1, 3, 4, and 6, with class 6 making up the majority of the project area. Using field data gathered during field work in April-June 2015, the PMT adjusted the preliminary classifications accordingly.

<table>
<thead>
<tr>
<th></th>
<th>Overstory Closure</th>
<th>Scrub-shrub/ Midstory Cover</th>
<th>Herbaceous Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1.</td>
<td>&lt;33%</td>
<td>&lt;33%</td>
<td>&lt;33%</td>
</tr>
<tr>
<td>Class 2.</td>
<td>≥33%&lt;50%</td>
<td>≥33%</td>
<td>&lt;33%</td>
</tr>
<tr>
<td>Class 3.</td>
<td>≥33%&lt;50%</td>
<td>≥33%</td>
<td>≥33%</td>
</tr>
<tr>
<td>Class 4.</td>
<td>≥50%&lt;75%</td>
<td>≥33%</td>
<td>≥33%</td>
</tr>
<tr>
<td>Class 5.</td>
<td>≥33%&lt;50%</td>
<td>≥33%</td>
<td>≥33%</td>
</tr>
<tr>
<td>Class 6.</td>
<td>≥75%</td>
<td>≥33%</td>
<td>≥33%</td>
</tr>
</tbody>
</table>

Table 1. Variable 1 - Stand Structure Classes

The stand maturity variable (V2) is made up of the average diameter at breast height (DBH) of cypress and tupelo, and the basal area in each class. Stands with older, larger trees receive a higher Suitability Index (SI) number representing a more diverse habitat and higher value to wildlife. Suitability Index graphs are unique to each variable and define the relationship between that variable and habitat quality (LCWCRTF 2012). Basal area is the area occupied by tree stems expressed in feet per acre. Stands with higher basal areas receive a higher SI number because they are better suited for nesting, foraging, and other habitat functions.
For V2, the PMT sampled twelve plots in 2015 within the proposed project area using the sampling technique recommended in the Swamp Community Model. We measured cypress and tupelo trees DBH of trees that were considered canopy dominant and co-dominant. Using our observed data and the acreage calculated in V1, we were able to extrapolate our findings to the entire project area (Figure 15). The table below shows percentages for each class.

Figure 15. Stand Structure (V1) Classes. Class 6 is the area that is not cross-hatched.
<table>
<thead>
<tr>
<th>Class</th>
<th>Acres</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>267</td>
<td>11.1</td>
</tr>
<tr>
<td>3</td>
<td>193</td>
<td>8.0</td>
</tr>
<tr>
<td>4</td>
<td>96</td>
<td>4.0</td>
</tr>
<tr>
<td>6</td>
<td>1837</td>
<td>76.7</td>
</tr>
</tbody>
</table>

Table 2. Percentages for each stand structure class.

Using growth rates for cypress and tupelo from the 2009 WVA for the Louisiana Coastal Area Amite River Diversion Canal (LCA ARDC) Modification project, we estimated current tree growth rates of .08 in/year for tupelo and .11 in/year for cypress (CPRA 2015c).

### 3.2.2 Essential Fish Habitat

The proposed project area is not in an area identified as essential fish habitat (EFH) by the Gulf of Mexico Fisheries Management Council under the Magnuson-Stevens Fishery Conservation and Management Act, P.L. 104-297; 16 U.S.C. 1801 et seq. (Email from Kimberly Clements, NOAA, July 24, 2015, see Appendix A).

### 3.2.3 Fish and Wildlife Resources

**Fisheries**

The proposed project area serves as a habitat for freshwater and estuarine species. Freshwater fishes found in the fresh marshes and associated shallow open waters include largemouth bass, yellow bass, black crappie, bluegill, reder sunfish, warmouth, blue catfish, channel catfish, buffalos, freshwater drum, bowfin, and gars. Stable freshwater fisheries occur in the northern portion of the Barataria Basin, especially within the Lac Des Allemands watershed north of U.S. Highway 90. Lac Des Allemands supports a thriving commercial catfish fishery (Clark, 2000).

Fish commonly found in the upper Barataria Estuary may be grouped based on their pattern of movement between aquatic habitats. Species such as gizzard shad (*Dorosoma cepedianum*), buffalo (*Ictiobus* spp) and yellow bass (*Morone mississippiensis*) may make seasonal spawning migrations from Lac des Allemands into and up Bayou Chevreuil (Ross 2001; Fontenot 2006). Gizzard shad relative abundance in the upper Barataria Estuary typically increases in January and remains high through the end of April, with spawning occurring from late March through July (Fontenot 2006). Yellow bass make spring spawning runs into tributaries when water temperature reach 16-22 ºC (Ross 2001). Buffalo have been reported to congregate in large schools to spawn around the margins of cypress-tupelo swamps on the floodplain of the Yazoo River in Mississippi in April (Ross 2001).
Larval *Dorosoma* spp., *Ictiobus* spp., and *Lepomis* spp. (common sunfish or bluegill) were found to be more abundant in a dredged canal habitat than bayou habitat. *Heterandria formosa* (common least killifish) juveniles are more abundant in the bayou habitat than the canal habitat of the upper Barataria Basin, according to a study done in the AOI in 2007 (Jackson, 2009).

**Wildlife**

Forested lands provide habitat for songbirds such as the mockingbird (*Mimus polyglottos*), yellow-billed cuckoo (*Coccyzus americanus*), northern parula warbler (*Parula Americana*), yellow-rumped warbler (*Dendroica coronate*), prothonotary warbler (*Protonotaria citrea*), white-eyed vireo (*Vireo griseus*) and others. Additionally, these areas provide important resting and feeding areas for songbirds migrating across the Gulf of Mexico. Other avian species found in forested habitats include American woodcock (*Philohela minor*), common flicker (*Colaptes auratus*), brown thrasher (*Toxostoma rufum*), belted kingfisher (*Megaceryle alcyon*), loggerhead shrike (*Lanius ludovicianus*), red-headed woodpecker (*Melanerpes erythrocephalus*), and other woodpeckers (Clark 2000).

These habitats also support raptors such as the red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), screech owl (*Otus asio*), great horned owl (*Bubo virginianus*), American kestrel (*Falco sparverius*), and others (Clark 2000). The project management team observed a bald eagle (*Haliaeetus leucocephalus*) over Bayou Chevreuil during a field visit in November 2014. The FWS noted that a bald eagle nest was in the proposed project area. (Figure 15).

Waterfowl found in forested lands and associated water bodies include wood duck (*Aix sponsa*), green-winged teal (*Anas crecca*), mallard (*Anas platyrhynchos*), gadwall (*Anas strepera*), and hooded merganser (*Lophydytes cucullatus*) (Clark 2000).

Wading birds typically occur in wooded swamp and scrub-shrub habitats. Species found in nesting colonies include anhinga (*Anhinga anhinga*), great egret (*Casmerodius albus*), great blue heron (*Ardea Herodias*), yellow-crowned night heron (*Nyctanassa violacea*), black-crowned night heron (*Nycticorax nycticorax*), Louisiana or tricolored heron (*Hydranassa tricolor*), little blue heron (*Florida caerulea*), cattle egret (*Bubulcus ibis*), snowy egret (*Egretta thula*), white-faced ibis (*Plegadis chihi*), glossy ibis (*Plegadis falcinellus*), reddish egret (*Dichromanassa rufescens*) and roseate spoonbill (*Ajaia ajaja*) (Clark 2000). The FWS noted that wading bird rookeries were in the proposed project area. (Figure 15).

Mammals associated with forested lands include nutria (*Myocastor coypus*), muskrat (*Ondatra zibehticus*), raccoon (*Procyon lotor*), swamp rabbit (*Sylvilagus aquaticus*), river otter (*Lutra canadensis*), and white-tailed deer (*Odocoileus virginianus*). Several species of reptiles and amphibians may also occur in the proposed project area. They include the American alligator (*Alligator mississippiensis*), snakes such as the speckled king snake (*Lampropeltis getulus*), snapping turtle (*Chelydra serpentina*), American bullfrog (*Rana catesbeiana*) and the green tree frog (*Hyla cinerea*) (Clark 2000).
3.2.4 Threatened and Endangered Species


The U.S. Fish and Wildlife Service was consulted regarding any potential threatened and endangered species (T&E) in the proposed project area (USFWS 2015). The USFWS indicated that there are no T&E species in the AOI, but there is a record of a bald eagle nest within the project area, and in proximity to some of the proposed project features (Figure 16). The bald eagle (Haliaeetus leucocephalus) was officially removed from the List of Threatened and Endangered Species in August 2007 (72 FR 37346) because their populations had recovered sufficiently to support delisting. Bald eagles are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Act (Eagle Act).
Bald Eagles live near rivers, lakes, and marshes where they can find fish, their staple food. Bald Eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion. Bald Eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering. (Found at FWS website, 2015).

### 3.3 Other Environmental Considerations

#### 3.3.1 Cultural Resources

The Louisiana State Historic Preservation Office indicates that there are no known existing cultural or historic resources in the project area. The closest archaeological site is 2.5 miles away from the proposed project area. The State Archaeologist recommended that the proposed project area be surveyed if the design featured the excavation of the gap areas to the original ground surface. In June and July 2015, R. Christopher Goodwin & Associates, Inc. conducted a cultural...
resource (CR) investigation which included background research and field examination of the locations of eight proposed spoil bank cuts positioned along the north bank of Bayou Chevreuil. The finding is that there are no sites or cultural resources in the proposed project area (R. Christopher Goodwin & Associates, 2015). A Notice of No Findings was issued to tribal entities and to the SHPO. By way of a letter dated September 2, 2015, the SHPO has concurred with the No Findings (Appendix A).

### 3.3.2 Socioeconomics and Environmental Justice

According to the 2010 Census of the United States, the population of St. James Parish is 22,102. The 2014 estimate is 21,638. This number reflects a 2.1 percent loss of population from 2010-2014. The Parish population diversity profile is:

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black or African-American</td>
<td>49.4%</td>
</tr>
<tr>
<td>White</td>
<td>49.4%</td>
</tr>
<tr>
<td>Asian-American</td>
<td>0.3%</td>
</tr>
<tr>
<td>American Indian</td>
<td>0.2%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>1.7%</td>
</tr>
<tr>
<td>White alone, not Hispanic or Latino</td>
<td>48.0%</td>
</tr>
</tbody>
</table>

The percent of the population living below the Census definition of poverty was 16.4 percent in 2009-2013, compared with 19.1 percent for the state of Louisiana. The median household income for 2009-2013 was $55,443. This compares to $44,874 for the state of Louisiana.

The St. James Parish land area is approximately 241.54 square miles, with a population density of 91.5 persons per square mile. In comparison, the population density of Louisiana is 104.9. St. James Parish is considered part of the Metropolitan Statistical Area of the New Orleans-Metairie, Louisiana Metro Area (U.S. Census Bureau 2010).

For a project-specific Census 2010 summary report, a one-mile buffer was added around the proposed project area boundary using EPA’s “EJScreen” mapping tool. The report showed a population in the buffered proposed project area of 1,056 which represents approximately 4.7 percent of the Parish population.

In comparison with the Parish profile, the proposed project area with the applied buffer has a population density of 72 persons per square mile. The BA 34-2 area with one-mile buffer population diversity profile is:

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black or African-American</td>
<td>33%</td>
</tr>
<tr>
<td>White</td>
<td>66%</td>
</tr>
<tr>
<td>Some other race</td>
<td>1%</td>
</tr>
</tbody>
</table>

(USEPA, 2015)

### 3.3.3 Infrastructure

Substantial oil and gas activity presently occurs, and has historically occurred since the early 1900’s, in coastal Louisiana. Oil and gas industry activities related to seismic exploration,
drilling, production, pipeline infrastructure, spill control and cleanup, and well site closure have greatly impacted the wetlands of coastal Louisiana. Oil and gas activities negatively affect wetland functions by altering marsh habitat and hydrologic regimes (USEPA 1989).

The one (1) known pipeline in the proposed project area has eight (8) feet of mud cover and 12 feet of water cover (Figure 17, C & C Technologies, Inc., 2015a).

![Figure 17. Illustration of oil and gas infrastructure in the proposed project area.](image)

### 3.3.4 Noise

The proposed project is in a semi-rural area with moderate local traffic on Highway 20. The boat launch area is located at the intersection of Bayou Chevreuil and the highway. Outboard motor boat traffic on Bayou Chevreuil is light to moderate during weekdays and offseason and moderate to heavy on weekends and during fishing season.

### 3.3.5 Hazardous, Toxic and Radioactive Waste

The discharge of dredged material into waters of the United States is regulated under the Clean Water Act (CWA). In the absence of a known Hazardous, Toxic and Radioactive Waste (HTRW), the proposed project would not qualify for an HTRW investigation.

The USACE Engineer Regulation, ER 1165-2-132, Hazardous, Toxic and Radioactive Waste, states that dredged material and sediments beneath navigable waters proposed for dredging qualify as HTRW only if they are within the boundaries of a site designated by the EPA or a state for a response action (either a removal or a remedial action) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or if they are a part of a
National Priority List (NPL) site under CERCLA. No portion of the project area is included in the NPL.

Based upon a review of the NPL and CERCLA action sites, as well as a review of the Radiation Information Database, the probability of encountering HTRW in connection with this proposed project is very low. The proposed project does not require an HTRW investigation.

3.3.6 Land Use

According to LDEQ, the Land Use/Land Cover in the proposed project area is classified as mostly forested wetland and some shrub/scrub. The Basin Subsegment 020101 land use as a whole is illustrated in figure 18 (LDEQ, 2006).

Figure 18. Land Use/Land Cover for Basin Subsegment 020101 (LDEQ 2006).
Part 4. Environmental Consequences

Part 4 evaluates the anticipated environmental impacts that would result from the alternatives evaluated. It includes an analysis of the direct, indirect, and cumulative impacts of the proposed project alternatives, including the No-Action Alternative. Alternatives that were considered but not evaluated in Part 2 are not evaluated in this Part.

Each component of the Affected Environment is evaluated across an appropriate spatial and temporal scale (i.e. short term and long term) to determine the environmental impacts associated with each alternative. These impacts are classified as Direct, Indirect and Cumulative. Direct and Indirect impacts were listed for each alternative and can either be designated as no impact, not significant impact or significant impact.

The assessment of environmental consequences (i.e. impacts) is based upon a review of the best available information and relevant reference materials. Quantitative and qualitative information is used in the assessment. Factors that influence the assessment of impacts include, but are not limited to, the duration of the impact and the abundance or scarcity of the resource.

4.1 Physical Environment

This section describes potential impacts to the physical environment described in 3.1 Physical Environment. Areas discussed include geomorphology, soils and topography, air quality, climate and weather, hydrology, and surface water resources.

4.1.1 Topography, Geomorphology, and Soils

No Action Alternative 1

Under the no action alternative, the existing wetlands and open water would not experience any construction activity resulting from this proposed project. Under this alternative, the topography of the proposed project area would continue to change as land is lost and converted to open water.

Alternative 2 (Proposed Action)

Direct Impacts: To relieve impoundment and increase movement and interchange between the impounded area and Bayou Chevreuil, six gap/cuts to the spoil bank area will be made. Construction impacts include clearing and grubbing approximately 16 acres, excavating the gaps of approximately 9,500 cubic yards of soil, and removing approximately 1,500 trees. Vegetative plantings will follow the construction activities. The table below shows line items for construction activities and equipment (CPRA, 30% Report, Cost Estimate, 2015).
Table 3. Construction Activities and Equipment

<table>
<thead>
<tr>
<th>Work or Material</th>
<th>Quantity</th>
<th>Unit</th>
<th>Notes**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization/Demobilization</td>
<td>1</td>
<td>LS</td>
<td>3 Marsh Buggies, 1 dozer, 1 barge, 1 tug</td>
</tr>
<tr>
<td>Survey</td>
<td>1</td>
<td>LS</td>
<td>Gaps &amp; placement areas + buffer</td>
</tr>
<tr>
<td>Clear and Grub</td>
<td>10</td>
<td>Acre</td>
<td>Clearing, grinding and spreading of small to medium brush</td>
</tr>
<tr>
<td>Mature Tree Removal</td>
<td>1,700</td>
<td>Each</td>
<td>Tree cutting/stump removal and dropping for pickup</td>
</tr>
<tr>
<td>Tree Transport to Dock</td>
<td>150</td>
<td>Load</td>
<td>Loading of 40 cy hopper and transport to staging area</td>
</tr>
<tr>
<td>Tree Offsite Disposal</td>
<td>150</td>
<td>Load</td>
<td>40 cy trailer to offsite location + $30 tipping fee per ton (density of tree is 51 pcf)</td>
</tr>
<tr>
<td>Gap Excavation/Placement</td>
<td>9,500</td>
<td>CY</td>
<td>Gaps &amp; placement areas</td>
</tr>
<tr>
<td>Bald Cypress Tree Plantings</td>
<td>600</td>
<td>Each</td>
<td>$5 per plant, $12.5 for installation; 15 on 15 centers</td>
</tr>
<tr>
<td>Water Tupelo Tree Plantings</td>
<td>600</td>
<td>Each</td>
<td>$5 per plant, $12.5 for installation; 15 on 15 centers</td>
</tr>
<tr>
<td>Standard Tree Shelters</td>
<td>1,200</td>
<td>Each</td>
<td>Cypress &amp; tupelo trees 15 on 15 centers; 200 trees per acre, tubex protectors</td>
</tr>
</tbody>
</table>

Indirect Impacts: It is unlikely that there will be any indirect impacts on topography, geomorphology, and soils resulting from Alternative 2.

4.1.2 Climate and Weather

Neither the No-Action Alternative 1 nor Alternative 2 will impact climate or weather. The scientific record suggests that the improved swamp health from the action alternative may have a beneficial effect and help create a carbon sink and reduce atmospheric carbon dioxide (Burkett and Kusler 2000; Bridgham et al. 2006).

4.1.3 Air Quality

No Action Alternative 1

The No-Action Alternative would not result in any changes in the existing air quality in the area.

Alternative 2 (Proposed Action)

Direct Impacts: Impacts resulting from Alternative 2 would be associated with the emissions of diesel engines that would power the construction equipment, including but not limited to marsh buggies, dozer, electric generators, backhoe, and watercraft. The duration of the impact is limited and will occur over a period of approximately 159 working days or less. Emissions would consist primarily of nitrogen oxides, with smaller amounts of carbon monoxide, sulfur dioxide, particulate matter, and volatile organic compounds.

St. James Parish is currently in attainment of all National Ambient Air Quality Standards (NAAQS). The proposed project is unlikely to affect the Parish’s attainment status. However, St. James Parish is represented by the South Central Planning and Development Commission (SCPDC), the metropolitan planning organization (MPO) for the area. The South Central area is at risk for being designated as non-attainment for ozone and particulate matter (PM) NAAQS in the next few years. Due to the sensitivity of ozone and PM levels in the area, the SCPDC has applied to and been accepted by EPA into the EPA Ozone Advance and PM Advance programs. The Advance programs are a collaborative effort between EPA, states, and local
governments to enact expeditious emission reductions to help near non-attainment areas remain in attainment of the NAAQS.

The EPA recommends that to reduce potential short-term air quality impacts associated with construction activities, the agencies responsible for the project should also include a Construction Emissions Mitigation Plan and adopt this plan in the Record of Decision (ROD). In addition to all applicable local, state, or federal requirements, the EPA recommends that the specific mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of NOx, CO, PM, SO$_2$, and other pollutants from construction-related activities (40 CFR § 1502.14(f) & 1502.16(h)). Construction emissions will be addressed and minimized with appropriate mitigation measures such as:

**Fugitive Dust Source Controls:**

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at active and inactive sites during workdays, weekends, holidays, and windy conditions;
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions; and
- Prevent spillage when hauling material and operating non-earthmoving equipment and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

**Mobile and Stationary Source Controls:**

- Plan construction scheduling to minimize vehicle trips;
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections;
- Maintain and tune engines per manufacturer’s specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
- If practicable, utilize new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible;
- Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and
- Consider alternative fuels and energy sources such as natural gas and electricity (plug-in or battery).

**Administrative controls:**

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;
- Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips; and
- Identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).

*Indirect Impacts:* It is unlikely that there will be any indirect impacts on air quality resulting from Alternative 2

### 4.1.4 Surface Water Resources

**No Action Alternative 1**

The No-Action Alternative would not have any direct impacts on surface water resources. Impounded conditions would continue and the forest species would continue to degrade. Swamp flooding is assumed to increase due to relative sea level rise.

**Alternative 2 (Proposed Action)**

*Direct Impacts:* Future Conditions with the proposed action. With implementation of the proposed action, it is expected that there would be an impact to water quality through a temporary increase in turbidity within the Bayou near construction activity areas. Any increases in turbidity would likely be diminished by the movement of the Bayou, and any free floating sediment would likely settle downstream. Dr. Shaffer noted that hydrologic restoration should improve the water quality of aquatic bodies surrounding the swamp which are often hypoxic in the warm months (Shaffer 2011).

*Indirect Impacts:* Alternative 2 is not anticipated to negatively impact dissolved oxygen levels within the subsegment or contribute to the causes of the current impairment as identified on the LA 2014 303(d) list. Certain long-term benefits to water quality may be realized in the locale of the proposed project as the increased wetland plant acreage has the ability to take up and sequester nutrients - identified as causative agents of depressed dissolved oxygen levels within the subsegment. However, the impacts of this project are not expected to significantly affect nutrient levels in the subsegment as a whole.

### 4.1.5 Hydrology

**No Action Alternative 1**

Under the No-Action Alternative impounded conditions would continue and forest species would continue to degrade. Swamp flooding is assumed to increase due to relative sea level rise.

**Alternative 2 (Proposed Action)**

Two (2) recent studies completed for the BA-34-2 project indicate that restoration of the cypress-tupelo habitats can be achieved by improving drainage within the proposed project area. Dr. Gary Shaffer (2011) performed an ecological review of the proposed project area through field
investigation and literature review. Dr. Shaffer concluded that it is highly likely that cypress-tupelo habitats of the proposed project area will become sustainable if the impairments to hydrology are removed (Shaffer 2011).

FTN (2015) conducted a 2D hydrodynamic model for the BA 34-2 proposed project using hydrological, topographic, and meteorological data. The model predicted that water levels in the swamp will emulate that of Bayou Chevreuil if the spoil bank is breached in six (6) positions to a depth of -0.3 m (-1.0 ft.) NAVD88. Currently, the water levels in the swamp do not follow that of the bayou due to swamp inundation (FTN 2015).

To quantify the benefits this project will receive for this variable, the PMT used data from the modeling report. Bathymetry along with water level data allowed us to determine how different areas hydrology will be altered. Having this information and knowing the gaps will be excavated to an elevation of -1.0 ft., we can then determine what areas will be relieved of permanent flooding. Areas lower than -1.0 ft. will remain permanently flooded regardless of work. Areas with elevations between -1.0 ft. and +1.5 ft. will be relieved of permanent flooding after the proposed project is constructed. Areas above +1.5 ft. will experience similar flooding regimes with or without the project (CPRA, 2015).

4.2 Biological Environment

This section describes potential impacts to the biological environment described in 3.2 Biological Environment, which includes vegetation, essential fish habitat, fish and wildlife resources, and threatened and endangered species. The threatened and endangered species section, concurrently with Part 2 and Section 3.2.5 serves as a biological assessment as described in 50 CFR 402.12.

4.2.1 Vegetation

No Action Alternative 1

Under the no action alternative 1, the project area will continue to be impounded via the spoil bank along Bayou Chevreuil, LA20, and the natural ridge on the east. In addition to flooding caused by impoundment, swamp flooding is assumed to increase due to relative sea level rise (e.g. subsidence+ sea level rise, no accretion).

Vegetation in the project area will continue to degrade. Basal area of both cypress and tupelo will continue to decline as trees die and little or no regeneration occurs in the future. However, the few trees that do survive may grow at a relatively rapid rate due to the lack of competition for light. Stand structure will continue to degrade, with less tree cover over time. Stand maturity will increase over time. As stand maturity increases so will basal area. The basal area will decrease if mortality overcomes regeneration. Water regime continues to be permanently flooded, with little or no flow/exchange.
Alternative 2 (Proposed Action)

Direct Impacts: Under this Alternative, planting of cypress and tupelo trees and alleviation of impoundment will help to slow the rate of degradation of swamp vegetation in the project area, and to reverse it, at least temporarily. Basal area of cypress and tupelo will increase immediately in planted areas, and basal area of all tree species will either decrease more slowly in the future, or increase over time. We expect trees to grow at a slightly lower rate and tree regeneration to increase, particularly episodically during droughts. Stand structure will improve immediately in areas that are planted, and, over time, in all degraded areas, including those areas not planted. Stand maturity and basal area will increase over time throughout the project area, but especially in degraded areas, and even more so in degraded areas that are planted.

As noted in section 4.1.5, we expect that hydrologic restoration will reduce tree mortality, increase regeneration, and improve overall tree health (Shaffer 2011). Combined with the proposed tree plantings, we expect that over time, project features will increase overstory closure in areas with low overstory closure. The spoil bank area has red maple and green ash on it. As these species regenerate faster than cypress and tupelo, they will likely populate the area within a few growing seasons. Tree protectors will be used with all planted seedlings and saplings to guard against nutria herbivory.

Using growth rates for cypress and tupelo from the 2009 WVA for the Louisiana Coastal Area Amite River Diversion Canal (LCA ARDC) Modification project, we estimate future tree growth rates of .1338in/year for tupelo and .1837in/year for cypress for the primary area. For the secondary area we used .1032in/year for tupelo and .1419in/year for cypress. It is assumed that trees in the secondary area will receive reduced benefits and therefore a less than optimal growth rate (CPRA 2015c).

A tallow control program associated with this Alternative should prevent Chinese tallow (Triadica sebifera) from becoming established. Chinese tallow is an invasive, non-native species that can prevent or hinder native species such as bald cypress from becoming established. A control program implemented in the O&M phase will help increase the survivability of the bald cypress and tupelo trees planted.

No significant adverse impacts are expected.

Indirect Impacts: Under this Alternative, planted bald cypress and tupelo trees should provide a suitable seed source for additional tree recruitment once the planted trees have reached maturity.

4.2.2 Essential Fish Habitat

As the location of the proposed project is an area that is not identified as EFH, there are no impacts for the No Action nor the Proposed Action and, therefore, no need for consultation. NOAA’s National Marine Fisheries Service (NFMS) concurred with this determination by way
of letter dated January 5, 2016, from Virginia M, Fay, Assistant Regional Administrator (Appendix A).

4.2.3 Fish and Wildlife Resources

No Action Alternative 1

Under a no-action alternative, the proposed project would not be constructed. There would be a continuation of baseline conditions in the proposed project area and land loss would be expected to continue, with associated losses of swamp functions and values. The project area would continue to be impounded. Forest plant species composition, basal area, and vegetative productivity in the project area would continue to degrade and would negatively impact the habitats of the fish and wildlife species which utilize the project area. Continued degradation of the habitat to eventual unvegetated, increasingly open water areas would diminish the habitat value to all species.

Alternative 2 (Proposed Action)

Under this alternative, if the proposed project is constructed, the improved hydrologic and vegetation features will improve the swamp habitat conditions for several species of wildlife including migratory and resident waterfowl, wading birds, raptors, and mammals as described in 3.2.3. The Louisiana Department of Wildlife and Fisheries (LDWF) noted that the project will benefit wildlife resources (Letter dated January 12, 2016, from Kyle F. Balkum, Biologist Director, Appendix A.)

4.2.4 Threatened and Endangered Species

The USFWS identified no species as a threatened or endangered species that may occur within the proposed project area boundary. This section, concurrently with Part 3 and Section 3.2.4, serves the function of a biological assessment as described in 50 CFR 402.12.

No Action Alternative 1 and Alternative 2 (Proposed Action)

Under the No-Action Alternative, no direct or indirect impacts are anticipated for threatened and endangered species. No avoidance measures will be required. For Alternative 2, the project will have no effect on threatened and endangered species.

4.3 Other Considerations

4.3.1 Cultural Resources

The No-Action Alternative 1 and Alternative 2 (Proposed Action) will not significantly affect cultural resources. No archeological sites or historic standing structures were identified within the proposed project area during fieldwork. (R. Christopher Goodwin & Associates, Inc. 2015).

4.3.2 Socioeconomics and Environmental Justice

No Action Alternative 1
In the No-Action Alternative, the swamp in the proposed project area would continue to be degrade. The amount of fishery habitat lost in the proposed project area would have no significant impact on the commercial fishery but recreational and subsistence fishermen may be adversely impacted by the conversion of wetlands to open water.

**Alternative 2 (Proposed Action)**

*Direct Impacts:* This Alternative may beneficially impact the local economy, Louisiana and some of the other neighboring towns. The Contractor(s) hired to construct the proposed project may need to hire workers locally. Also, the local economy may receive an economic benefit because the workers will likely spend money locally to purchase personal items, food and lodging.

*Indirect Impacts:* This Alternative may help buffer the AOI from tropical storm impacts (Shaffer, 2011).

This Alternative will have no significant adverse impact and may have a minor beneficial economic impact on the local area. No environmental justice populations will be disproportionately affected by the proposed Action.

**4.3.3 Infrastructure**

**No Action Alternative 1**

The No-Action Alternative would not have any direct or indirect effect on infrastructure in the proposed project area.

**Alternative 2 (Proposed Action)**

Under this Alternative there will be no significant impacts on infrastructure. The pipeline in the proposed project area will not be affected by construction activities.

**4.3.4 Noise**

**No Action Alternative 1**

The No-Action Alternative would not cause any change in the existing noise conditions in the proposed project area. There would be no impact to noise levels.

**Alternative 2 (Proposed Action)**

Under Alternative 2, short-term increases in noise associated with construction activities and equipment use would occur. There would be no long-term changes in the ambient noise levels associated with this project. Hearing protection may be required for construction crew and visitors to the construction site. Noise impacts are limited in to the immediate project area. The closest noise-sensitive receptor is Vacherie Elementary School, which is 2.2 miles northeast of
the swamp in a straight line from Bayou Chevreuil. The duration of construction is limited, estimated at approximately 159 working days.

4.3.5 **Hazardous, Toxic and Radioactive Waste**

There is no hazardous, toxic or radioactive waste within the proposed project area boundary. The No-Action Alternative 1 and the Proposed Action Alternative 2 will not significantly impact Hazardous, Toxic and Radioactive Waste.

4.3.6 **Land Use**

Under the No-Action Alternative and Action alternative there would be no significant impact on land use in the proposed project area.

4.4 **Cumulative Impacts**

The cumulative impacts of restoration projects similar to the proposed project are discussed fully in the Louisiana Coastal Wetlands Restoration Plan and the Louisiana Coastal Area Programmatic EIS documents (LCWCRTF 1993; USACE 2004). This EA is tiered to that programmatic EIS which can be found at: http://lacoast.gov/reports/cwcrp/1993/1993lcwrp-all.pdf. To reiterate the problem, coastal Louisiana has been losing land at approximately 70 km² per year (Barras et al. 2008). The reasons for this rate of loss include natural subsidence, reduction of riverine inputs of sediment due to the construction of levees and dams (upriver), hurricanes, and hydrologic modification through channelization of marsh habitats. Restoration projects such as the proposed project BA 34-2 seek to offset this land loss through various methods, including hydrologic restoration and vegetative plantings such as the proposed project.

Future restoration projects are not likely to be proposed in the upper Barataria Basin. Agencies are beginning to focus their restoration efforts in other coastal areas as described in the Master Plan in an effort to maximize the limited amount of resources available to restore coastal Louisiana (CPRA, 2012).

4.5 **Unavoidable Adverse Impacts**

The unavoidable adverse impacts of the Action Alternative 2 are related to construction activities. Construction activities will generate noise and air emissions but their impact is limited in scope and temporary in duration, estimated to be not more than 159 working days.

4.6 **Relationship of Short-Term Uses and Long-Term Effects**

All action alternatives have some short-term, localized, adverse impacts in the form of lost or disturbed freshwater wetlands and long-term beneficial impacts. These impacts will be mitigated in the short-term through avoidance measures and in the long-term by the creation of additional acres of wetlands. No long-term adverse impacts to the affected resources are expected.
Beneficial impacts in the mid and long-term will be realized by the proposed project. These benefits are expected to be sustained for the duration of the 20-year project life.

Part 5. Conclusion

5.1 Conclusion

Coastal Louisiana is losing wetlands at a rate of approximately 70 km² per year (Barras et al. 2008) due to natural and anthropogenic causes. Restoration projects, such as the one proposed, seek to offset these losses in an attempt to slow or prevent the loss of wetland habitat in the future.

This EA finds that the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp (BA-34-2) proposed project would have long-term beneficial impacts in coastal Louisiana and would not result any significant direct, indirect, or cumulative adverse impacts. Construction-related adverse impacts are considered to be minor to moderate and not significant due to their limited duration and best management practices to minimize adverse impacts. This conclusion is based on a comprehensive review of relevant literature, site-specific data, project-specific engineering and environmental reports, as well as cumulative experience gained through other restoration projects in coastal Louisiana. The proposed action is projected to have no significant impacts.

5.2 Interagency Coordination

Coordination in development of the proposed action and its alternative, and the selection of the proposed action has been maintained with each CWPPRA Task Force agency. The project was vetted publicly through the CWPPRA process, which provides opportunities for the public and CWPPRA agencies to comment on the proposed project. Coordination with USFWS and NMFS ensures that impacts to potential threatened or endangered species are evaluated. Coordination with NMFS confirmed that impacts to Essential Fish Habitat were correctly evaluated. In this case, there is no EFH in the project area. The PMT has prepared a Joint Permit Application with supporting documentation on behalf of the landowner as permit holder to submit to the USACE. The Louisiana State Historic Preservation Office (SHPO) also provided guidance on the presence of any historic or cultural resources that may be impacted by the project area, and has reviewed and concurred with the no findings of the cultural resources investigation. Coordination with Tribal entities was initiated. A Notice of No Findings in the project area was sent to the tribal entities on July 23, 2015, with a request for consultation. The Seminole Tribe of Florida, the Choctaw Nation of Oklahoma, the Muscogee (Creek) Nation, and the Jena Band of Choctaw Indians concurred with the No Findings (Appendix A).
5.3 **Compliance with Applicable Laws and Regulations**

Applicable federal, state and local laws and regulations were taken into account during the development of the proposed action to ensure compliance with these laws and regulations.

5.4 **Preparers, U. S. Environmental Protection Agency, Region 6, Dallas, Texas**

Barbara J. Aldridge, Environmental Protection Specialist, CWPPRA Project Manager/NEPA Coordinator, Marine, Coastal, & Analysis Section

Robert Cook, Environmental Scientist, Watershed Management Section

Robert Kirkland, Physical Scientist, Surface Water Center, Marine, Coastal, & Analysis Section

Jeffrey Riley, Environmental Scientist, Air Planning Section

**With Assistance from the CPRA BA 34-2 Project Management Team, Baton Rouge and Thibodaux, Louisiana**

Logan R. Boudreaux, Coastal Resources Scientist

Glen Curole, Coastal Resources Scientist

Gregory Mattson II, Project Engineer, Engineering Division

Garvin D. Pittman, Project Manager, CPRA PM Contractor (CB&I)
Literature Cited


Coastal Protection and Restoration Authority of Louisiana. 2012. Louisiana’s Comprehensive Master Plan for a Sustainable Coast. 189 pages.


Coastal Protection and Restoration Authority of Louisiana (CPRA), 2012. Louisiana’s Comprehensive Master Plan for a Sustainable Coast, effective May 23, 2012.


Daigle, et al., 2006, Ecoregions of Louisiana (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,000,000).


U.S. Environmental Protection Agency, USEPA. 2013. Request for a Change in Scope and Name for the PPL 10-Mississippi River Reintroduction into Northwestern Barataria Basin Project (BA-34), presentation at the meeting of the CWPPRA Task Force, June 2013.


Appendix A:
Coordination and Consultation Correspondence
SOLICITATION OF VIEWS (SOV)

The U.S. Environmental Protection Agency (EPA), Region 6 is preparing an Environmental Assessment for the proposed project “Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp,” (BA-34-2), formerly known as “Mississippi River Reintroduction Into Northwestern Barataria Basin,” (BA-34), under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). By this SOV notice, EPA is requesting your views and comments on any potential economic, social, or environmental adverse or beneficial impacts in the area of this project.

As shown in the enclosed fact sheet, the project BA-34-2 is located in St. James Parish, and borders La Fourche and St. John the Baptist Parishes. The southern boundary of the project is Bayou Chevreuil, and the western boundary is Highway LA 20. The objectives of the project are to restore and maintain selected cypress-tupelo swamp in the upper Barataria Basin, to restore and maintain water quality in the swamp and Bayou Chevreuil, and to reduce nutrient loading from the Mississippi River to the Gulf of Mexico. The project is funded through CWPPRA and has been approved by the Task Force.

Please provide EPA with your views and comments within 15 working days of your receipt of this SOV notice. Comments can be sent by mail to: EPA Region 6, 6WQ-EC, to the attention of Ms. Barbara Aldridge, 1445 Ross Avenue, Dallas, TX 75202 or by e-mail to aldrige.barbara@epa.gov. If you have questions or require further information, please contact Ms. Aldridge at (214) 665-2712.

Karen McCormick
Section Chief (6WQ-EC)
Marine and Coastal Section

Enclosure
January 30, 2014

EPA Region 6, 6WQ-EC
Attn: Barbara Aldridge
1445 Ross Avenue
Dallas, TX 75202

Re: Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp (BA-34-2)

Dear Ms. Aldridge:

In order to properly comment on the above-mentioned project, The Jena Band of Choctaw Tribal Historic Preservation Office is requesting any cultural and historic site files that may be available in terms of the project area. Thank you for your cooperation in this matter.

Sincerely,

Dana Masters
JBC THPO
P.O. Box 14
Jena, LA 71342-0014
(318)-992-1205

danamasters@oal.com
February 5, 2014

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

Attn: Ms. Barbara Aldridge

Re: EPA-Solicitation of Views
Hydraulic Restoration and Vegetative Planting in the Des Allemands Swamp
BA-34-2

Dear Ms. Aldridge:

The St. James Parish Coastal Zone Committee has reviewed the BA-34-2 EPA project and fully supports this long overdue project. The Coastal Zone Committee recognizes the value of maintaining, restoring, and enhancing not only existing wetland areas, but those areas that have been deteriorated by salt water intrusion, lack of adequate hydrology, and oil field exploration impoundments.

The proposed project will provide much needed hydrologic restoration and vegetative planting in an area that previously has seen healthy cypress and tupelo trees, replaced with freshwater marsh and evasive vegetative species.

The Committee can find no adverse impacts to social, economic, or existing environmental conditions and will provide any support and information needed to complete this project’s construction.

Sincerely,

Gerald J. Falgoust, Chairman
St. James Parish Coastal Zone
Operations Division  
Operations Manager,  
Completed Works

Ms. Barbara Aldridge  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Avenue  
Dallas, Texas 75202

Dear Ms. Aldridge:

This is in response to your Solicitation of Views request dated January 17, 2014, concerning the Lac Des Allemands Swamp Hydrologic Restoration and Vegetative Planting, at South Vacherie, Louisiana, in St. James Parish.

We have reviewed your request for potential Department of the Army regulatory requirements and impacts on any Department of the Army projects.

We do not anticipate any adverse impacts to any Corps of Engineers projects.

Information and signatures obtained from recent maps, aerial photography, information provided with your request, and local soil surveys concerning this site are indicative of the occurrence of waters of the United States, including wetlands. Department of the Army (DA) permits are required prior to the deposition or redistribution of dredged or fill material into jurisdictional wetlands or waters. If an approved delineation is needed, please furnish us with the detailed field data concerning vegetation, soils, and hydrology that we require for all jurisdictional decisions. The fact that a field wetland delineation/determination has not been completed does not alleviate your responsibility to obtain the proper DA permits prior to working in jurisdictional wetlands or waters occurring on this property. Additionally, waters that may be subject to Corps’ jurisdiction under Section 10 of the Rivers and Harbors Act (RHA) are located in the project area. A DA permit will be required prior to any work in waters subject to Corps’ jurisdiction under Section 10 of the RHA.

Please be advised that this property is in the Louisiana Coastal Zone and a Coastal Use Permit may be required prior to initiation of any activities on this site. For additional information, contact Ms. Christine Charrier, Office of Coastal Management, Louisiana Department of Natural Resources at (225) 342-7953.
Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to Department of the Army regulatory requirements and may have an impact on a Department of the Army project.

You should apply for said permit well in advance of the work to be performed. The application should include sufficiently detailed maps, drawings, photographs, and descriptive text for accurate evaluation of the proposal.

Please contact Mr. Robert Heffner, of our Regulatory Branch by telephone at (504) 862-1288, or by e-mail at Robert.A.Heffner@usace.army.mil for questions concerning wetlands determinations or need for on-site evaluations. Questions concerning regulatory permit requirements may be addressed to Mr. John Herman by telephone at (504) 862-1581 or by email at John.M.Herman@usace.army.mil.

Future correspondence concerning this matter should reference our account number MVN-2014-00263-SE. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Sincerely,

Karen L. Clement
Solicitation of Views Manager

Copy Furnished:

Ms. Christine Charrier
Coastal Zone Management
Department of Natural Resources
Post Office Box 44487
Baton Rouge, Louisiana 70804-4487
April 9, 2014

Karen McCormick  
Section Chief (6WQ-EC)  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX. 75202-2733  

SUBJECT: Section 106 Review

RE: “Bayou Dupont Sediment Delivery— Marsh Creation #3” (BA-164)

RE: “Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp, “(BA-34-2)

Dear Ms. McCormick:

The Coushatta Tribe of Louisiana Heritage Department has reviewed the above referenced proposed undertaking, and we are in concurrence with your finding of “no historic properties affected”.

At this time, I know of no known sacred or ceremonial sites in the immediate area, and do not require further Section 106 consultation on this project. However, if any cultural resources, such as, bone, pottery, stone tools, etc., are found subsequently, we may elect to discuss additional mitigation steps, including on-site monitoring. In the event that archaeological properties or human remains are discovered, please stop work and contact us immediately, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

Sincerely,

[Signature]

Jonas John
Barbara Aldridge,

Thank you for the information about this proposed project. Our office does not feel that a cultural resources survey of the majority of the project is warranted, given that there will be minimal ground disturbance with the tree planting. We think there could be a concern for the locations where the culverts and spoil bank gaps are planned. At this point, we don't have enough information to provide a firm recommendation. The project description references "spoil bank gaps", and it is clear from the maps that some of the Bayou Chevreuil course has been channelized. Presumably the spoil from this effort is piled along the bank. Other parts of the project follow the original course of the Bayou and it is not clear if these sections were channelized. In either case, our concern would be whether the excavated 'gaps' would intersect the original ground surface. If it will be necessary to excavate the 'gaps' to a depth such that the original ground surface would be encountered, then we would recommend that those areas be surveyed, particularly those along the original stretches of the Bayou.

I hope this information helps. Please let me know if you have any further questions.

Chip McGimsey, RPA
State Archaeologist
Office of Cultural Development
Department of Culture, Recreation and Tourism
PO Box 44247
Baton Rouge, LA 70804
225-219-4598 (office)
225-454-9274 (cell)
From: Garvin Pittman [mailto:Garvin.Pittman@la.gov]
Sent: Thursday, February 19, 2015 3:50 PM
To: Aldridge, Barbara
Cc: Amanda Taylor; Gregory Mattson; Osowski, Sharon; Chavarria, Adrian; Glen Curole
Subject: FW: BA-34-2 Cultural Resources

Ms. Aldridge,

Please see below and attached.

I spoke to Ms. Davoli this afternoon and she stated that EPA will have to send this finding and a letter to SHPO stating your reasons why/why not you think the project should perform a cultural resources survey in the project area. She said that Adrian recently did this for one of the Caminada Headlands projects, so he is aware of the requirements.

Please let me know if you wish to discuss, or we can discuss on our call on March 3.

Garvin D Pittman, PMP
CPRA PM Contractor
450 Laurel St, Suite 1500
P.O. Box 44027
Baton Rouge, LA 70804-4027
garvin.pittman@la.gov
Cell: 225-229-3569 (preferred)
Office: 225-342-4744
fax: 225-987-3240

From: Elizabeth Davoli
Sent: Wednesday, February 18, 2015 10:57 AM
To: Garvin Pittman
Cc: Amanda Taylor; Gregory Mattson; Barbara.aldrige@epa.gov; Justin Merrifield
Subject: RE: BA-34-2 Cultural Resources

Garvin-

There is one archaeological site (a prehistoric mound site) to the northeast within approximately 2 miles of the proposed project area and very likely beyond the influence of the project.

Please note this area has not been previously surveyed for cultural resources. The absence of previously recorded archaeological sites does not mean there are no archaeological sites.

Liz

From: Garvin Pittman
Sent: Friday, February 13, 2015 9:05 AM
To: Justin Merrifield
Cc: Amanda Taylor; Gregory Mattson; Barbara.aldrige@epa.gov; Elizabeth Davoli
Subject: BA-34-2 Cultural Resources

Justin,
The BA-34-2 (Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp) project is currently under design. It involves cutting 6 gaps in the northern spoil bank along Bayou Chevreuil to allow for improved water exchange in a 5,130 acre swamp.

This is a CWPPRA funded project that is expected to compete for Phase II funding in December of this year. EPA is the federal sponsor.

The project boundary files are located here:

F:\users\Proj Management\CWPPRA\BA-0034-2 Hydro Restor and Veg Plant in Lac des Allemands Swamp\E & D\Project Boundary Files

Could you please begin the cultural resources investigation, or let me know if there is any additional information that you need?

Garvin D Pittman, PMP
CPRA PM Contractor
450 Laurel St, Suite 1500
P.O. Box 44027
Baton Rouge, LA 70804-4027
garvin.pittman@la.gov
Cell: 225-229-3569 (preferred)
Office: 225-342-4744
fax: 225-987-3240
Barbara,

The location of this project is an area that is not identified as EFH, therefore there are no impacts and no need for consultation.

Under the "marine fisheries" section of the document you might want to add a statement that identifies economically important marine fishery species such as Gulf menhaden and striped mullet could be temporarily impacted from turbidity under the "future with action". These species serve as prey for other fish species managed under the Magnuson-Stevens Fishery Conservation and Management Act by the Gulf of Mexico Fishery Management Council (i.e., mackerels, snappers, and groupers) and highly migratory species managed by National Marine Fisheries Service (i.e., billfishes and sharks).

I don't think there are any marine resources designated as endangered or threatened in the project, but you will need to consult with our Protected Resources Division regarding that request. Please contact David Bernhart at (727) 824-5312 or david.bernhart@noaa.gov.

I will let Barry weigh in on other fisheries and wildlife resource concerns.

Kymmi

On Fri, Jul 24, 2015 at 11:56 AM, Aldridge, Barbara <aldridge.barbara@epa.gov> wrote:

Hi Barry & Kymmi,

I'm working on the Environmental Assessment for the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Project (CWPPRA BA-34-2). The project site is in St. James Parish, just west of Lac des Allemands. Bayou Chevreuil is to the south of the project area.

Who in your offices should I contact regarding EFH, fisheries, and wildlife resources? I'm in touch with Brigette at FWS -- there are no T&E species, but there are eagles.

Attached is the draft monitoring plan that has some good location info and maps, and the Factsheet. Let me know if you need anything else, or have any questions.

Thanks,

Barbara J. Aldridge
Barbara J. Aldridge

Marine & Coastal Section 6WQ-EC

Ecosystems Protection Branch

Water Quality Protection Division

U.S. Environmental Protection Agency (EPA) Region 6

1445 Ross Avenue, Dallas TX 75202

(214) 665-2712 Office; (214) 310-6217 Cell

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Kimberly Clements

Fishery Biologist

NOAA Habitat Conservation

(225) 389-0508 x204

Find us online

www.fisheries.noaa.gov
August 24, 2015

Ms. Barbara J. Aldridge
Marine & Coastal Section
Ecosystems Protection Branch - Water Quality Protection Division
U.S. Environmental Protection Agency Region 6
1445 Ross Avenue, Dallas TX 75202
(214) 665-2712

Subject: EPA Lac Des Allemands Swamp Project
THPO#: 0028733

Dear Ms. Aldridge,

Thank you for contacting the Seminole Tribe of Florida’s Tribal Historic Preservation Office (STOF-THPO) regarding the proposed hydrologic restoration project. This letter is to acknowledge that the STOF-THPO has reviewed the technical report Negative Findings: Phase I Cultural Resources Investigation of the Proposed Coastal Protection and Restoration Authority (CPRA) Hydrologic Restoration Project Area, St. James Parish, Louisiana and has no objection to the project at this time. However, the STOF-THPO would like to be informed in the event that any archaeological, historical, or burial resources are inadvertently discovered during execution of the undertaking. Thank you and we look forward to working with you in the future.

Respectfully,

Andrew J. Weidman, MA, RPA
STOF-THPO, Compliance Review Section
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440
Office: 863-683-6549 x12216
Email: andrewweidman@semtribe.com
August 31, 2015

Barbara J. Aldridge, CWPPRA Project Manager, BA-34-2
Marine & Coastal Section 6WQ-EC
Ecosystems Protection Branch
Water Quality Protection Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas Tx. 75202

Dear Ms. Aldridge:

RE: des Allemands Swamp Marsh Restoration Project (BA-34-2)

I am in receipt of your request for an overgrazing determination for the des Allemands Swamp Marsh Restoration Project (BA-34-2). I contacted our local district conservationist and our state grazing land specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist/Water Resources

Cc: (electronic distribution only)
   Randolph Joseph, Assistant State Conservationist/Field Operations, Lafayette, Louisiana
   Armelis Crespo, District Conservationist, Donaldsonville, Louisiana
   John Jurgensen, Civil Engineer, Alexandria, Louisiana
All-

Attached is SHPO’s concurrence with the finding of No Historic Properties Affected. They have no comments to offer on the report. Section 106 is complete for this project.

Garvin—Please have the contractor submit hard copies of the final report per the requirements of the task order.

Liz

---

Liz Davoli, R.P.A.
Coastal Resources Scientist Manager
Environmental Section, Planning & Research Division
Coastal Protection and Restoration Authority
450 Laurel Street, Suite 1501, Baton Rouge, LA 70801
Elizabeth.Davoli@la.gov
Phone: (225) 342-4616
Fax: (225) 242-3550
September 2, 2015

Elizabeth Davoli
Coastal Protection and Restoration Authority
450 Laurel Street
Suite 1500
P.O. Box 44027
Baton Rouge, LA 70804-4027

Re: Draft Report
LA Division of Archaeology Report No. 22-5032
Negative Findings: Phase I Cultural Resources Investigation of the Proposed Coastal Protection and Restoration Authority (CPRA) Hydrologic Restoration Project Area, St. James Parish, Louisiana

Dear Ms. Davoli:

We acknowledge receipt of your letter dated August 31, 2015 and two copies of the above-referenced report. We have completed our review of this report and have no further comments.

We concur that no historic properties will be impacted by this project. Our office has no further concerns for this project.

We look forward to receiving two bound copies of the final report, along with a pdf of the report. If you have any questions, please contact Paul French in the Division of Archaeology by email at pfrench@.crt.la.gov or by phone at 225-342-8166.

Sincerely,

Phil Boggan
Deputy SHPO

PB:phf
Ms. Barbara Aldridge  
Marine & Coastal Section 6WQ-EC  
Ecosystems Protection Branch  
Water Quality Protection Division  
U.S. Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202

Dear Ms. Aldridge:

Please reference your August 13, 2015, electronic mail requesting our written response to your request for information regarding threatened and endangered species that may occur in the vicinity of the proposed Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp project (CWPPRA Project BA34-2) in St. James Parish, Louisiana. That project has been authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) (104 Stat. 4779; 16 U.S.C. 3951 et seq.). The Fish and Wildlife Service (Service) has reviewed the information you provided, and offers the following information in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d), and the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.).

**Threatened and Endangered Species**

There are no known occurrences of federally listed threatened or endangered species within or in proximity to the proposed project boundary that was provided in your July 10, 2015, electronic mail. Therefore, no further ESA section 7 coordination with the Service will be necessary for the proposed project at this time. Please note, however, that the Service’s database of federally listed species in Louisiana is updated annually, and because of the Multi-district Litigation Settlement, additional species may be listed in Louisiana prior to our annual updates. Therefore, the Service recommends that you submit a request for updates on listed species 6 months prior to initiating project construction to ensure that no new species have been listed in Louisiana in proximity to the proposed action. Likewise, should any changes occur to the proposed project location or scope, further coordination may be necessary to ensure that there are no new data on federally listed species within the action area.

**Bald Eagles**

There is a bald eagle nest located within the BA34-2 project boundary (see attached map for approximate location). The bald eagle (Haliaeetus leucocephalus), which was officially removed from the List of Endangered and Threatened Species as of August 8, 2007, remains protected under the MBTA and BGEPA. The Service’s bald eagle nest information provided in this letter is from the comprehensive bald eagle survey data collected by the Louisiana Department of Wildlife and Fisheries.
(LDWF) in 2008, and new active, inactive, or alternate nests may have been constructed within the proposed project area since that time. The LDWF has re-surveyed bald eagle nests within Louisiana during the late winter/early spring of 2015 and may have current information regarding the status of the subject eagle nest and/or any potential new nests within or in proximity to the proposed project area. The Service recommends that you contact Ms. Nicole Lorenz (225-765-2643) of the LDWF to obtain additional information.

Bald eagles typically nest in large, mature trees located near coastlines, rivers, or lakes that support adequate foraging from October through mid-May. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants. Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

Please be aware that the Service has developed National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute “disturbance,” which is prohibited by the BGPA. A copy of the NBEM Guidelines is available at: http://www.fws.gov/migratorybirds/pdfs/NationalBaldEagleManagementGuidelines.pdf. Those Guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. During any project construction, on-site personnel should be informed of the possible presence of nesting bald eagles in the vicinity of the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within 1,500 feet of the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

On September 11, 2009, the Service published two federal regulations establishing the authority to issue permits for non-purposeful bald eagle take (typically disturbance) and eagle nest take when recommendations of the NBEM Guidelines cannot be achieved. Permits may be issued for nest take only under the following circumstances where: 1) necessary to alleviate a safety emergency to people or eagles, 2) necessary to ensure public health and safety, 3) the nest prevents the use of a pre-existing human-engineered structure, or 4) the activity or mitigation for the activity will provide a net benefit to eagles. Except in emergencies, only inactive nests may be permitted to be taken. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEMigratorybirds@fws.gov) has the lead role in conducting consultations and issuance of permits. Should you need further assistance interpreting the guidelines, avoidance measures, or performing an on-line project evaluation, please contact that office.

**Colonial Nesting Wading Birds**

According to the Service’s database, there are also several wading bird rookeries located within and in proximity to the proposed project area (see the attached map for approximate locations). Additional colonies may be present that are not currently listed in the database maintained by the Louisiana
Department of Wildlife and Fisheries. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period, depending on the species present. Below is the list of colonial nesting birds that may be found and the corresponding window during which the project may occur. Please note no part of the project should occur outside of those windows.

<table>
<thead>
<tr>
<th>Species</th>
<th>Project Activity Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhinga</td>
<td>July 1 to March 1</td>
</tr>
<tr>
<td>Cormorant</td>
<td>July 1 to March 1</td>
</tr>
<tr>
<td>Great Blue Heron</td>
<td>August 1 to February 15</td>
</tr>
<tr>
<td>Great Egret</td>
<td>August 1 to February 15</td>
</tr>
<tr>
<td>Snowy Egret</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Little Blue Heron</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Tricolored Heron</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Reddish Egret</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Cattle Egret</td>
<td>September 1 to April 1</td>
</tr>
<tr>
<td>Green-backed Heron</td>
<td>September 1 to March 15</td>
</tr>
<tr>
<td>Black-crowned Night-Heron</td>
<td>September 1 to March 15</td>
</tr>
<tr>
<td>Yellow-crowned Night-Heron</td>
<td>September 1 to April 1</td>
</tr>
<tr>
<td>Ibis</td>
<td>August 1 to April 1</td>
</tr>
<tr>
<td>Roseate Spoonbill</td>
<td></td>
</tr>
</tbody>
</table>

In addition, we recommend that on-site contract personnel be trained to identify colonial nesting birds and their nests, and avoid affecting them during the breeding season (i.e., the time period outside the activity window).

We appreciate the opportunity to review the proposed project and the information you have provided, as well as the U.S. Environmental Protection Agency’s continued cooperation in the conservation of federally listed species, bald eagles, and colonial nesting wading birds. If you have any questions regarding the information provided in this letter, please contact Ms. Brigette Firmin of this office.

Sincerely,

Brad S. Rieck  
Deputy Supervisor  
Louisiana Ecological Services Office

cc: FWS, Migratory Bird Program, Atlanta, GA (Attn: Laurel Barnhill)  
    LDWF-Natural Heritage Program, Baton Rouge, LA (Attn: Nicole Lorenz)
Ms. Aldridge,

Thank you for providing the survey report for this project. The Choctaw Nation is unaware of any cultural or sacred sites located in the immediate project area. The Choctaw Nation Historic Preservation Department concurs with the finding of "no historic properties affected". However, as the project lies in an area of historic interest to the Tribe, we ask that work be stopped and our office contacted immediately in the event that Native American artifacts or human remains are encountered.

If you have any questions, please contact me.

Thank you,

Lindsey D. Bilyeu  
NHPA Senior Section 106 Reviewer  
Historic Preservation Department  
Choctaw Nation of Oklahoma  
P.O. Box 1210  
Durant, OK 74701  
580-924-8280 ext. 2631

Ms. Bilyeu,

Please see attached CR report, as per your request.

Barbara J. Aldridge  
Barbara J. Aldridge  
Marine & Coastal Section 6WQ-EC  
Ecosystems Protection Branch  
Water Quality Protection Division  
U.S. Environmental Protection Agency (EPA) Region 6  
1445 Ross Avenue, Dallas TX 75202  
(214) 665-2712 Office; (214) 310-6217 Cell
Ms. Aldridge,

The Choctaw Nation of Oklahoma thanks the EPA for the correspondence regarding the above referenced project. St. James Parish, LA lies in the Choctaw Nation’s area of historic interest. The Choctaw Nation Historic Preservation Department requests a copy of the cultural resources survey that was performed for this project.

If you have any questions, please contact me.

Thank you,

Lindsey D. Bilyeu
NHPA Senior Section 106 Reviewer
Historic Preservation Department
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74701
580-924-8280 ext. 2631
lbilyeu@choctawnation.com

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure. If you have received this message in error, you are hereby notified that we do not consent to any reading, dissemination, distribution or copying of this message. If you have received this communication in error, please notify the sender immediately and destroy the transmitted information. Please note that any view or opinions presented in this email are solely those of the author and do not necessarily represent those of the Choctaw Nation.
Thank you for contacting the Muscogee Nation regarding the Final Cultural Resources Report for the Lac des Allemands project. We concur with the finding of no cultural resources and no need for further investigations.

Barbara, I apologize for overlooking this. We have undergone some changes in our Section 106 process. As of Oct. 1st I no longer have Louisiana, but will address this since it came 2 days before we made our changes. Please read the red print below for future correspondence. Thank you.

---

Federal and state agencies, museums, and consulting partners, as of October 1, 2015 please send all Section 106 project notices as well as all NAGPRA notices to our new section106@mcn-nsn.gov. Notices concerning these projects will no longer be sent to individual staff member’s emails. We will be accepting and responding using the new Section 106 email. If you have any questions, please give us a call at 918-732-7733.

---

Ms. Freeman,
I am following up on the Lac des Allemands project. Does the Muscogee (Creek) Nation have a response to the CR Report that I forwarded in September?

Thanks,

Barbara J. Aldridge, CWPPRA Team
Marine, Coastal, & Analysis Section, 6W0-EC
Ecosystems Protection Branch, Water Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas TX 75202
(214) 665-2712 Office, (214) 310-6217 Work Cell
Ms. Freeman,
Attached is the final CR Report for the subject project. Please forgive the delayed response. I have been out of the office on extended leave.

Barbara J. Aldridge
Barbara J. Aldridge
Marine & Coastal Section 6WQ-EC
Ecosystems Protection Branch
Water Quality Protection Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas TX 75202
(214) 665-2712 Office; (214) 310-6217 Cell

Attached for your records is the final report for the BA-34-2 Cultural Resources.

We will send two hard copies to SHPO.

Please let me know if you require any hard copies.

Garvin D Pittman, PMP
CPRA PM Contractor
450 Laurel St, Suite 1500
P.O. Box 44027
Baton Rouge, LA 70804-4027
garvin.pittman@la.gov
Cell: 225-229-3569 (preferred)
Office: 225-342-4744
fax: 225-987-3240
Notice of Availability (NOA)

December 14, 2015

The Environmental Protection Agency (EPA) has prepared a draft Environmental Assessment (EA) for the CWPPRA project BA 34-2, "Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp." By this NOA, the EPA is requesting review and comment from the interested community.

Funded under the Coastal Wetlands Planning, Protection, and Restoration Act, and sponsored by the EPA in partnership with the Louisiana Coastal Protection and Restoration Authority, the project is located in St. James Parish. The purpose of this project is to restore and maintain selected cypress-tupelo swamp tracts in the upper Barataria Basin, and restore and maintain water quality in the swamp and in Bayou Chevreuil. The project will enhance an area of swamp (2,395 acres with an expected 529.96 Average Annual Habitat Units (AAHUs) of benefit) that would continue to degrade without the project.

The link to the draft EA is http://www.epa.gov/la/cwppra-projects-louisiana, under the title "CWPPRA Project BA 34-2."

Comments on the draft EA are due by January 22, 2016. Send by mail to EPA, Region 6, Water Division, WQ-EC, 1445 Ross Ave., Dallas, TX 75202, or by email to aldridge.barbara@epa.gov. For questions, please contact Barbara Aldridge at (214) 665-2712, or the above email.

Karen McCormick
Section Chief (6WQ-EC)
Marine, Coastal, & Analysis Section
Christopher Knotts, P.E., Administrator  
Public Works and Water Resources Division  
Louisiana Department of Transportation and Development  
Post Office Box 94245  
Baton Rouge, Louisiana 70804

Mike Carlise, Biologist Director  
Louisiana Dept. of Wildlife and Fisheries  
P.O. Box 98000  
Baton Rouge, LA 70804-9000

Brad Spicer  
Assistant Commissioner  
Office of Soil and Water Conservation  
LA Department of Agriculture and Forestry  
P.O. Box 3554  
Baton Rouge, LA 70821

Dr. Linda Langley, THPO  
Coushatta Tribe of Louisiana  
PO Box 10  
Etow, LA 70332

P.J. Hahn  
Director of Coastal Zone Management  
Plaquemines Parish  
8056 Hwy 23, Suite 307  
Belle Chasse, LA 70037

Richard Hartman  
National Marine Fisheries Service  
Habitat Conservation Division  
c/o Louisiana State University  
Military Science Building, Room 266  
South Stadium Drive  
Baton Rouge, LA 70803

Marnie Winter, Director  
Environmental Affairs  
Jefferson Parish  
4901 Jefferson Highway, Suite E  
Jefferson, LA 70121

Maria Martinez, Chief  
EPA Region 6  
Wetlands Section 6WQ-EM  
1445 Ross Ave  
Dallas TX 75202

Chief Thomas Dardar  
United Houma Nation  
20986 Hwy. 1  
Golden Meadow, LA 70357

Kimberly Walden, THPO  
Cultural Director  
Chitimacha Tribe of Louisiana  
P.O. Box 661  
Charenton, LA 70523

Kyle Graham  
Executive Director  
Coastal Protection and Restoration Authority  
P.O. Box 44027  
Baton Rouge, LA 70804-4487

Chip Kline  
Executive Assistant to the Governor  
Governor's Office of Coastal Activities  
P.O. Box 94095  
Baton Rouge, LA 70804

Earl J. Barby, Jr.  
Tunica-Biloxi THPO  
Tunica-Biloxi Tribe of Louisiana  
P.O. Box 1589  
Marksville, LA 71351

Robert Barham  
Secretary  
Louisiana Dept. of Wildlife and Fisheries  
P.O. Box 98000  
Baton Rouge, LA 70804-9000

Mari Gilford  
State Conservation Engineer  
Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

Jeff Weller  
Field Supervisor  
U.S. Fish and Wildlife Service  
646 Cajundome Blvd., Suite 400  
Lafayette, LA 70506

Miles Cream  
Deputy Regional Administrator  
Habitat Conservation Division  
NOAA National Marine Fisheries Service  
263 13th Avenue South  
St. Petersburg, FL 33701

Martin Mayer  
Chief, Regulatory Branch  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, LA 70160-0267

Andrew Beall  
Project Management Division  
Office of Coastal Protection and Restoration  
P.O. Box 44027  
Baton Rouge, LA 70804-4027

Alina Shively, Deputy THPO  
Jena Band of Choctaw Indians  
P.O. Box 14  
Jena, LA 71342

Mike Varnado  
State Historic Preservation Office  
Louisiana Office of Cultural Development  
P.O. Box 42447  
Baton Rouge, LA 70804-4247

W. Britt Paul  
Assistant State Conservationist  
Water Resources Section  
Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

Chief Charles Verdin, Sr.  
Point-au-Chien Indian Tribe  
793 Aragon Road  
Montereg, LA 70377

Chief Albert Naquin  
Isle de Jean Charles Band  
Biloxi-Chitimacha-Choctaw  
Confederation of Muskokees  
100 Dennis Street  
Montereg, LA 70377

Chief Shirell Parfait-Dardar  
Grand Caillou/Dulac Band  
Biloxi-Chitimacha-Choctaw  
5057 Bayou-side Drive  
Chauvin, LA 70344

Chief Randy Verdin  
Bayou Lafourche Band  
Biloxi-Chitimacha Confederation  
P.O. Box 856  
Zachary, LA 70791

Section Chief  
NEPA Coordination 6EN-XP  
EPA Region 6  
1445 Ross Ave  
Dallas TX 75202
Programs and Project Management Division
Projects and Restoration Branch

Mr. William K. Honker, P. E.
Director
United States Environmental Protection Agency
Region 6
Water Quality Protection Division
1445 Ross Avenue
Suite 1200 (6WQ-EC)
Dallas, Texas 75202

Dear Mr. Honker:

This is in reference to your letter dated October 5, 2015, requesting Section 303(e) approval for the Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp Project (BA-34-2) (Fact Sheet with Map enclosed), located in St. James Parish, Louisiana, in accordance with the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

The request includes a letter from the Coastal Protection and Restoration Authority of Louisiana, dated September 2, 2015, which contains a copy of a very comprehensive Temporary Easement, Servitude and Right-of-Way Agreement to be executed by private landowners that will provide the necessary land rights for the project. There would be no oyster leases in this area, and if there are any active oil and gas wells or pipeline infrastructure in the project areas, this project should not adversely affect them.

The Temporary Easement, Servitude and Right-of-Way Agreement to be executed by private landowners contained with your request appears to provide sufficient right-of-way for the project. Prior to construction of the project, the Temporary Easement, Servitude and Right-of-Way Agreement from private land owners must be executed, and any other real property rights must be acquired, subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through this project will be administered for the long-term conservation of the lands and waters and the dependent fish and wildlife populations. This includes the acquisition of rights from not only the State of Louisiana but also all other persons or entities with ownership or other property interests in the land that may be impacted by the project.

The 303(e) request package also includes a August 31, 2015, determination from the Natural Resources Conservation Service that overgrazing does not occur on the project lands or lands affected thereby. If overgrazing should occur in the future, then a grazing plan must be established for the project.
Accordingly, by the authority delegated to me by the Secretary of the Army, and given compliance with the provisions set forth above, I approve the project in accordance with Section 303(e) of CWPPRA.

Should you have any questions or comments, please feel free to contact Mr. Mark R. Wingate, P. E., Deputy District Engineer for Programs and Project Management, at (504) 862-2204 or Mr. Brad L. Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,

Richard L. Hansen
Colonel, U. S. Army
District Commander

Enclosure

cc (w/enclosure):

Mr. James L. Altman, CPL  
CPRA Land Manager  
Coastal Protection and Restoration  
Authority of Louisiana  
Post Office Box 44027  
Baton Rouge, Louisiana 70804-4027

Ms. Barbara J. Aldridge  
Federal Sponsor Project Manager  
U. S. Environmental Protection Agency  
Region 6 (6WQ-EC)  
1445 Ross Avenue  
Dallas, Texas 75202

Mr. Garvin D. Pittman  
Local Sponsor Project Manager  
Coastal Protection and Restoration  
Authority of Louisiana  
450 Laurel Street, Suite 1500  
Baton Rouge, Louisiana 70804-4027
Ms. Barbara Aldridge  
Environmental Protection Agency, Region 6  
Water Division, WQ-EC  
1445 Ross Avenue  
Dallas, Texas 75202

Dear Ms. Aldridge:

NOAA’s National Marine Fisheries Service (NMFS) has reviewed the draft Environmental Assessment (EA) for the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp project funded under the auspices of the Coastal Wetlands Planning Protection and Restoration Act. The purpose of the project is to restore and maintain cypress-tupelo swamp tracts in the upper Barataria Basin in St. James Parish, Louisiana.

Based on our knowledge of the project area, NMFS concurs with the determination provided in the draft EA that the proposed project was not located in an area designated as essential fish habitat under provisions of the Magnuson-Stevens Fishery Conservation and Management Act. Additionally, NMFS agrees with the summary on page 28 that the project area provides habitat for some estuarine fish species. While the draft EA does not provide a conclusion relative to potential impacts or benefits on fish species, NMFS does not believe the project would adversely impact such species. Therefore, other than the observation that figure 4 is corrupted and should be replaced, NMFS has no comments to provide on the draft EA.

We appreciate the opportunity to review and comment on the draft EA.

Sincerely,

[Signature]

Virginia M. Fay  
Assistant Regional Administrator  
Habitat Conservation Division

e:  
FWS, Lafayette, Clark  
EPA, Dallas, McCormick  
NRCS, Paul  
F/SER46, Swafford  
Files
January 12, 2016

Ms. Karen McCormick, Section Chief
Marine, Coastal, & Analysis Section
United States Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202

RE: Environmental Assessment Number: BA 34-2
Prepared By: Environmental Protection Agency
Notice Date: December 14, 2015

Dear Ms. McCormick:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the above referenced notice for proposed hydrologic restoration and vegetative plantings in the Lac des Allemands Swamp, in St. James Parish, Louisiana. Based upon this review, the following has been determined:

It is anticipated that this proposed Coastal Wetlands Planning, Protection and Restoration Act project will benefit wildlife resources; therefore, Ecological Studies has no objection.

The Louisiana Department of Wildlife and Fisheries submits these recommendations to the U.S. Army Corps of Engineers in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). Please do not hesitate to contact Habitat Section biologist Zachary Chain at 225-763-3587 should you need further assistance.

Sincerely,

Kyle F. Balkum
Biologist Director

zc
Barbara,

Thank you for the opportunity to review the draft Environmental Assessment (EA) for the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Project. The draft EA adequately addresses the impacts of the proposed project on fish and wildlife resources, including threatened and endangered species. Specific comments are below.

Page 11 - Figure 4 is corrupted.

Page 41 - Section 4.2.4 Threatened and Endangered Species - Sentence 2 should refer to Part 3 Section 3.2.4 instead of Part 2 Section 3.2.5. Also, this section indicates that Alternatives 1 and 2 will be addressed but only the No Action Alternative is addressed.

In addition, because there are no listed species in your project area, you should include a statement indicating that the project will have no affect on threatened and endangered species.

Thank you and please contact me if you have any questions.

--

Kevin J. Roy
Senior Field Biologist
U.S. Fish and Wildlife Service
Louisiana Ecological Services Office
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506
(337) 291-3120
January 15, 2016

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTING
IN THE LAC DES ALLEMANDS SWAMP
CWPPRA PROJECT BA 34-2
PARISH: ST. JAMES

EPA Region 6, Water Division, WQ-EC
Attn: Barbara Aldridge
1445 Ross Avenue
Dallas, TX 75202

Subject: Solicitation of Views

Dear Ms. Aldridge:

Enclosed is a copy of St. James Parish’s Flood Insurance Rate Map (FIRM) indicating the proposed project.

During the improvements and construction, there must be allowance for the adequate flow of water and assurance that there will be no back up of water. There must be no instance of the creation of flooding where there was no flooding prior to construction. At this time, consideration must be given to the responsibility for cleaning debris and keeping the surrounding area clear so as not to interfere with its function.

In order to assure compliance with requirements for the National Flood Insurance Program (NFIP), and ensure that appropriate permits are obtained, please contact the floodplain administrator for the Parish. The contact person for St. James Parish is Ryan Donadieu. The address is P.O. Box 106, Convent, LA 70723 and telephone number (225) 562-2370.

We thank you for the opportunity to comment on this project. If you need additional information, please contact our office, (225) 379-3005.

Sincerely,

[Signature]
Jennifer D. Rachal, CFM
Floodplain Management Program Coordinator

Enclosure
pc: Ryan Donadieu
APPENDIX J: DIRECTIONS TO BOAT LAUNCH
Directions to Boat Launch: From the CPRA Thibodaux Regional Field Office at 1440 Tiger Dr. Thibodaux, LA head north on Tiger Dr. 0.5 miles. At the first cross street turn right onto LA-3107/Talbot Ave. Continue heading east for 1.4 miles. Turn left onto Canal Blvd. and continue traveling north for 1.8 miles. Continue straight on LA-20/N. Canal Blvd. for 11.9 miles. Turn right off of LA-20 right after you cross over the bridge that crosses Bayou Chevreuil into the boat launch. The approximate physical address is 1598 LA-20, Thibodaux, LA 70301.
APPENDIX K: SURVEY MONUMENT DATA
Station Name: "BA34 SM 02"

Location: From the intersection of LA Highway 20 and Hwy 3127 in Vacherie, Louisiana, proceed southerly on Hwy 20 for approximately 5 miles to a boat landing on the left at the Bayou Cherveuil Bridge. Turn left and proceed southerly on parking lot to the monument on the right near the northeast corner of the bridge.

Monument Description: NGS Style floating sleeve monument; 9/16" stainless steel rods driven 56 feet to refusal, set in a sand filled 6" PVC pipe with access cover set flush with the ground.

Stamping: BA34-SM-02

Installation Date: 2002  Date of Survey: February 2003

Monument Established By: JCLS

For: CPRA, OCPR

Adjusted NAD83 Geodetic Position (NSRS2007)
Lat.  29°54'41.63846" N
Long.  090°43'44.80610" W

Adjusted NAD83 Datum LSZ (1702) Ft (NSRS2007)
N=  513,837.33
E=  3,472,257.09

Adjusted NAVD88 Height (2006.81)
Elevation = 1.20 feet (0.366 mtrs)

Ellipsoid Height = -25.671 mtrs.
Geoid03 Height = -26.037 mtrs. (2004.65)

FOR REFERENCE ONLY
LCZ Adjusted NAVD88 Height (Geoid99)
Elevation = 1.94 feet (0.590 mtrs)
APPENDIX L: DESIGN SURVEY REPORT

Paste the following link into web browser:

The Contractor shall submit the following Equipment Data Sheet in the Work Plan for each piece of heavy construction equipment (I.E., barge, track hoe, dozer, pile hammer, etc.) that is proposed to be utilized to perform the Work. The Equipment Data Sheet shall only be utilized for informational purposes. The submitted information is pertinent to the evaluation of the proposed equipment and their capability to perform the Work. The Contractor shall only omit data or information considered to be proprietary. The Equipment Data Sheet shall constitute a certification that the proposed equipment is available to and under control of the Contractor during the Work.

<table>
<thead>
<tr>
<th><strong>Type of equipment</strong></th>
<th></th>
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<tbody>
<tr>
<td><strong>Manufacturer and manufacture date</strong></td>
<td></td>
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<tr>
<td><strong>Condition</strong></td>
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<tr>
<td><strong>Current location</strong></td>
<td></td>
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<tr>
<td><strong>Description of use on project</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Owner/Lease (specify) name</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contact person</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contact address</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contact phone number</strong></td>
<td></td>
</tr>
</tbody>
</table>

| **Predicted production rate (CY/hour)** | N/A |
| **Weight (tons)**                   | N/A |
| **Power (Horsepower)**              | N/A |
| **Reach (ft)**                      | N/A |
| **Dimensions (ft)**                 | N/A |
| **Method of mobilization and demobilization** | N/A |

**Dredge Pipeline (If Applicable)**

| **Material Composition (Steel/Plastic)** |                  |
| **Trunk Diameter (ft)/Length (ft)/Thickness (in)** |                  |
| **Lateral Diameter (ft)/Length (ft)/Thickness (in)** |                  |
APPENDIX N: DAILY PROGRESS REPORT FORM
DAILY PROGRESS REPORT No. ____________ By __________________________ (Contractor)  Date: ________________

Hydrologic Restoration in the Des Allemands Swamp Project (BA-34-2)

### Report Certification
Contractor Representative: ___________________________  CPRA Project Representative: ___________________________

### Weather
<table>
<thead>
<tr>
<th>Condition</th>
<th>Cloudy / Clear / Fog / Windy</th>
<th>Tide Range (ft NAVD88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low:</td>
<td></td>
<td>High:</td>
</tr>
<tr>
<td>Precipitation:</td>
<td>in.</td>
<td></td>
</tr>
<tr>
<td>Wind Speed / Direction:</td>
<td>mph</td>
<td>Temperature:</td>
</tr>
</tbody>
</table>

### Safety
| Safety Incidents: | Safety Meeting Topic: |

### Active Field Orders / Change Orders / Claims / Requests for Information / Payment Requests / Acceptance Requests
<table>
<thead>
<tr>
<th>FO / CO / Claim / RFI / PR / AR</th>
<th>No.:</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO / CO / Claim / RFI / PR / AR</td>
<td>No.:</td>
<td>Status:</td>
</tr>
<tr>
<td>FO / CO / Claim / RFI / PR / AR</td>
<td>No.:</td>
<td>Status:</td>
</tr>
</tbody>
</table>

### Equipment
<table>
<thead>
<tr>
<th>Status of Aids to Navigation:</th>
<th>Mechanical Dredge(s) Utilized:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marsh Buggy(ies) Utilized:</td>
<td></td>
</tr>
</tbody>
</table>

### Notifications to the Engineer
<table>
<thead>
<tr>
<th>Preconstruction Survey Start - Complete:</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>As-built Survey Start - Complete:</td>
<td>-</td>
</tr>
<tr>
<td>Permit Violation:</td>
<td></td>
</tr>
<tr>
<td>Endangered Species or Cultural Resource:</td>
<td></td>
</tr>
<tr>
<td>Louisiana One-Call:</td>
<td></td>
</tr>
<tr>
<td>Pile Driving (1 day prior to start):</td>
<td></td>
</tr>
</tbody>
</table>

### Construction
<table>
<thead>
<tr>
<th>Gaps Excavated Today:</th>
<th>Gaps Excavated to Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Excavated/Placed Today (CY):</td>
<td>Material Placed Quantity to Date (CY):</td>
</tr>
<tr>
<td>Trees Placed Today (Each):</td>
<td>Trees Placed to Date (Each):</td>
</tr>
</tbody>
</table>