OPERATION, MAINTENANCE AND REHABILITATION PLAN

FOR THE

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1 PROJECT (TE-34)

January 8, 2019
OPERATION, MAINTENANCE, AND REHABILITATION PLAN FOR THE
PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1 (TE-34)

The Coastal Protection and Restoration Authority (CPRA) of Louisiana and the Natural Resources Conservation Service (NRCS) agree to carry out the terms of the this Operation, Maintenance and Rehabilitation Plan (hereinafter referred to as the “Plan”) of the accepted, completed project features in accordance with Cost Share Cooperative Agreement No. CWPPRA-02-02, DNR Agreement No. 2511-02-15 dated April 23, 2002, and a letter dated January 25, 2007, to adjust funding categories to meet projected charges (Attachment I – Cost Share Agreement/ Letter Agreement).

Construction of the Penchant Basin Natural Resource Plan, Increment 1 (TE-34) was authorized by Section 303(a) of Title III Public Law 101-646 the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) enacted on November 29, 1990, as amended. Increment 1 of the Penchant Basin Natural Resource Plan was approved on the 6th Priority Project List.

CPRA intends to use this plan to maintain the project in a condition that will generally provide the anticipated benefits on which the project was based. There is no requirement that this project function to any standard beyond the 20-year project life, except that it is not left as a hazard to navigation or a detriment to the environment.

The property associated with the Penchant Basin Natural Resource Plan, Increment 1 (TE-34) is owned by Apache Louisiana Minerals, Inc., Continental Land and Fur Co., and Louisiana Land and Exploration Co.

1. PROJECT LOCATION, DESCRIPTION AND PURPOSE

The Penchant Basin Natural Resource Plan, Increment 1 (TE-34) is located in Terrebonne Parish, Louisiana and is bounded on the north by the Gulf Intracoastal Waterway (GIWW), the east by a north/south line from Lake DeCade to the GIWW, the south by Lake Mechant and Lost Lake, and to the west by a north/south line from Lost Lake to Avoca Island (CWWPRA, February 2008). (Attachment II – Project Features Map)

The Penchant Basin consists of a dynamic and variable-component landscape shaped by deltaic abandonment, initiation of a new delta via the Atchafalaya River and anthropogenic landscape alterations (NRCS, April 2007). To the north, a vast area of freshwater floating marshes transitions south to intermediate and brackish marshes, all of which have experienced some of the highest land loss rates in the state. While the freshwater floating marshes have been studied extensively, the exact cause of the high rates of deterioration remain somewhat elusive although the losses have been attributed to a combination of elevated water levels, increase flows from the Atchafalaya and GIWW and associated water quality impacts, hydrologic alterations, stagnation in some areas that have been isolated from riverine influence and nourishment, and herbivory (O’Neil 1949, Sassar 1994. Coastal
Environments, Inc. 1997, Swarzenski 2003). To the south, loss to intermediate and brackish marshes can be contributed to natural deltaic abandonment process of subsidence accelerated by channelization and alteration of hydrology, sea level rise, saltwater intrusion (USDA-SCS, 1986).

The Penchant Basin Natural Resource Plan, Increment 1 (TE-34) is intended to potentially reduce water levels in the northwestern portion of the project by diverting freshwater southeastward to where it is needed (CWWPRA, 2008). The goals of the project are to eliminate erosion and re-establish emergent marsh along the southern bank of Bayou Chene at the intersection of Bayou Penchant, transfer water, sediment and nutrients from the Atchafalaya River to the lower Penchant Basin tidal marshes to offset saltwater intrusion and subsidence, to maintain the integrity of the northern bank of Bayou Decade and increase nourishment to the deteriorating upper Penchant Basin marshes by providing an exchange of freshwater through the system (NRCS and CPRA, April 2007).

Increment 1 of the Penchant Basin Natural Resource Plan has a twenty-year (20 year) project life, which began in August 2011.

2. CONSTRUCTION COMPLETION

The Penchant Basin Natural Resource Plan, Increment 1 project completion report is included in Attachment III of this Plan and “As-Built” drawings are included in Attachment IV. Within the Completion Report is a summary of information and significant events including: project personnel, final as-built project features and benefited acres, construction cost and CWPPRA project estimates, construction oversight costs, construction activities and change orders, pipeline and utility crossing owner information, and other significant milestone dates and comments. The project as-built drawings contain construction drawings updated to include all field changes and modifications that occurred during the construction of the project.

3. PROJECT PERMITS

Project permit applications for the Penchant Basin Natural Resource Plan, Increment 1 were completed and submitted to appropriate agencies and permits were received prior to construction. These permits and permit amendments are included in Attachment V – Project Permits and Amendments.

4. ITEMS REQUIRING MAINTENANCE AND REHABILITATION

The following completed project features of the Penchant Basin Natural Resource Plan, Increment 1 shall be jointly accepted by CPRA and NRCS will require operation, maintenance and rehabilitation throughout the twenty (20) year life of the project.
• Approximately 6,667 linear feet of foreshore rock dike along the southern bank of Bayou Chene at the mouth of Bayou Penchant. The rock dike was constructed to an maximum overbuild elevation of 4.0’ NAVD88 and target elevation of +3.5’ NAVD88; with 4 (H):1(V) side slopes from Station 0+00 to 07+50 along east dike, and 3(H):1(V) from Station 08+00 to the end, and a top width of 3.0’.

• Approximately 30 acres of marsh creation along the southern bank of Bayou Chene at the mouth of Bayou Penchant. The target marsh elevation in this location is approximately 2.0’ NAVD 88.

• 92 ft. steel sheet pile weir with a ten (10) ft. wide boat bay and six (6) - 5’ x 5’ flap gated openings at the intersection of Brady Canal and Bayou Penchant. In addition to the weir, a Floating Debris Barrier System was constructed on the Bayou Penchant side of the structure to collect vegetation and debris and prevent obstruction of the flap gates. The Floating Debris Barrier System consisted of a PVC floating body with an underwater hanging debris screen connected by stainless steel strength members. Each end of the barrier system was anchored to timber piles on each end of the protected areas.

• 85 ft. long steel sheet pile weir with six (6) - 5’ x 5’ flap gated openings along Superior Canal. In addition to the weir, a Floating Debris Barrier System was constructed on the north side of the structure to collect vegetation and debris and prevent obstruction of the flap gates. The Floating Debris Barrier System consisted of a PVC floating body with an underwater hanging debris screen connected by stainless steel strength members. Each end of the barrier system was anchored to timber piles on each end of the protected areas.

• Approximately 14,500 linear feet of earthen embankment armored with rock riprap along the north bank of Bayou Decade from Voss Canal to the mouth of Lost Lake. The earthen embankment was constructed to an elevation of +4.0’ NAVD 88 with 6:1 side slopes and a 10 ft. wide earthen embankment crest and 6 ft. rock revetment crest. The rock riprap revetment is approximately 2’ thick, 10’ wide base and 6:1 side slopes along the canal face of the earthen embankment.

• Structure No.5 – 139 linear foot steel bulkhead weir with 10’ wide boat bay. The top elevation of the bulkhead was constructed to an elevation of 0.9’ NAVD 88. The crest of the boat bay was constructed to -4.0’ NAVD 88. A rock scour pad above a geotextile fabric was constructed along both sides of the steel bulkhead to an elevation of -4.0’ NAVD with 3:1 side slopes.

• Structure No.4 – 120 linear foot steel bulkhead with 10’ wide boat bay. The top elevation of the bulkhead will be constructed to an elevation of 0.9’ NAVD 88. The
crested of the boat bay will be constructed to -4.0’ NAVD 88. A rock scout pad above a geotextile fabric will be constructed along both sides of the bulkhead to an elevation of -4.0’ NAVD with 3:1 side slopes.

5. **OPERATION AND MAINTENANCE BUDGET**

The cost associated with the Operations, Maintenance and Rehabilitation of the Penchant Basin Natural Resource Plan (TE-34), Increment 1 is included and summarized in Attachment VI.

6. **STRUCTURE OPERATIONS**

No structure operations are necessary for this project. (Attachment VII intentionally blank)

7. **RESPONSIBILITIES – MAINTENANCE, OPERATIONS AND REHABILITATION**

A. **CPRA will:**

1. In accordance with the Cost Sharing Agreement, assume all responsibilities for maintenance and rehabilitation of the accepted and completed project features identified in Section 4.

2. Conduct joint project site inspections with NRCS and the landowners at least annually and after major storm events if determined to be necessary by CPRA and/or NRCS. CPRA will submit to NRCS a report detailing the condition of the project features and recommendations for any corrective action. If CPRA recommends that corrective actions are needed, the report will include the entire estimated cost for engineering and design, supervision and inspection, construction, contingencies, and an assessment of the urgency of such action.

3. Perform or have performed any corrective actions needed, if such corrections have been approved by CPRA and NRCS. NRCS will participate with CPRA, or its appointed representative, in the engineering and design phases of the corrective actions for the project. Oversight of engineering and construction of the corrective actions for the project will be the responsibility of CPRA or its appointed representative. At least 30 calendar days prior to the date of formal request for construction bids, CPRA or its appointed representative shall provide NRCS with final copies of all project corrective action design and specifications for review and concurrence by NRCS. NRCS or its appointed representative shall approve the final designs and specifications prior to proceeding with bid solicitations. Any plan and/or specification change both before and after award of construction contracts,
shall be approved by CPRA in coordination with NRCS.

4. Provide a total contribution equal to the amount outlined in the Cost Share Agreement for the operation, maintenance and rehabilitation cost needed for the life of the project.

B. NRCS will:

1. Conduct joint project site inspections with CPRA and the landowners at least annually and after major storm events if determined to be necessary by CPRA or NRCS.

2. Provide guidance for the development of plans and implementation of the project, review final copies of any maintenance and rehabilitation project designs and specifications, and provide review and approval of all planning and construction details prior to formal request for construction bids or any corrective actions for the project.

3. Provide a total contribution equal to the amount outlined in the Cost Share Agreement for operation, maintenance and rehabilitation cost needed for the life of the project.
References:


The undersigned parties, acting on behalf of their respective agencies, agree to operate, maintain, and rehabilitate the Pecan Basin Natural Resource Plan, Increment 1 (TE-34) project according to this document, referenced Cost Sharing Agreement, plans, and all applicable permits and laws.

NATURAL RESOURCES CONSERVATION SERVICE

By: _______________________________  Date: 2-22-19
Title: _______________________________

COASTAL PROTECTION AND RESTORATION AUTHORITY

By: _______________________________  Date: 2/20/2019
Title: REGIONAL OPERATIONS MANAGER
ATTACHMENT I

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1
(TE-34)

COST SHARING AGREEMENT
COST SHARE AGREEMENT

BETWEEN

USDA-NATURAL RESOURCES CONSERVATION SERVICE

AND

THE STATE OF LOUISIANA

FOR CONSTRUCTION, OPERATION, MAINTENANCE, REHABILITATION

AND MONITORING OF THE

PENCHANT BASIN HYDROLOGIC RESTORATION PROJECT

TE-34

THIS AGREEMENT, entered into this 23rd day of April, 2002 by and between the U.S. Department of Agriculture, represented by the Natural Resources Conservation Service, (hereinafter referred to as "NRCS"), acting by and through the State Conservationist, and the State of Louisiana, acting by and through the Secretary, Department of Natural Resources, (hereinafter referred to as "DNR").

WITNESSETH, THAT:

WHEREAS, implementation of the Penchant Basin Hydrologic Restoration Project (TE-34) was authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (hereinafter referred to as "CWPPRA") of 1990, 16 U.S.C. Section 3951 et seq., (Public Law 101-646, Title III), and for local sponsorship by the Louisiana Coastal Wetlands Conservation and Restoration Plan, by the State of Louisiana in May 1997; and,

WHEREAS, the State’s Coastal Wetlands Conservation Plan was approved on November 30, 1997; all costs incurred on or after December 1, 1997 are shared at ninety percent (90%) Federal and ten percent (10%) non-Federal;

WHEREAS, Section 303(e) of CWPPRA states that the Secretary of the Army shall not fund the identified project unless said project is subject to such terms and conditions necessary to ensure that wetlands restored, enhanced, or managed through the project will be administered for the long-term conservation of such lands and waters and dependent fish and wildlife populations; and,
WHEREAS, NRCS is authorized by federal law to enter a cost-sharing agreement with DNR to provide financial cost-share assistance for the construction, operation, maintenance, rehabilitation, and monitoring of the project; and,

WHEREAS, La. R.S. 49:213 and La. R.S. 49:214 state that the Secretary of DNR may enter into cost-sharing agreements with the federal government in order to conserve, restore, create, and enhance vegetated wetlands in coastal Louisiana in accordance with prescribed legislative oversight; and,

WHEREAS, DNR has agreed to pay 5% of the total Project(s) cost in actual cash and the remaining balance of its share in the form of in-kind contributions; and,

WHEREAS, DNR is willing to participate in cost-sharing and financing in accordance with the terms of this Agreement;

NOW, THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS

For the purposes of this Agreement:

a. The term “Project” shall mean that work authorized by Congress as specified above for the construction of the TE-34 Pechant Basin Hydrologic Restoration Project. The TE-34 Project is located in Terrebonne Parish, LA. The Project objective is to combine the long term realignment of the Pechant Basin hydrology with restoration and protective measures with the intent of protecting the physical integrity of the basin during the transition toward greater riverine influence.

b. The term “total Project costs” shall mean all costs incurred by DNR and NRCS directly related to implementation of the Project. Such costs shall be those costs incurred after April 24, 1997; and which shall include, but not necessarily be limited to, the following: actual costs of applicable geotechnical investigations, detailed engineering and design; actual construction costs; construction management, supervision and inspection costs; operation costs; monitoring costs; the cost of land rights acquisition, easements, servitudes, rights-of-way; utility and facility alterations or relocations; maintenance; and rehabilitation for the Project.

c. The term “total first costs” shall mean all costs incurred by DNR and NRCS directly related to completion of the construction phase of the project as identified in the official CWPPRA authorization document prepared by the CWPPRA Task Force April 24, 1997 and submitted to Congress.
d. The term “period of construction” shall mean the time from the advertisement of the first construction contract to the time that the Contracting Officer certifies to DNR that construction of the entire project is complete. The Contracting Officer shall furnish to DNR copies of the Government’s written Notice of Acceptance of Complete Work furnished to contractor(s) for all contracts for the Project.

e. The term “Contracting Officer” shall mean the warranted Contracting Officer of NRCS awarding the contract.

f. The term “relocations” shall mean the preparation of plans and specifications for, and the accomplishment of any alteration, modification, lowering or raising in place, and/or new construction related to, but not limited to, existing: buildings, pipelines, public utilities (such as municipal water and sewer lines, telephone lines, and storm drains), aerial utilities, cemeteries, and other facilities, structures, and improvements determined by NRCS and DNR to be necessary for the construction, operation, maintenance, monitoring, and rehabilitation of the Project.

g. The term “utility” shall mean pipelines, cables, and similar facilities.

h. The term “fiscal year” shall mean one fiscal year of the United States Government, unless otherwise specifically indicated. The Government fiscal year begins on October 1 and ends on September 30.

i. The term “construction management costs” shall mean costs incurred by NRCS directly supervising and administering construction contracts, to include related overhead costs, as specified in applicable contracting regulations.

j. The term “Project Monitoring Plan” shall mean a plan jointly developed and approved by DNR and NRCS specifically for the Project which identifies all monitoring requirements, parameters and procedures. DNR will be responsible for collection of monitoring data and assimilation as part of the local cost-share responsibilities. Monitoring will be conducted for the expected life of the Project or as agreed by NRCS and DNR.

k. The term “maintenance” shall mean any action completed after the construction period that is required to maintain the Project at “as built” standards, and costing less than twenty percent (20%) of original construction cost.

l. The term “rehabilitation” shall mean any action completed after the construction period that is required to maintain the Project at “as built” standards, and costing twenty percent (20%) or more of the original construction cost.
m. The term "Operation, Maintenance, and Rehabilitation Plan" shall be a plan jointly developed and approved by NRCS and DNR upon completion of the Project and prior to acceptance by DNR of the completed Project or functional portion of the Project. The Operation, Maintenance, and Rehabilitation Plan will address specific items, with estimated costs, to be performed throughout the expected life-span of the Project and will be revised periodically to reflect actual needs.

n. The term "operations, maintenance, and rehabilitation costs" shall mean all costs incurred by DNR and NRCS related to operating, maintaining, and rehabilitating the final accepted Project. Specific requirements and responsibilities shall be identified and mutually accepted by both parties in an "Operations, Maintenance, and Rehabilitation Plan".

o. The term "obligation" refers to amount of orders placed, contracts awarded, services rendered, or other commitments made during a given period which will require outlay during the same or some future period.

p. The term "engineering and design costs" shall mean all costs incurred by DNR and NRCS related to the development, approval, and acceptance of detailed engineering and design plans, specifications, and Project bid documents. This will also include all supervision and administrative costs associated with the engineering and design phase of the Project and will terminate with the award of a Project construction contract.

q. The term "monitoring costs" shall mean all costs by DNR and NRCS in developing and implementing the Project Monitoring Plan to evaluate the effectiveness of the Project in reaching Project objectives. This shall include, but not be limited to, such items as plan development and review, conducting pre- and post-construction monitoring procedures, collection and evaluation of data, and preparation of monitoring reports.

r. The term "functional portion of the Project" shall mean a completed portion of the Project as determined by the Contracting Officer and DNR in writing to be suitable for tender to DNR for operation and maintenance in advance of completion of the entire Project. To be suitable for tender, the Contracting Officer must determine that the completed portion of the Project can function independently and for a useful purpose, although the balance of the Project is not complete.

s. The term "life of the Project" shall mean the next twenty (20) years starting at the date of acceptance of the final Project, or functional portion of the Project, as provided in Article V.e. of this Agreement.
ARTICLE II - OBLIGATIONS OF THE PARTIES

a. No federal funds may be used to meet the DNR share of Project costs under this Agreement unless the expenditure of such funds is expressly authorized by statute as verified in writing by the granting agency.

b. DNR shall:

1. Over the life of the Project, fund a total contribution equal to the non-federal share of the total Project costs, including a minimum cash contribution of five percent (5%) of the total Project costs. Said contribution will include cash and/or credit granted from land rights, easements, servitudes, and rights-of-way obtained through or owned by DNR, or relocations credit granted for Project features furnished by DNR, and all administrative and management costs required by DNR to fulfill the obligations specified in this Agreement including pre- and post- construction Project monitoring, permitting coordination, geotechnical investigation, some engineering services, maintenance, operation, and/or rehabilitation responsibilities accepted by DNR.

2. Prior to the advertisement of each construction contract, and as further specified in Article VI.b.2. hereof, DNR shall provide a minimum cash contribution of five percent (5%) of that portion of total first costs incurred to date and anticipated to be expended through completion of that construction contract.

3. Prior to the advertisement of each construction contract, and as further specified in Article VI.b.2. hereof, DNR shall provide a contribution equal to the non-federal share of that portion of total first costs incurred to date and anticipated to be expended through completion of that construction contract. Said contribution will include cash and/or credit granted from land rights, easements, servitudes, and rights-of-way obtained through or owned by DNR, or relocations credit granted for Project features furnished by DNR, and administrative and management costs required by DNR to fulfill the obligations specified in this Agreement.

4. Implement the Project Monitoring Plan in accordance with procedures jointly developed with NRCS and, as further specified in Article VIII., to assure the performance of the long-term monitoring requirements.

5. Provide specific engineering services associated with the Project, subject to the cost-sharing provisions, and as mutually agreeable to both DNR and NRCS, or its engineering representative. Specific engineering services to be provided by DNR may include design surveys, plan preparation, post-construction surveys, etc. All such services will be approved by and subject to the supervision and guidance of NRCS engineering representatives.
6. Acquire all land rights, servitudes, rights-of-way, easements, and material borrow and disposal areas associated with the Project which are determined to be necessary, subject to cost-sharing terms previously identified.

7. Jointly develop an Operation, Maintenance, and Rehabilitation Plan with NRCS which will identify specific long-term maintenance, operation, and rehabilitation requirements. Said plan will be developed upon completion of the Project features in accordance with Article I.m., and will be reviewed and modified as necessary after an evaluation conducted by DNR, with NRCS participation, within 12-18 months following completion of construction.

8. Provide for non-federal share of costs identified in the Operation, Maintenance, and Rehabilitation Plan, according to Article VIII.a.

9. Assume all responsibilities (including engineering, design, and construction services) for operation, maintenance, and rehabilitation of the Project upon acceptance of the completed Project, limited only by the provisions of Article XVI. NRCS will reimburse DNR using electronic funds transfer (EFT) procedures in accordance with 31 CFR 208 for the federal share of such costs, subject to availability of funds.

c. NRCS shall:

1. Over the life of the Project, fund a total contribution equal to the federal share of the total Project costs, including any relocation costs associated with the Project.

2. Prior to the advertisement of each construction contract, NRCS shall provide a contribution equal to the federal share of that portion of total first costs incurred to date and anticipated to be expended through completion of that construction contract, including any relocation costs associated with the Project.

3. Except as limited by the provisions of Article VIII.b., and subject to the availability of appropriations, reimburse DNR for the federal share of the approved cost of pre- and post-construction monitoring of the Project upon receipt of the request for reimbursement.

4. Reimburse DNR using electronic funds transfer (EFT) procedures in accordance with 31 CFR 208 for the federal share of the actual costs incurred by DNR for all geotechnical and engineering services provided for the Project, permitting coordination, and acquiring all land rights (easements, servitudes, and rights-of-way, including suitable borrow material and disposal areas) as determined by NRCS to be necessary for Project construction, operation, monitoring, maintenance, and rehabilitation.
5. Provide all engineering, design, land services, and construction services, except those mutually agreed as specified in Article II. b. 5. and Article II b. 9 associated with the Project, subject to the cost-sharing provisions identified.

6. Provide the federal share of costs identified in the Operation, Maintenance, and Rehabilitation Plan and actually incurred by DNR, subject to the limitations on expenditures set forth in Article XIX.

7. Comply with the Federal Acquisition Regulation (FAR), Agriculture Acquisition Regulation (AGAR), and Natural Resources Conservation Service Acquisition Regulation (NRCSAR) for all federal contracts associated with the Project.

8. Provide authorized technical services including, but not limited to, obtaining basic information; preparation of drawings, design, and specifications; and performance of layout, inspection services, and quality assurance during construction. Preliminary and final plans must be reviewed and approved by the DNR Project Manager prior to advertisement.

9. Arrange for and conduct final inspection of the completed works of improvement with DNR to determine whether all work has been performed in accordance with the contractual requirements. Based on this determination, accept work from the contractor and notify DNR of acceptance.

10. Participate, with DNR, in an evaluation within 12 -18 months following the completion of construction to assess maintenance, operation, and rehabilitation needs. NRCS will also participate with DNR in any subsequent evaluations as the parties deem necessary to address long-term maintenance, operation, and rehabilitation of the Project.

11. Ensure that all National Environmental Policy Act (NEPA) and regulatory requirements, including permits, for the Project, are met.

ARTICLE III - LAND RIGHTS, FACILITIES, AND PUBLIC LAW 91-646 RELOCATION ASSISTANCE

a. On Non-Federal Lands, DNR shall acquire all land rights, easements, servitudes, rights-of-way, and material borrow and disposal areas determined to be necessary for construction of the Project and as mutually agreed-to by DNR and NRCS. Prior to the advertisement of any construction contract, DNR shall provide certification to NRCS that all land rights, easements, servitudes, rights-of-way and material borrow and disposal areas required, have been acquired as part of this Agreement and shall furnish to NRCS evidence supporting actual rights-of-way acquired by DNR for Project construction, operation, monitoring, and maintenance.
b. The State shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR part 24, in acquiring lands, easements, and rights-of-way for construction and subsequent operation, maintenance, and rehabilitation of the Project.

c. No title to the property or minerals affected herein are transferred with any easements, servitudes, rights-of-way, and material borrow and disposal areas provided by DNR pursuant to this Agreement. No public rights of ownership shall be transferred and vested in private parties as a result of the Project. Further, any easements, servitudes, rights-of-way, and material borrow and disposal areas shall provide for reasonable access for mineral exploration and development.

ARTICLE IV - VALUE OF LAND RIGHTS AND FACILITIES

a. The value of the land rights, easements, servitudes, and rights-of-way to be included in total Project costs and credited towards DNR’s share of total Project costs will be determined in accordance with the following procedures:

1. The costs associated with securing all land rights, easements, servitudes, and rights-of-way to be acquired by DNR (Article III.a.) shall be the actual costs including, but not limited to, expenses associated with securing legal land rights instruments from all sources (legal reviews, recording fees, etc.) associated with Project activities. An estimate of such costs will be prepared by DNR and approved by NRCS for credit allowance as part of the DNR cost-share. Credit allowance for any costs above this estimate must be approved by NRCS.

2. Any costs incurred for relocations will be included in total Project costs and will be accomplished as part of Project construction through the agreed cost-share arrangement.

ARTICLE V - CONSTRUCTION PHASING AND MANAGEMENT

a. To provide for consistent and effective communication between DNR and NRCS during the period of construction, DNR and NRCS shall appoint representatives to coordinate scheduling, plans, specifications, modifications, contract costs, and other matters relating to construction of the Project.

b. DNR will participate with NRCS, or its appointed representative, in the engineering and design phases of the Project. Oversight of engineering and construction of the Project will be the responsibility of NRCS or its appointed representative. At least thirty (30) calendar days prior to the date of formal request for construction bids, NRCS, or its appointed representative, shall provide DNR with final copies of all Project designs and specifications for review and concurrence by DNR. NRCS,
or its appointed representative, and DNR shall approve the final designs and specifications prior to proceeding with bid solicitations on all project construction contracts. Any plan and/or specification(s) changes, both before and after award of construction contracts, shall be jointly approved by NRCS and DNR.

c. The representatives appointed above shall meet as necessary during the period of construction and shall make such recommendations as they deem warranted to the Contracting Officer.

d. The Contracting Officer shall consider the recommendations of the representatives in all matters relating to construction of the Project; but the Contracting Officer, having ultimate responsibility for construction of the Project, has complete discretion to accept, reject, or modify the recommendations.

e. Following completion of the Project, or functional portion of the Project, final acceptance of the Project, or functional portion of the Project, will be jointly made by NRCS and DNR. Should the Project, or functional portion of the Project, not meet plan specification objectives, then DNR will have the option to approve modification of the Operation, Maintenance, and Rehabilitation Plan, or to terminate this Agreement. However, both DNR and NRCS shall endeavor to modify the Project and/or its Operation, Maintenance, and Rehabilitation Plan to ensure that the original plan specification objectives are achieved.

ARTICLE VI - METHOD OF PAYMENT

a. DNR shall provide the contributions required under Article II of this Agreement. The PL 101-646 Task Force has estimated a total Project cost of $14,103,051.00 and authorized a maximum total Project cost of $17,628,814.00 for this particular Project. To meet its share, DNR will contribute, through in-kind services or in cash, the non-federal share of the total Project costs. The maximum amount of DNR’s contribution is $1,762,881.00. This figure is subject to modification as provided for in Section 303(f) of CWPPRA. Any costs in excess of the maximum total Project cost of $17,628,814.00 are subject to amendment of this Agreement and Task Force approval, as provided in Article XIX. The maximum amount of DNR’s required minimum five percent (5%) cash contribution is $881,441.00.

b. DNR shall provide its required cash contribution in proportion to the rate of federal expenditures in accordance with the following provisions:

   1. For purposes of budget planning, NRCS shall notify DNR by October 1 of each year of the estimated funds that will be required from DNR to meet its share of total Project costs for the subsequent fiscal year.
2. No later than sixty (60) calendar days prior to the advertisement of each construction contract, NRCS shall notify DNR of DNR’s share of that portion of total first costs incurred to date and anticipated to be expended through completion of that construction contract. This amount will include the non-federal share of total first costs in cash and/or credit as described in Article II.b.3., and the minimum cash contribution of five percent (5%) of total first costs as described in Article II.b.2. No later than 30 calendar days thereafter, DNR shall verify to the satisfaction of NRCS or its representative, that it has deposited the requisite amount in an escrow account with interest accruing to DNR.

3. For the second and subsequent fiscal years of Project implementation, no later than sixty (60) calendar days prior to the beginning of the fiscal year, DNR shall make the necessary funds available to NRCS through the funding mechanism specified in Article VI.b.2. of this Agreement. As construction of the Project proceeds, NRCS shall adjust the amounts required to be provided under this paragraph to reflect actual costs.

4. If, at any time during the period of construction, NRCS determines that additional funds will be needed from DNR to meet DNR’s required share, NRCS shall so notify DNR, and DNR, no later than 45 calendar days from receipt of such notice, shall make the necessary funds available through the funding mechanism specified in Article VI.b.2. of this Agreement.

c. NRCS will draw on the escrow account such sums as NRCS deems necessary to cover contractual and in-house fiscal obligations attributable to the Project on an annual basis, as well as costs incurred by NRCS prior to the initiation of construction but after December 1, 1994, according to Article I.b.

d. The escrow account will be managed for NRCS by the New Orleans District, U.S. Army Corps of Engineers. Funds will be withdrawn from the account and disbursed to NRCS as requested.

e. Upon completion of the Project, or termination of this Agreement in accordance with Article XV. of this Agreement, and resolution of all relevant contract claims and appeals, NRCS shall compute the total Project costs and tender to DNR a final accounting of DNR’s share of total Project costs. In the event that the total contribution by DNR is less than its minimum required share of total Project costs, DNR shall, no later than ninety (90) calendar days after receipt of written notice, make a cash payment to NRCS of whatever sum is required to meet its minimum required non-federal share of total Project costs, subject to the availability of appropriations.

f. In the event DNR has made cash contributions in excess of five percent (5%) of total Project costs which result in DNR having provided more than its required share of total Project costs, NRCS shall, no later than ninety (90) calendar days after the final accounting is complete, subject to the availability of appropriations, return said excess to DNR; however, DNR shall not be entitled to any refund of the five percent (5%) cash contribution required pursuant to Article II.b.2. of this Agreement.
g. If DNR’s total contribution under this Agreement (including land rights, easements, rights-of-way, relocations, material borrow and disposal areas, and work-in-kind provided by DNR and approved by NRCS) exceeds DNR’s required non-federal share of total Project costs, NRCS shall verify the actual exceeded costs and direct the U.S. Army Corps of Engineers, subject to the availability of appropriations for that purpose, and the minimum five percent (5%) cash requirement, refund the excess to DNR no later than 90 calendar days after the final accounting is complete.

ARTICLE VII - DISPUTES

Before any party to this Agreement may bring suit in any court concerning an issue relating to this Agreement, such party must first seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative dispute resolution mutually acceptable to the parties.

ARTICLE VIII - MONITORING, OPERATING, MAINTENANCE, AND REHABILITATION

a. After NRCS has accepted, with the concurrence of DNR, the completed Project, or the functional portion of the Project, DNR shall assume long-term monitoring responsibilities in accordance with the Project Monitoring Plan defined in Article I.j. of this Agreement. At this same time, DNR will also assume responsibilities for operation, maintenance and rehabilitation of the completed Project, or functional portion of the Project, following the recommendations jointly developed and approved by DNR and NRCS in the Project Operation, Maintenance, and Rehabilitation Plan defined in Article I.m. of this Agreement. These responsibilities will remain in effect for the expected life of the Project which is twenty (20) years from the date of acceptance of the completed Project unless otherwise agreed to by NRCS and DNR.

b. DNR grants NRCS the right to enter, at reasonable times and in a reasonable manner, upon land which it owns or maintains access easements to the Project, for the purpose of inspection related to monitoring, operating, maintaining, replacing, or rehabilitating the Project. If an inspection shows that DNR, for any reason, is failing to fulfill its obligations under this Agreement, NRCS will send a written notice to DNR concerning a need for compliance. If DNR persists in such failure for ninety (90) calendar days after receipt of the notice, then NRCS shall have a right to cancel the federal assistance portion of this Agreement for any additional expenses related to monitoring, operation, maintenance, and rehabilitation costs of the Project.

ARTICLE IX - MAINTENANCE OF RECORDS

NRCS and DNR shall keep books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement to the extent and in such detail as will properly reflect total Project costs. NRCS and DNR shall maintain such books, records, documents and other evidence
for a minimum of three (3) years after completion of construction, operation, maintenance, repair, replacement, rehabilitation, and monitoring of the Project and resolution of all relevant claims arising therefrom, and shall make available at their offices at reasonable times, such books, records, documents, and other evidence for inspection and audit by authorized representatives of the parties to this Agreement.

ARTICLE X - GOVERNMENT REVIEW OF RECORDS

NRCS shall have the right to conduct an audit, when appropriate, of DNR’s records for the Project to ascertain the reasonableness and allowability of its costs for inclusion as credit against the non-federal share of Project costs.

ARTICLE XI - STATE REVIEW OF RECORDS

DNR shall have the right to conduct an audit, when appropriate, of NRCS’s records for the Project to ascertain the reasonableness and allowability of its costs for inclusion as credit against the federal share of Project costs.

ARTICLE XII - RELATIONSHIP OF PARTIES

The parties to this Agreement act in an independent capacity in the performance of their respective functions under this Agreement, and neither party is to be considered the officer, agent, or employee of the other.

ARTICLE XIII - OFFICIALS NOT TO BENEFIT

No member of, or delegate to, the Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

ARTICLE XIV - COVENANT AGAINST CONTINGENT FEES

DNR warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by DNR for the purpose of securing business. For breach or violation of this warranty, NRCS shall have the right to annul this Agreement without liability, or, in its discretion, to add to the Agreement or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.
ARTICLE XV - TERMINATION OR SUSPENSION

a. If NRCS or DNR fails to receive annual appropriations for the Project in amounts sufficient to meet Project expenditure for the then-current or upcoming fiscal year, NRCS or DNR shall so notify the other Party. After sixty (60) calendar days from such notification either party may elect, without penalty, to terminate this Agreement pursuant to this Article or to defer future performance hereunder; however, deferral of future performance under this Agreement shall not affect existing obligations or relieve the parties of liability for any obligation previously incurred. In the event that either party elects to terminate this Agreement pursuant to this Article, both parties shall conclude their activities relating to the Project and proceed to a final accounting in accordance with Article VI of this Agreement. In the event that either party elects to defer future performance under this Agreement pursuant to this Article, such deferral shall remain in effect until such time as NRCS or DNR receives sufficient appropriations or until either party elects to terminate this Agreement.

b. Except as provided in paragraph (a) above, if at any time DNR fails to make the payments required under this Agreement, NRCS shall terminate or suspend work on the Project until DNR is no longer in arrears, unless NRCS determines that continuation of work on the Project is in the best interest of the United States or is necessary in order to satisfy agreements with any other non-federal interests in connection with the Project. DNR shall not be liable for any future payments should NRCS continue work on the Project, but shall remain liable for obligations previously incurred.

ARTICLE XVI - OBLIGATIONS OF FUTURE APPROPRIATIONS

Nothing herein shall constitute, or be deemed to constitute, an obligation of future appropriations by the legislature of the State of Louisiana when obligating future appropriations would be inconsistent with the State’s constitutional or statutory limitations.

ARTICLE XVII - NOTICES

a. All notices, requests, demands, and other communications required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally, given by prepaid telegram, or mailed by first-class (postage pre-paid), registered, or certified mail, as follows:

If to DNR:
Secretary, Department of Natural Resources
P.O. Box 94396
Baton Rouge, LA 70804-9396

If to NRCS:
State Conservationist
USDA-Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302
b. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

c. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at such time as it is personally delivered or seven (7) calendar days after it is mailed, as the case may be.

ARTICLE XVIII - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE XIX - PROJECT COST LIMITS

a. The PPL 101-646 Task Force estimated that the total project cost for this Project to be $14,103,051.00. That estimated total Project cost includes the following Project phases and associated estimated costs.

1. Engineering and design costs (also including supervision and administration, and lands) of $1,654,556.00

2. Construction and related contingency, and supervision and inspection of $9,723,048.00

3. Operation, maintenance and rehabilitation costs of $1,855,804.00

4. Monitoring costs of $ 855,145.00

5. U.S. Army Corps of Engineers Admin. Cost $ 14,498.00

b. To provide flexibility in the planning and construction of coastal restoration projects, the PL 101-646 Task Force authorized a maximum total Project cost of 125% of the estimated Project cost, or $17,628,814.00, for this particular Project.
c. If, at any time during the performance of a particular Project phase, the actual or anticipated cost of that phase exceeds the estimated cost of that phase as set forth in Article XIX. a. of this Agreement, all work in that particular Project phase shall cease. NRCS and DNR may agree to increase the cost of completing that particular phase of the Project, but only if such increase would not result in the total Project costs exceeding the maximum total Project cost defined in Article XIX.b. of this Agreement. Such agreement regarding cost increases for the cost of a particular Project phase shall be made by letter agreement confirmed by the mutual written approval of both the NRCS State Conservationist and the DNR Secretary. Work on that particular Project phase shall thereafter resume.

d. Any costs in excess of $17,628,814.00 shall be subject to review and approval by the Task Force and shall require an amendment to this Agreement approved by NRCS and the State. All work on the Project, including the award of contracts, shall cease until amendment of this Agreement and, review and approval by the Task Force. DNR's maximum contribution under the terms of this Agreement is $1,762,881.00; any contribution in excess of that amount shall be subject to written amendment to this Agreement, including review and approval by the Division of Administration, State of Louisiana.

ARTICLE XX - AMENDMENTS TO BE IN WRITING

This Agreement may be modified by agreement of the parties, in accordance with the provisions of CWPPRA and applicable federal and state regulations. All such amendments, modifications, revisions, and/or changes to this Agreement must be made in writing and acknowledged by signature of the authorized representatives of all parties of this Agreement. All such amendments, modifications, revisions, and/or changes to this Agreement shall be subject to review and approval by the Division of Administration, State of Louisiana.

ARTICLE XXI - EQUAL OPPORTUNITY AND CIVIL RIGHTS

a. The program or activities conducted under this Agreement will be in compliance with the nondiscrimination provision contained in the Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title IX of the education Amendments of 1972, and the Age discrimination Act of 1975. They will also be in accordance with regulations of the Secretary of Agriculture (7 CFR-15, Subparts A & B), which provide that no person in the United States shall on the grounds of race, color, national origin, age, sex, religion, marital status, or handicap be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial assistance from the Department of Agriculture or any agency thereof.

b. The Contracting Party shall not discriminate on the basis of sexual orientation.
ARTICLE XXII - SURVEY

Prior to commencement of any construction activities, NRCS or the Office of Coastal Restoration and Management of DNR, at the option of DNR, shall (1) cause to be conducted, a survey to determine the highest tide during winter season or such other time which will indicate the extent of State ownership existing prior to commencement of any restoration activities, or (2) obtain aerial photographs or satellite images of the project area taken within one year prior to commencement of the restoration activity, or (3) acquire such other information as is acceptable to DNR to indicate the extent of State ownership. Any costs associated with this Article are considered a part of total Project costs and shall be cost-shared according to the terms previously identified.

ARTICLE XXIII - FEDERAL AND STATE LAWS

a. In the exercise of DNR’s rights and obligations hereunder, DNR agrees to comply with all applicable federal and State laws and regulations.

b. NRCS agrees to comply with all applicable federal and State of Louisiana laws and/or regulations, unless state law and regulations are preempted by federal law.

ARTICLE XXIV – FISCAL FUNDING

The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the Louisiana legislature. If the Louisiana legislature fails to appropriate sufficient monies to provide for the continuation of the contract, or if such appropriation is reduced by the veto of the governor or by any means provided in the appropriations act to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds are not appropriated.
PENCHANT BASIN HYDROLOGIC RESTORATION PROJECT (TE-34)

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the ____________ day of April, 2002, before the undersigned witnesses.

USDA
NATURAL RESOURCES CONSERVATION SERVICE

BY: Donald W. Gohmert
Donald W. Gohmert
State Conservationist

BY: Jack C. Caldwell, Secretary
Jack C. Caldwell, Secretary
Louisiana Department of Natural Resources

THE STATE OF LOUISIANA

WITNESSES:

Cheryl Watts

Mary Gallopin

Bruce Little

WITNESSES:

Suzanne Terrell

Julie LaFleur

Karen Y. Lewis
CERTIFICATE OF AUTHORITY

I, Warren A. Fleet, do hereby certify that I am the principal legal officer of the Department of Natural Resources for the State of Louisiana, that the Department of Natural Resources for the State of Louisiana is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Natural Resources Conservation Service and the State of Louisiana in connection with the Penchant Basin Hydrologic Restoration Project (TE-34), Terrebonne Parish, LA, and that the persons who have executed this Agreement on behalf of the State have acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this 14th day of April, 2002.

Warren A. Fleet
General Counsel
CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

DATE: 4/23/02

JACK CALDWELL, Secretary
Department of Natural Resources
State of Louisiana
Cooperative Agreement No. CWPPRA-02-02
DNR Agreement No. 2511-02-15
Approved Format No. 16

STATE OF LOUISIANA

PARISH OF RAPIDES

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 15th day of May, 2002, personally came and appeared Donald W. Gohmert, to me known, who declared that he is the State Conservationist of the USDA - Natural Resources Conservation Service, that he executed the foregoing instrument on behalf of said Federal Agency and that the instrument was signed pursuant to the authority granted to him by said Federal Agency and that he acknowledged the instrument to be the free act and deed of said Federal Agency.

[Signature]
NOTARY PUBLIC

My commission expires: Life Time
(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 23rd day of April, 2002, personally came and appeared Jack C. Caldwell, to me known, who declared that he is the Secretary of the Department of Natural Resources, 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]
NOTARY PUBLIC

My commission expires: Life Time
(SEAL)
January 25, 2007

Mr. Scott A. Angelle
Secretary
Department of Natural Resources
State of Louisiana
P.O. Box 94396
Baton Rouge, Louisiana 70804-9396

Re:  Penchant Basin Natural Resources Plan (TE-34)

Dear Mr. Angelle:

The Natural Resources Conservation Service (NRCS) and the Louisiana Department of Natural Resources (LDNR) entered into a cost sharing agreement on April 23, 2002 (Cooperative Agreement No. CWPPRA-02-02, DNR Agreement No. 2511-02-15) for the Penchant Basin Natural Resources Plan Project (TE-34), Terrebonne Parish, Louisiana. It is necessary that we adjust some of the funding categories to meet projected charges. The following adjustments are required:

1. Engineering & Design (including supervision & administration and lands)
   FROM $1,654,556.00
   TO $2,004,556.00

2. Construction (including supervision & inspection)
   FROM $9,723,048.00
   TO $9,725,048.00

3. Operation, Maintenance, and Rehabilitation
   FROM $1,855,804.00
   TO $1,855,804.00

4. Monitoring
   FROM $855,145.00
   TO $855,145.00

5. USACE Project Management
   FROM $14,498.00
   TO $16,908.00

6. Contingency
   FROM $3,525,763.00
   TO $3,173,263.00

Total Project Cost
FROM $17,628,814.00
TO $17,628,814.00

These increases do not cause the total Project cost to exceed the maximum total project cost as defined in Article XIX.b. of the subject Agreement, nor does it require approval of the CWPPRA Task Force.

According to Article XIX.c. of the Agreement, confirmation and written approval of this type of funding arrangement is required by both NRCS and LDNR. Therefore, by this letter, I am requesting your agreement and concurrence to make this funding adjustment so we can complete the project work requirements. If you concur with this request, please indicate such by your signature in the space provided and returning one original signed copy back to me.

Helping People Help the Land
An Equal Opportunity Provider and Employer
I look forward to the continuation of the amicable working relationships and partnering efforts between NRCS and LDNR called for by this Project and other CWPPRA projects.

Sincerely,

Donald W. Gohmert
State Conservationist

Concurred: Scott A. Angelle
Secretary
Date: 1/13/07
ATTACHMENT II

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1
(TE-34)

PROJECT FEATURES
ATTACHMENT III

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1
(TE-34)

PROJECT COMPLETION REPORT
PROJECT COMPLETION REPORT

PROJECT NAME: Penchant Basin Natural Resources Plan, Increment 1

CWPPRA/STATE PROJECT NO.: TE-34

Report Date: July 19, 2012
By: Charles Slocum

1. Project Managers/Contracting Officer:

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPRA Project Manager</td>
<td>Bill Feazel</td>
<td>(225) 247-2089</td>
</tr>
<tr>
<td>CPRA Construction Project Manager</td>
<td>Brian Babin</td>
<td>(985) 447-0956</td>
</tr>
<tr>
<td>CPRA Monitoring Manager</td>
<td>Jason Curole</td>
<td></td>
</tr>
<tr>
<td>Federal Agency Project Manager</td>
<td>John Jurgensen/Quin Kinler</td>
<td>(318) 473-7694 (225) 382-2047</td>
</tr>
<tr>
<td>Federal Agency Contracting Officer</td>
<td>Ralph Broome</td>
<td>(318) 473-7781</td>
</tr>
</tbody>
</table>

2. Location and description of projects as approved for construction by Task Force.

The project is bounded on the north by the Gulf Intracoastal Waterway (GIWW), the east by a north/south line from Lake DeCade to the GIWW, the south by Lake Merchant and Lost Lake, and to the west by a north/south line from Lost Lake to Avoca Island in Terrebonne Parish, Louisiana.

The project includes about 6,529 feet of foreshore rock dike (shoreline protection) along the southern bank of Bayou Chene at its intersection with Bayou Penchant and approximately 35 acres of marsh creation. Two freshwater introduction structures, consisting of a) sheet pile structure with 10-48” flap gates in Superior Canal and b) sheet pile weir with 10’ boat bay opening and six 5’ x 5’ flap gated at Brady Canal, will be constructed to improve freshwater conveyance from Bayou Penchant into the central Terrebonne marshes. On the north bank of Bayou Decade extending from Lake decade to Turtle Bayou (12,000ft) an earthen embankment will be maintained and from Voss Canal to Lost Lake (14,000 ft) an earthen embankment will be constructed to 4.0 feet NAVD88 with 6:1 side slopes and rock armoring on the south-face. Within the embankment, a sheet pile weir with a 10 ft wide boat bay, will be constructed at each of two existing channels that intersect Bayou Decade.

3. Final, as-built features, boundaries and resulting acreage (use attachments if necessary).

Approximately 14,500 linear feet of earthen embankment armored with rock riprap along with an access floatation channel along the north bank of Bayou DeCade. Within this reach of Bayou DeCade, two sheet pile water control structures were installed at sites #4, #5, each with boat bays. Two sheet pile water control structures with 6 Aluminum flap gates each was installed, one at Brady Canal with a 10’ boat bay and the other at Superior Canal without a boat bay. Additionally approximately 30 acres of marsh creation was included in the project at the Mouth of Penchant Bayou. This consists of construction of approximately 4,813 linear feet of containment dikes and 187,000 cubic yards of hydraulic dredged fill placement for marsh creation. Protecting the marsh creation area and acting as containment for the dredge fill, 6,667 linear feet of rock dike was installed at the Mouth of Penchant.

The exact location and construction dimensions of the project can be seen in the attached “As-Built” drawings.

1To be filled out at construction completion by either the CPRA Construction Project Manager or the Federal Agency Contracting Officer depending on which organization had lead role for construction of project. (Except for some items under # 13).
Actual Benefitted Acres   675 acres

4. Key project cost elements

<table>
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<tr>
<th>(MIPR # = 83179326)</th>
<th>CWPPRA Project Cost Estimates**</th>
<th>Cost Incurred as of Construction Completion</th>
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<td>Construction</td>
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<td>E &amp; D</td>
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<td>Monitoring</td>
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<td>O &amp; M</td>
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<td>Total</td>
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As of 6-16-2014
** Most recent estimate from Cost Share Agreement.

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<th>Estimated Amount</th>
<th>Unit Bid Price</th>
<th>Bid Amount</th>
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<th>Final Amount</th>
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<td>$2,085,850.00</td>
<td>$61.00</td>
<td>$1,957,490.00</td>
<td>32,090</td>
<td>$1,957,490.00</td>
<td>100.00%</td>
</tr>
<tr>
<td>12</td>
<td>Rock Riprap, R300</td>
<td>42,409 Tons</td>
<td>$65.00</td>
<td>$2,756,585.00</td>
<td>$2,756,585.00</td>
<td>$62.00</td>
<td>$2,629,358.00</td>
<td>41,576</td>
<td>$2,577,712.00</td>
<td>98.04%</td>
</tr>
<tr>
<td>13</td>
<td>Water Control Gates, 5 ft by 5 ft</td>
<td>12 EA</td>
<td>$15,000.00</td>
<td>$180,000.00</td>
<td>$180,000.00</td>
<td>$9,000.00</td>
<td>$108,000.00</td>
<td>12</td>
<td>$108,000.00</td>
<td>100.00%</td>
</tr>
<tr>
<td>14</td>
<td>Metal Fabrication, Settlement Plates</td>
<td>7 EA</td>
<td>$2,500.00</td>
<td>$17,500.00</td>
<td>$17,500.00</td>
<td>$2,500.00</td>
<td>$17,500.00</td>
<td>7</td>
<td>$17,500.00</td>
<td>100.00%</td>
</tr>
<tr>
<td>15</td>
<td>Metal Fabrication and Installation, Sheet Pile Cap, Rails, &amp; Appurtenances</td>
<td>1 Job</td>
<td>$80,000.00</td>
<td>$80,000.00</td>
<td>$150,000.00</td>
<td>$150,000.00</td>
<td>1</td>
<td>$150,000.00</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Identification Markers or Plaques, Permanent Warning Signs</td>
<td>45 EA</td>
<td>$2,800.00</td>
<td>$126,000.00</td>
<td>$2,000.00</td>
<td>$90,000.00</td>
<td>45</td>
<td>$90,000.00</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Identification Markers or Plaques, Staff Gages</td>
<td>18 EA</td>
<td>$2,000.00</td>
<td>$36,000.00</td>
<td>$600.00</td>
<td>$10,800.00</td>
<td>18</td>
<td>$10,800.00</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Contractor Quality Control</td>
<td>1 Job</td>
<td>$75,000.00</td>
<td>$75,000.00</td>
<td>$40,000.00</td>
<td>$40,000.00</td>
<td>1</td>
<td>$40,000.00</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Geotextile</td>
<td>69,501 SY</td>
<td>$8.00</td>
<td>$556,008.00</td>
<td>$556,008.00</td>
<td>$7.50</td>
<td>$521,257.50</td>
<td>69,501</td>
<td>$521,257.50</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Total Estimate $10,452,928.00 Total Bid $9,424,272.50 Sub-Total $9,141,629.79

M 1 Includes buy American Act into the Contract - NO COST

M 2 To change vendors code for payment processing - NO COST

M 3 Purpose to eliminate the geotextile from face of rock dike and to change work limits from 10' to 20'

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Work</th>
<th>Estimated Quantity</th>
<th>Unit</th>
<th>Estimated Unit Price</th>
<th>Estimated Amount</th>
<th>Unit Bid Price</th>
<th>Bid Amount</th>
<th>Final Quantity</th>
<th>Final Amount</th>
<th>% Over/Under</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Geotextile Removed</td>
<td>1 Job</td>
<td></td>
<td>$20,539.66</td>
<td>$20,539.66</td>
<td>1</td>
<td>$20,539.66</td>
<td>$20,539.66</td>
<td>100.00%</td>
<td></td>
</tr>
</tbody>
</table>

Total Modification #3 $20,539.66
M 4 needed as a result of rock riprap below the required excavation limits on the Brady Canal site hindering installation of the sheet pile

<table>
<thead>
<tr>
<th>Excavation, Site Work</th>
<th>1 Job</th>
<th>$2,784.08</th>
<th>$2,784.08</th>
<th>1</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Modification #4</strong></td>
<td>$2,784.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

M 5 this mod allows for government provided signs to be installed at the Mouth of Penchant and the marsh creation area.

<table>
<thead>
<tr>
<th>Sign Installation</th>
<th>1 Job</th>
<th>$1,992.00</th>
<th>$1,992.00</th>
<th>1</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Modification #5</strong></td>
<td>$1,992.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

M 6 To remove unforeseen wooden structure at the Superior Canal site hindering installation of the sheet pile structure

<table>
<thead>
<tr>
<th>Excavation, Site Work</th>
<th>1 Job</th>
<th>$26,999.00</th>
<th>$26,999.00</th>
<th>1</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Modification #6</strong></td>
<td>$26,999.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

M 7 To install PVC pipe markers at the mouth of Penchant and the marsh creation area

<table>
<thead>
<tr>
<th>Mod #7 Install PVC Post</th>
<th>1 Job</th>
<th>$5,176.44</th>
<th>$5,176.44</th>
<th>1</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Modification #7</strong></td>
<td>$5,176.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

M 8 To add CLIN item to allow for payment of delay claim and to allow for overrun and underrun quantities for contract close out

<table>
<thead>
<tr>
<th>Rock Riprap R150</th>
<th>2,338 Tons</th>
<th>$61.00</th>
<th>$142,618.00</th>
<th>2,338</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geotextile</td>
<td>9,674 SY</td>
<td>$7.50</td>
<td>$72,555.00</td>
<td>9,674</td>
<td>100.00%</td>
</tr>
<tr>
<td>Checklist Delay Claim</td>
<td>1 Job</td>
<td>$17,635.48</td>
<td>$17,635.48</td>
<td>1</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Total Modification #8</strong></td>
<td><strong>$232,808.48</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Final Contract Price** $9,431,929.45

6. Construction and construction oversight

<table>
<thead>
<tr>
<th>Prime construction contractor</th>
<th>The Delaney Group, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcontractor</td>
<td>Luhr Bros</td>
</tr>
<tr>
<td>Subcontractor</td>
<td>Frisco</td>
</tr>
<tr>
<td>Subcontractor</td>
<td>Inland Marine</td>
</tr>
<tr>
<td>Subcontractor</td>
<td>BS Equipment</td>
</tr>
<tr>
<td>Subcontractor</td>
<td>Frogco</td>
</tr>
<tr>
<td>Subcontractor</td>
<td>Southwind Dredging</td>
</tr>
</tbody>
</table>

**Original construction contract** $9,424,272.50

| Change orders | $290,299.66 |
| Under runs | ($ - 282,642.71) |

**Final construction contract** $9,431,929.45

| Const. oversight contractor | N/A |
| Cons. O.S./Admin. agency | NRCS |

**Final Contract Price** $9,431,929.45

7. Major equipment used.

- Manitowoc 4600
- Linkbelt 240 Track Hoe Excavator
- Cat 320 LL Marsh Buggy Excavator
- Cat 324 LL Marsh Buggy Excavator
- American HC60 Terex Crane
- Caterpillar 345D Excavator
- Kobelcosk 160LC Excavator
- Linkbelt 318 Crane
- John Deere 240D Marsh Buggy Excavator
- ALBOB Tug Boat
- Tug Danny Joe
- Bayou Lady Tug Boat
- S/V I Tug Boat
- Ellicott 570 12” Suction Dredge
- Frisco II Spud Barge
- Frisco III Spud Barge
- Frisco IV Spud Barge
- Frisco V Deck Barge
- JMC Spud Barge
- RG-426 Spud Barge
- GD-2012 Spud Barge
- L-401 Spud Barge
- Rooster Spud Barge
- LIL JB Spud Barge
- LL-101 Supply Barge
8. **Discuss construction sequences and activities, problems encountered, solutions to problems, etc.**

Excavate floatation and place spoil as required for access flotation on Bayou Penchant then construct approximately 4,813 linear feet of earth containment for marsh creation areas.
Place about 6,667 linear feet of rock containment dike for approximately 30 acres of marsh creation and dredge approximately 187,000 cubic yards.
Excavate and place spoil as required for access flotation on Bayou Decade and construct approximately 14,500 linear feet of earthen embankment armored with rock riprap.
Install a water control structures at site # 5 then site # 4, each with boat bays, Construct a sheet pile water control structure with 6 aluminum flap gates and a 10’ boat bay at Brady Canal and a sheet pile water control structure with 6 aluminum flap gates at Superior Canal, with no boat bay.

9. **Construction change orders and field changes.**

**Modification #1:** The purpose of this mod is to include the Buy American Act clause in the contract. Changes the Contract FAR clause 52.225.9 Buy American Act–Construction Materials (Feb 2009) to 52.225-11, Buy American Act Construction Materials under Trade Agreements Act (Aug 2009). No additional cost due to this modification.

**Modification #2:** The purpose of this mod is to changes the contractors Vendor Code for payment processing. No additional cost for this modification

**Modification #3:** The purpose of this mod is to change the work limits on the rock dike along Bayou Decade from 10 feet to 20 feet and eliminates the geotextile on the face of the rock dike at the Mouth of Penchant. Add bid item 20 geotextile removal to the contract.

The net cost increases this modification by $20,539.66.

**Modification #4:** The purpose of this mod is to remove unknown rock structure below the excavation limits in the work area hindering the installation of the sheet piling at Brady Canal site.

The net increase to bid item 6 for this modification is $2,784.08.

**Modification #5:** The purpose of this mod is to install NRCS provided signs in the work area at the Mouth of Penchant and the marsh creation area.

New bid item 21 increases the net contract amount by $1,992.00 for this modification.

**Modification #6:** The purpose of this mod is needed as a result of removal unknown wooden structure in the work area at Superior Canal site hindering the installation of the sheet piling structure.

The net increase to bid item 6 for this modification is $26,999.00.

**Modification #7:** The purpose of this mod is to install additional PVC warning post, between the permanent warning signs, in the work area at the Mouth of Penchant and the marsh creation area.

New bid item 22 increases the net contract amount by $5,176.44 for this modification.

**Modification #8:** The purpose of this mod is to add line item to the contract to allow for billing of cost incurred due to claim of government delay and to zero out line items which have remaining quantity that will not be billed or had a quantity overrun to allow for contract closeout.

- CLIN #8, quantity is decreased from 220,000 cy to 187,000.47 cy and value of this item is decreased from $1,540,000.00 to $1,309,003.29.
- CLIN #11, quantity is increased from 32,090 tons to 34,428 tons and the value of this item is increased from $1,957,490.00 to $2,100,108.00.
- CLIN #12, quantity is decreased from 42,409 tons to 41,576 tons and the value for this item is decreased from $2,629,358.00 to $2,577,712.00.
- CLIN #19, quantity is increased from 69,501 sy to 79,175 sy and the value of this item is increased from $521,257.50 to $593,812.50.
- CLIN 23, is added to the contract to allow for claim payment, value is $17,635.48.

The total contract value is decreased from $9,481,763.68 to $9,431,929.45.
10. Pipeline and other utility crossings.

<table>
<thead>
<tr>
<th>Structure</th>
<th>Owner</th>
<th>Rep. To Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>16” and 22” Pipelines</td>
<td>Shell</td>
<td>Mr. Kevin Arceneaux</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Office (985) 873-3429</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cell (985) 790-2868</td>
</tr>
</tbody>
</table>

11. Safety and Accidents.

NONE

12. Additional comments pertaining to construction, completed project, etc.

NONE

13. **Significant Construction Dates:** To be filled out by CPRA Construction Project Manager or Contracting Officer for construction for Agency responsible for construction.

<table>
<thead>
<tr>
<th>Bid I.D. (Construction, Vegetation, etc.)</th>
<th>Date</th>
<th>Bid I.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Opening</td>
<td>2/12/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Construction Contract Award</td>
<td>4/6/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Preconstruction Conference</td>
<td>5/24/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Notice to Proceed</td>
<td>5/25/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Mobilization</td>
<td>6/2/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Construction Start</td>
<td>6/9/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Construction Completion</td>
<td>8/29-2011</td>
<td>AG-7217-C-10-0005</td>
</tr>
<tr>
<td>Final Acceptance</td>
<td>9/7/2010</td>
<td>AG-7217-C-10-0005</td>
</tr>
</tbody>
</table>

If different bids are taken, repeat this table to individually reflect each bid and attach tables.
ATTACHMENT IV

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1
(TE-34)

AS-BUILT DRAWINGS
REVETMENT PLAN - REACH 1

AMENDMENT 5: WIDEN FLATOTION CHANNEL TO 80'

PILE CLUSTER SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE EMBANKMENT

NOTICE: SEE SHEETS 7 O & 71 FOR SOIL LOSS

"AS-BUILT"

LOST LAKE

DATE: ALL HORIZONTAL COORDINATES - NAD83
ALL ELEVATIONS - NAVD88

SCALE IN FEET

100 200 300 400

BAYOU DE CADE

DECIDE BORROW 1

DECRED SHORE 1

LAYOUT COORDINATES

<table>
<thead>
<tr>
<th>Type</th>
<th>Station</th>
<th>Northing (Y)</th>
<th>Easting (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HWP</td>
<td>0+00</td>
<td>350000.00</td>
<td>250000.00</td>
</tr>
<tr>
<td>PI</td>
<td>1+54</td>
<td>350534.94</td>
<td>3380455.66</td>
</tr>
<tr>
<td>PI</td>
<td>2+85</td>
<td>350617.16</td>
<td>3380681.46</td>
</tr>
<tr>
<td>PI</td>
<td>3+85</td>
<td>350640.05</td>
<td>3380888.90</td>
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<tr>
<td>PI</td>
<td>4+80</td>
<td>350705.07</td>
<td>3380996.50</td>
</tr>
<tr>
<td>PI</td>
<td>5+10</td>
<td>350746.16</td>
<td>3381094.82</td>
</tr>
<tr>
<td>PI</td>
<td>6+11</td>
<td>350792.74</td>
<td>3381108.03</td>
</tr>
<tr>
<td>PI</td>
<td>7+14</td>
<td>351014.87</td>
<td>3383121.68</td>
</tr>
<tr>
<td>PI</td>
<td>8+24</td>
<td>351030.28</td>
<td>3381786.82</td>
</tr>
<tr>
<td>PI</td>
<td>9+28</td>
<td>358006.77</td>
<td>3382185.94</td>
</tr>
<tr>
<td>PI</td>
<td>11+26</td>
<td>358126.73</td>
<td>3382324.86</td>
</tr>
</tbody>
</table>

LEGEND

- FLATOTION / BRIDGE CHANNEL
- REVETMENT
- HORIZONTAL PI
- EARTCHEN EMBANKMENT
- SOIL BORING
AMENDMENT 5 - WIDEN FLOTATION CHANNEL TO 80'
NOTE:
NO EXCAVATION ALLOWED WITHIN 50' OF SHELL PIPELINES

AMENDMENT 5 - WIDEN FLOTAION CHANNEL TO 80'

REVETMENT PLAN REACH 1 & 2

SCALE IN FEET

DECAYE BORROW 3

NOTICE:
48 HOURS BEFORE DIGGING TO ENSURE UTILITY LINES

NOTES:
1. EXCAVATION IS REQUIRED TO CONSTRUCT THE EARTHEN EMBANKMENT TO THE LINES AND GRADES SHOWN.
2. EXCAVATION FOR FLOATATION IN EXCESS OF THE MATERIAL REQUIRED FOR CONSTRUCTING THE EARTHEN EMBANKMENT IS OPTIONAL TO THE CONTRACTOR.
3. SURPLUS MATERIAL MAY BE PLACED ON THE BAYOU SIDE OF THE FLOATATION CHANNEL, SUCH MATERIAL SHALL BE PLACED BACK INTO THE ACCESS CHANNEL AT THE END OF CONSTRUCTION.
4. ADDITIONAL MATERIAL SHALL BE TAKEN FROM A DEEPER CUT WITHIN BAYOU DE CADE AT SECTIONS WHERE ACCESS CHANNEL EXCAVATION QUANTITIES ARE NOT SUFFICIENT FOR CONSTRUCTING THE REQUIRED EARTH TAIL FOR THE EARTHEN EMBANKMENT.
5. TEMPORARY WARNING SIGNS SHALL BE PLACED AS SHOWN AT A MAXIMUM DISTANCE OF 500' C-C.

WORK LIMITS

NO GEOTEXTILE IS REQUIRED FOR REVESTMENT REACH 2

BOTTOM ELEV.:+5.0'

TOP OF Dike: +4.0'

ELEV.:+5.0'

NORMAL GROUND

GEOTEXTILE TOTAL WIDTH: 33'

30' MIN.

BEAM

WAX: +5'

AS REG.

BAYOU DE CADE

TYPICAL SECTION - REVESTMENT
BAYOU DE CADE SHORELINE

AMENDMENT#5- WIDEN FLOATATION CHANNEL TO 80'

"AS-BUILT"

NOT TO SCALE

ROCK PLUG - STA 13+40 TO STA 15+40
BAYOU DE CADE - REACH 3
Ç EARTHEN EMBANKMENT PROFILE - REACH 1
STA. 0+00 - STA. 25+00

Ç EARTHEN EMBANKMENT PROFILE - REACH 1
STA. 25+00 - STA. 50+00

Ç EARTHEN EMBANKMENT PROFILE - REACH 1
STA. 50+00 - STA. 58+65

NOTICE:
48 HOURS BEFORE DIGGING
TO LOCATE UTILITY LINES

"AS-BUILT"
© EARTHEN EMBANKMENT PROFILE - REACH 3
STA. 0+00 - STA. 20+00

© EARTHEN EMBANKMENT PROFILE - REACH 3
STA. 20+00 - STA. 39+11

NOTICE:
AS-BUILT

STATE OF LOUISIANA
AMENDMENT: Widen Flotation Channel to 80'
AMENDMENT 5 - WIDEN FLUTATION CHANNEL TO 80'

NOTICE:
CONTRACTOR SHALL EXCAVATE BEYOND EXCAVATION TEMPLATE WHEN BORROW QUANTITY IS LESS THAN REQUIRED FOR EARTHEN EMBANKMENT CONSTRUCTION.  THIRTY FOOT BERM BETWEEN REVETMENT AND EXCAVATION IS NOT TO BE DISTURBED.

NOTICE:
48 HOURS BEFORE DIGGING TO LOCATE UTILITY LINES.
AMENDMENT 5 - WIDEN FLOTATION CHANNEL TO 80'

NOTE:
CONTRACTOR SHALL EXCAVATE BEYOND EXCAVATION TEMPLATE
WHEN BORROW QUANTITY IS LESS THAN REQUIRED FOR EARTHEN
ENHANCEMENT CONSTRUCTION. THIRTY (30) FEET BEYOND RETENTION
AND EXCAVATION IS NOT TO BE DISTURBED.

NOTICE:
48 HOURS BEFORE DIGGING
TO LOCATE UTILITY LINES.
AMENDMENT*5- WIDEN FLOTATION CHANNEL TO 80'

NOTE:
CONTRACTOR SHALL COMPLETE BEYOND EXCAVATION TEMPLATE.
WHEN BORROW QUANTITY IS LESS THAN REQUIRED FOR EARTENK
EMBANKMENT CONSTRUCTION TARRY FOOT ROW BETWEEN EMBANKMENT
AND EXCAVATION IS NOT TO BE DISTURBED.

NOTICE:
48 HOURS BEFORE DIGGING
CONTACT (409) 764-2850
TO LOCATE UTILITY LINES.
NOTICE:
When required, rock riprap is to extend beyond embankment toe 10 feet in all directions.

NOTE:
Contractor shall excavate beyond excavation template when borrow quantity is less than required for earth embankment construction. Thirty-foot berm between revetment and excavation is not to be disturbed.

48 hours before placing pulls or cast utility lines.
AMENDMENT 5 - WIDEN FLOTAION CHANNEL TO 80'
AMENDMENT 5 - WIDEN FLOTATION CHANNEL TO 80'

NOTE:
CONTRACTOR SHALL EXCAVATE BEYOND EXCAVATION TEMPLATE.
WHEN BORROW QUANTITY IS LESS THAN REQUIRED FOR EARTHEN EMBANKMENT CONSTRUCTION, THIRTY FOOT BERM BETWEEN EARTHEN AND EXCAVATION IS NOT TO BE DISTURBED.

NOTICE:
48 HOURS BEFORE DIGGING CALL 985-692-5000 TO LOCATE UTILITY LINES.
ISOMETRIC VIEW

SITE 5 - SHEETPILE WALL

"AS-BUILT"
NOTE:
SEE SHEET 55 FOR SHEETPILE DETAIL

"AS-BUILT"

ISOMETRIC VIEW
SITE 4 - SHEETPILE WALL

STEEL SHEETPILE
MINIMUM THICKNESS - 0.375 INCHES
MINIMUM MOMENT OF INERTIA - 78.8 IN^4 / FT WALL
ASME A 572 GRADE 50

12" X 50' TIMBER BATTER PILE @ 15" BATTER

STEEL SHEETPILE CAP
ELEV. 6.09 M.A.S.L.
NOTES:
1. SEE SHEET 55 FOR SHEETPILE DETAILS
2. SEE SHEETS 41 & 42 FOR GAGE DETAILS

STEEL SHEETPILE:
MINIMUM THICKNESS: 0.375 INCHES
MINIMUM YIELD STRENGTH: 76.8 KSI / FT WALL
ASTM A 572 GRADE 50

"AS-BUILT"

ISOMETRIC VIEW
SUPERIOR CANAL - SHEETPILE WALL
BEGIN SHEET PILE WEIR
N333779.56 E3397526.95
N333763.82 E3397531.69

PERMANENT WARNING SIGN COORDINATES & TYPES

END SHEET PILE WEIR
N333606.38 E3397577.02
N333700.76 E3397572.02

"AS-BUILT"
ROCK RIPRAP GRADATION

PERCENT LARGER BY WEIGHT

<table>
<thead>
<tr>
<th>100</th>
<th>50-100</th>
<th>0-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>300</td>
<td>150</td>
</tr>
</tbody>
</table>

NORTHEAST

SOUTHWEST

SECTION VIEW - SHEETPILE

BRADY CANAL

"AS-BUILT"

SECTION VIEW - SHEETPILE

BRADY CANAL

43
NOTES:
1. The minimum web and flange thickness of sheet piles shall be 0.375".
2. Minimum moment of inertia is 1¢ lb (sheet, wall).
3. The contractor shall submit a method of connecting the pile cap to the sheet pile and all drawings for approval 14 days prior to fabrication.
4. Steel sheet pile shall conform to ASTM A572, Gr. 50. All channel, angles and plates shall conform to ASTM A36. The sheet pile and pile connector shall be painted as specified by Const. Spec. 82.
5. All sheet pile dimensions are typical and are subject to change based on manufacturer/supplier.
6. Sheet pile will be driven in the thermal configuration as shown.
7. The holes in the sheet pile shall be field drilled and coating repaired.
8. Use L 6x43/8" clips are to be placed on the middle section of each pile as shown in the drawings.
9. 8" strips of 2" (3M) tape at 12" O.C. for both vertical faces of pile cap for entire length for bridge structure only.

NOTE:
1. The contractor shall provide pile cap lengths no less than 12' for all splices.

NDT TO SCALE
MARSH CREATION SIDE

MARSH SIDE

NOTES:
1. THE CONSTRUCTED SIDE SLOPES FOR THE EARTHEN CONTAINMENT DIKE SHALL BE AS REQUIRED TO CONTAIN THE DREDGE FILL MATERIAL.

TYPICAL SECTION—EARTHEN CONTAINMENT DIKE INTERIOR BORROW

(Not To Scale)

"AS-BUILT"
SETTLEMENT PLATE DETAILS

NOT TO SCALE

ELEVATION VIEW

PLAN VIEW

DETAIL 1 - 6" PIPE SLEEVE

PLAN VIEW

4'-0"

2'-0"

SETTLEMENT PLATE DETAILS

(AS-BUILT)

TYPICAL ELEVATION

NOTES:

1. This settlement plate elevation shall be determined before placing rock and at end of construction.
# Unified Soil Classification System

## Major Divisions

<table>
<thead>
<tr>
<th>Class</th>
<th>Symbol</th>
<th>Letter</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Gravels</strong></td>
<td>Clean Gravels</td>
<td>CW</td>
<td>Well graded gravel, gravel-sand mixture</td>
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<tr>
<td>More than half</td>
<td></td>
<td>GP</td>
<td>Poorly graded gravel, gravel-sand mixture</td>
</tr>
<tr>
<td>of coarse</td>
<td></td>
<td>GM</td>
<td>Silty gravel, gravel-sand-silt mixture</td>
</tr>
<tr>
<td>fraction finer</td>
<td></td>
<td>GC</td>
<td>Claysil gravel, gravel-sand-clay mixture</td>
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<tr>
<td>than No. 4</td>
<td></td>
<td>SW</td>
<td>Well graded sand, gravelly sand</td>
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<tr>
<td>(Approximate amount of fines)</td>
<td></td>
<td>SP</td>
<td>Poorly graded sand, gravelly sand</td>
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<tr>
<td><strong>Sands</strong></td>
<td>Clean Sands</td>
<td>ML</td>
<td>Silt with little or no plasticity</td>
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<tr>
<td>More than half</td>
<td></td>
<td>CL</td>
<td>Silty clay, low to medium plasticity</td>
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<tr>
<td>of coarse</td>
<td></td>
<td>CM</td>
<td>Claysilt, silt with slight to medium plasticity</td>
</tr>
<tr>
<td>fraction finer</td>
<td></td>
<td>CH</td>
<td>Clay, high plasticity</td>
</tr>
<tr>
<td>than No. 4</td>
<td></td>
<td>PT</td>
<td>Clay, high plasticity</td>
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<tr>
<td>(Approximate amount of fines)</td>
<td></td>
<td></td>
<td>Organic clay of medium to high plasticity</td>
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## Fine-Grained Soils

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<tr>
<td><strong>Silt and Clays</strong></td>
<td>Liquid limit less than 50</td>
<td>ML</td>
<td>Clayey silt, silt with slight to medium plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CL</td>
<td>Silty clay, low to medium plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CM</td>
<td>Clay, high plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CH</td>
<td>Silt, high plasticity</td>
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</table>

## Highly Organic Soils

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<th>Letter</th>
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<tbody>
<tr>
<td><strong>Organic Soils</strong></td>
<td>Liquid limit greater than 50</td>
<td>ML</td>
<td>Clay, high plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CM</td>
<td>Claysilt, silt with slight to medium plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PT</td>
<td>Silt, high plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
<td>Organic clay of medium to high plasticity</td>
</tr>
</tbody>
</table>

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For more details, refer to the Soil Profile Legend: TE-34 Pemchant Basin, Terrebonne Parish, Louisiana.
NOTICE:
72 HOURS BEFORE DIGGING
CALL 1-800-272-3020
TO LOCATE UTILITY LINES

SITE MAP – SUPERIOR CANAL
TE-34 FLOATING DEBRIS BARRIERS

MODIFICATION

-expanding your dimensions

ACCOUNT OF MATHAUM

7. THE ORIGINAL PLANS SHOWING THE TWO WARNING SIGNS IN THE INCORRECT LOCATION. THE PURPOSE OF MODIFICATION 3 IS TO SHOWN THE WARNING SIGNS CORRECTLY, AND TO CALL FOR THEIR REMOVAL AND DISPOSAL AS SPECIFIED.

"AS-BUILT"
DATE OF COMPLETION 02/21/2011

F PEE NAME
DR NEE NAME
M O LIGHT NUMBER 4734
T IA NAME
SHEET 04 OF 11
FLOATING DEBRIS BARRIER DETAILS

TOP VIEW

ELEVATION VIEW

END VIEW

"AS-BUILT"

DATE OF COMPLETION: 06/07/2012

NOTICE:
72 HOURS BEFORE DIGGING
CALL 1-800-272-3020
TO LOCATE UTILITY LINES
UNDERWATER HANGING DEBRIS SCREEN DETAILS

ELEVATION VIEW

NOTES:

2. THE TYPE OF MATERIAL AND TYPE OF CONSTRUCTION FOR THE UNDERWATER HANGING DEBRIS SCREENS VARIES CONSIDERABLY BETWEEN MANUFACTURERS.

3. SEE SHEET 4 AND 6 FOR FLATION ISSUES THAT WILL REQUIRE UNDERWATER HANGING DEBRIS SCREENS. ALSO, THE DEPTH OF SCREEN FOR RESPECTIVE FLATION BODY.

4. THE DESIGN, MATERIAL, CONSTRUCTION AND CONNECTIONS SHALL BE SUCH THAT THE UNDERWATER HANGING DEBRIS SCREEN WILL NOT DEFEAT ALONG THE LATERAL AXES, AND THE SCREEN WILL REMAIN IN A VERTICAL POSITION DURING FLOW CONDITIONS.

"AS-BUILT"
DATE OF COMPLETION 6/07/2012
NOTICE:
72 HOURS BEFORE DIGGING
CALL 1-800-272-3020
TO LOCATE UTILITY LINES

TOP VIEW

ELEVATION VIEW

TIMBER PILE ANCHOR SYSTEM
AT BRADY CANAL BOAT BAY

"AS- BUILT"
DATE OF COMPLETION: 6/27/2013

TYPICAL TIMBER PILE ANCHOR SYSTEM

NRCS
USDA
United States Department of Agriculture

TIMBER PILE CONNECTION DETAILS
TE-34 FLOATING DEBRIS BARRIER
BRADY CANAL AND SUPERIOR CANAL
TERREBONNE PARISH, LOUISIANA

DESIGNED: M. CIGNONI
DRAFT: A. CIGNONI
CHECKED: B. GAISON
APPROVED: M. CIGNONI
DATE: 04/23
DO NOT PROCEED

SIGN DETAILS

PLAN

12" x 50' TIMBER PILE

2-1/2" x 50' TIMBER PILE

2" CONSCRIPTIVITY TAPE

STAINLESS STEEL WIRE ROPES (SEE NOTE 2 - SHEET 11)

STAINLESS STEEL LAG BOLT (SEE NOTE 2 - SHEET 11)

1/8" ALUMINUM STRIP (SAME AS SIGN STOCK)

1/4" NUT ALUMINUM ANGLE (MELDED TO SIGN)

2" RADIUS ON ALL CORNERS

AMEND. 1

PERMANENT SIGN DETAILS

NOTE:
1. THE 1/8" ALUMINUM STRIP SHALL BE REFLECTIVE MATERIAL OF SAME COLOR AS THE LETTERING AND SHALL BE MELTED TO THE ALUMINUM ANGLE
2. THE TIMBER PILE SHALL BE 12' X 50' AND BE SQUARE HOLLOW SECTORS
3. SEE SHEET 11 FOR DETAILS ON THE 4 PILE DOCKS.

ELEVATION

SIDE

MODIFICATION 2

THE PURPOSE OF MODIFICATION NO. 3 IS TO CONDENSE AMENDMENT 1 AND MODIFICATION 1 INTO A SINGLE DOCUMENT.

ELEV. +11.5' NAVO

1/8" ALUMINUM STRIP (SAME AS SIGN STOCK)

2" CONSCRIPTIVITY TAPE

STAINLESS STEEL WIRE ROPES (SEE NOTE 2 - SHEET 11)

1/8" STAINLESS STEEL LAG BOLT WITH 1/4" NUT STAINLESS STEEL WASHERS (3 REQUIRED PER SIGN)

1/8" STAINLESS STEEL WIRE ROPES (SEE NOTE 2 - SHEET 11)

1/8" ALUMINUM ANGLE (MELDED TO SIGN)

2" CONSCRIPTIVITY TAPE

AMEND. 1

42.5'

ELEV. +48.5' NAVO

ELEV. +48.5' NAVO

"AS BUILT"

DATE OF COMPLETION 6/29/2013
AMENDMENT NO. 1

NOTES:

1. ALL 1/2 DIAMETER ALL THREAD RODS SHALL BE COVERED BY NO HOLE AT PLATE TO PREVENT BURSTS AND THEY ARE NOTED TO THE RODS SHALL HEET STAINLESS STEEL TYPE 316. ALL NUTS SHALL BE COATED WITH A SINGLE COAT OF COAL TAR EPOXY PAINT PRIOR TO ASSEMBLY.

2. 8 WRAPS OF STAINLESS STEEL WIRE ROPE, TYPE 304, OF 6X19 STRAND AS A MINIMUM, AND HAVING A DIAMETER OF 1/2" OR GREATER. THE 8 WRAPS SHALL BE CENTERED AT ELAVATION +4.5 HABO.

3. THE STAINLESS STEEL WIRE ROPE SHALL BE COVERED USING STAINLESS STEEL SHADING SLEEVES, TYPE 304 OR TYPE 316 STAINLESS STEEL WIRE ROPE CLEATS.

4. THE ROW OF 3/4" DIAMETER ALL THREAD THE RODS SHALL BE 6" BELOW TOP OF BATTER FILE AND 3" VERTICAL CLEARANCE FROM ADJACENT THE ROD.

5. ALL THINNER FILES FOR FOUR PILE NAVIGATION AND DOLPHIN SHALL TREATED 12" X 50'.

6. ALL THINNER FILES SHALL BE FITTED WITH A THINNER FILE CAP.

"AS-BUILT"
DATE OF COMPLETION: 9/29/2012

NRCS
DIVISION OF ENGINEERING
STATE OF LOUISIANA
COUNTY OF TERRERONNE PARISH, LOUISIANA

TYPICAL TIMBER PILE CAP
(NOT TO SCALE)

FOUR PILE DOLPHIN DETAILS
ATTACHMENT V

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1
(TE-34)

PROJECT PERMITS
&
PERMIT AMENDMENTS
Operations Division
Central Evaluation Section

SUBJECT: MVN-2008-1500-CY

Lafourche-Terrebonne Soil and Water Conservation District
143 Laura Drive
Thibodaux, Louisiana 70301

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.

The New Orleans District Regulatory Branch is committed to improving our service to you and would like your honest opinions of how we are doing. We ask that you utilize the following link to complete and submit a Customer Service Survey: http://per2.nwp.usace.army.mil/survey.html. If you do not have internet access you may request a hard copy of the Customer Service Survey by calling (504) 862-2257. Your input is important to us, thank you for your time.

Sincerely,

[Signature]
Martin S. Mayer
Chief, Central Evaluation Section

Enclosure
DEPARTMENT OF THE ARMY PERMIT

Permittee: Lafayette-Terrebonne Soil and Water Conservation District

Permit No. MVN 2008-1500-CY

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: Implement the Penchant Basin Natural Resources Plan, Increment 1 Project (CWPPRA TE-34) to provide shoreline protection, marsh creation, and freshwater introduction for deteriorating marsh in the Penchant Basin, in accordance with drawings attached in 15 sheets, dated May 8, 2008 and 1 revision dated May 28, 2008.

Project Location: In the Penchant Basin area, in Terrebonne Parish, Louisiana.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on AUGUST 31, 2013. 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 1 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: 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.
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.

X [Signature]  8-13-08  
(PERMITTEE)  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

[Signature]  19 August 2008  
(MARTIN S. MAYER)  
(DATE)

Martin S. Mayer, Chief Central Evaluation Section
for Alvin B. Lee, District Commander

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.

[TRANSFEREE]  
(DATE)
7. This authorization is wholly unconnected and unconcerned with the ownership of, or rights in, the underlying soil and creates no property rights.

8. The permittee is aware that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.

9. The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

10. The permittee must install and maintain, at the permittee’s expense, any safety lights, signs, and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the permittee's authorized facilities.

11. 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.

12. Structures and fill will not be placed on state-owned water bottoms without the approval of the Louisiana Division of Administration, State Land Office. The permittee will be responsible for contacting the State Land Office to ascertain if any structures or fill will be placed on state-owned water bottoms.

13. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70723, and the US Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch. CEMVN 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.

14. The permittee shall limit dredge and fill activities and/or other types of filling activities to areas essential to the project. The remainder of the property shall be left in its natural state. If the proposed 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.
Penchant Basin Natural Resources Plan, Increment 1 (TE-34)
Proposed Boundary and Infrastructure Changes

Weir w/ Boat Bay *
Flap-gated Culverts *
Flap-gated Weir w/ Boat Bay *
Bankline Maintenance/ Restoration *
Shoreline Protection *
Marsh Creation *

Project Boundary *
denotes proposed features

Scale 1:200,000

05/28/2008 Drawing 1 of 15
SUPERIOR CANAL STRUCTURE

TYPICAL SECTION

NOTES:
1. Structure to be installed through the embankment at Mauvois Bois Ridge.
2. Excavation and shaping of channel may be necessary to provide grade for inlet and outlet.

Top of Earthen Embankment
Elev. 5.0 NAVD

- 4.0 NAVD

Piles

Excavation

Flap Gates (10 Total)

Piles

9"
BRADY CANAL STRUCTURE

Approx. 80 ft.

NOTES:
1. Structure shall consist of a steel sheet pile wall set at 0.5' below average marsh level.
2. Structure shall have a 10' wide x 5' deep boat bay in the center.

TYPICAL SECTION

TE-34 PENCHANT BASIN PROJECT
TYPICAL DRAWING - STEEL SHEETPILE WITH BOAT BAY AT BRADY CANAL
TERREBONNE PARISH, LA

05/28/2008  Drawing  8 of 15
BAYOU DECADE SHORELINE RESTORATION

Bayou DeCade channel
250 - 430 ft

NOT TO SCALE

NOTES:
1. All Elevations Shown in N.A.V.D.
2. Borrow Material to be Taken from Bayou DeCade. Excess material will be temporarily placed in Bayou DeCade and returned to borrow area after construction completion, as needed. Temporary Navigation Warning Signs will be used to mark locations.
3. MLW and MHW based on gage at Lake Decade.
4. Upper Bayou DeCade length = 12,000 feet.
5. Lower Bayou DeCade length = 14,500 feet.

TE-34 PENCHANT BASIN PROJECT

TYPICAL DRAWING - SHORELINE RESTORATION AT BAYOU DECADE

TERREBONNE PARISH, LA

05/28/2008 Drawing

12 of 15
TERREBONNE PARISH, LA

NOT TO SCALE

1. Structures shall consist of steel.
2. Sheet pile average height level with top of fill.
3. Sheet pile below 10.5' below
4. Sheet pile shall have a 10' wide
ap base.
5. Boat bay 40' approx 110' ft
6. Boat bay 50' approx 150' ft

NOTES:

DRAWING

05/28/2008
SEP 10 2013

ATTENTION OF:
Operations Division
Western Evaluation Section

SUBJECT: MVN-2013-01701-WPP

Lafourche-Terrebonne Soil & Water Conservation District
143 Laura Drive
Thibodaux, Louisiana, 70301

Dear Gentlemen:

The proposed work, removal of debris and install debris barriers at Superior Canal, Brady Canal, and near Lake Penschate, located approximately 10 miles south of Houma, in Terrebonne Parish, Louisiana, as shown on the attached drawings, is authorized under Category II of the Programmatic General Permit provided that all conditions of the permit are met.

However, prior to commencing work on your project, you must obtain approvals from state and local agencies as required by law and by terms of this permit. These approvals include, but are not limited to, a permit, consistency determination or determination of "no direct or significant impact (NDSI) on coastal waters" from the Louisiana Department of Natural Resources, Office of Coastal Management and a water quality certification from the Louisiana Department of Environmental Quality.

This approval to perform work is valid for 5 years from the date of this letter.

Permittee is aware that this office may reevaluate its decision on this permit at any time the circumstances warrant.

Should you have any further questions concerning this matter, please contact Johnny Duplantis of this office at (504) 862-2548.

Sincerely,

Dannil S. Barbour

Enclosures

Martin S. Mayer
Chief, Regulatory Branch
1. Activities authorized under this general permit shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single and complete project shall be treated together as constituting one single and complete project. All planned phases of multi-phased projects shall be treated together as constituting one single and complete project. This general permit shall not be used for any activity that is part of an overall project for which an individual permit is required.

2. No activity is authorized under this general permit which may adversely affect significant cultural resources listed or eligible for listing in the National Register of Historic Places until the requirements for Section 106 of the National Historic Preservation Act are met. Upon discovery of the presence of previously unknown historic and/or prehistoric cultural resources, all work must cease and the permittee must notify the State Historic Preservation Office and the Corps of Engineers. The authorization is suspended until it is determined whether or not the activity will have an adverse effect on cultural resources. The authorization may be reactivated or modified through specific conditions if necessary, if it is determined that the activity will have no adverse effect on cultural resources. The CEMVN-PGP authorization will be revoked if it is determined that cultural resources would be adversely affected, and an individual permit may be necessary.

3. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and CEMVN. CEMVN 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.

4. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. The permittee will, at his or her expense, install and maintain any safety lights, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.

5. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to block or impound water.

6. If the proposed activity involves the installation of aerial transmission lines, submerged cable, or submerged pipelines across navigable waters of the United States the following is applicable:

The National Ocean Service (NOS) has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Your notification of completion must include a drawing which certifies the location and configuration of the completed activity (a certified permit drawing
may be used). Notification to NOS will be sent to the following address: National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Springs, Maryland 20910-3282.

7. For pipelines under an anchorage or a designated fairway in the Gulf of Mexico the following is applicable:

The National Ocean Service has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Within 30 days of completion of the pipeline, 'as built' drawings certified by a professional engineer registered in Louisiana or by a registered surveyor shall be furnished to this office, the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, and to the Director, National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Springs, Maryland 20910-3282. The plans must include the location, configuration and actual burial depth of the completed pipeline project.

8. If the proposed 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 a federally maintained waterway, you are advised to notify the Eighth Coast Guard District 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 (504) 671-2112.

9. All activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters if the United States, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards and management practices established pursuant to the Clean Water Act (PL 92-500: 86 Stat 816), or pursuant to applicable state and local laws.

10. Substantive changes to the Louisiana Coastal Resources Program may require immediate suspension and revocation of this permit in accordance with 33 CFR 325.7.

11. Irrespective of whether a project meets the other conditions of this permit, the Corps of Engineers retains discretionary authority to require an individual Department of the Army permit when circumstances of the proposal warrant this requirement.

12. Any individual authorization granted under this permit may be modified, suspended, or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest.

13. The Corps of Engineers may suspend, modify, or revoke this general permit if it is found in
the public interest to do so.

14. Activities proposed for authorization under the PGP must comply with all other necessary federal, state, and/or local permits, licenses, or approvals. Failure to do so would result in a violation of the terms and conditions of CEMVN-PGP.

15. The permittee shall permit the District Commander or his authorized representative(s) or designee(s) to make periodic inspections of the project site(s) and disposal site(s) if different from the project site(s) at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

16. This general permit does not convey any property rights, either in real estate or material, or any exclusive privileges; and it does not authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations nor does it obviate the requirements to obtain state or local assent required by law for the activity authorized herein.

17. In issuing authorizations under this permit, the federal government will rely upon information and data supplied by the applicant. If, subsequent to the issuance of an authorization, such information and data prove to be false, incomplete, or inaccurate, the authorization may be modified, suspended, or revoked, in whole or in part.

18. For activities resulting in sewage generation at the project site, such sewage shall be processed through a municipal sewage treatment system or, in areas where tie-in to a municipal system is not practical, the on-site sewerage system must be approved by the local parish sanitary before construction.

19. Any modification, suspension, or revocation of CEMVN-PGP, or any individual authorization granted under this permit, will not be the basis for any claim for damages against the United States.

20. Additional conditions deemed necessary to protect the public interest may be added to the general permit by the District Commander at any time. If additional conditions are added, the public will be advised by public notice. Individual authorizations under CEMVN-PGP may include special conditions deemed necessary to ensure minimal impact and compliance with CEMVN-PGP.

21. CEMVN-PGP is subject to periodic formal review by CEMVN and OCM in coordination with the Environmental Protection Agency, US Fish and Wildlife Service, the National Marine Fisheries Service, and the Louisiana Department of Wildlife and Fisheries. Comments from reviewing agencies will be considered in determination as to whether modifications to the general permit are needed. Should the District Commander make a determination not to incorporate a change proposed by a reviewing agency, after normal negotiations between the respective agencies, the District Commander will explain in writing to the reviewing agency the
basis and rationale for his decision.

22. CEMVN retains discretion to review CEMVN-PGP, its terms, conditions, and processing procedures, and decide whether to modify, reissue, or revoke the permit. If CEMVN-PGP is not modified or reissued within 5 years of its effective date, it automatically expires and becomes null and void.

23. 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.

24. 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 as described in Special Condition 26 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.

25. 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.

26. If you sell the property associated with this permit, you must provide this office with a copy of the permit and a letter noting your agreement to transfer the permit to the new owner and the new owners agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.

27. 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.

28. 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.
29. In issuing authorizations under this permit, the federal government does not assume any liability for: damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; 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; damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit, and; design or construction deficiencies associated with the permitted work.
NOTICE:
72 HOURS BEFORE DIGGING
CALL 1-800-272-2020
TO LOCATE UTILITY LINES

SQUARE PLATE WASHER
1" x 3 1/2" x 3/8" THICK

EYE BOLT 1" x 15"
HOT DIP GALVANIZED

12" TIMBER PILE

TOP VIEW

SQUARE PLATE WASHER
1" x 3 1/2" x 3/8" THICK

EYE BOLT 1" x 15"
HOT DIP GALVANIZED

WIRE ROPE LANYARD
OR CHAIN
(SIZED AS NEEDED)

3-1/2"

1-1/4"

1/2"

1/4"

TOP OF TIMBER PILE
ELEV. +7.0

12" TIMBER PILE

SQUARE PLATE WASHER
1" x 3 1/2" x 3/8" THICK

EYE BOLT 1" x 15"
HOT DIP GALVANIZED

MIN.

1-1/4"

ELEV. +3.5 NAVD 88

1-1/2"

ELEV. +3.0 NAVD 88

ELEVATION VIEW

TIMBER PILE ANCHOR SYSTEM

SHEET 8 of 8
ATTACHMENT VI

PENCHANT BASIN NATURAL RESOURCE PLAN, INCREMENT 1
(TE-34)

OPERATION, MAINTENANCE, AND REHABILITATION
BUDGET
### Penchant Basin (TE-34) - 20 Year O&M Budget Projections

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|                   | Total O&M Budget - 20 Year Life: | $3,771,796 |