**SCOPE OF SERVICES**

**PROJECT NO. ME-11**

**HUMBLE CANAL HYDROLOGIC RESTORATION PROJECT**

**I. INTRODUCTION**

Humble Canal Hydrologic Restoration Project (ME-11) located in the Mermentau Basin, north of the Little Chenier Ridge and west of the Mermentau River in Cameron Parish, Louisiana. The (ME-11) Project is a Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) project with Natural Resources Conservation Service (NRCS) as the Federal Sponsor and the Coastal Protection and Restoration Authority (CPRA) as the Local Sponsor for the project. The Mermentau Basin estuary is experiencing marsh deterioration and wetland loss due to numerous factors, the primary being excessive water levels within the Lakes Sub-Basin. The (ME-11) Project will allow removal of excess water within the project while protecting the fresh marshes from damaging salinity spikes. The (ME-11) Project was funded through the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)**.**

The objective of this scope is to carry out the structure operation measures necessary for this project.

A pre-bid conference is required as provided in the Notice to Bidders. The conference will be held October 20, 2015 at 10:00 AM at the CPRA Lafayette Field Office, 635 Cajundome Blvd., Lafayette, LA 70506. Contact for the pre-bid conference is Mel Guidry @ 337-482-0682.

**II. PROJECT TERM**

The initial term of the contract will be for one (1) year, with yearly renewals not to exceed a total of thirty-six (36) months.

**III. STRUCTURE FEATURES REQUIRING OPERATIONS**

**A.** 5 - 48" x 50' corrugated aluminum pipe (10 gauge) with 10' aluminum variable crest weir inlet on the upstream (west) side and 48" flap gate on the downstream (east) side. The weir inlet will have a total of 32 1 5/8" x 4' aluminum stop logs.

B. 1 - 18" x 55' corrugated aluminum culvert with a screw gate on the upstream (west) side.

**IV. STRUCTURE OPERATIONS**

A. During operation of the structure, care will be taken in order to minimize maintenance due to neglect, vandalism, improper operation, etc.

B. Prior to any structure operation, Contractor shall supply CPRA personnel justification for proposed structure operation (e.g. water level and salinity data). All operations will be authorized by letter or fax through designated CPRA personnel (ME-11 O&M Manager); or at the discretion of the CPRA ME-11 O&M Manager, authorization may be provided verbally.

C. Upon completion of authorized operations, notification by letter, fax or e-mail to the designated CPRA personnel by the "Contractor" will be required. This notification will state time, date and actual operation performed by the "contractor" at each of the structures.

D. Once authorized by designated CPRA personnel, normal structure operations will have to be complete within 72 hours after notification. In the case of emergency operations (e.g., abnormal rainfall events, flooding, hurricanes, etc.) structure manipulation, once authorized by designated CPRA personnel, will have to be completed within 24 hours.

E. All operations will be in compliance with applicable Federal, State, and local permits.

F. Structure operations by the "Contractor" will be performed per instructions specified by designated CPRA personnel. Attached for informational purposes only is the Structure Operational Schedule (Attachment 1).

# V. ITEMS OF WORK

The primary items of work to be performed are:

1. Monthly maintenance of all field equipment referenced as part of Section VII-1and base station equipment including visiting each site and cleaning and checking calibration on all probes. After which providing data to the appropriate CPRA Regional Office as per agency requirements for “continuous water quality measurements”.
2. Mobilization to and from the structure site as needed for operational events.
3. Structure Operations:
   1. Total number of structure operations per year is dependent upon the conditions within the project area. Each structure operation will be determined by the management plan below in accordance with USACE and CMD permits. The structure operations are expected to occur during daytime hours.
   2. The “Contractor” is responsible for transportation of stop logs (provided by CPRA) to and from the structure site and while stored in an aluminum box located on Miami Corporation property along Little Chenier Road in Section 10, T14S-R6W. All access to the Humble Canal Structure located in Section 10, T14S-R5W will be via the Mermentau River.

**VI.** **DELIVERABLES FOR STRUCTURE OPERATIONS**

The contractor will submit quarterly reports containing the information below. These reports are to be post-marked by the first business day following

1. Time, date and actual structure operations performed during the quarter.
2. Values of the salinity and water level readings taken during the quarter for justification of structure operation.

2. One original report will be sent to Mr. Melvin J. Guidry, CPRA at P.O. Box 62027, Lafayette, LA. 70596-2027

3. One (1) copy to Ms. Leigh Anne Sharp, Monitoring Manager, CPRA at P.O. Box 62027, Lafayette, La. 70596-2027

**VII. CONTINUOUS MONITORING STATION**

The primary items of work to be performed are:

1. Maintain one (1) existing continuous monitoring station with telemetry at the location designated on the attached map (Appendix C). This monitoring station includes an InSitu Aqua Troll 200 Sonde, RomComm/Troll Link Telemetry and a solar panel for recharging the telemetry battery. This monitoring station provides hourly water level transmitted to a secure internet web page along with user selectable alarm thresholds to notify operator(s).

2. The continuous monitoring station must be serviced once per month. Any repairs to the stations electronic or mounting hardware must also be performed during the service visit.

3. Hydrologic data collected by the Contracting Party are to be housed in CPRA’s online Oracle-based SONRIS (Strategic Online Natural Resources Information System) database. Real-time data will be transferred directly into SONRIS. The Contracting Party should contact CPRA after the contract is awarded for technical details regarding establishing data transmission to SONRIS. The Contracting Party is responsible for performing quality assessment and control (QA/QC) procedures on downloaded data each month after servicing and if any changes to the data are required, the Contracting Party is to upload corrected data into the SONRIS system. Data can be transferred to the SONRIS system from any computer connected to the internet via a remote load procedure through the use of an FTP site.  The FTP load procedure will be provided to the Contracting Party after the contract is awarded.

CPRA will provide an Excel spreadsheet to the Contractor to be used for shifting data, summary statistics, creating preliminary graphics, and formatting data for inclusion in the SONRIS database.

The Contractor should follow the steps below to ensure the data has been processed properly.

1. Examine the calibration sheet for completeness and accuracy.
   1. Are calculations correct?
   2. Is the staff gauge minus water level measurement within 0.05, if available?
2. Check that the data from the calibration sheet was correctly transferred to the “Data” worksheet of the Excel file.
3. Check that the starting/ending dates and times of the data within the Excel file correspond with the dates and times on the calibration sheets.
4. Ensure that all data were shifted correctly.
   1. If the percent difference was greater than 5% between the dirty continuous recorder readings and the calibration instrument for the salinity or water level data, then a shift should have been applied to the shifted data columns.
5. Ensure that all depth data were correctly converted to NAVD88, ft.
6. Ensure that there is no suspect data in the file.
   1. Outliers in the salinity or water level graphs should be removed. Always delete data from the adjusted (shifted) columns; never delete raw data.
   2. If there are any raw water level readings of 0.03 ft. or less, remove all corresponding adjusted (shifted) data.
7. Ensure there are no missing dates/times
   1. Insert a spacer for any missed readings including the date, time and organization name. All other columns should remain blank.
8. Check that the transition between the previous and current month’s data is smooth and that no sample point is missing between the two sample periods due to instrument servicing.
9. Each month after sonde servicing, digitally deliver a .pdf of the scanned field calibration sheet with any field notes and the Excel spreadsheet provided for data shifts and formatting Mr. Mel Guidry CPRA/Lafayette Area Office.

**ATTACHMENT 1**

**STRUCTURE OPERATION SCHEDULE**

18" diameter marine ingress <6ppt at structure Screw gate open

structure with screw gate >6ppt at structure Screw gate closed

Five 48" diameter water control 1.2' NAVD88 Flaps operating,

Structures with stop logs and flap gates (Marsh elevation) stop logs adjusted to achieve water level at marsh elevation

**III. Safety Provisions**

1. If interior *Panicum hemitomon* marsh has salinity reading exceeding 2ppt, the 6ppt structure closing criteria will be adjusted downward accordingly to insure protection of the marsh resource.

2. If excessive water levels occur as a result of rainfall or other event, the stop logs will be lowered as necessary to allow excess water to be removed until water level reaches 1.2' NAVD88 (marsh level).

