



State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

April 19, 2018

TO: ALL POTENTIAL PROPOSERS
RE: RFP NO. 3000009861
“COASTWIDE REFERENCE MONITORING SYSTEM”

PLEASE NOTE: PROPOSAL DUE DATE: APRIL 26, 2018 @ 3:00PM

ADDENDUM II

1.6 Schedule of Events

Section 1.6 Schedule of Events – The Schedule of Events is being changed as shown below:

Event

RFP advertised and Blackout Period begins
Non-Mandatory Pre-proposal Conference -
Deadline for receipt of written inquiries
Issue responses to written inquiries
Deadline for receipt of proposals
Announce award of contractor selection on or about
Contract execution on or about

Date

March 21, 2018
April 04, 2018 @ 10:00am
April 10, 2018 @ 3:00pm
April 16, 2018
April 26, 2018 @ 3:00pm
May 15, 2018
June 7, 2018

Section 1.8 Qualifications of Proposers

Section 1.8.1 Mandatory Qualifications

- This section is deleted. Refer to Section 1.8.2 Desirable Qualifications below.

1.8.2 Desirable Qualifications

It is desirable that Proposer's proposed staff should meet the following qualifications prior to the deadline for receipt of proposals:

1. Program Manager

- Shall be responsible for the day-to-day program management, operations and data collection tasks that are associated with a complex monitoring program.
- A bachelor's degree and a minimum of seven (7) years professional experience in program/project management involving multifaceted operations.

2. Principal Environmental Scientist

- Shall act as technical lead in scientific data collection, processing, quality assurance and training of field employees. Should be able to communicate effectively with the CPRA and collaborating agencies and demonstrate a proficiency in both evaluating restoration and protection projects and writing scientific reports.
- A Ph.D. or master's degree in biological sciences, coastal resource management, ecology, environmental sciences, or a related field and should have a minimum of seven (7) years of experience monitoring coastal systems, including marsh, swamp, ridge, and/or barrier island habitats.

3. Technical Consultant

- A plant biologist with 1) a Ph.D. or master's degree in botany, plant sciences, or a related field or 2) a bachelor's degree in a related field.
- At least a minimum of five (5) years of experience identifying vegetation in marsh, swamp and barrier island habitats and along the Gulf Coast, preferably in Louisiana.

4. Senior Environmental Scientist

- The Proposer's proposed staff should possess each of the following areas of expertise. Proposed staff member(s) with multiple areas of expertise may satisfy more than one of these qualifications:
 - A minimum of five (5) years of experience in hydrologic monitoring. Should be knowledgeable of hydrologic monitoring equipment, methods, troubleshooting and maintenance.
 - A minimum of five (5) years of experience in vegetative sampling techniques and identification.
 - A minimum of five (5) years of experience in sediment sampling techniques. Should be knowledgeable of wetland soil types and sediment properties.
 - A minimum of five (5) years of experience measuring vertical elevation and accretion in coastal environments. Should be knowledgeable of geomorphological processes occurring along Louisiana's coast.
- Staff fulfilling these requirements should possess at a minimum bachelor's degree in biological sciences, chemistry, coastal resource management, ecology, engineering, environmental sciences, forestry, geosciences, marine science, oceanography, wetland management, wildlife and/or fisheries, or a related field.
- Note: **Principal Environmental Scientist** or **Environmental Scientist 3** may alternately fulfill one or more of the above qualifications, depending on their areas of expertise.

5. Project Manager

- A bachelor's degree or higher in biological sciences, chemistry, coastal resource management, ecology, engineering, environmental sciences, forestry, geosciences, marine science, oceanography, wetland management, wildlife and/or fisheries, or a related field with a minimum of five (5) years of project management experience in a related field.
- A master's degree in any of the qualifying fields will substitute for one year of the required experience and a Ph.D. will substitute for two years of the required experience.

6. Project Controls Manager

- At least one (1) year of experience in financial management.

7. Environmental Scientist 3

- A bachelor's degree or higher in biological sciences, chemistry, coastal resource management, ecology, engineering, environmental sciences, forestry, geosciences, marine science, oceanography, wetland management, wildlife and/or fisheries, or a related field with a minimum of five (5) years of experience in a related field.
- A master's degree in any of the qualifying fields will substitute for one year of the required experience and a Ph.D. will substitute for two years of the required experience.

8. Environmental Scientist 2

- A bachelor's degree or higher in biological sciences, chemistry, coastal resource management, ecology, engineering, environmental sciences, forestry, geosciences, marine science, oceanography, wetland management, wildlife and/or fisheries, or a related field with a minimum of three (3) years of experience in a related field.

9. Environmental Scientist 1

- A bachelor's degree or higher in biological sciences, chemistry, coastal resource management, ecology, engineering, environmental sciences, forestry, geosciences, marine science, oceanography, wetland management, wildlife and/or fisheries, or a related field with a minimum of one (1) years of experience in a related field.

10. Geographic Information Systems Analyst

- At least one (1) year of Geographic Information Systems experience.

11. Scientific/Technical Editor

- At least one (1) year of experience in the preparation of written material (technical reports, etc).

12. Field Technician

- At least one (1) year of experience in the navigation of water vessels, including airboats when required, in coastal marsh, swamp and barrier island habitats, often in challenging weather conditions.

13. Administrative/Clerical

- At least one (1) year of experience in administrative and clerical support.

Attachment: Pre-proposal conference PowerPoint

The top section of the banner features two logos. The top logo is the Coastal Protection and Restoration Authority (CPRA) logo, which is a circular emblem with a blue border containing the text "COASTAL PROTECTION AND RESTORATION AUTHORITY". Inside the circle is a stylized landscape with green marsh grass on the left, a white lighthouse in the center, and blue waves on the right, all under a yellow sun. Below the circle is a blue rectangle with the white text "CPRA". Below this is the CRMS logo, which is an oval emblem with a yellow border. Inside the oval is a map of Louisiana in light green, with the text "CRMS Wetlands" in bold yellow letters. Below the map, it says "Coastside Reference Monitoring System" in a smaller yellow font. To the left of the map is a yellow stalk of rice. The bottom of the banner features a black silhouette of a coastal scene with a large tree on the right, two people walking, and various construction or maintenance equipment (a truck, a crane, and a pile of material) on the left.

committed to our coast





Request for Proposals

Introductions

- Leigh Anne Sharp, CRS Manager, CPRA Lafayette Regional Office
- Bill Boshart, CRS Manager, CPRA New Orleans Regional Office
- Todd Folse, CRS Manager, CPRA Thibodaux Regional Office
- Ed Haywood, CRS Manager, Baton Rouge Office
- Rick Raynie, CR Administrator, Baton Rouge Office
- Allison Richard, CPRA Support Services Section




Request for Proposals

Presentation Overview

- Administrative and General Information
- Scope of Services
- Evaluation Criteria
- Performance Standards
- Sources For More Information

REQUEST FOR PROPOSAL

COASTWIDE REFERENCE MONITORING SYSTEM



RFP #: 3000009861

PROPOSAL DUE DATE/TIME: APRIL 23, 2018 @ 3:00 PM

State of Louisiana
COASTAL PROTECTION AND RESTORATION AUTHORITY

March 21, 2018



Request for Proposals

Administrative and General Information

- This is the 5th in a series of contracts.
- **Contract period is from 8/1/2018 to 12/31/2020**
 - Contracting mechanism allows for up to 36 months
 - Our intention is to begin the contract after this one on 1/1/2021 and resume 36 month contracts from that point forward.



Request for Proposals

Administrative and General Information

Schedule of Events:

RFP was distributed	March 21, 2018
Pre-proposal Conference	April 4, 2018
Deadline for written questions	April 10, 2018, 3:00 pm
Responses to written questions	April 16, 2018
Proposal Deadline	April 23, 2018, 3:00 pm
Notice of Intent to Award	May 11, 2018
Contract execution	May 29, 2018
Contract Initiation	August 1, 2018

Proposal Submittal:

- 1 signed original, 4 copies and 1 electronic copy of Volume I
- 1 copy of Volume II

Must be delivered to Allison Richard, CPRA RFP Coordinator - NO LATER THAN 3:00PM, April 23, 2018



Request for Proposals

Scope of Services Overview

Three Main Tasks:

- A. Environmental Surveys and Data Collection
- B. Statistical Data Analysis and Management
- C. Environmental Studies and Reports

These sections describe all possible tasks that could be assigned to the selected Contractor.

CRMS Data collection, QA/QC, and data management is the primary task in this contract.



Request for Proposals

A. Environmental Surveys and Data Collection

- Environmental and biological surveys
- Damage assessments
- **Data collection:**
 - **CRMS and Project Specific: Vegetation, Hydrology, Surface Elevation, Accretion, and Soil properties.**
 - **SWAMP: Water quality** and vegetation biomass
 - Other Possible: Oyster resources, habitats, geological, cultural, archaeological



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B. Statistical Data Analysis and Management

- Obtaining, assembling and organizing data from a variety of sources
- **Reviewing data and performing Quality assurance/quality control (QA/QC)**
- Performing statistical analyses
- **Designing and managing databases**
- Developing conclusions and making recommendations based on analyses
- Performing spatial analyses
- **Operating geographic information systems (GIS)**
- Utilizing remote sensing



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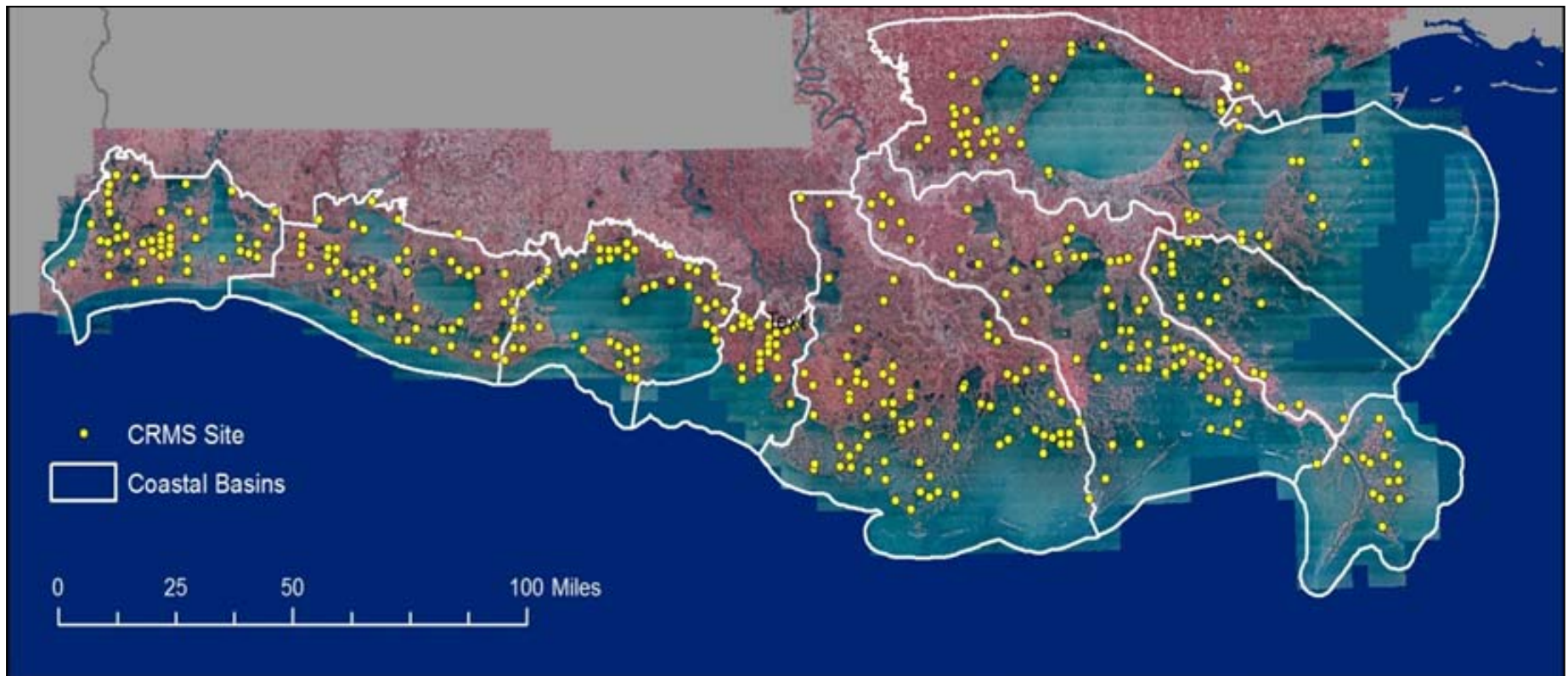
C. Environmental Studies and Reports

- Environmental site assessments
- Creating supporting documentation to obtain environmental permits
- Performing cultural resource investigations
- Conducting environmental site assessments
- Describing habitats and populations
- Performing ecological analyses
- Preparing environmental restoration plans and quality assurance project plans
- Providing programmatic recommendations
- Rendering expert opinion
- Performing literature reviews
- Writing feasibility studies
- Presenting reports and plans to interagency committees and other groups
- Performing project management
- Evaluating restoration projects
- Evaluating project alternatives
- Performing project and wetland assessments



Request for Proposals

Coastwide Reference Monitoring System - *Wetlands*



CRMS design calls for 392 sites distributed across coastal basins and marsh types. There are currently 389 sites on the ground.



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CRMS is the Monitoring Program for CWPPRA

Coastal Wetland Planning, Protection, and Restoration Act

aka the Breaux Act (1990)



= NRCS



Implemented by

CPRA manages data collection, serves data publically, analyzes data and reports back to CWPPRA.



USGS provides scientific oversight, web programming, spatial and ecological data analysis, and conducts a subset of CRMS monitoring including 10 real-time hydro stations and vegetation and surface elevation data collection at 45 sites.



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Number of Sites

Table 1. – CRMS-*Wetlands* monitoring.

Services Required	Number of CRMS Sites	Sample Frequency	
Site Infrastructure Maintenance	389	As needed	Contractor does all boardwalk maintenance
Hourly Continuous Hydrologic Recorders	377 (377 surface water, plus 36 marsh mat= 413 total recorders)	6 – 12 times per year	USGS real-time at 10 sites; two sites currently share sondes (10 more likely to share in the future)
Porewater Sampling	377	6 – 12 times per year	
Vegetation Sampling	340 (288 marsh, 52 forested)	All marsh sites annually. Forested overstory every 3 years (2018)	USGS monitors 45 sites and LRO monitors 4.
RSET and Accretion	300	Bi-annually (2x/year)	Floating sites did not have RSET initially
Forested Soil Sampling	57	Every six years (2020)	

These numbers can change.



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Current Project Specific Monitoring:

- **Hydrology**
9 Projects; 19 stations
- **Vegetation**
12 Projects; 10 – 70 stations each
- **Soils**
3 Projects; 28 cores
- **Surface Elevation Change and Accretion**
1 Project; 3 stations

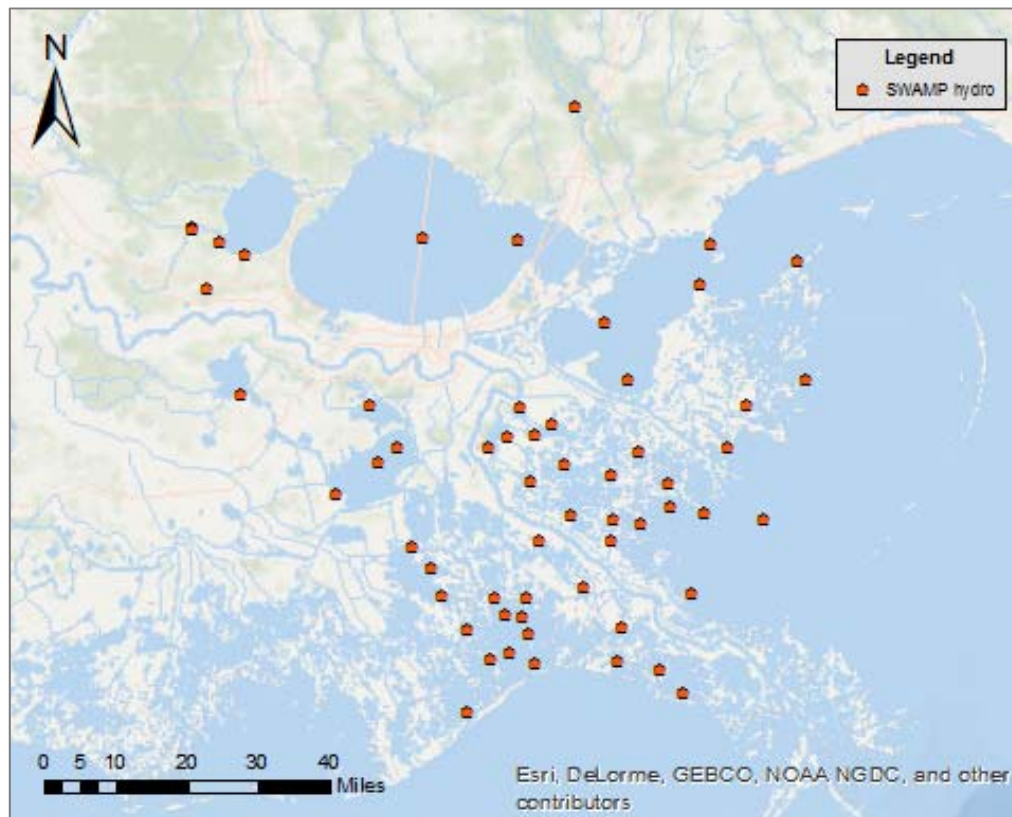
These numbers can change.

[https://cims.coastal.louisiana.gov/docs/rfp/2018 CPRA CRMS Field Data Collection](https://cims.coastal.louisiana.gov/docs/rfp/2018_CPRA_CRMS_Field_Data_Collection)



Request for Proposals

System Wide Assessment Monitoring Program – Water Quality



SWAMP includes parameters not covered by CRMS.

Most of the SWAMP work is contracted out separately except for the water quality and some biomass.

Table 3. – SWAMP monitoring.

Data Collection Parameter	Number of SWAMP Sites	Sample Frequency
Discrete Water Quality	25 sites (Barataria Basin), 18 sites (Pontchartrain Basin), 18 sites (Breton Sound Basin)	Monthly



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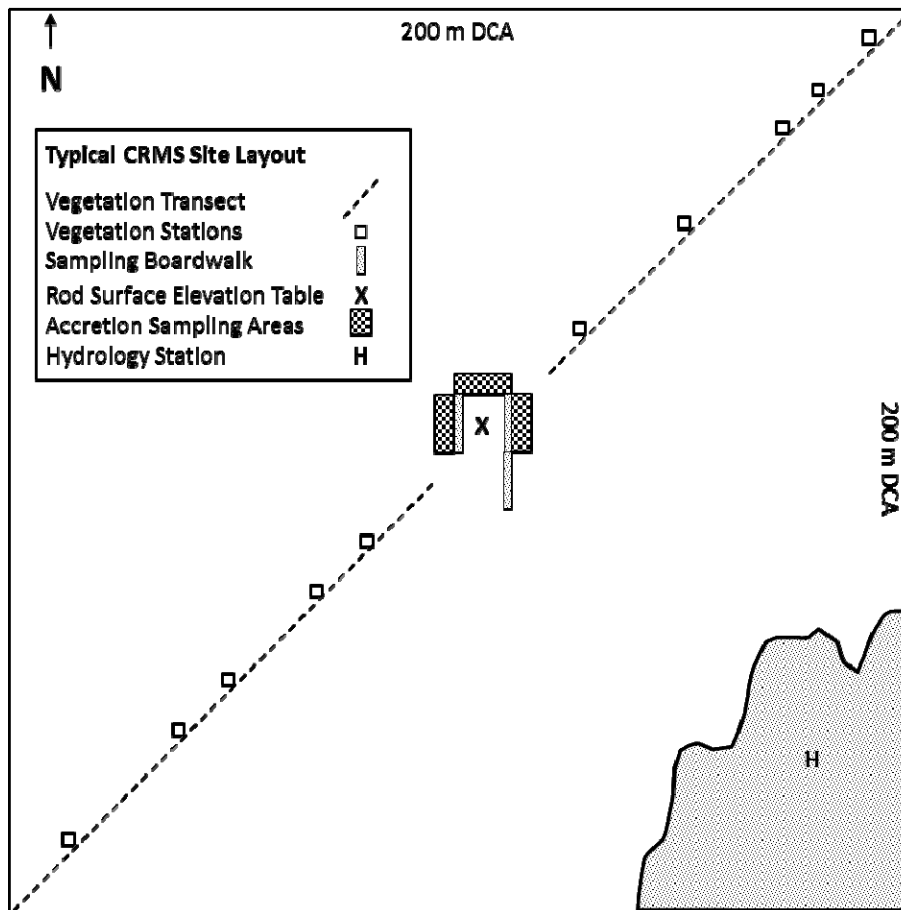
System Wide Assessment Monitoring Program – Biomass

- Above and Belowground biomass samples have also been collected from a subset of CRMS sites in the BA and BS Basins.
 - Those stations will be sampled again but not during this contract.
- As SWAMP expands westward there is potential for additional water quality and biomass stations to be added to the program. Those plans are still being developed and would be implemented late in this contract if at all.



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CRMS Site Design



Typical CRMS Site Includes:

200 m x 200 m Data Collection Area (DCA)

- Hydrology Station (1)
- Vegetation Stations (10)
- Boardwalk with Rod Surface Elevation Table (RSET) (1) and Accretion Stations (currently 6 sets of 3 stations)
- Porewater Data collection stations (3)
- Soil Core Stations (6)

1000 m x 1000 m Site Boundary for Spatial Analysis (% Land)



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Vegetation Composition and Cover

Herbaceous Vegetation

- 10 permanent 2m x 2m plots along transect within 200 m DCA
- Sampled **annually** between mid July and September
 - Cover overall (Total Cover), by species, by layer (tree, shrub, herb, carpet)
 - Height of dominant and of each layer
 - No material is collected from vegetation stations.



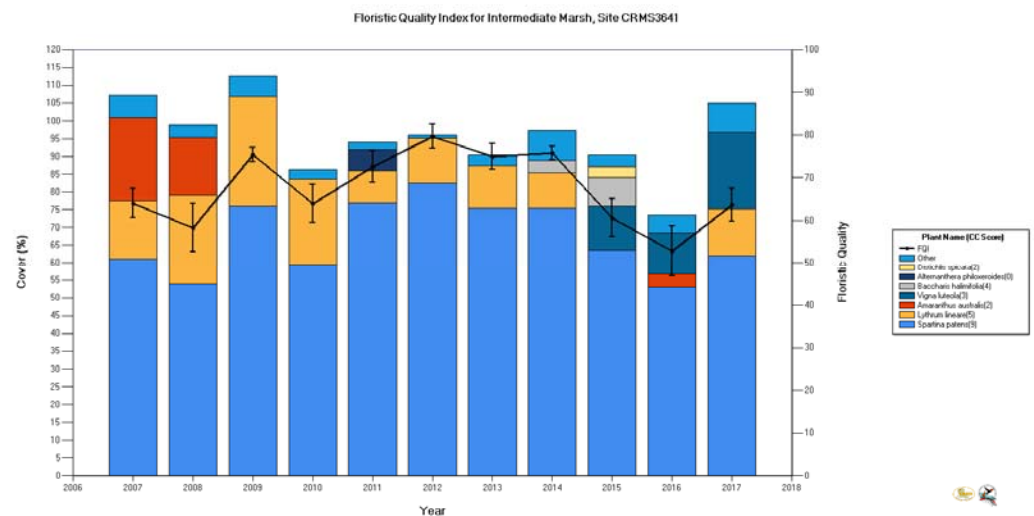
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Vegetation Station



Field Staff need to have strong plant identification skills.

Contractor must have a botanist on staff to aid in plant identification.





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Vegetation Composition and Cover

Forested Vegetation (52 Sites)

- Canopy layer: 3 plots, 20m x 20m: tree Identification, Diameter (DBH), canopy cover (Densiometer)
- Sampled every three years between mid July and September.
 - 2018, 2021, 2024
-
- Herbaceous layer: 3 nested 2m x 2m plots = 9 total
- Sampled annually
- Understory stations are no longer sampled.
- Canopy cover is also sampled annually with herbaceous vegetation at forested sites.



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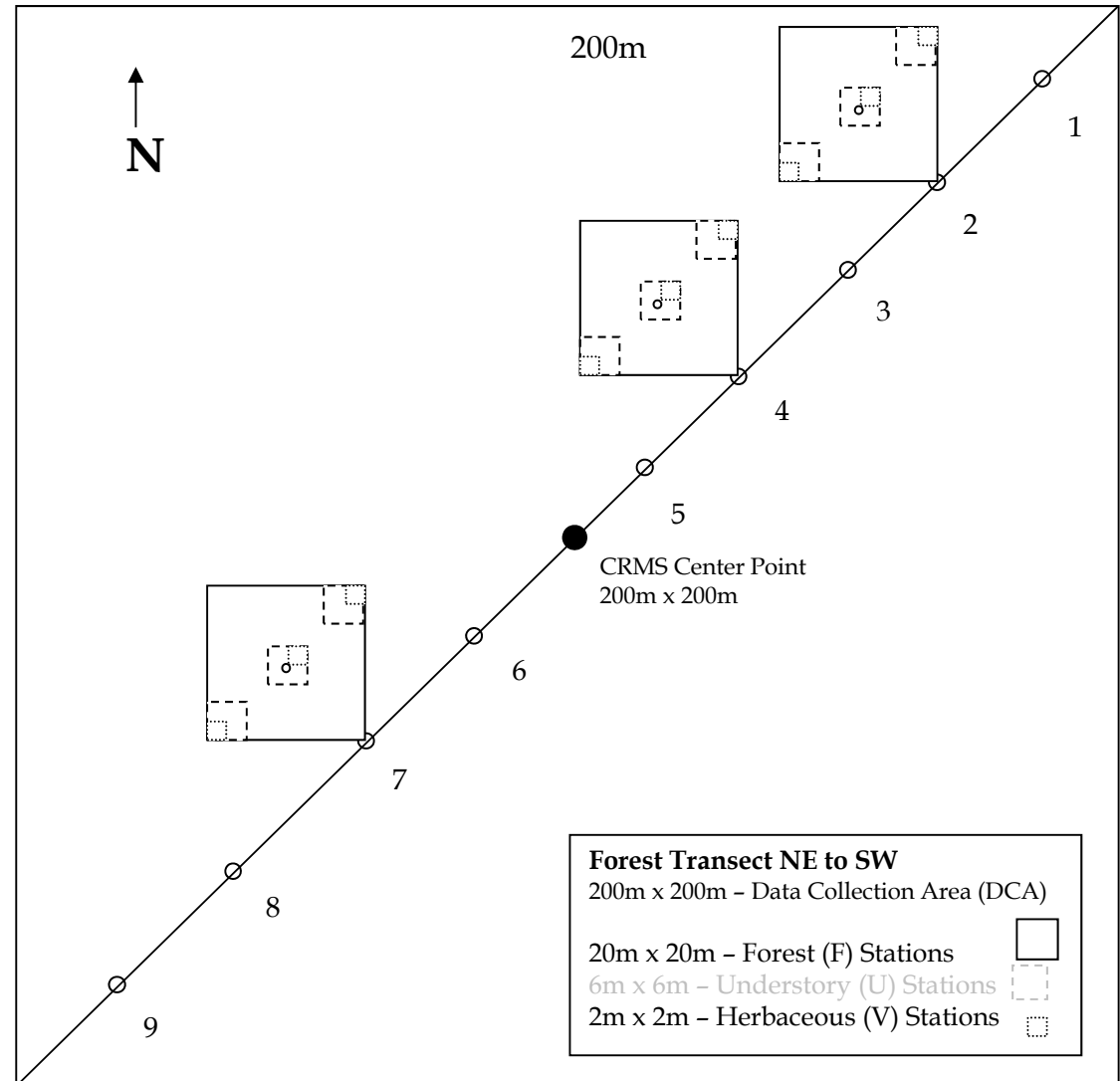
Forested Vegetation Layout



Herbaceous vegetation station



Densiometer for measuring canopy cover





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Hydrology

Continuous recorder (sonde):

- 1) open-water
- 2) well
- 3) floating marsh (true floating and static)

- Data recorded to file hourly
- Stations surveyed to vertical datum
- Continuous recorder serviced 6 - 12 times per year
 - **60 day maximum deployment between servicing**
- **Continuous recorders supplied by contractor**

Discrete Porewater:

- Measured at CRMS site or near hydrology station during sonde servicing.
- Measured at each herbaceous vegetation station during vegetation sampling
- Measured at the boardwalk during RSET/ Accretion sampling
- Measured at the boardwalk anytime the boardwalk is visited including for boardwalk maintenance.



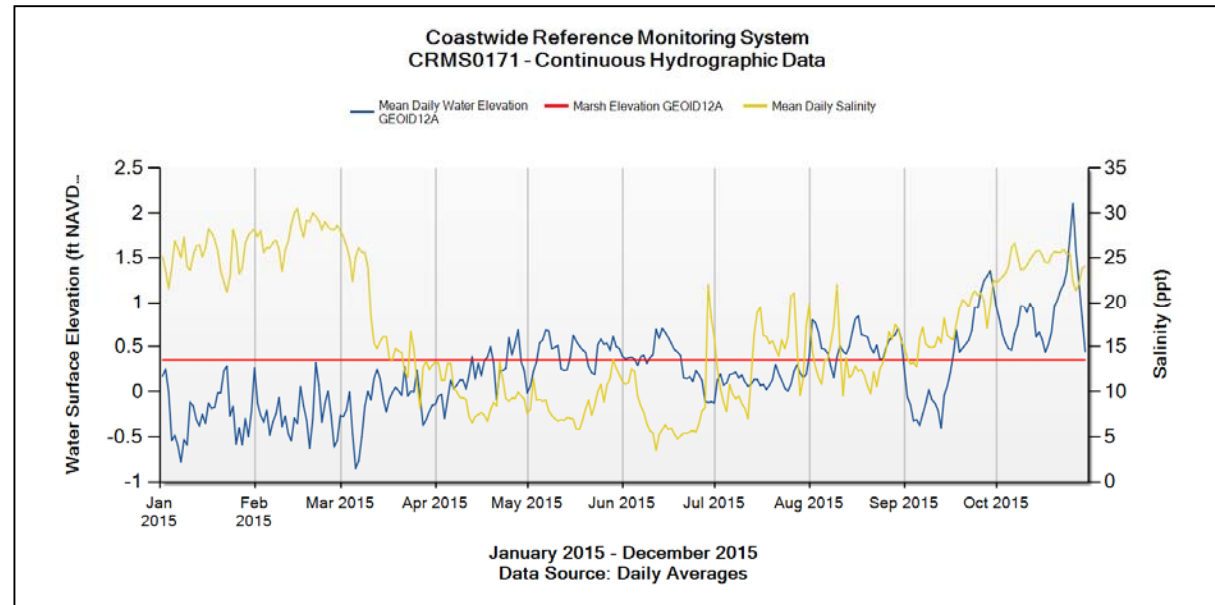
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Continuous Recorder – Open Water



Each hydro station has:

- A vented sonde capable of measuring water level ± 0.003 m (0.01 ft) and salinity to 0.1 ppt. YSI 600LS or equivalent
- Surveyed mark elevation for converting water level to water elevation (currently ft, NAVD 88, Geoid 12a)
- A staff gauge adjusted to survey elevation.





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Continuous Recorder – Well



Open water stations are preferred over wells due to issues with clogging and salt concentration.

Where possible, wells have been replaced with open water stations.



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Floating Marsh Mat Recorder



Marsh Mat recorders are currently being redesigned to solve problems with clogging which will result in an addendum to the SOP.

Over the course of the project (since 2005), 10-15 floating sites have attached.

Marsh mat recorders will likely be removed at 5-10 attached sites.



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Static Marsh Mat Recorder



Pulley system that directly measures marsh mat movement.

At recently attached sites, these may also be removed.

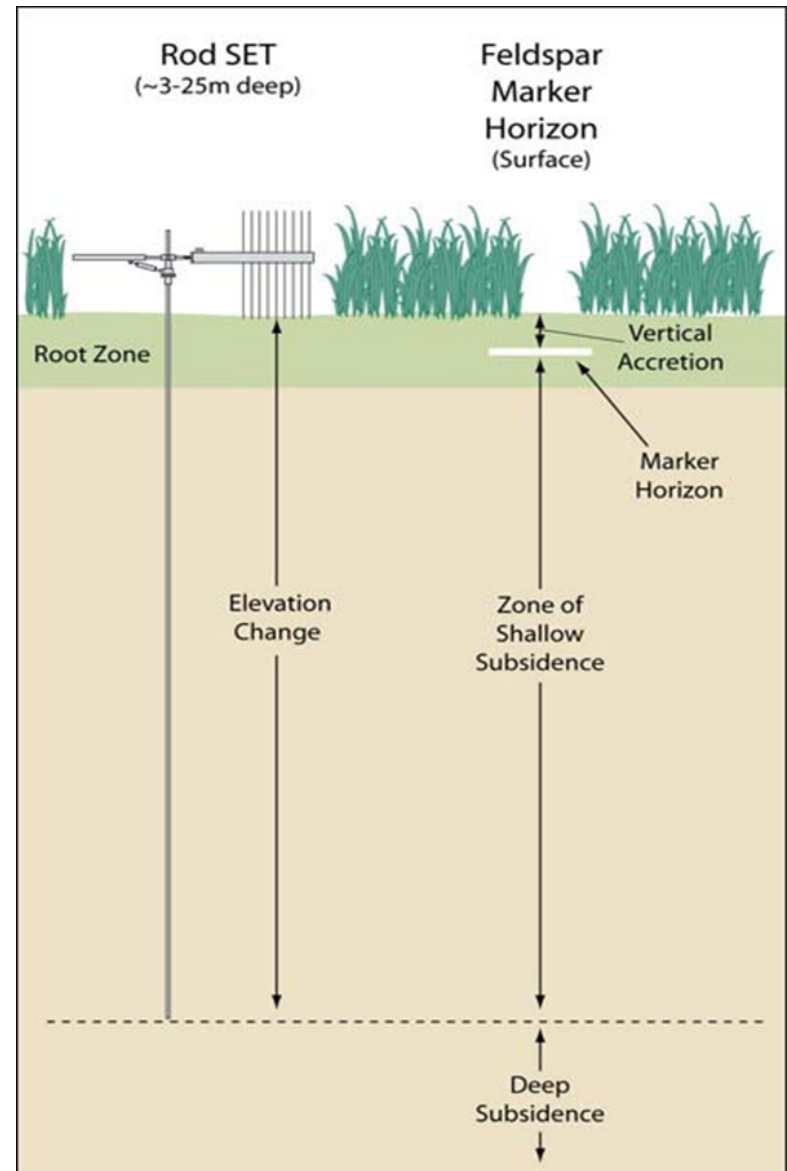
At floating sites, these could be replaced with redesigned equipment.



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Surface Elevation Change

- A Rod-Surface Elevation Table (RSET) was installed at each non-floating marsh site at project inception (2006-2008). There are currently 340 sites with rods; 300 in this contract.
- Surface Elevation Change is measured twice per year during the Spring (Mar-Apr) and Fall (Sep-Oct) sampling seasons.
 - Some terminally flooded sites are sampled opportunistically when water is low enough even if it is outside of the sampling seasons.





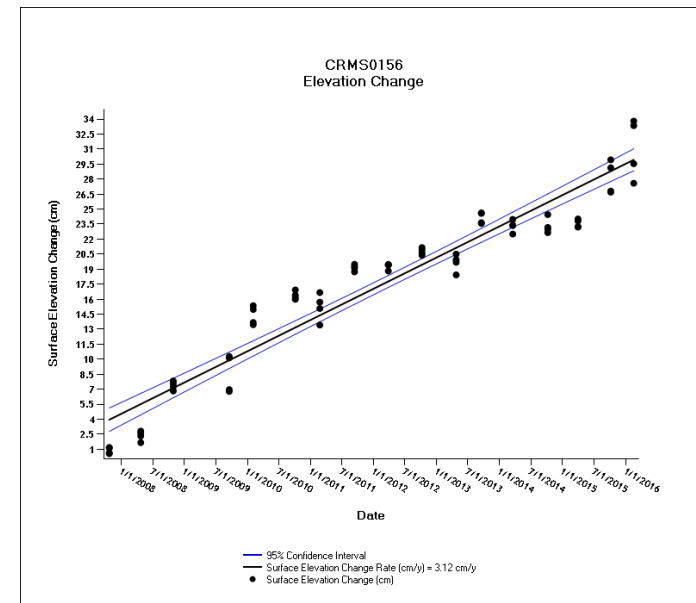
Request for Proposals

Rod Surface Elevation Table (RSET)



Surface Elevation Change is calculated from differences in pin height relative to the instrument through time.

Elevation Change Rates (mm/yr) are derived from at least 5 years of pin height data.





Request for Proposals

Vertical Accretion

- Six (6) Plot Sets of three (3) 0.5 m x 0.5 m feldspar clay stations have been established through Spring, 2018. Additional Plot Sets will be established in Spring, 2020 (PS7). Plot sets are sampled cyclically (and not all at the same time).
- Core samples are taken with a cryogenic corer on the same day that elevation change is measured at the RSET; twice per year, Spring (Mar-April) and Fall (Sep-Oct).
- The number of stations sampled will vary from 6 to 12 per site per sampling period as outlined in the SOP.





Request for Proposals

Vertical Accretion Plots and Cores





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Soil Properties

- 3 cores are pulled with a 10 cm x 50 cm core tube within the Data Collection Area once every 10 years in marsh and 6 years in forested swamps.
- Bulk soil properties including: bulk density, organic matter (%), and wet and dry volume are determined from each 4 cm increment.
 - Samples are analyzed by LSU. The contractor is responsible for collecting cores, delivering them to LSU, and delivering data to CPRA.
 - The contractor would need to set up an agreement with LSU or an equivalent soils lab.
- A subset of CRMS cores are also utilized by the System Wide Assessment Program (SWAMP) and those will have additional analyses including nutrients (TP, TC, TN).
- Core samples were collected at all CRMS sites at project initiation (2006-2008).
- A second round of coring is currently underway (2018).
- We expect core collection and most of LSU's core processing to be complete by 8/1/18.
 - If LSU's work is incomplete, the contractor may be asked to continue to oversee that effort, interacting with LSU and delivering data to CPRA when analyses are complete.



Request for Proposals

Site Access

- Contractor must notify or acquire permission from landowners prior to accessing their property. Landowner agreement details will be provided.
- Site access is often restricted and in some cases prohibited during hunting seasons.
- Landowner requirements can and will change.
- It is recommended that the Contractor maintain at least one full time position to handle landrights responsibilities



Request for Proposals

Quality Control/Quality Assurance

- All data must meet minimum data-quality standards outlined in the CRMS SOP (Folse et al. 2018)
- Contractor must adhere to field and QA/QC procedures, timelines and data formats outlined in the CRMS SOP
- Final quality-checked data in the proper format is to be uploaded remotely into CIMS Database as per the SOP
 - Data undergo a second round of QA/QC by CPRA. Rejected data must be corrected and reloaded.
- Note that data management can account for a significant portion of the CRMS-*Wetlands* implementation workload.



Request for Proposals

Reporting (minimum requirements)

- Weekly e-mail report detailing sites serviced and describing maintenance issues encountered on service runs
- Monthly status report to be submitted with invoices indicating the stations serviced, raw data transferred, and final data transferred to CIMS
- Weekly communication between contractors and CPRA regional offices is required.



Request for Proposals

Overview of Performance Standards

Performance Requirements

- Timely, complete, and high quality data collection and deliverables that meet all protocols outlined in the SOP
- Regular communication at all levels – to include frequent (at least weekly) status reports
- Follow all landowner requirements



Request for Proposals

Overview of Evaluation Criteria

Proposal Review Committee will evaluate and rank proposals according to the following criteria to be weighted according to points listed:

1. Relevant Experience (20)
2. Staff Qualifications (20)
3. Approach and Methodology/Scope of Services (25)
4. Hudson/Veteran Small Entrepreneurship Program (10)
5. Cost (25)

Proposal costs will be rated by following procedure :

- a. Labor category hourly rates from Attachment II will be averaged and the lowest average will receive 25 points.
- b. All other proposals will be rated by:
$$CCS = (LRSA / PRSA) \times 25$$

Where: CCS = Computed Cost Score (points) for Proposer being evaluated
LRSA = Lowest Rate Schedule Average
PRSA = Rate Schedule Average of Proposer being evaluated



Request for Proposals

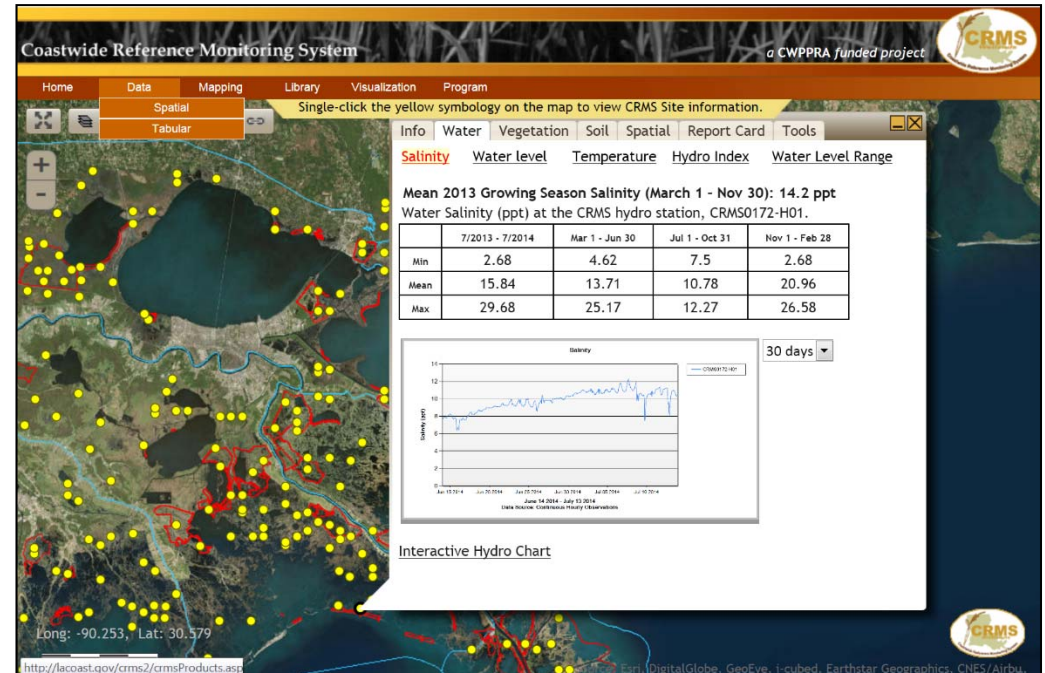
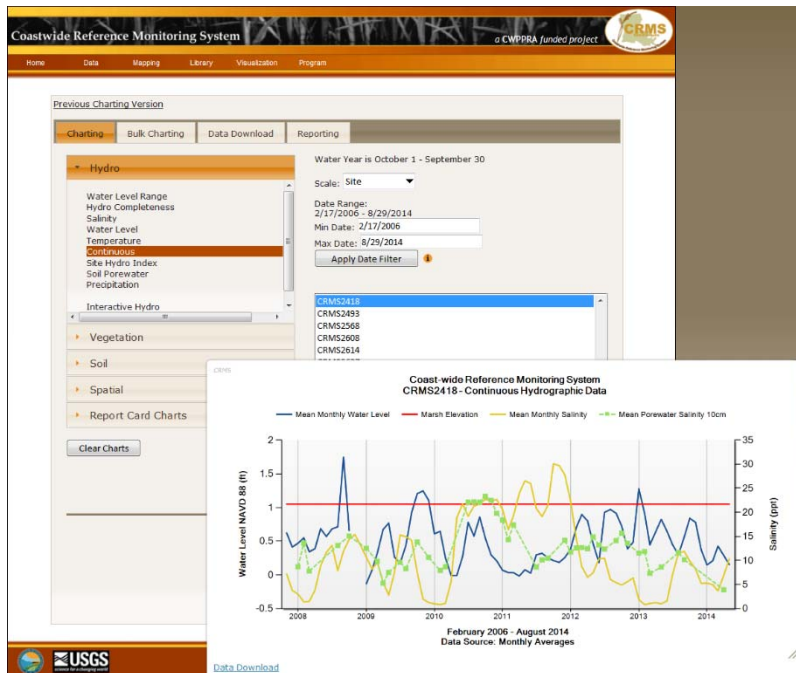
For More Information

Additional information (including station locations and maps):

https://cims.coastal.louisiana.gov/docs/rfp/2018_CPRA_CRMS_Field_Data_Collection

And on the CRMS website:

<http://www.lacoast.gov/crms2/Home.aspx>





Request for Proposals

Questions?

