

Mobile Bay National Estuary Program  
4172 Commanders Drive  
Mobile, AL 36615  
Phone: 251-431-6409  
Fax: 251-431-6450  
Contact: Tom Herder, Watershed Protection Coordinator  
Email: [therder@mobilebaynep.com](mailto:therder@mobilebaynep.com)



July 22, 2013

**REQUEST FOR PROPOSALS  
TO PROVIDE ENGINEERING DESIGN SERVICES  
FOR A PROJECT ALONG THE WESTERN SHORE OF MOBILE BAY**

The Mobile Bay National Estuary Program (MBNEP) is soliciting estimates from qualified and experienced engineering firms licensed to do business in the State of Alabama for the purposes of entering into a contract to perform professional services. This contract will be for services to generate detailed designs and specifications for installation of a habitat-friendly, shoreline stabilization project along the western shore of Mobile Bay at the mouth of East Fowl River. The approximately 1,000-linear foot site is located along the northernmost Bay shore of Mon Louis Island, directly adjacent to and south of the mouth of East Fowl River. Design and specifications should include a site plan and associated documents that respond to individual shoreline characteristics, historical shoreline trends, wave climate, longshore sediment transport, and marsh protection and/or restoration. Design will include an erosion and sediment control plan, filling and/or grading plan (including the removal of shoreline debris), landscape plan which should prescribe planting with native wetland and upland plants as appropriate, and infrastructure plans. Plans must be in a finalized form suitable to guide site construction activities.

**DUE DATE**

To reply to this request, submit three copies of a proposal, including a digital copy on CD or DVD outlining how your firm would meet the project tasks and selection criteria below. Return proposals no later than **4 PM on August 20, 2013** to Mon Louis Island Project, Mobile Bay National Estuary Program, 118 N. Royal Street, Suite 601, Mobile, AL 36602.

MBNEP will conduct a mandatory pre-proposal meeting on site to discuss site characteristics and potential design outcomes to include, but not be limited to, the installation of wave attenuation and shoreline stabilization structures, planting of marsh and upland vegetation, and optimization of beaches where possible.

Top candidates selected for interview must be prepared to give an oral presentation on their proposal including a document outlining non-binding fee proposals to an interview committee during the week of August 26, 2013.

**BACKGROUND**

The western shore of Mobile Bay is characterized by shallow water, sandy bottoms and intertidal habitats that are important as forage and nursery grounds for fish and in supporting benthic biodiversity. Along much of this shore, habitat quality has been disrupted directly by erosion from tropical weather events, more chronic impacts of prevailing winds over a broad fetch, and waves from ship traffic, but also through attempts to protect upland properties through installation of bulkheads or other habitat-degrading armoring. Erosion problems along Bay shores are intensified by upstream hydrologic modifications that have prevented sediment transport.

The MBNEP anticipates receiving funding to undertake a project to stabilize the impacted shoreline of an eight-acre, wetlands-rich area lying at the northern extreme of Mon Louis Island forming the southern bank at the mouth of East Fowl River. The salt marsh on this tract was restored in 2005 to reestablish plant diversity and improve habitat service provision. The rate of erosion along this reach, exacerbated by a bulkhead on the developed neighboring property to the south, greatly exceeds that of more southern MLI Bay shorelines and leaves this area vulnerable to storm-related breaching across and into a lee-side embayment that serves as a harbor for commercial fishing interests. Such a breach would result in significant wetlands loss, diminished

hazard mitigation caused by expansion of the river mouth, and increased sedimentation caused by wetlands and uplands destruction and increased river bank erosion upstream.

With a mission to promote the wise stewardship of the water quality and living resources of Mobile Bay and its estuarine waters, MBNEP's goals for this project are to protect this critical area from the chronic impacts that have accelerated recession using techniques that restore, protect, and create habitat opportunities for living resources and mitigate hazards to upstream shorelines, habitats, and water quality. While not offering protection from catastrophic weather events, this project would stabilize the shoreline from chronic, routine impacts and establish critical habitat for shorebirds and commercially and economically important fish and shellfish and decrease its vulnerability to a destructive breach.

The plan of project partners is to continue shoreline restoration along the almost six-mile length of residential shoreline from Fowl River south to Bayfront Park in Alabama Port to regenerate the intertidal marshes and flats that characterize this side of Mobile Bay. This type of habitat has been identified as "under stress" in the draft CCMP 2013-2018. This project at the northern area of the shoreline will address a critical and time-sensitive threat to beach and wetlands habitat, water quality, property, and human uses demonstrating the value of habitat-friendly shoreline stabilization techniques.

MBNEP's experience with MLI shoreline restoration began in April 2009 when all Mon Louis Island shoreline property owners were invited to a meeting to hear a presentation of concepts related to living shorelines, hear preliminary project ideas/plans, and provide information about their own experiences, activities, expenditures, and preferences related to shoreline stabilization and habitat creation. During fall, 2010, University of South Alabama Engineering Professor Dr. Bret Webb gathered bathymetric, wind and wave, and sediment transport data and incorporated these data into the GIS platform for further planning activities. A project involving installation of headland breakwaters to create pocket beaches and offshore rock islands to create habitat for oysters and other aquatic living resources was completed in early 2013. A record of community involvement efforts underlying this project is documented on the MBNEP web page at <http://www.mobilebaynep.com/mon-louis-island/>.



Figure 1. Left: Restoration project area. Inset and Left: Northern tip of Mon Louis Island from 2012/post-TS Isaac NOAA imagery showing recession from 1958 and 2001 shorelines.

## **SITE DESCRIPTION**

The project site (pictured above in Figure 1) is located on the northern tip of Mon Louis Island, Mobile County, AL, along Old Shipyard Road off Highway 193 accessed just south of the Fowl River Bridge. The northernmost point of this area is at 30° 26' 59.33" N 88°06'28.82" W. Its most southern point seaward borders the Montgomery property at 30° 26' 49.64" N 88°06'23.42" W.

## **Services Requested**

The MBNEP seeks an engineering firm to provide professional services to create a *sealed/stamped* design for a habitat-enhancing shoreline stabilization/restoration project along the northern MLI Bay shoreline and develop plans necessary for project construction. Consultant services will generally include but are not limited to:

**Task 1: Field investigations:** This task will involve conducting subsurface sediment surveys along this shoreline reach to determine suitability of bottom and/or the need for over excavation and backfilling for installation of wave attenuating structures. The selected firm will be required to identify any utilities throughout the project area which will be included/considered in the final design. Geotechnical engineering services shall be provided as necessary.

**Task 2: Project coordination:** This task will include scheduling and conducting meetings with MBNEP project managers and property owner representatives at appropriate intervals (pre-project, 50% plan, and 100% plan) to ensure coordinated plan development. These personnel must be engaged in developing details of project design that include installation of structures to attenuate wave energy and block northward littoral sediment transport, potential use of sand fill, wetlands restoration, etc.

This task will also include presentation of approved 100% plans at a public meeting.

**Task 3: Provide a 50% design concept plan for the project area,** including a construction cost estimate (4 large size drawings; approx. 2' X 3' plus one copy at 8.5 X 11 for review and potential modification before the final drawings and specifications.

**Task 4: Completion of final design plans (100%) and specifications and construction cost estimates** including, but not limited to, location and vicinity maps, standard note sheets, grading and site plans, wetland planting and native riparian buffer landscape plans (including maintenance activities and invasive species control), erosion and sediment control plans, representative cross section plans, structural notes, and drainage and storm water management design as necessary.

**Task 5: Guidance in obtaining permits:** Consultant will work with MBNEP Project Manager to obtain regulatory permits necessary for project implementation from the U. S. Army Corps of Engineers, the Alabama Department of Environmental Management, and the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section.

The services noted above are general, and the MBNEP may request additional services, as needed, to facilitate the development of initiatives within the project area. MBNEP reserves the right to add or delete tasks as needed. The consultant may be expected to work closely with governmental and regulatory agencies, property owners, and the public.

## **PROJECT DESIGN CONSIDERATIONS**

The design should consider and incorporate the following elements:

- a. The data developed in *The Coastal Processes of Mon Louis Island (Webb, 2011)* which includes the following for the Mon Louis Island area:
  - benthic characteristics,
  - sediment characteristics,
  - bathymetric profiles,
  - return water levels,
  - relative sea level rise,
  - wind climate analysis,

- wind distribution,
- wave climate analysis,
- sand transport analysis, and
- historical shoreline analysis.

This data can be found at [http://mobilebaynep.com/wp-content/uploads/2011/06/CoastalProcesses\\_MonLouisIsland\\_DrBretWebb.pdf](http://mobilebaynep.com/wp-content/uploads/2011/06/CoastalProcesses_MonLouisIsland_DrBretWebb.pdf). Design should provide sufficient detail, including reef structure dimensions and necessary materials, to develop bid specifications for project construction.

- b. Any devices used to attenuate wave energy or stabilize shoreline sediments must be constructed of material that will 1) remain in place and 2) provide attachment substrate for spat and habitat opportunities for other marine life. Any reef structures will be emergent at all but extremely high tides and warning/safety signage will be installed on reef segments in accordance with U. S. Army Corps of Engineers, U. S. Coast Guard, and Alabama Marine Police recommendations.

### **OTHER CONSIDERATIONS**

The selected proposal will include consideration of shoreline characteristics along neighboring properties and ensure no negative effects to the shoreline outside of the project footprint or the East Fowl River channel.

Completed plans must be permissible under U. S. Army Corps of Engineers, Alabama Department of Conservation and Natural Resources, State Lands Division; and Alabama Department of Environmental Management, and U. S. Coast Guard regulations.

### **FORMAT AND SELECTION CRITERIA**

In no event shall your proposal, including all attachments, brochures, covers, and dividers, exceed 12 sheets of paper. You are permitted to utilize the reverse side of all sheets.

### **SELECTION CRITERIA**

A selection committee will review proposals. Selection criteria includes but is not limited to the following:

- Proposed Project Approach
- Success with Similar Projects
- Personnel Qualifications
- Minority Participation

### **Proposed Project Approach**

- a) The Proposal outlines a practical, realistic and proven approach that meets the needs outlined in the Project Tasks, within a reasonable schedule.
- b) Methodology provides a practical approach to address all needs outlined in this request.
- c) Schedule is reasonable and appears to consider all tasks.
- d) Methodology is proven and acceptable.
- e) Benefits of the methodology justify the costs.

### **Success with Similar Projects**

Please document success with projects to design Living Shoreline or tidal wetland and riparian buffer restoration projects. Provide evidence of capacity to succeed with projects of similar scope and discuss how past projects achieved the following:

- a) Provide evidence of successful past designs for wetland restoration/mitigation projects of similar scope and nature.
- b) Provide documentation that cost-effective methods were used in the design of previous wetland projects. Discuss if original cost projections provided during the feasibility and design phases provided realistic guidance for the construction phase (design estimates and final costs were reasonably related).
- c) Provide evidence that past wetland design projects were completed in a timely fashion with a discussion on the projects' longevity and resilience in response to recent storm activity.
- d) For each project discussed, provide a list of key staff directly involved in the design process and quantify their contribution to the final design product.

- e) Provide a minimum of two references that can verify the success of similar projects completed by your firm. Include contact name, phone, address, email and name of project. Reference contact should be the person who worked most directly with your firm. References will be contacted for all finalists.

### **Personnel Qualifications**

List the names of key personnel who will be directly involved with this project and include the following information:

- a) Overall qualifications of the personnel who will be working on the project: Does the team have the combination of individuals that can successfully meet the objectives?
- b) Education, certifications, training and experience on related projects for individual team members.
- c) Percentage of time of most qualified team members to be devoted to project.
- d) Address how individual team members' roles and responsibilities commensurate with the individual's experience, training and education.
- e) Indicate team members who have worked together before on successful projects relevant to this request.
- e) A written statement attesting that your firm maintains an errors and omissions liability insurance policy with a minimum limit of \$1,000,000.

### **Minority Participation**

It is the policy of the MBNEP to facilitate the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in MBNEP's procurement activities. Toward that end, MBNEP encourages these firms to compete and encourages non-minority firms to provide for the participation of small businesses and businesses owned by women and minorities. Firms are asked, as part of their submission, to describe any planned use of such businesses. Please include in your proposal whether your firm or any of your sub-consultants is a minority owned business.

### **ADDITIONAL INFORMATION**

Any questions regarding this Request for Proposals should be directed to Tom Herder, Watershed Protection Coordinator, Mobile Bay National Estuary Program, 251-431-6409, [therder@mobilebaynep.com](mailto:therder@mobilebaynep.com).

### **TIME SCHEDULE**

Proposed Project Schedule and Deliverables

- |  |                     |
|--|---------------------|
| ➤ RFP Posting Date:  | July 23, 2013       |
| ➤ RFP Advertising Date:  | July 31, 2013       |
| ➤ On Site Pre-proposal meeting                                       | August 13, 2013     |
| ➤ Proposals Due:   | August 20, 2013     |
| ➤ Top Candidate Interviews / Submission of Non-binding Fee Proposals | September 4-6 (TBD) |
| ➤ Notice to Proceed Date:  | September 12, 2013  |
| ➤ Project Completion Date:   | December 31, 2013   |

MBNEP holds the right to change any date in the Project Schedule listed above.