Mobile Bay National Estuary Program
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September 30, 2011

REQUEST FOR PROPOSAL 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 living shoreline project along the western shore of Mobile Bay. The approximately 700-linear foot site is located on the northern end of Mon Louis Island. Professional design and specifications should include a process for working with the property owners to develop a site plan and associated documents that respond to property owner input and consideration of individual shoreline characteristics. Design may include an erosion and sediment control plan, filling and/or grading plan (including the removal of shoreline debris), landscape plan which should identify planting with native wetland and upland plants, and infrastructure plans (for piers and/or boat launch facilities). Plans must be in a finalized form to carry out site construction.

DUE DATE

To reply to this request, submit **eight (8)** copies of a proposal, including a digital copy on CD or DVD outlining how your firm would meet the project tasks and selection criteria outlined below. Return proposals no later than **4 PM on November 2, 2011** to Mon Louis Island Project, Mobile Bay National Estuary Program, 4172 Commanders Drive, Mobile, AL 36615.

MBNEP will conduct a mandatory pre-proposal meeting on site to discuss the residents' vision for design outcomes to include but not be limited to the installation of wave attenuation structures, planting of intertidal grasses, 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 on November 3, 2011.

BACKGROUND

The western shore of Mobile Bay consists primarily of shallow water and intertidal habitats that are important as nursery grounds for fish, benthic biodiversity, and production. Proposed "living shoreline" enhancements should be designed to increase the acreage and function of natural ecosystems in Mobile Bay and act as a catalyst for the implementation of similar projects along Mobile Bay.

The Mobile Bay National Estuary Program (MBNEP) has received funding from the Gulf of Mexico Foundation Community Restoration Partnership and the U. S. Fish and Wildlife Service Coastal Programs to undertake a living shorelines project in the near shore waters seaward of parcels owned by a group of private property owners along the western shore of Mobile Bay. This is the first project in the State of Alabama involving multiple property owners to employ this technology to stabilize an erosion-impacted shoreline with creation of habitat to enhance fisheries resources. Owners of six individual, contiguous parcels encompassing 667 feet of shoreline along northern Mon Louis Island in Mobile County, AL have agreed to partner with the MBNEP in undertaking this project, to provide MBNEP and the State of Alabama with an opportunity to demonstrate how living shoreline projects would be implemented on a multi-property scale and constructed under existing State and Federal regulations, and what benefits they would provide.

The purpose of this project is to promote the wise stewardship of the water quality and living resources of the near shore area along the western shore of Mobile Bay on Mon Louis Island. The goals are to create and enhance sub-tidal reef and intertidal vegetative habitats. The objectives are to install 0.25 acres of reef structure to expand quality oyster settlement opportunities and to establish 0.45 acres of low energy inshore area to restore emergent marsh vegetation, while optimizing sandy areas along the stretch of 670 feet of shoreline. Another objective is to engage private property owners in designing and implementing this public shoreline restoration project.

Erosion and habitat loss along the Island's edge between the mouth of Fowl River and Alabama Port is caused by wave energy from ship channel and other boat traffic, prevailing winds, and occasional tropical weather events. MBNEP has recruited six contiguous property owners to participate as part of a project team to 1) attenuate wave energy , 2) create/enhance oyster reef and marsh habitat, and 3) demonstrate technologies alternative to shoreline armoring on a scale available to property owners concerned with loss of near shore habitat.

Mon Luis Island's Mobile Bay shoreline has experienced significant erosion and loss of habitat over recent decades not only from storms (*e.g*., Frederic, Georges, Ivan, Katrina, Gustav, and Ike) but also routine effects like ship and boat wakes and prevailing winds, along with upstream hydrologic modifications that have prevented sediment transport. This gradual and chronic loss of shoreline prevents the establishment of oyster reef and salt marsh habitat. Homeowners have reported spending thousands of dollars annually to preserve and protect property, often using management practices that exacerbate habitat loss and compromise its re-establishment (e.g., bulkheads). While not offering protection from catastrophic weather events, this project would stabilize shorelines from chronic, routine impacts and re-establish critical habitat for commercially and economically important fish and shellfish. Alabama's oyster fishery – with historic presence in the project area – has suffered from impacts of recent storms, drought, and resultant proliferation of predacious oyster drills. The project will provide settlement substrate and enhance seed stock of this commercially important resource and will provide alternative fishery habitat in an area not impacted by the Deepwater Horizon incident.

Ultimately project partners hope to continue shoreline restoration along the almost six-mile length of residential shoreline from Fowl River south to Bayfront Park in Alabama Port. This project, at the northern area of the shoreline, will provide a demonstration of the value of habitat creation and re-establishment along its extent.

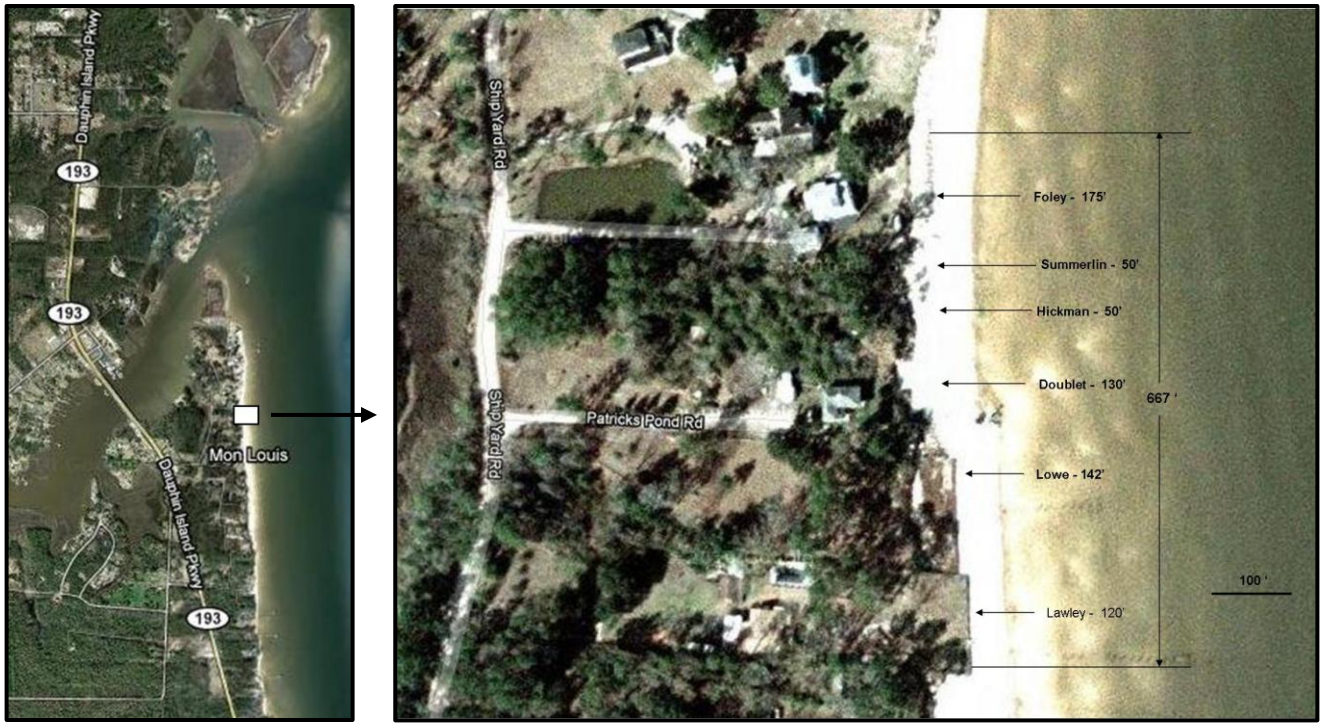
In April 2009, MBNEP invited all Mon Louis Island shoreline property owners to a meeting to introduce concepts related to living shorelines, hear preliminary project ideas/plans, and provide information about their own experiences, activities, expenditures, and preferences related to shoreline stabilization and habitat creation.

In July, 2010, the same residents were invited to another meeting where a visioning exercise was undertaken on a laminated, segmented, 120-foot, 2006 map of the shoreline (1 inch:25 feet scale, provided by Mobile County Revenue Commission) to gather specific graphical input that included activities undertaken since Hurricane Katrina, historical anecdotes/observations related to shoreline conditions and habitat presence and loss, and reef installation and marsh planting preferences behind their properties. Collected data were converted to GIS layers on May 2010 shoreline imagery. 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. In early 2011, this information was presented to the community.

A record of community involvement efforts underlying this project, including submissions by the Mississippi-Alabama Sea Grant Legal Program and the University of South Alabama Civil Engineering Department is documented on the MBNEP web page at **http://www.mobilebaynep.com/mon-louis-island/.**

SITE DESCRIPTION

The project site (pictured below) is located on Mon Louis Island, Mobile County, AL, along Old Shipyard Road off Highway 193 just south of the Fowl River Bridge (see figures below). The northernmost parcel is at 30° 26'35.15"N 88°06'22.91"W and the southernmost at 30° 26' 28.71"N 88°06'21.59"W. Access can be gained through several of the properties, including both the northernmost (Frank Foley) and the southernmost (Greg and Dottie Lawley).



Services Requested

The MBNEP seeks an engineering firm to provide professional services to create a living shoreline project design, participate in property owner meetings to integrate public input and concerns, 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 at two locations on each shoreline reach to determine suitability of soil and/or the need for over excavation and backfilling for wetland plant growth. 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 at least two meetings with property owners and at least one public meeting to present the 50% and 100% plans to the community. Coordination with the property owner team is expected to be ongoing. This project is unique in terms of the involvement of private land owners, not only in installation and monitoring efforts, but also throughout the planning and design process. Over forty shoreline residents have already participated in each of three intensive informational meetings. The property owner team is well educated and ready to employ their knowledge and insights into a preliminary project design. Features provided by resident participants have been mapped using GIS for additional consideration and planning.

Shoreline property owners must be engaged in developing details of project design that include distance from shore of reef placement, conformation of intermittent gaps providing ingress/egress through the reef, preferences for marsh planting in riparian zones of individual parcels, access from beaches for recreational activities, etc. Proposals should address how the design will be developed and how project team input will be incorporated into the design.

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"). These drawings will be used by the property owner team to review and provide comments for 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.

The services noted above are general, and the MBNEP may request additional services, as needed, to facilitate the development initiatives within the project area. The 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 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**. Design should provide sufficient detail, including reef structure dimensions and necessary materials, to develop bid specifications for project construction.

b. Oyster reefs in the design will be constructed of material that will 1) remain in place and 2) provide attachment substrate for spat and habitat opportunities for other marine life. Options for consideration include but are not limited to: Class one limestone rock or a core of rock overlain with a veneer of cultch. In addition, 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 Alabama Marine Police recommendations.

DONATED RESOURCES TO THE PROJECT

Up to Approximately 13,000 native shoreline plants that occur locally in similar conditions of salinity and substrate (e.g., *Spartina alterniflora*, *Juncus roemerianus*, and *Schoenoplectus* spp.) will be provided by Mobile County Schools Grasses in Classes Programs for planting in the intertidal zone along the length of the project, according to substrate, depth, and property owners' preferences.. Additional plants will be purchased locally

MBNEP secured a donation of five hundred-fifty tons of class one limestone riprap (with a median weight of 50 lbs) for the purpose of constructing a living shorelines structures near shore (200-700 ft) to attenuate the routinely-occurring wave energy created by ship wakes and prevailing southeasterly winds with a goal of promoting settlement and growth of oysters and providing refuge, nursery, and foraging habitat for fish and shellfish. Installed reef structures should be designed to remain in place during extraordinary weather events including tropical cyclones.

OTHER CONSIDERATIONS

The selected proposal will include consideration of shoreline characteristics along the 670-ft project area to attenuate wave energy as specifically as possible incidental to the six property parcels with as little effect as possible to the shoreline outside of the project footprint.

FORMAT AND SELECTION CRITERIA

In no event shall your proposal, including all attachments, brochures, covers, and dividers, exceed 20 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. Discuss experience successfully interfacing with diverse partners to design a project that meets diverse needs. 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) Education, certifications, training and experience on related projects for individual team members.
b) Percentage of time of most qualified team members to be devoted to project.
c) Address how individual team members' roles and responsibilities commensurate with the individual's
d) experience, training and education.
e) Indicate team members who have worked together before on successful projects relevant to this request.
f) 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?
g) 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 Mr. Tom Herder, Watershed Protection Coordinator, Mobile Bay National Estuary Program, 251-431-6409, therder@mobilebaynep.com.

TIME SCHEDULE

Proposed Project Schedule and Deliverables

➢ RFP Posting Date:	October 4, 2011
➢ RFP Advertising Date:	October 12, 2011
➢ On Site Pre-proposal meeting	October 26, 2011
➢ Proposals Due:	November 2, 2011
➢ Top Candidate Interviews / Submission of Non-binding Fee Proposals	October 27, 2011 (est.)
➢ Notice to Proceed Date:	November 10, 2011
➢ Project Completion Date:	June 30, 2012

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