



## **DRAFT of GRANT APPLICATION FOR VIRGINIA KEY BEACH PARK TRUST**

**INTERNAL DOCUMENT ONLY – NOT FOR CIRCULATION**

**NOTE:**

**ALL TEXT IN BLUE IS EITHER VERBAGE TAKEN DIRECTLY FROM THE GRANT REQUIREMENTS OR NOTES BY OUR TEAM REGARDING IMPORTANT POINTS THAT WILL BE ADDRESSED SPECIFICALLY IN THE COMPLETED APPLICATION**



**1.) Project Summary (2 pages):**

**Applicant Organization: Hydros Coastal Solutions, Inc.**

**Project Title: Restoration of a Coastal Habitat at Virginia Key Beach Park: A Member of the National Register of Historic Places**

**Site Location** - The 82.5 acre property is located at 3861 Rickenbacker Causeway.

**Sponsor: The Virginia Key Beach Park Trust** - In August 1945, Virginia Key Beach was established as the only public beach and recreation facility for "the exclusive use of Negroes" in what was then known as Dade County, Florida. Ironically, the establishment of this beach was a significant victory during the early days of the Civil Rights movement. Virginia Key Beach Park served as a cherished locale for the South Florida community until the Park was transferred to the City of Miami and closed in 1982.

In June 1999, a group of citizens called the **Virginia Key Beach Park Civil Rights Task Force** was established in response to plans to privately develop the land. Later that year, the Miami City Commission established the Virginia Key Beach Park Trust to oversee the development of the historic Park property. The Trust has been working diligently to restore and preserve this historical treasure.

In August 2002, the site was placed on the National Register of Historic Places and given a Florida Historical Marker. The 82.5 acre property is located at 3861 Rickenbacker Causeway.

**On-the-Ground Implementation Start Date** (not proposed award start date)  
JUNE 1, 2009

**Number and types of jobs created or maintained, labor hours and anticipated duration for each:**

10-20 / General Labor / 1 - 2 Years



**Coastal and marine habitats to benefit from the project - habitat(s), organism(s)(species) currently using the project area or expected to return, and any listed threatened or endangered species in the project area or in the vicinity.**

Sea Turtle nesting season officially runs from March 1<sup>st</sup> to October 31<sup>st</sup>. For this reason, the actual beach nourishment (i.e. placement of sand) will not take place during this time. Our team of scientists, engineers, and students from the University of Miami and NOAA will use this time to collect baseline data with regard to marine resources and turtle nesting behavior on the beach.

**Project Scope** - Briefly list specific tasks to be accomplished with requested funds, and proposed techniques that will be used to implement and monitor the restoration

Baseline and Post-Nourishment Analyses

- Marine Resource Surveys
- Dune Vegetation Surveys
- Beach Profile Surveys
- Coastal Engineering Studies
- Sand Compaction Studies
- Sand Grain Analysis
- Water Quality Analyses
- Nutrient Analyses
- Sea Turtle Nesting Surveys

**Project Outputs/Outcomes** - Number of acres restored or stream miles to be made accessible to diadromous fish, anticipated long-term ecological and socioeconomic outcomes.

One mile of coastline will be restored and sustained in a healthy state by this project.

**Project Time Line**

| Milestone                           | Month |     |     |     |      |       |       |       |       |
|-------------------------------------|-------|-----|-----|-----|------|-------|-------|-------|-------|
|                                     | 1-2   | 3-4 | 5-6 | 7-8 | 9-10 | 11-12 | 13-14 | 15-16 | 17-18 |
| Permitting Process                  | XXX   | XXX | XXX |     |      |       |       |       |       |
| Debris and structure removal at VKB | XXX   |     |     |     |      |       |       |       |       |
| Baseline Environmental Surveys      |       | XXX |     |     |      |       |       |       |       |
| Sea Turtle Nesting Analysis         | XXX   | XXX | XXX | XXX | XXX  | XXX   | XXX   | XXX   | XXX   |
| Construction                        |       |     |     | XXX | XXX  |       |       |       |       |
| Post Construction and Monitoring    |       |     |     |     |      | XXX   | XXX   | XXX   | XXX   |
|                                     |       |     |     |     |      |       |       |       |       |
|                                     |       |     |     |     |      |       |       |       |       |
|                                     |       |     |     |     |      |       |       |       |       |
|                                     |       |     |     |     |      |       |       |       |       |
|                                     |       |     |     |     |      |       |       |       |       |

**Permits and Approvals** - identify permits or regulatory approvals necessary for this project and current status of permits secured, or applications and/or consultations pending

- a. Local Building Permit from the City of Miami - **Pending**
- b. Miami-Dade County Class I Coastal Construction Permit - **Pending**
- c. Florida Department of Environmental Protection Joint Coastal Permit (or a Coastal Construction Control Line Permit) - **Pending**
  - a. Authorization from the Florida Fish and Wildlife Conservation Commission - **Pending**
- d. U.S. Army Corps of Engineers Dredge and Fill Permit - **Pending**



## **Federal Funds Requested & Non-Federal Match Anticipated**

### **Overall Project Cost**

**\$2,100,000**

### **2. Project Narrative (15 pages):**

The **project narrative** should closely follow the organization of the evaluation criteria (see Section V. A. Evaluation Criteria) for the application to receive a consistent review against competing applications. The body of this narrative description should be no more than 15 pages long (in 12-point font with 1" margins), and should give a clear presentation of the proposed work. In general, applications should indicate how the proposed work generates employment and how the proposed habitat restoration activities will yield ecological, social and economic benefits.

Where applicable, the narrative should describe the historic condition of the restoration site and, if applicable, the processes which resulted in degradation of the area and how these processes have been abated to allow for successful restoration. It should list the species currently found in the project site, identify the problems the project will address, describe short- and long term objectives and goals, detail the methods for carrying out and monitoring the project, describe how the project will be managed and maintained in the long-term, and clearly explain the project's relevance and significance to creating and maintaining jobs through the habitat restoration activities. Detailed information about the objectives, implementation plan, techniques, anticipated results, management and monitoring of the project, appropriate to the type of project, should be included.

### **High priority will be given to applications for projects that:**

#### **The proposed project:**

- **Will result in ecological benefits that will be measured by increasing the natural coastal habitat,**
- **Will begin within the first 90 days of the award start date**
- **Will be completed within 12-18 months;**



## Coastal Solutions

- Will result in a sustainable shoreline and provide lasting benefits to a Historic Park and Member of the National Register of Historic Places
- Will result in an experimental beach nourishment technology receiving environmental permitting. The success of this project will allow for future coastal restoration projects to be conducted by Hydros Coastal Solutions, Inc., Ocean Consulting, LLC, and AA Engineering Services, Inc.

### **Technical:**

- Identify specific goals and outcomes, with appropriate ecological and economic performance metrics;
- Propose sufficient, cost-effective monitoring appropriate to the scope and scale of the project to evaluate a project's benefits;
- Request funds primarily to implement physical, on-the-ground coastal habitat restoration (as opposed to funds for general program support, overhead and travel).

**In line with the description of the types of coastal and marine habitats and projects that will receive priority for restoration funding consideration, our proposed project:**

- Is a shoreline restoration/beach nourishment project
- Will provide protection for communities and infrastructure through habitat restoration to improve coastal resiliency to storms and flooding;
- Will improve the potential for coastal habitat to respond to climate change through restoration or protection of transition zones that provide room for habitat migration with sea level rise;
- Will include an initial marine debris accumulation in coastal and marine habitats;
- Projects that support conservation corps type activities to provide employment, education and training through restoration of coastal and marine habitat



## **Environmental Permitting**

### **Beach Nourishment Permit Sketches**

Permit sketches suitable for use by agency staff at the DEP, Corps and Miami-Dade County will be produced and provided by the HCS project team. The permit sketches for the beach nourishment project will consist of a location map, existing conditions sketch with the existing and proposed bathymetric conditions, the beach nourishment design and layout, and plan view and cross sections of the project footprint. **VKBPT** will provide the latest topographic or boundary survey and a site plan with upland structures depicted for use in preparation of the sketches. If available, details of the existing and proposed conditions will be taken from the Segment 2 project, to ensure consistency with the proposed design current under review by regulatory staff. Typical section views and details will illustrate the mean high and low water lines and typical details of the proposed beach design. Permit sketches will be prepared on 8 ½ x 11-inch paper.

### **PRE-APPLICATION MEETINGS**

Meetings with regulatory staff from the U.S. Army Corps of Engineers, the Florida Department of Environmental Protection, and Miami-Dade County to present the conceptual design details for the nourishment project have already been initiated and critical input has been provided to the project team. Approval in concept will be requested. Ocean Consulting will prepare a Conference Agenda prior to the meeting, as well as a Conference Report following the meeting, documenting the discussions and summarizing acceptance of specific design elements and the timing of the project.

**Miami Department of Environmental Resource Management (DERM) - Pre-application meeting held on XX-XX-XX at DERM offices in downtown Miami.**

**Army Corps of Engineers - Pre-application meeting held on XX-XX-XX at Virginia Key Beach Park.**

- a. **Miami-Dade County Class I Permit Application:** A Miami-Dade County Permit Application has been prepared and is awaiting submittal. The VKBPT will provide the HCS team with a signed application form, warranty deed, and permit application fees (likely waived)). Ocean Consulting will prepare a complete permit application package for the proposed nourishment project. These items will be forwarded to Miami-Dade County as formal application for a Miami-Dade County coastal construction permit.
  
- b. **Joint Coastal Permit Application:** A Joint Coastal Permit (JCP) application to the Florida Department of Environmental Protection (DEP) and the U.S. Army Corps of Engineers (Corps) for state and federal regulatory authorization of the proposed nourishment work has been prepared and will be submitted if necessary. The Client shall provide Ocean Consulting with a signed application form, warranty deed, and permit application fees (to be determined). Ocean Consulting will prepare a complete permit application package for the proposed nourishment project.

#### ENVIRONMENTAL PERMIT PROCESSING

- a. **Miami-Dade County Permit Processing:** Miami-Dade County Class I coastal construction permit applications are pending. Contact with regulatory agency staff to discuss proposed plan details, answer any questions, and/or clarify the proposed construction toward negotiating approval. Any plan changes or mitigation required by Broward County will be discussed with the Client and addressed under a separate scope of work.
  
- b. **DEP Permit Processing:** Following submittal of the JCP application, Ocean Consulting will confer with DEP staff to further advise them of the details of the proposed project and to address staff comments. Ocean Consulting will maintain telephone contact with agency staff to expedite their review and processing of the permit applications. Ocean Consulting will attend meetings with the Client, project design team, project attorney, and/or agency staff to discuss project details, potential impacts, any mitigation requirements, and proposed permit conditions. Ocean Consulting will confer with the Client, project attorney, and/or other design team members as to questions, revisions, or additional items that may be required by agency staff. Ocean Consulting will review and coordinate submittal of responses to agency requests for additional information.





Ocean Consulting will represent the proposed project before agency staff to assist the Client in securing the above-referenced permit. Additionally, Ocean Consulting will coordinate with the Florida Fish and Wildlife Conservation Commission to negotiate the appropriate marine turtle nesting conditions for the project. Any revised/additional drawings or mitigation plans required relative to agency requests and/or meetings required in addition to those specified above will be invoiced on an hourly basis under Part 6 of this contract, or under a separate contract proposal.

- c. **Army Corps of Engineers Permit Processing:** Following submittal of the JCP application, Ocean Consulting will confer with Corps staff to further advise them of the details of the proposed project and to address staff comments. Ocean Consulting will maintain telephone contact with agency staff to expedite their review and processing of the permit applications. Ocean Consulting will attend meetings with the Client, project design team, project attorney, and/or agency staff to discuss project details, potential impacts, any mitigation requirements, and proposed permit conditions. Ocean Consulting will confer with the Client, project attorney, and/or other design team members as to questions, revisions, or additional items that may be required by agency staff. Ocean Consulting will review and coordinate submittal of responses to agency requests for additional information.

Ocean Consulting will represent the proposed project before agency staff to assist the Client in securing the above-referenced permit. Additionally, Ocean Consulting will coordinate with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to negotiate the appropriate endangered species conditions for the project. Any revised/additional drawings or mitigation plans required relative to agency requests and/or meetings required in addition to those specified above will be invoiced on an hourly basis under Part 6 of this contract, or under a separate contract proposal.

### **Baseline Environmental Surveys**

- a. **Marine Resource Survey:** Our team of biologists will perform a marine resource survey within the project boundaries. The work will generally consist of 2 divers, on SCUBA, delineating the hard bottom boundary between the nearshore environment and the coral habitat located offshore. A survey vessel will accompany the divers for safety and to record the marine resource boundaries within the project footprint. The survey will generally consist of transects, equally spaced, perpendicular to the shoreline; these transects will extend approximately 100 feet. These biologists will survey the extent of any seagrass, corals, sponges, and other resources of significance that may be impacted from the proposed nourishment activities.

- b. Hydrographic Survey:** Mapping work will be completed within the Project vicinity. The boundaries of the hydrographic survey will extend within the project footprint; this footprint will consist of the entire Virginia Key shoreline, as well as approximately 2,500 feet to the north and south of the Site. A topographic survey of the upland property with property lines, easements/rights-of-way, existing onsite vegetation, and/or any existing structures/pilings illustrated will be provided by the Virginia Key Beach Park Trust. Ownership and deed boundaries will be referenced, if existing.

This hydrographic survey will include profile lines taken at an appropriate interval to determine appropriate water depths in the vicinity of the project footprint. All in-water work will employ vessel-based hydrographic surveying methods (i.e. DGPS, Hypack Navigational Software, etc.).

- c. Base Map:** The marine resource and hydrographic data collected in the field will be reduced to the horizontal coordinate system and vertical datum established for this project. Contours reflecting bottom elevations at one-foot intervals will be reflected on the base map and tied into the upland survey. The Base Map will be provided to the regulatory agencies as part of the environmental review process.

## **Structure and Debris Removal**

Because Virginia Key Beach is a Historic site, its restoration to date has been conducted in such a way as to restore it to its original condition. This includes accurately restoring such sites as the historic dance floor (see picture), the snack bar (See picture), the carousel (see picture), the children's train, and the "shoreline".

Virginia Key has historically experienced erosion of its coastline due to storms and strong currents present in the inlet between Virginia Key and Key Biscayne (This inlet was actually created by a hurricane in XXXX that separated the two keys). Historically, groynes were placed along Virginia Key as a means to mitigate erosion. In XXXX, the Army Corps of Engineers began an extensive shoreline restoration project that included the removal of the existing structures and their replacement with new structures (See Figure 1). The significance of this was more of a historical move than an environmental one and, in fact, many of the new groynes were not built exactly to the specs provided by Corps personnel because it was determined that doing so would negatively impact existing seagrass communities. While the new structures appear to be functioning properly, recent hurricane activity in the area has exposed some of the old groynes (see Figure 2) that were not completely removed by the Army Corps of Engineers. It is likely that these structures were not visible at the time of the original project since

considerable beach erosion has occurred in the years following the completion of the project.

In addition to the pre-existing groynes, the severe erosion experienced by the Key in recent years has exposed numerous tree stumps and roots along the shallow water areas along the Key (Figure 3). The old groynes, along with the stumps and debris, pose a significant safety risk to bathers and beachgoers and will be removed as part of the proposed renourishment project.

Because structure removal/demolition projects do not require environmental permitting, this portion of the proposed project will commence immediately upon receipt of a notice to proceed.



Figure 2. Exposed groyne

### **Traditional Beach Nourishment**

- a. **Sand Source:** The sand that will be used for the beach nourishment will most likely be from a land-based source (eg. Ortona Sand Company, Inc.); however, a submerged or offshore source may be utilized if necessary.



- b. Sand Placement:** Sand will initially be placed above the mean high water mark to repair the eroded dune. AA Engineering Services, Inc. will be responsible for all construction.

## **Novel Beach Restoration**

The Hydros Coastal Solution™ to coastline restoration is unique and unprecedented. By identifying and targeting the underlying causes of beach erosion, Hydros Coastal Solutions, Inc. is able to reverse the negative impacts of years of environmental stressors and help to promote a naturally thriving environment. Our proprietary anti-erosion product, ShoreLock™, is the result of years of research and development. ShoreLock™ is a safe, effective, and eco-friendly product that helps to reverse the negative impacts of coastal development and to protect valuable coastal real estate. By applying ShoreLock™ to an unhealthy beach, the results of years of pollution are stripped away from the sand. The result is a healthy, thriving beach that begins to grow and maintain resistance to the environmental factors that cause erosion. When sand loses its ability to bind water it also loses its ability to bind with other sand particles. Thus, when sand becomes hydrophobic, it is more readily washed away during storm events. Interstitial water is a primary factor in sand cohesiveness and is an absolute necessity on a healthy beach. ShoreLock™ safely restores the natural surface properties of sand, promotes the retention of fresh water, and facilitates the formation of a healthy beach.

## **The Technology**

ShoreLock™ is a novel and proprietary anti-erosive agent that has been developed and refined by Hydros Coastal Solutions, Inc. It is mixed with seawater and placed into existing sand on an eroded beach at a specific concentration. Once applied, ShoreLock™ promotes a micro-oxidative environment that destroys organic biofilms and helps to reestablish the natural cohesive properties of sand. ShoreLock™ contains only natural, non-toxic ingredients that naturally promote an ordered water structure in an aqueous environment. This environment enhances intermolecular hydrogen bonding between both silicate and carbonate sand particles. The result is a healthier beach that retains fresh water, promotes a healthier benthic community, and resists erosion.



Furthermore, our proprietary micro-encapsulation process allows for controlled release of the active ingredients so that sand accretion and environmental impacts are gradual and can be monitored over time. The product is water-soluble and leaves no residual.

## **EXPECTATIONS**

The expected result of our proprietary alternative to traditional renourishment is a healthier beach with a gentler slope and a significant reduction in any noticeable scarp or erosion cliff. Measurable beach extension is variable and is significantly influenced by both the availability of offshore sand and the ability of the coastal environment to sustain such an extension. Beaches will not accrete beyond what is environmentally supported, but can usually be restored to their natural state within 3-4 months.

In addition to the development and application of ShoreLock™, Hydros Coastal Solutions, Inc. and its team of scientists and engineers also have considerable experience with the technical and regulatory requirements associated with traditional beach renourishments. Therefore, the Hydros Coastal Team also has the capability to oversee projects that involve the simultaneous application of ShoreLock™ and sand placed by trucking or dredging.

## **THE APPLICATION PROCESS**

Using our streamlined process, up to 1 mile of coastline can be treated in as little as two or three days. The application process involves absolutely no earth moving or outside sand sources and has minimal physical impact on the environment. Prior to application, ShoreLock™ is pre-mixed with seawater onsite and is injected into the beach at pre-calculated loading rates. Following the application process, there are no restrictions on beach use, so the down time and lost revenues associated with traditional beach renourishment are significantly reduced.

## **SCIENTIFIC ADVISORY COUNCIL (SAC)**

As an added level of technical expertise, Hydros Coastal Solutions, Inc. has appointed a panel of expert engineers and oceanographers from the University of Miami and the National Oceanographic and Atmospheric Administration (NOAA) to provide critical review and guidance throughout the course of the project. The SAC is provided with complete access to all data generated on every project and meets monthly to discuss means of improving the project as well any perceived areas of concern.





The SAC is given final discretion as it pertains to evaluating whether or not a project is progressing appropriately. Furthermore, the SAC is given overall discretion as to whether or not the treatment is causing any adverse environmental effects. If the SAC determines there are any significant deleterious environmental impacts as a direct result of the ShoreLock™ application it can recommend the project be immediately terminated. Hydros Coastal Solutions, Inc. takes great care in providing quality assurance and quality control monitors the all projects closely. Ultimately, however, the SAC will have the power to override Hydros Coastal Management on decisions regarding any quality control or environmental impact issue.

Following monthly project evaluations, a final report that summarizes the observations and recommendations of the SAC will be compiled by Dr. Scott. All SAC recommendation reports are forwarded to the client for review.

### **SAC MEMBERS**

**Troy M. Scott, Ph.D.** - As the Chief Executive Officer of Hydros Coastal Solutions, Inc., Dr. Scott also serves as Chairman of the Scientific Advisory Council. His primary role in this capacity is to facilitate communication between the scientific directors and the engineering team so that projects can achieve maximum success with limited environmental impact. Dr. Scott is responsible for communicating the recommendations of monthly SAC meetings to clients and relaying client-directed questions and concerns to the SAC as well.

**Helena Solo-Gabriele, Ph.D., P.E.** - Dr. Solo-Gabriele is a Professor and Associate Dean of Research at the University of Miami's College of Engineering. Dr. Solo-Gabriele is an internationally recognized expert in environmental engineering and has considerable experience with regard to marine systems and how they impact public health.

**Lora Fleming, MD, Ph.D.** - Dr. Fleming is the only board certified Occupational and Environmental Medicine Physician and Epidemiologist in South Florida. She is the Co-Director of the National Science Foundation (NSF)-National Institute of Environmental Health Sciences (NIEHS) University of Miami Oceans and Human Health Center, the Associate Director and Director of Outreach and Education of the University of Miami NIEHS Marine and Freshwater Biomedical Sciences Center, and the Associate Director of the Florida International University (FIU)-University of Miami NIEHS ARCH Program.



## Coastal Solutions

**Christopher Sinigalliano, Ph.D.** - Dr. Sinigalliano is a scientist with the National Oceanic and Atmospheric Administration's (NOAA) environmental microbiology lab in Miami. He currently leads the environmental microbiology laboratory at NOAA and has spearheaded several projects regarding coastal issues.



814 Ponce de Leon Blvd, Suite 511  
Coral Gables, FL 33134  
Tel: 786-245-8312 fax: 305-460-6960





- **Fish passage:** Fish passage projects include, but are not limited to, fish ladders, by-pass channels, nature-like fishways, dam removals, and culvert removal and replacement with bottomless arch culverts or bridges. Fish passage project applications should describe the significance of the project to migratory fish populations and historical fish runs in the river, identify the river length that will be restored, the distance to the next upstream blockage, any downstream blockages or seasonal impediments to fish passage, state how the project will meet fish passage guidelines established for the area, and identify and provide documentation of support for the project from the landowner/dam owner. Applications should highlight any synergies with other fish passage efforts in the watershed, including fish passage improvements at hydropower dams. Fish passage projects proposing to install fish passage devices or moveable control structures like self-regulating tide gates should submit a management plan that details who will be in charge of the operation and maintenance of such structures, how they will be operated, and similar details (plan should be included in the “Supplemental Information” attachment).



- **Hydrologic/Tidal reconnection:** Projects may include berm breaching, culvert removal/replacement to allow tidal or natural flooding of wetlands, complete removal of levees and dikes or other impediments to historic/natural tidal flow or hydrology, floodplain reconnection, or creation/restoration of off-channel habitats. Projects proposing to change tidal flushing characteristics should be accompanied by a hydrograph showing any tidal restriction(s).
- **Shellfish restoration:** Projects proposing to create, restore, or rehabilitate shellfish habitat should identify whether the site historically functioned as shellfish habitat, the current and historic bottom type at the project location, the type and source of substrate base to be added (if any) and whether the material is permitted for open water placement. Information should also include the origin and strains of any shellfish seed to be placed on the site and the proximity to any existing or remnant sources of similar type in the area, and details on future management, including mechanisms to protect the restoration site so its effects can contribute to enhanced shellfish populations in adjacent, unprotected sites for potential future harvest.
- **Coral recovery:** Projects proposing to support coral recovery may address land-based sources of pollution (however, see limitations in Section III. C. Other Eligibility Requirements, above), recovery from disturbance, promote recruitment and recovery through enhancement and protection of existing populations and natural systems, or seek to control overgrowth of invasive species or otherwise prevent loss of recruitment habitat. Projects proposing to reduce sediment or nutrient input to coral reef environments should discuss how impacts to the reef environment will be quantified and attributed to restoration through reduction of land-based sources of pollution.
- **Coastal resiliency:** Projects will be considered that support salt marsh and barrier island restoration, and erosion prevention through living shorelines, or that otherwise lead to increased resiliency and protection of coastal communities while supporting ecological goals. Applications should include a site design and explain why the chosen method is appropriate, considering the site's energy and use. Projects that will create buffers or 'green infrastructure' to protect coastal communities from storms and coastal inundation should include information on the frequency of storms or flood events, the project area's susceptibility to hazards, and the infrastructure and communities that will be protected by the project, and the anticipated long-term economic significance of the project.
- **Habitat adaptation:** Projects that propose to protect or restore habitat in transition zones to provide room for habitat migration with sea level rise should describe current and predicted rates of sea level rise in the area, expectations for the ability of habitat to migrate inland, and how the area will be maintained in the long-term.
- **Diadromous fish habitat:** Projects proposing to support diadromous fish recovery may address land-based sources of pollution (however, see limitations in Section III. C. Other Eligibility Requirements, above), recovery from disturbance, the restoration of natural



systems, or seek to control invasive species or otherwise prevent loss of habitat. Projects

proposing point source pollution abatement to reduce sediment or nutrient input should have an obvious and direct resource connection, and discuss how impacts to diadromous fish habitat will be quantified and improved and attributed to restoration through reduction of land-based sources of pollution.

- **Marine debris removal:** Projects proposing to remove debris (solid, man-made items) from the marine environment may include removal of derelict fishing gear, and other persistent mid- or large- size debris from coastal habitats. Proposals should describe the source of the debris and the likelihood of re-accumulation. Applications should also include expected weight of debris removed, in metric tons; and should include the expected footprint of the debris proposed to be removed, in acres or square-feet.

- **Great Lakes:** Projects in the Great Lakes should propose habitat restoration in Areas of Concern that address beneficial use impairment to either loss of fish and wildlife habitat or degradation of benthos. Beneficial use impairment projects should include information describing how the project will advance the delisting of the AOC or lead to removing the beneficial use impairment.

- **Projects that propose to restore beaches used by endangered/threatened species and marine mammals should include details on future management, including mechanisms to protect the restoration site so its effects can contribute to enhanced populations of affected species, and the anticipated long-term economic significance of the project.**

- Projects proposing planting and/or invasive species removal should include information on site preparation and invasive eradication or control methods, the basis for determining species and planting density, a brief discussion about genetic integrity and how that will be addressed, and detail planned maintenance activities including duration of maintenance. Other marine and coastal restoration project types will also be considered, particularly those that most strongly support NOAA's mission and goals. If known, the applicant should state the level of NOAA involvement in, and/or support for the project and include contact information of relevant NOAA staff.

To ensure a basic level of success, all projects must propose evaluation parameters for both the socioeconomic and ecological aspects of the project, and work with NOAA during project negotiation to ensure that the proposed parameters are adequate and meaningful. Evaluation parameters should include targets for those parameters within the award period, and a plan to measure the parameters after project implementation.

To evaluate a basic level of socioeconomic success, NOAA expects the minimum level of short term evaluation parameters to include information on jobs (created or retained, and for what duration, in labor hours). Applicants should characterize their organizations and any



project partners according to North American Industry Classification System (NAICS) codes. A subset of NAICS codes commonly used for habitat restoration activities will be provided for reference in the *Supplemental Guidelines for Prospective Applicants* posted with this announcement on Grants.gov. NAICS is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing and publishing statistical data related to the US business economy. Codes are assigned to businesses, not individual job titles, based on their primary activity.

To evaluate a basic level of ecological success, NOAA expects the minimum level of short term evaluation parameters to include one or more of the following: acres restored; stream miles opened for fish passage; tonnage of marine debris removed; or another, similar measure that describes the significance of the proposed actions. NOAA welcomes outcome-based performance measures that focus on numerical increases in target species.

Priority will be given to projects that can measure their impact on the environment and the local economy in both the short and long-term. Examples of long-term performance evaluation include, but are not limited to: improved fish habitat quality; increased abundance of target species; impact on status of listed species and species of concern; changes in recreational angling and/or property value. Those projects that identify specific quantifiable targets, achievable during the award period, are likely to score higher. Applicants who propose sufficient, cost-effective monitoring appropriate to the scope and scale of the project to evaluate a project's benefits are also likely to score higher, as will those that have funding in place to support long-term monitoring beyond the award period. NOAA may choose to add additional funds to an award, or increase the period of performance for successful applicants whose projects are identified as suitable for conducting more in-depth, long-term monitoring.

**To protect the Federal investment, a letter of commitment from the landowner should be provided for projects on private land, or from relevant resource agency personnel for projects on public, permanently protected land. This letter should provide assurance that the project will be maintained for its intended purpose. Documentation of plans for long-term project management should also be included.**

To demonstrate a project's potential to realize habitat benefits and indicate project readiness, applicants are expected to provide sufficient explanation as to how they will ensure that the project will be completed within the specified time period. This includes any required consultation and permitting requirements, so that work can begin within the first 90 days of the award, and the project can be completed within 12-18 months.

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicants that are seeking NOAA Federal funding. Applications should provide enough detail for NOAA to make a NEPA determination (see NEPA details below, Section VI. B. 2). For projects with NEPA documents completed or under development, please indicate the status and level of NEPA review (CE, EA, EIS), lead Federal agency, contact at the agency, and where public drafts of the document are available. Successful applicants that accept ARRA funding will be expected to comply with Section

814 Ponce de Leon Blvd, Suite 511

Coral Gables, FL 33134

Tel: 786-245-8312 fax: 305-460-6960



1606 of the ARRA regarding wage rate requirements, and Section 1605 regarding the use of American iron, steel, and manufactured goods for applicable project types. Applicants should consider these factors and structure their applications to incorporate details on how they will meet these requirements (as applicable) and provide assurance that projects will be conducted in a manner that will facilitate the primary recipient's compliance with required reporting (see Section VI. C Reporting Requirements).