Application Form: Five-Star Restoration Matching Grants

SC-001

APPLICANT INFORMATION:

Organization (to be named as Grantee): Friends of Huntington Beach State Park
Street: P. O. Box 3019
City, State, Zip: Murrells Inlet, SC 29576
Tax Status: 501(c)(3) non-profit Tax ID#: 90-006-1665 Fiscal Year: 1 / 01 To: 12 / 31
(e.g., government agency , 501(c)(3) non-profit)

Project Contacts

Project Officer: James Basilico
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Financial Officer: Chet Moore
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PROJECT INFORMATION:

Project Name: Sandpiper Pond Restoration of Wetlands and Coastal Habitat
Ecosystem Restoration: X wetland ____ riparian X coastal (check all that apply)
Project Location(s): City: Murrells Inlet
State: South Carolina
County: Georgetown
Congressional District: 01 Longitude/Latitude (if known): 33°31'N, 79°03'W
Project Start Date: June 15, 2004 Project End Date June 14, 2005
Application Submission Date: 2/24/04

GRANT REQUEST:

Five-Star Funds Requested: $19,998
Additional Partner Contributions (total): $ 66,792
Total Project Cost: $ 86,790

PARTNER CONTRIBUTIONS: Please list the names of project partner organizations, the value of their contribution, and indicate whether the contribution is cash or in-kind.

Project Partner	Amount	Cash/In-Kind
Example: Habitat Improvements, LLC	*$1,300*	*cash*
1. Friends of Huntington Beach State Park	$ 9,360	in-kind
2. South Carolina State Park Service	$13,488	in-kind
3. Waccamaw High School	$14,400	in-kind
4. Waccamaw Audubon Society	$ 9,984	in-kind
5. Murrells Inlet 2007	$ 2,560	in-kind
6. The Nature Conservancy	$12,000	cash
7. U.S. Fish and Wildlife Service	$ 5,000	cash
Total	$66,792	

Can we circulate your application to other potential funding sources? X (yes) ____(no)

A. Project Summary and Objectives

The Friends of Huntington Beach State Park, in partnership with the South Carolina State Park Service, Brookgreen Gardens, Coastal Carolina University, Waccamaw High School, Waccamaw Audubon Society, Murrells Inlet 2007, and other local volunteer groups, propose to restore and manage approximately 35 acres of brackish wetlands known as Sandpiper Pond. The project will incorporate management plans that strive to create a biologically diverse aquatic ecosystem. With time and proper management this habitat will support a complete estuarine community including oyster reefs, various fish populations, migratory waterfowl, shorebirds and threatened / endangered species such as wood storks, piping plover and seabeach amaranth. Other components of this restoration project will include removal of highly invasive exotic plant species *Phragmites* and reintroducing tidal flow to Sandpiper Pond by constructing a 250-foot inlet from the ocean. All work will be coordinated with the Park Manager, the S.C. State Park Service director, Brookgreen Gardens, and applicable permitting agencies.

University students will perform monitoring and assist in development of educational programs at the site. Community volunteers and organizations will assist in public outreach efforts to inform our residents and visitors about the vital role wetlands play in the life history of marine fish, shrimp, oysters, waterfowl and shorebirds. An educational wayside sign will be purchased and erected along a previously established trail. Lastly, since this State Park and the Education Center is host to thousands of visitors each month, a very large number of visitors will have the opportunity to view the restoration site and experience hands-on educational opportunities.

The objective of this project is to restore and manage Sandpiper Pond in order to maintain a biologically diverse aquatic ecosystem that will support:

1. Migratory waterfowl
2. Estuarine fisheries
3. A balanced community of native aquatic vegetation
4. Improved visitor use, i.e. trails, observation platforms, programs, wildlife observation, etc...
5. Restore the surrounding watershed dynamics

B. Project Description and Need

Ecological

The wetland known as Sandpiper Pond was formerly a tidal inlet. The tidal mud flats once supported heavy populations of shorebirds, hence the wetland's former name, Sandpiper Inlet. Least terns and Wilson's plovers once nested here and populations of the federally threatened seabeach amaranth *(Amaranthus pumilus)* occurred near the salt flats and tidal washes of the inlet. Annual park surveys suggest that these species have largely disappeared from this site, and the seabeach amaranth has not been recorded here since 1998. In the mid-1990s this wetland became a major focal point for environmental interpretation and other kinds of nature-based recreational activities, such as bird watching.

The ecological dynamics of this area have changed dramatically since the construction of the Murrells Inlet jetties in 1980 and Hurricane Hugo in 1989. Sandpiper Pond has not received tidal water on a regular basis from the Atlantic Ocean in over a decade, and has therefore lost much of its dynamic state. During the summer of 1993 a major fish kill occurred, which was presumable caused by drought and low dissolved oxygen levels. Because of the rapid

invasion of the exotic plant *Phragmites* and increasing eutrophic conditions, Sandpiper Pond has become the most ecologically damaged wetland habitat within Huntington State Park. (Attachment A shows the location of Sandpiper Pond). Furthermore, the nature trail bordering this wetland has seen a marked decrease in use as visitors became aware of the dramatic loss of diversity within this habitat.

Educational and Socio-economic Need

The Friends of Huntington Beach State Park (see attachment B) are committed to helping the park fulfill its mission to protect its natural resources while providing quality outdoor recreation and education opportunities. This project will fill this need and demonstrate how various volunteer, environmental, civic, schools, and other socio-economic groups working together can make a difference in restoring this ecologically damaged area. The project will also provide an ADA accessible site for hands-on estuarine wetland educational programs.

Management Steps and on-the-Ground Restoration Activities

1. Obtain all necessary permits and establish a time-line for completion. The Recreation, Planning, and Engineering division of the S.C. Dept. of Parks, Recreation & Tourism has initiated the permitting process with the U.S. Army Corps of Engineers and the S.C. Dept. of Health and Environmental Control.
2. Chemical application for the complete eradication of exotic *Phragmites*.
3. Mechanically reopen the inlet (as prescribed in the permitting guideline) in such a way that sufficiently handles enough tidal flow energy in order to keep it open. This will require periodic maintenance by the S.C. State Park Service.
4. Design a protocol for measuring and monitoring pertinent physical and biological water quality parameters including dissolved oxygen, salinity, pH, temperature, and *enterococci* bacteria. Once the inlet is recreated and tidal flow restored, data collection will continue on a bi-weekly basis.
5. Reconnecting this habitat with the ocean will reintroduce marine larvae species into this wetland and alter the physical and biological parameters of the habitat. To document species population dynamics, a baseline data set will be collected prior to work and bi-weekly sampling conducted thereafter to determine the composition and abundance of fisheries, avian and vegetative species.
6. The degree of success for this project will depend on the measured increases of the fisheries, avian and vegetative species that have been re-established in the Sandpiper Pond habitat. Since the project period is for one year, any increase would be judged as a major success. At least one other marine wetland will be monitored to provide a reference site to measure successful restoration.

Watershed Plan

Currently, the park staff is working with a local conservation organization, Murrells Inlet 2007, to obtain additional watershed protection for the Murrells Inlet area. This Special Area Management Plan (SAMP) would include Sandpiper Pond and the entire park watershed. On a much broader scale Sandpiper Pond is within the Winyah Bay Focus Area (see attachment C). The focus area is composed of public and private partners that implement landscape scale, land management solutions and sustainable ecological integration of the Winyah Bay watershed ecosystem. Task force members include; U.S. Fish and Wildlife Service, S.C. Department of Natural Resources, Ducks Unlimited, International Paper, The Nature

Conservancy, Historic Ricefield Association, Lowcountry Open Land Trust and Private land owners.

Long-Term Management

Provisions will be implemented to insure long-term management, monitoring and protection of the project. This will be accomplished by integrating project data into the Park's existing educational programs and management plan, and will include necessary maintenance to the inlet and trail.

C. Final Products

When completed, this project will restore 35 acres of estuarine wetlands in a very visible location and high profile state park. Sandpiper Pond will be added to the other established educational sites at the park. The Park and Education Center is routinely visited by thousands of school children (groups), campers and both North American and international travelers. They will benefit from the project because of the opportunity to see and learn about the success at Sandpiper Pond.

D. Partner Justification

1. Friends of Huntington Beach State Park: Most of the members are retired and have participated in many of the educational programs and presentations. They have recently been awarded a national environmental award for various conservation projects. The project officer is an environmental engineer, retired from the U.S. EPA, Office of R & D, experienced in project and program management.
2. Huntington Beach State Park/ South Carolina State Park Service Staff/ SCPRT: Have developed exhibits and educational programs for the public. They have received a number of awards for excellence in environmental education and stewardship. They will develop the monitoring parameters, obtain permits, open the inlet, and provide overall guidance.
3. Coastal Carolina University; Environmental Quality Lab: The park staff has developed a 3 credit internship for CCU Marine Science students. Interns and guiding professors will assist with monitoring, present research and implement education programs.
4. Waccamaw High School: Currently developing an internship with park. Students will assist with data collection, present research and conduct wetland conservation programs.
5. Waccamaw Audubon Society: Volunteers will conduct periodic bird surveys to establish baseline data and future progress, and lead interpretive walks.
6. Murrells Inlet 2007: A non-profit organization which serves Georgetown and Horry counties and is dedicated to the revitalization and preservation of the Murrells Inlet watershed. They have raised funds for wetland educational boardwalks and community-based conservation projects. They will assist in publicizing the project to the local community, and create a community awareness program.
7. The Nature Conservancy: Bob and Barb Maxwell have donated $12,000 to the Nature Conservancy for the construction of an ADA accessible wildlife viewing platform at Sandpiper Pond.
8. U.S. Fish and Wildlife Service; S.C. Coastal Ecosystem Program: has pledged $5000 to assist this wildlife restoration project with exotic plant removal.

Project Budget

Local In-Kind Match

1.	Friends of Huntington Beach State Park Project Officer, Financial Officer 520 hours at $18 per hour	9,360
2.	Huntington Beach State Park/ South Carolina State Park Service/ S.C. Department of Parks, Recreation & Tourism Staff Time, Coordination, Permit acquisition 416 hours at $18 per hour	7,488
	Inlet opening, in-house construction	6,000
3.	Waccamaw High School Data collection, renovate trail, 15 students, 12 days at $10/hr	14,400
4.	Waccamaw Audubon Society 24 bird surveys, 5 persons, $16/hr	7,680
	36 Interpretive programs, 2 persons, $16/hr	2,304
5	Murrells Inlet 2007 Public Information Outreach Program 160 hours at $16/hr	2,560
6.	The Nature Conservancy ADA accessible Wildlife Observation Deck	12,000
7.	U. S. Fish and Wildlife Service S.C. Coastal Ecosystem Program Exotic plant removal	5,000
	TOTAL	$66,792

Federal Share

Coastal Carolina University, Environmental Quality Lab — 15,723

Item	wk	$/hr	Hr/wk	Fringe	Total
Student	30	$7.00	10	1.00%	$ 2,121
	12	$7.00	37.5	8.65%	$ 3,422
					$ 5,543
EQL Tech	52	$16.00	7.5		$ 6,240
Travel					$ 1,440
Supplies					$ 2,500
				Total	$ 15, 723

2.	Contract services, aquatic herbicide application for exotic plant removal		3,000
3.	Interpretive wayside sign for Sandpiper Pond trail		1,275
		TOTAL	$19,998