



**FishAmerica Foundation and NOAA Restoration Center
Community-Based Restoration Grant Awards
Interim and Final Report Narrative Format**

I. Project Title and Reference Number

Wildcat Cove Salt Marsh Restoration Project
FAF - 4024

II. Reporting Period

04/1/2005 – 09/06/2005

III. Project Narrative

No problems have arisen on the project. All structures were pre-permitted and culvert installation took place on schedule (Complete Feb 15, 2005), and without incident. Engineering and survey were contracted to meet the permit obligation of as-built criteria. The as-builts have now been completed and obtained. Exotic removal performed under the Indian River Lagoon License Plate match grant and the plantings of the native upland plants called-for under this project have been completed. Additional shoreline mangrove plantings, which are not part of the FishAmerica grant, are scheduled to begin within the next two weeks and will utilize materials and volunteers provided by the Wabasso Environmental Learning Center. It is the purpose of this project to continue the reconnection of the mangrove tidal swamp to the lagoon by installing six culverts. It is also the intent of the project to remove invasive plants (primarily Brazilian pepper and Australian pine) from the berm and shoreline. Research has demonstrated that the presence of Brazilian pepper and Australian pine adversely affect land crab and fiddler crab populations which are an important link in the food chain of a coastal salt marsh community. Removal of the invasive plants will also improve the buffer function of the uplands. The native plants planted in the exotic eradication sites will make it difficult for the exotics to return, and the original habitat values will be restored to the impacted areas. The project will also provide environmental education at the site through educational signage and the involvement of volunteers in the replanting of native plant species. Additionally, the project will provide increased access to the site through the construction of an observation pier and an observation platform.

Approximately 2 miles of shoreline along the Indian River Lagoon will be conserved and restored through acquisition of the land and by removal of invasive plants and planting with mangroves and other native salt-marsh plants. The reconnection to the Indian River Lagoon of 119 acres of mangrove salt marsh will be improved enhancing the water filtering function of the wetland and augmenting an important nursery/feeding area for marine species including snook, tarpon, mangrove snapper, red drum, black drum, shrimp, blue crab, and lobster. Sea grass beds, important feeding areas for numerous marine

species, along the 2 miles of shoreline will be protected and enhanced by conservation of the land, by improvements to water quality and water circulation, and by directed and structured access to the site provided by the berm and the observation piers. Visitors to the site will be educated by installed signage regarding importance of preserving wetlands, mangrove communities, and sea grass beds.

The endangered and threatened species benefited include marine fishes (Common snook and Tarpon), wading birds (Woodstork, Roseate spoonbill, White Ibis), marine mammals (West Indian Manatee) and birds of prey. The benefits come from improved water quality, which fosters improved access to prey species and improved productivity of prey species, and the benefits of improved water quality coming from the wetlands into the adjacent seagrass beds.

IV. Methodology

The culverts were installed using techniques Mosquito Control has developed over the last 20 years, with erosion protection provided by filter fabric and rip rap. The exotics have been physically removed where feasible and herbicide treated in-place where adjacent vegetation must not be disturbed in order to protect it. The native plants selected for the upland plantings are salt-tolerant, and mangrove shoreline plantings will be performed by the Wabasso Environmental Learning Center.

V. Results/Progress to Date

Design, permitting, and installation of the culverts are complete. Culvert as-builts are complete. Exotic plant removal is complete. Native upland plantings are complete. Shoreline mangrove plantings, which are not part of the grant project, are scheduled and will be initiated in the near future. Signage has been bid and contracting with the bidder selected is complete. Signage design is complete. Construction of an observation/fishing pier and an observation/fishing platform is complete. The total mangrove acres restored to-date are 94.23 (based on land acquisition surveys), the total uplands restored is approximately 4.83 (based on land acquisition surveys upland totals 14.83 total acres of which some is used for access and parking, and previously restored 10 +/- acres). The only work to be completed is manufacturing and installation of signage. There have been no changes to the original project plan to date. Culvert installations and native upland plantings were accomplished at an amount that is \$4,871 less than projected in the grant agreement. It is requested the \$4,871 be utilized for additional interpretive and directional signage at Wildcat Cove.

VI. Project or Budget Deviations

There are no major deviations to report and a summary of current projected expenses is as follows:

- Planting of various trees and shrubs - \$18,946.00 (original amount \$20,000)
- Culvert installation - \$20,183.00 (original amount \$24,000)
- Signage - \$10,871.00 (original amount \$6,000)

Labor and benefits in excess of \$5,000 in local match toward culvert installation resulted in a \$4,871 reduction in the amount charged against the grant in the areas of culvert installation and native plantings. It is being requested that the amount of \$4,871 be re-allocated to signage.

VI. Monitoring and Maintenance Activities

Monitoring during the project period has included: water quality, wildlife, vegetation, water levels, mosquito landing rates, and mosquito larval inspections (as needed).

VII. Community Involvement

Community activities will develop in association with the shoreline volunteer plantings, and field trips to be provided through the UF-IFAS Extension Environmental Education program the Mosquito Control District is helping (paying for) to develop.

VIII. Outreach Activities

Signage is being developed which will help the field trip organizers provide instruction to the visitors, and informational brochures will be provided at a Kiosk on-site.

IX. Supporting Materials

Before and after photos of the installed culverts were mailed as part of the prior interim report. Photos of the completed upland plantings are attached to this report.

X. Funding Information (Cash and In-kind)

1. Itemized Budget table (similar to example below) showing expenses incurred during the reporting period, for both FAF/NOAA funds and matching contributions. Budget categories must correspond to those described in the approved proposal and listed in the grant award contract.

Budget Category (e.g. personnel, supplies, contractual, etc.)	FAF/NOAA Funds	Matching Contributions	Total Expense	Nature (cash or in- kind) and Source of Match
Purchase and Installation of six culverts	\$20,183	\$5,260	\$25,363	Salaries & Benefits of Workforce
Purchase of Planting Supplies and Materials	\$18,946	\$19,877	\$38,823	Removal of exotic plants prior to native plantings was accomplished at a cost of \$19,877 paid through IRL License Plate funds.
Purchase and Installation of Educational Signage	\$10,871	\$8,900	\$19,771	Volunteer services associated with development of educational signage.

2. Budget Narrative: Describe expenditures by category and explain any differences between actual and scheduled expenditures. Include documentation of volunteer hours and in-kind donations.
 - Culvert Installations: FAF expenditures reflect material purchases for culvert installations. Culvert installations were completed by District workforce, shown as Matching Contributions. This resulted in a reduction of \$3,817 in FAF funds utilized for this budget item.
 - Native Plantings: FAF expenditures reflect material and labor purchases for native upland plantings. Native plantings were accomplished for \$1,054 less than originally budgeted. Matching expenditures, although not required for this grant, are \$19,877 paid through an alternative grant to remove exotic vegetation from the same site in which the native plants were planted.
 - To date, \$1,500 on FAF funds have been spent for design of signage. It is anticipated an additional \$9,371 will be needed to complete the planned interpretive signage. A volunteer photographer contributed more than 100 hours photographing species and points of interest at the site and designing the educational signage. These professional services are valued at \$75 per hour for a total of \$7,500. County staff volunteered more than 50 hours researching, developing, and editing information about species and environmental points of interest at the site. These services are valued at \$28 per hour for a total of \$3,900.
3. Receipts: You must include receipts for approved expenses.
 - Receipts are provided.

CONTACT INFORMATION

Contact Name: James R. David

Contact Title: Director, Mosquito Control

Organization (Grantee): Saint Lucie County

Fiscal Sponsor (if different from Grantee): St. Lucie County Mosquito Control

Street Address: 3150 Will Fee Road

City: Fort Pierce State: FL Zip: 34982

Phone: (772) 462-1698 Fax: (772) 462-1565

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Organization website (if applicable): Stlucieco.gov

PROJECT INFORMATION

Project Title: Wildcat Cove Salt Marsh Restoration Project

Project Award Number: FAF-4024 Project Reporting Period: Oct 1 – Mar 31, 2005

Project Location

City: Fort Pierce County: Saint Lucie

State: Florida Zip Code: 34982

Congressional District(s): Florida 16th

Landmark (e.g. road intersection, beach): State Road A1A North

Land Ownership (public or private and name of owner): Saint Lucie County

Geographic Coordinates (in decimal degrees):

Longitude (X-coord): 80° 18' 22" W

Are there multiple project sites for

Latitude (Y-coord): 27° 29' 32" N

this award?* Yes No

River Basin: Indian River Lagoon

Geographic Identifier (e.g. Chesapeake Bay): Indian River Lagoon

Project Start Date: 10/01/2004 Project End Date: 09/30/2005

Project Volunteers:

Number of Volunteers: 1 Volunteer Hours: 100 for educational signage development.

Additional volunteer hours are anticipated associated with shoreline plantings at the project site that will be completed in the near future but are not part of this grant project.

*If multiple project sites are part of the same award, please duplicate this form and submit required information for each site.

Brief Project Description describing project and projected accomplishments:

Restore wetland hydrology through the installation of six culverts, promoting improved water quality and marine fish access. Restore upland fringe of wetlands through exotic removal and native plantings. Development of educational signage at project site.

List of Project Partners and their contributions (e.g. cash, in-kind, goods and services, etc.)

IRL License Plate exotic removal \$19,877.00

SLCMCD in-kind culvert installation labor \$5,259.63.

Greg Masoner, Volunteer who designed educational signage, 100 hours at \$75/hour: \$7,500

St. Lucie County: Research and development of narrative associated with educational signage, 50 hours at \$28/hour: \$1,400

If permits are required, please list the permits pending and those acquired to date:

State DEP Federal ACE (SPGP) 56-0165746-001 (acquired)

RESTORATION INFORMATION

List the habitat type(s) and acres restored/enhanced/protected or created to date (cumulative) and remainder to be restored/enhanced/protected or created (projected) with FAF/NOAA funds by the end date of the award. If the project restores fish passage, list the stream miles opened upstream and downstream for fish access. Actual and Projected columns should add up to the total(s) for acreage to be restored with FAF/NOAA funds indicated in the approved proposal.

Habitat Type	Actual Acres Restored	Projected Acres	Actual Stream Miles Opened for Fish Access	Projected Stream Miles Opened for Fish Access
Tidal wetland	111	111	2.0	2.0
Stream	0	0	0	0

What indirect benefits resulted from this project? (e.g. improved water quality, increased awareness/stewardship)

Improved fish access and improved water quality are the indirect benefits resulting from the improved hydrology at six different locations in this tidal wetland.

List of species (fish, shellfish, invertebrates) benefiting from project (common name and/or genus and species):

- | | |
|-----------------|----------------------|
| 1. Common Snook | 6. Blue crab |
| 2. Tarpon | 7. Pink shrimp |
| 3. Ladyfish | 8. White shrimp |
| 4. Pinfish | 9. Brown shrimp |
| 5. Mojarra | 10. Silver mullet |
| | 11. Mangrove snapper |
| | 12. Black drum |

MONITORING ACTIVITIES

List of monitoring techniques used (e.g. salinity, fish counts, vegetation presence/absence):

- | | |
|---------------------|--|
| 1. Salinity | 6. Mangrove health (aerial & ground obs) |
| 2. Temperature | 7. Wildlife counts |
| 3. pH | 8. Water level monitoring |
| 4. Dissolved oxygen | 9. Mosquito landing rates |
| 5. Redox | 10. Mosquito larval inspections |

Report Prepared By:

James A. David
Signature

9/29/05
Date

Please send interim and final progress reports and supporting materials to:

FishAmerica Foundation
FAF/NOAA Report
225 Reinekers Lane, Suite 420
Alexandria, Virginia 22314

The written report may be submitted electronically on PC compatible floppy disk or CD-ROM in Microsoft Word, WordPerfect or PDF formats. Hardcopies of photographs, financial receipts, and news articles/press releases must be mailed.

PLEASE NOTE: Be sure to save a copy of each report for your records; subsequent submissions of the Project Data Form need only add outstanding information, so that the form is completed in its entirety as part of the **final comprehensive progress report.**

Questions? Contact the FishAmerica Foundation at (703) 519-9691.