

**RESTORE Act Ecosystem Restoration Project Proposals  
for consideration in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan  
2012**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |                                  |              |                               |                                       |              |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------|--------------|-------------------------------|---------------------------------------|--------------|--------------|
| <b>Contact Information:</b> Roland Ottolini                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                  |              |                               | <b>Date of Submittal:</b><br>1/7/2013 |              |              |
| <b>Name of Project:</b> Buckingham FGCU Watershed Restoration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |                                  |              |                               | <b>Org and Rank:</b> 11               |              |              |
| <p><b>Background:</b> The proposed project area includes two Lee County Conservation 2020 preserve areas and the FGCU Buckingham Campus; the Hickory Swamp Preserve to the north, the Buckingham Trails Preserve to the south and FGCU seated between the two preserves. Hickory Swamp Preserve (HSP) is 66.5 acres in size and was acquired in 1999 by the C20/20 Program. Buckingham Trails Preserve is a 572 acre parcel with a rich history as part of the Buckingham Airfield and base which provided training to World War Two gunners. The FGCU Campus was a former state run facility for the developmentally disabled and is now utilized as a college campus. The surrounding area is largely cattle grazing land with pocket wetlands usually infested with melaleuca. The watershed has been significantly altered over the past 50 years by road construction, farming and river dredging activities.</p> <p>The primary natural plant communities found at the Preserves are mesic and hydric hammocks and mesic flatwoods. There are also depression marshes and a several disturbed areas including improved pasture. Impacts from cattle operations have disturbed much of the Preserves; however the sites have undergone initial invasive exotic plant removal efforts as well as prescribed burning.</p> <p><b>Project Description:</b> The proposed hydrologic reconfiguration would be conducted on the Florida Gulf Coast University (FGCU) Buckingham Campus. Water currently flows from the Buckingham Trails Preserve north to the FGCU property through a series of canals and is then shunted to the east through Nine Mile Run to the Orange River. This hydrologic configuration is currently over-inundating the Nine Mile Run area and creating flooding problems in the neighborhoods adjacent, while the Hickory Swamp Preserve is under- hydrated. The goal of this project is to improve the weir system on the FGCU campus and to reroute some of the water to the Hickory Swamp Preserve alleviating flooding along Nine Mile Run and rehydrating Hickory Swamp Preserve.</p> |              |                                  |              |                               |                                       |              |              |
| <b>Project Location:</b> Caloosahatchee Watershed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                                  |              |                               |                                       |              |              |
| <b>Responsible Party:</b> Lee County                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |                                  |              | <b>Partners:</b> Lee Co, FGCU |                                       |              |              |
| <b>NEP:</b> CHNEP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              | <b>Project Cost:</b> \$1,000,000 |              |                               | <b>Dollars Needed:</b> \$1,000,000    |              |              |
| <b>Start:</b> TBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                                  |              | <b>Completion:</b> TBD        |                                       |              |              |
| <b>Status of Project Design and Permitting:</b> Project is in planning.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                                  |              |                               |                                       |              |              |
| <b>What Date or Year could Construction Feasibly Begin:</b> TBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |                                  |              |                               |                                       |              |              |
| <b>Your Proposed Timing of Funding (given permits, phasing, staging, etc.)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |                                  |              |                               |                                       |              |              |
| <b>FY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>12/13</b> | <b>13/14</b>                     | <b>14/15</b> | <b>15/16</b>                  | <b>16/17</b>                          | <b>17/18</b> | <b>Total</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |                                  |              |                               |                                       |              |              |
| <b>Quantify Environmental Results and How to Measure Them:</b> Improve habitat by restoring freshwater flows to the wetland system in Hickory Creek and the Orange River that ultimately                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |                                  |              |                               |                                       |              |              |

discharges to the Caloosahatchee Estuary. This could be measured by water quality and oyster bed monitoring.

**Economic Benefits (including ecosystem services):** Improved water quality, improved fisheries and rookery habitats.

**Estimated number of Jobs Created or Preserved:** 11

**How much Habitat will be restored and conserved?:** 80 acres

**Quantify pollutant reductions:** 63% TN & 80% TP (based on Ten Mile Canal Filter Marsh data collection 2007-2010).

**What living coastal/marine resources will be improved and by how much?:** Tidal Caloosahatchee (270 square miles), San Carlos Bay, Pine Island Sound and Matlacha Pass.

**How will community resilience be enhanced?** Improved freshwater wetland habitat in the current landscape will prolong the period of habitability in the tributaries of the Caloosahatchee as climate change and sea level rise occur. Habitat improvements due to restored historical flows will also mitigate the current effects of degradation on fisheries and improve the period of time these fisheries can be sustained during the onset of sea level rise.

**Additional Justification:** Lee County has entered into a Basin Management Action Plan (BMAP) with the Florida Department of Environmental Protection in 2012. The BMAP was promulgated due to TMDLs for total nitrogen in the Tidal Caloosahatchee. The County is required to restore and protect water quality under this watershed restoration plan. In addition, the Tidal Caloosahatchee is part of a system that has been designated an Estuary of National Significance as well as discharging into State Aquatic Preserve and National Wildlife Refuges.

**Add any photos or maps that explain project:**



