

**Sustainability Fee Project Interim Grant Report
FY2020**

1. **Date:** August 13, 2020
3. **Unit/Department:** Botanic Garden at Georgia Southern University
4. **Email Address:** caltman@georgiasouthern.edu
5. **Phone:** 912-481-4369

Project Title: Project Title: *Where Oh Where Does the Water Go? Wetland Construction at the Botanic Garden*

\$20,306

4. **Proposal Author:** Carolyn Altman, Garden Director
5. **Amount Granted:** \$20,306.00
6. **Amount Spent:** \$19, 131 with \$1,175 to be expended in 2020-2021 school year on George-Anne ads due to COVID-19 delay.

Project Outcomes/Value

Project Timeline –

This grant was delayed by COVID-19 and is currently in progress. Extension granted by Dr. Leege in Spring 2020. It is expected that grant will be completed January 31, 2020.

Project Outcomes-

Project Goals-

1. Proposed Goal 1: Provide students and other visitors with access to diverse wetland habitats via trails, three bridges, a wetland observation deck and associated plantings.

Actual Outcome 1: Trails, plantings and bridges have been constructed and installed at the immediate entrance of the Botanic Garden. All who visit the Garden, normally over 15,000 people each year, walk through the wetland project. The only infrastructure element remaining under construction is the observation deck, expected to be completed by January 31, 2021. Plantings include at least 50 new species of shrubs, perennials, and trees which add to the biodiversity of Botanic Garden collection and increase the Garden's regional value and visibility as leading environmental organization. Staff tallies and visitor reports demonstrate the satisfaction and delight the project offers to students and other visitors.

2. Proposed Goal 2: Connect students to new wetland via George-Anne and social media.

Actual Outcome 2. The Garden is currently sharing the project with students via social media. Funds allocated in the grant for George-Anne ad purchase remain and have been approved for ad purchase during Fall 2020 and Spring 2021, when students are back on campus. The Garden has already connected with Fall 2020 George-Anne staff regarding ad placement.

3. Proposed Goal 3. Improve Garden infrastructure by decreasing erosion and capturing rainwater for use in Garden for wildlife and plants.

Actual Outcome 3: The new bioswales created by this project have virtually eliminated flooding from the Garden out onto Fair Road. The water is used to support the great diversity of plants installed in the wetlands and the astonishing array of wildlife it supports. Observed wildlife species include many different amphibians, fish, snapping and box turtles, various species of snakes, and many birds, including herons and nesting pairs of Mississippi and Swallowtail kites. Many species of coastal plain wetland plants were installed, included rescued endangered pitcher plants and sundews.

Sustainability Improvements-

Sustainability benefits from this project include:

1. A more accessible, attractive and functional garden for students and other visitors to enjoy. *All visitors, numbering 15,000 or more annually, to the Garden experience at least part of the wetland exhibit and nearly all spend time looking in the water at plant and animal life.*
2. Improved storm water management. *There is no visible water flooding from the Garden to Fair Road in any storm event.*
3. Improved air quality and water storage due to trees. *Measurement: Although it was hoped data could be collected by students and processed through iTree software, COVID-19 has delayed these plans. Plans include completing this project by January 31, 2021.*
4. Improved biodiversity of plants and animals, and improved Garden collections. *At least 50 new species of perennials, shrubs, and trees have been planted in the wetlands area.*
5. Opportunity to educate visitors about storm water, runoff, land restoration, plant and animal adaptations, plant and animal diversity, ecosystem structure. *Educational materials are currently being created, although the full implementation of this effort has been delayed by COVID-19. Plans include completing this project by January 31, 2021.*
6. Increased stature for Georgia Southern University as a partner in worldwide plant and animal conservation and education. *Measurement: Project has been shared with with Armstrong Campus Arboretum, University of GA, Georgia Plant Conservation Alliance, Native Plant Alliance, Ogeechee Riverkeeper and other conservation organizations.*

Outreach-

The outreach component of this grant have been delayed until Fall 2020 and Spring 2021 until students are back on campus and expenditure of such funds would be worthwhile. A campaign encouraging students to visit and relax in nature has been developed and is awaiting implementation until students return.

Budget Report-

Funds were spent as proposed. All funds were expended except for five quarter page ads in the George-Anne, which will be expended during the 20-21 school year, as approved by Dr. Lissa Leege, given a delay due to COVID-19.

Item	Proposed Cost	Actual Project Cost
Bridges	\$3,117.00	\$3117.00
Water plants and shrubs	\$5,000.00	\$5,000.00
Large trees	\$2,000.00	\$2,000.00
Path material	\$4,000.00	\$4,000.00
Pine straw erosion control	\$1,050.00	\$1,050.00
Irrigation supplies	\$500.00	\$500.00
Observation deck construction materials	\$3,464.00	\$3,464.00
Ads encouraging GSU students & other GSU visitors	\$1,175.00	\$1,175.00
TOTAL	\$20,306.00	\$20,306.00

II. Student and Community Impact

undergraduate students employed by the grant, and length of employment:

10 students X 50 weeks X 5 hours/week building, planting, mulching and maintaining wetland = 2500 student hours

volunteers involved in project 5 volunteers x10 hours/volunteer = 50 volunteer hours

students reached by classes or other means: 300 + many into the future.

community members reached: 15,000 annually

Grant leverage

This grant was used to leverage \$13,000 from the Stanley Smith Horticultural Trust to expand an ornamental tree walking trail.

Project Abstract

Historic topographic maps of Statesboro show the area to have been woven with small creeks and wetlands. Much of this ecosystem has been channeled into drainage ditches, and the

diversity of plants and wildlife lost. ***Where Oh Where Does the Water Go? Wetland Construction at the Botanic Garden*** created a series of accessible wetland habitats with a bridge, trail and observation deck system that brings visitors up close to the rich plant and animal life of Statesboro's wetlands. Trails lead through native trees and perennial gardens. Bridges crisscross a series of small wetland gardens that follow the natural flow of land, leading down to an observation deck tucked among trees that provide food for wildlife. The system provides wonderful wildlife viewing, an intriguing collection of unique coastal plain plants, and an everyday adventure in the heart of Statesboro.

Below: Wetland Installed at Gateway Entrance



Below: Bridge and new native trees



Below: Students constructing Observation Deck

