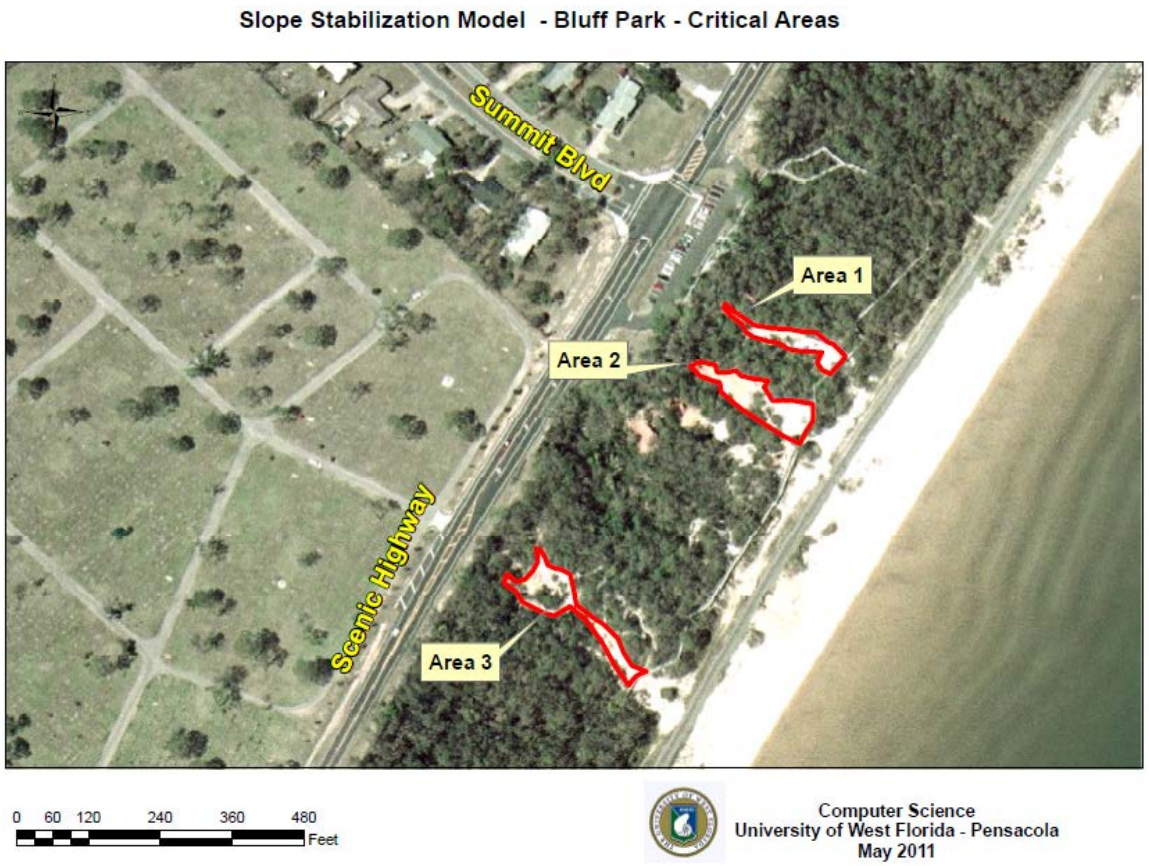
Escambia Bay Bluffs Stabilization and Restoration Project

Mary Gutierrez, Executive Director, Earth Ethics, Inc.

Background

- Earth Ethics, Inc. received a grant from Fish and Wildlife Service to address the erosion issues along the bluffs area.
- Partners on this project include the City of Pensacola, the Longleaf Pine Native Plant Society, and the Scenic Highway Foundation.
- Other contributors/volunteers include UWF and Cooperative Invasive Species Management Area (CISMA).

Areas of Critical Concern



Phase I – Site Inspections, Identification & Treatments

Photo 1

Photo 2

Invasive/Exotic Species Identification

- Tallow
- Chinese Privet
- Japanese Climbing Fern
- Mimosa
- Chinaberry
- Camphor
- Lantana
- Kudzu
- Cogon Grass

Treatment of Invasive & Exotic Species

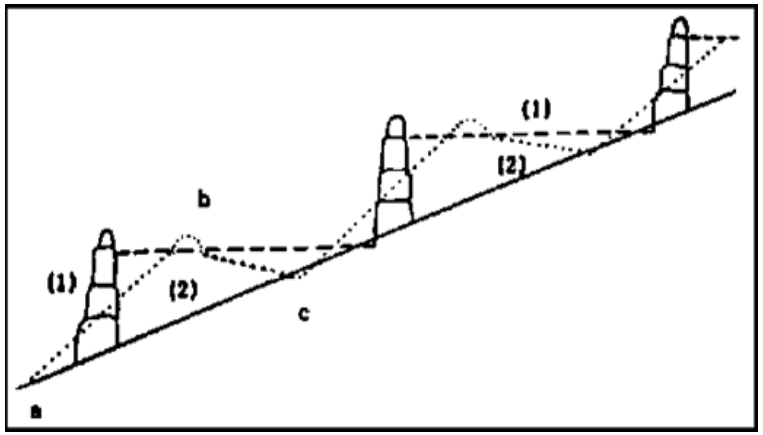
Photo 1

Photo 2

Native Species Identified for Planting

Andropogon virginicus var.glaucus	Chalky Bluestem
Schizachyrium maritimum	Coastal Bluestem
Pityopsis graminiflora	Silk-leaf Aster
Calamintha cocinea	Woodland Basil
Callicarpa americana	American Beautyberry
Chrysoma pauciflosculosa	Woody Goldenrod
Cratagus michauxii	Michaux's Hawthorne
Hypericum hypercoides	St. Andrew's Cross
Myrica cerifera	Wax Myrtle
Vaccinimu sp.	Blueberry
Magnolia grandiflora	Southern Magnolia

Phase II – Terracing, Fencing, and Planting



Terracing concept for application to erosional issues at Scenic Highway Bluffs Park.

Newly installed split-rail fencing with 'Trail Closed' sign. Note the placement of logs & vegetated material in the most eroded areas. As rain events occur, this woody material will capture loose soils & maintain/slow their movement.

Phase II – Terracing, Fencing, and Planting

Photo 1

Photo 2

Phase III – Shoreline Planting and Oyster Reef Placement

Intermittent outfalls along Scenic Highway Bluffs Park. The distance between outfalls is being examined for a potential oyster reef to protect the shoreline and improve water quality. Using a tape measure, students walked out 100' from the shoreline.

Students carefully emptied the sediments from the Ponar into the stainless steel bowl.

Students took the samples back to UWF to process them.

Phase III – Shoreline Planting and Oyster Reef Placement

Shoreline change 1994-2010, central location
Measurements were taken from a fixed point to the visible shoreline using the FDEP Map Direct GIS interface using all aerials available on the site (1994-2010). No measurable differences were observed in the shoreline from 1994-2007, but there was an approximate 3m decrease from 2007 to 2010.

Plans for upcoming months

- A permit application will be submitted to the FDEP and USACE for the placement of the oyster reef and shoreline vegetation.
- Baseline water quality sampling will occur
- Construction of oyster breakwaters
- Planting of shoreline vegetation.
- Monitoring of plants and terracing structures used for stabilization efforts will continue.
- Additional planting of native species will occur.

Contact Information

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