

Estero Bay Nutrient Management Partnership

Compendium of Nutrient Reduction Projects
In the Estero Bay Watershed

August, 2004

In Cooperation with:

Lee County
Southwest Florida Watershed Council
South Florida Water Management District
Florida Department of Environmental Protection
Charlotte Harbor National Estuary Program
Town of Fort Myers Beach?
Estero Bay Agency for Bay Management
Southwest Florida Planning Council
U.S. Environmental Protection Agency
City of Bonita Springs?
City of Fort Myers?
Florida Yards and Neighborhoods?
Water Enhancement and Restoration Coalition?

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Objectives

There are a number of overlapping objectives pertaining to the development of a Compendium of Nutrient Reduction Projects in the Estero Bay Watershed. They include:

- Improve coordination of water resource projects with overlapping jurisdictions and objectives as they pertain to the Estero Bay Watershed.
- The Compendium will provide a foundation for a comprehensive Basin Management Action Plan to address nutrient impairments in the watershed as identified by Florida Department of Environmental Protection.
- DEP may provide a nutrient reduction allocation for each project which would be evaluated within the context of a PLRG for Estero Bay.

II. Projects Underway:

Stormwater Utility Feasibility Study for Lee County

Project Location: Unincorporated Lee County. Implementation of a stormwater utility would however have implications for areas in addition to unincorporated Lee County and likely require interlocal agreements for effective implementation.

Description: A feasibility study to review and evaluate: existing stormwater management program services, define an expanded stormwater management program, alternative funding sources, Property Appraisers database, alternative rate structures and revenue streams, and existing ordinances and resolutions.

Expected Completion Date: 2004

Principal Partners: Lee County, South Florida Water Management District, URS Corp.

Lee County Mitigation Plan

Project Location: Various project locations in greater Lee County including the Estero Bay Watershed.

Description: A multi-agency partnership to develop a plan and projects to address water quality, flooding, wildlife habitat. DOT mitigation funds would be the principal source of revenue for this project.

Expected Completion Date: Ongoing?

Principal Partners: Florida and Lee County DOT, Lee County, U.S. Army Corps of Engineers, South Florida Water Management District, Charlotte Harbor National Estuary Program, various municipalities. Others ?

10-Mile Canal Filter Marsh

Project Location: 10-Mile Canal south of Daniels Parkway

Description: Linear filter marsh to filter nonpoint runoff.

Expected Completion Date: 2005

Principal Partners: Lee County, SFWMD, WERC

Island Park Hendry Creek Filter Marsh

Project Location: Hendry Creek Watershed

Description: Hydrologic restoration, filter marsh construction, and exotic removal.

Expected Completion Date: 2005

Principal Partners: Lee County

Fort Myers Beach Neighborhood Landscape

Project Location: Fort Myers Beach

Description: The Council authorized the project in 1998. A tree booklet was prepared on salt tolerant species.

Expected Completion Date: ?

Principal Partners: Fort Myers Beach, Charlotte Harbor National Estuary Program

Matanzas Harbor Plan

Project Location: Matanzas Harbor

Description: The town of Fort Myers Beach adopted the plan. The project was to create a plan for controlled harborage and removal of derelict vessels.

Completion Date: ?

Principal Partners: Fort Myers Beach

Estero Bay Initiative

Project Location: Estero Bay Watershed

Description: Flood protection measures, restoration of habitats and water quality improvements to the watershed. Projects include: Freshwater Inflow and Tributary Fauna (FY04/05); Estero Bay Hydrodynamic Model (FY 04/05); Salinity History Sedimentation

Completion Date: note above

Principal Partners: CHNEP, SFWMD

Atmospheric Deposition Study

Project Location: Charlotte Harbor including the Estero Bay Watershed?

Description:

Completion Date:

Principal Partners: CHNEP (EPA?)

Pesticide Study

Project Location: Estero Bay and other watersheds

Description:

Completion Date:

Principal Partners: Conservancy of Southwest Florida

Update Benthic Study of Estero Bay

Project Location: Estero Bay

Description:

Completion Date:

Principal Partners: Conservancy of Southwest Florida

Land Use Planning DR/GR

Project Location: City of Bonita Springs

Description:

Completion Date:

Principal Partners: City of Bonita Springs

Stormwater Utility Projects

Project Location: City of Bonita Springs

Description:

Completion Date:

Principal Partners: City of Bonita Springs

Water Quality Modeling Estero Bay

Project Location: Estero Bay

Description: WAM-VU Model. Modeling water quality in Estero Bay Tributaries.
Completion Date:
Principal Partners: SFWMD, FDEP

Sea grass Mapping Estero Bay

Project Location: Estero Bay
Description:
Completion Date:
Principal Partners: SFWMD

Homeowners Stormwater Video Development

Project Location: South Florida / Estero Bay?
Description:
Completion Date:
Principal Partners: SFWMD

Stormwater Management Systems Study

Project Location: South Florida
Description: Harvey Harper Study "Evaluation of Alternative Stormwater Regulations for Southwest Florida".
Completion Date:
Principal Partners: SFWMD, WERC

III. Projects Proposed

Proposed in SWFFS with Water Quality Component (May Require Land Acquisition)

Bonita Springs Utilities – Flow-way Connection to Spring Creek

Project Location: S24, T47, R25, 320 acres

Description: This is a flow-way connection to Spring Creek. There is potential for water quality improvement with a filter marsh in southeast corner of property.

Principal Partners: Bonita Springs Utilities, ?

Estero River North

Project Location: Opposite Koreshan State Park, along north bank of the Estero River. 484 acres required total.

Description: Hydrologic and habitat restoration with potential water quality component such as a filter marsh.

Principal Partners:

Lakes Park - Hendry Creek Connector

Project Location: Section 35, T45, S24. 31 acres needed.

Description: Strategic location for connecting a CERP restoration location with the Estero Bay Buffer. Removal of Australian pine and restoration and expansion of the marsh system to original extents.

Principal Partners:

Lakes Park Flow-way

Project Location: Section 26, T45, S24

Description: CERP restoration project, includes the construction of a meandering flow-way to provide enhanced water quality and habitat and habitat.

Principal Partners: Lee County, US Army Corps of Engineers, SFWMD, FDEP

Metro and Alico Junction Filter Marsh

Project Location: T46, R25, S6. 65 acres needed.

Description: A filter marsh to treat roadway runoff.

Principal Partners:

Mullock Creek Preserve

Project Location:

Project Description: Exotics removal and mosquito control ditch restoration.

Principal Partners:

North Estero Bay Buffer

Project Location: 10,000 acres needed.

Description: Exotics removal, trash and hazardous waste cleanup, ditch restoration and vehicle trail damage restoration. Objective is to restore high marsh hydrology.

Principal Partners:

North Side of Section 25 in 4725

Project Location: T45, R25, S25. 320 acres needed

Description: Area is recommended for a filter marsh.

Principal Partners:

Spring Creek Flow-way

Project Location: 2000 acres needed.

Description: Exotics removal, oyster bar restoration, and hydrologic improvements by ditch changes and potentially water control structure changes.

Principal Partners:

Tesone Property

Project Location: T47, R25, S26. 30 acres needed. Headwaters of Spring Creek connecting CREW.

Description: Restoration of the canal to a more natural flow-way.

Principal Partners:

Lake Nutrient Study

Project Location: Various sites in Lee County

Description: An evaluation of nutrient dynamics and hydrological stormwater efficiency.

Principal Partners: FGCU, EBNMP

San Carlos Estates Water Control District Capital Improvement Project

Project Location: San Carlos Estates, Spring Creek Watershed

Description: Construction to begin November 2004 and to include major structural modifications to existing drainage system to improve detention duration and reduce pollutant loads.

Principal Partners: San Carlos Estates "298 District", Morris-Depew Associates.

Three Oaks Parkway Filter Marsh

Project Location: San Carlos Estates, Spring Creek Watershed

Description: Acquisition of land and construction of filter marsh to provide water quality treatment of stormwater run-off to offset impacts from Three Oaks Parkway improvements.

Principal Partners: Lee County

Ten Mile Canal Pump Facility

Project Location: S19, T45, R25

Description: Construct pump facility at NW corner of Daniels Road and Six Mile Cypress Pkwy to take excess flows from Ten Mile Canal along north side of Daniels Road into Six Mile Cypress Slough for enhanced water quality treatment and hydroperiod restoration. Must work in conjunction with filter marsh project and provide pre-treatment prior to discharge to wetlands.

Principal Partners: Lee County.

Briarcliff Ditch Filter Marsh

Project Location: S6, T46, R25

Description: Acquisition of land and construction of 3.5 acre filter marsh to provide water improvements to non-degradation standards.

Principal Partners: Lee County, USEPA

Stormwater BMP Efficiency Study

Project Location: Various sites in Lee County

Description: Analysis of pollutant removal efficiencies of commonly used BMPs in SW Florida

Principal Partners: Lee County, CHNEP, USEPA