Island Restoration and Enhancement in Biscayne Bay, Florida

Restoration Plan Database:
Crystal Reports of Individual Plan Summaries

I. BASIC PLAN DATA

Plan name:

Island Restoration and Enhancement in Biscayne Bay, Florida

Brief description of plan:

Biscayne Bay and its associated coastal habitats are some of Florida's most valuable natural resources. The bay is a shallow subtropical estuary located on the southeast coast of Florida. Extending approximately 35 miles from north to south and varying in width from less than one mile to approximately eight miles, it covers an area of 220 square miles. The bay is bordered on the west by the Greater Miami area and on the east by a series of barrier islands and submerged vegetated banks. The plan includes stabilizing shorelines, removing exotic trees and fill, establishing flushing channels, and planting mangroves and native salt and drought-tolerant uplands vegetation.

Region the plan is located within:

South-Atlantic Region

Watershed(s) included within the plan:

S196X , S200X , S203X , S206X

Area plan covers (in square miles):

220.00 square miles

Plan scale:

Multi-county

Plan’s lead organization(s):

Miami-Dade Department of Environmental Resources Management (DERM)

Plan’s Main Contact Information:

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On-line version of plan:

Date of original plan:

II. TECHNICAL INFORMATION

Plan includes restoration goals: N

Plan recommends restoration of specific project sites:

Y

Plan includes a discussion of funding sources:

Y

Plan addresses long-term protection of restored sites:

Y

Partners included in developing the plan:

Federal
State
Local

Type(s) of public outreach included during plan development:

Information not available

Plan includes public outreach as part of plan implementation (e.g. annual public meeting, local group participation):

N

Plan discusses the application of innovative approaches to restoration:

N

Plan make use of GIS mapping capabilities:

N

Plan addresses monitoring/reference sites for ecosystem level monitoring (baseline conditions) by:

S

Plan addresses monitoring/reference sites for project level monitoring by:

N

The plan discusses or coordinates with other restoration plans covering the same geographic area:

N

Other plan names:

Plan contains detailed information on historic and/or current habitat size, rate of loss, acres restored or protected, etc.):

Y

Summary of this habitat information:

Rapid urbanization and associated coastal development over the last 100 years has severely altered natural habitats in Biscayne Bay. The northern third of the bay (North Bay), which has been most severely impacted by development, is subdivided by six filled causeways and a major seaport facility. Low coastal wetlands have been virtually eliminated in North Bay. Over 50% of the existing North Bay bottom area is barren, caused by the creation of deep dredge holes, associated spoil placement and chronic elevated turbidity levels. High turbidity in the bay has been correlated with resuspension of unconsolidated bay bottom and spoil-island shorelines, eroding margins of dredge banks and unvegetated bottom sediments. During creation of the Atlantic Intracoastal Waterway in the early 1900's, a series of spoil-fill islands were created adjacent to the navigational channel. These eroding islands were identified as a persistent source of turbidity, resulting in water-quality degradation. Most of the spoil islands in Biscayne Bay are still under public ownership. Eroding shorelines and debris accumulation have discouraged use of many of these areas. Undeveloped, filled islands are predominantly vegetated with exotic species such as Australian pine, Brazilian-pepper, Burma reed, seaside-mahoe and beach naupaka. Island restoration and enhancement activities are underway to stabilize eroding shorelines, restore historical dune communities and wetlands, eradicate exotic vegetation and create wetlands, dune, coastal strand and tropical hardwood hammock communities. Limited recreational opportunities are also intended for these areas.