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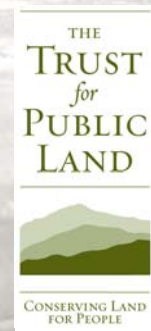
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# BISCAYNE NATIONAL PARK

## *Adjacent Lands Protection Strategy*




*Ninety-five percent of Biscayne National Park's 170,000 acres are underwater. The park incorporates Stiltsville, 40 of the northernmost islands of the Florida Keys, the longest stretch of mangrove forest on Florida's east coast, and the Maritime Heritage Trail - the only underwater archaeological trail in the National Park System.*

Biscayne National Park's highest priority is the same as that of all national parks - to conserve and protect natural resources. With escalating development pressures, storm events and climate change, addressing and meeting this priority is a challenge, especially at a time when the Park also is looking to build connectivity with the surrounding South Miami-Dade County community and improve responsible public access to its resources. In recent years, Biscayne National Park (BISC) has been asked more and more often to respond and provide input on local issues, including increased requests to:

- ♣ Weigh in on local government development permits and planning initiatives;
- ♣ Address the effects of local land use decisions on the park; and,
- ♣ Participate in broad, community-wide ecosystem planning efforts.

At the same time, BISC wanted an objective tool to assist with internal decision-making, overall resource management planning, and funding requests that also would allow Park staff to communicate with other agencies and organizations where these objectives and resource protection efforts agreed, so that energies and funding could be targeted to the highest priorities.



*TPL's greenprint for Biscayne National Park identifies the highest priority uplands to protect for the health of Biscayne Bay's coastal and marine habitats.*

## CREATING AN ADJACENT LANDS PROTECTION STRATEGY

BISC engaged The Trust for Public Land's (TPL) National Conservation Visioning and Geographical Information Systems (GIS) Development team to create a desktop spatial analysis modeling and mapping tool, also known as a greenprint, to:

- ❖ Identify the lands most important to the preservation of the natural, cultural and recreational resources of Biscayne Bay and Biscayne National Park;
- ❖ Distinguish the attributes of the identified lands that highlighted them as conservation potentials;
- ❖ Prioritize the "critical" nature of the lands identified for conservation;
- ❖ Link priority lands to potential funding sources; and
- ❖ Identify lands that meet multiple agency priorities while also protecting Park resources.

## THE PLANNING PROCESS

Initiated in late 2003, under then-Superintendent Linda Canzanelli, the Biscayne National Park Adjacent Lands Protection Strategy began with an initial three-step process utilizing the best available data:

### 1) Data Acquisition and Analysis

#### Water Resources

Lands incorporating 300 feet of shoreline  
Protection buffers for wetlands  
Tidal creeks and buffers  
Transverse glades and buffers  
High infiltration soils  
Areas with highly pervious cover

#### Landscapes

Reconnectors for fragmented mangrove stands  
Reconnectors for fragmented prairies  
Reconnectors for fragmented forested uplands  
Wildlife Habitat  
Rare and endangered species habitat for species found within Biscayne National Park

### 2) Existing Conditions Mapping

BISC legislative boundaries  
Existing local, state and federal parks and open spaces  
Roads and bridges  
Proposed and existing greenways and trails  
Utilities  
Florida Natural Areas Inventory  
National Wetlands Inventory  
SLOSH - Storm Inundation Data  
Rivers, creeks and canals

Urban Development Boundary and Expansion Area  
Brownfields  
Proposed annexations  
Proposed Developments of Regional Impact  
Flood zones  
EEL Priority List  
SFWMD Priority List  
C-III Footprint  
Biscayne Bay Coastal Wetland Footprint

### 3) Modeling

Assemble local and regional datasets

Translate data into a "priorities map" for each conservation objective

Relative weights assigned by park staff to the goals that reflect the park's highest priorities

(Weights do not total 100% because the goals - Clarify Park Boundaries, Enhance Visitor Entry, Minimize Development Pressure and Provide Recreational Access - did not meet the 15% threshold for impacting the priority outcomes and were either removed as goals or converted to overlays in Phase II.)

- ❖ Protecting and restoring water resources - 27%
- ❖ Repairing fragmented landscapes - 20%
- ❖ Preserving wildlife habitat - 23%



## GREENPRINTING

Greenprinting is TPL's application of Geographic Information Systems (GIS) mapping to help communities make informed decisions about land conservation priorities. With software from ESRI - the industry leader in GIS technology - TPL employs several GIS models, combining layers of spatial information unique to a community to guide critical growth management decisions, such as conservation priorities, watershed protection, landscape fragmentation and other variables.

## MAPPING AND ANALYSIS

**Phase I** of the Adjacent Lands Protection Strategy involved mapping the results of the modeling described on page 2. These results provided a broad brush of potential conservation priorities.

**Phase II** of the Adjacent Lands Protection Strategy involved overlaying a series of data layers atop the results of Phase I to further refine and give priority to lands identified for conservation of Biscayne Bay's resources:

- ❖ Lands within Legislative Boundaries of Biscayne National Park but not owned by National Park Service;
- ❖ Vacant lands directly adjacent to Biscayne National Park's Legislative Boundary;
- ❖ Lands adjacent to and within one mile of Biscayne National Park's Entry Roads;
- ❖ Lands identified by Miami-Dade County's Environmentally Endangered Lands Program (Lists A & B) and the Comprehensive Everglades Restoration Program (CERP) Biscayne Bay Coastal Wetlands and C-III Footprints;
- ❖ South Florida Water Management District Land Acquisition Priorities; and,
- ❖ Proposed trail/greenway connectors.

The results are shown on the inserted **Overall Conservation Priorities Map** as shades of deep red (Very High), amber (High) and yellow (Moderate).

**Very High (Red)** - These lands met all of the criteria established in Phases I and II, and represent 93 percent of the very high priority lands identified in Phase I. Biscayne National Park believes that conservation of these lands is extremely important to protect the resources of Biscayne Bay and Biscayne National Park.

**High (Orange)** - These lands met at least 75 percent of the criteria established in Phases I and II, and represent 88 percent of the high priority lands identified in Phase I. Biscayne National Park believes that conservation of these lands is critically important to protect the resources of Biscayne Bay and Biscayne National Park.

**Moderate (Yellow)** - Protection of these lands provides additional benefits in protecting the resources of Biscayne Bay and Biscayne National Park.

