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The Value of Strategic Planning to Prioritize Acquisition and Management of Ecological Coordinators in an Urbanizing County – Hillsborough County (Tampa), FL

Ross B. Dickerson

Hillsborough County Conservation and Environmental Lands Management, Dickersonr@HCFLGOV.net

Shawn College

AICP, Hillsborough County City-County Planning Commission, colleges@plancom.org

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The Value of Strategic Planning to Prioritize Acquisition and Management of Ecological Coordinators in an Urbanizing County – Hillsborough County (Tampa), FL

In response to sustained rapid development, which began in the 1960's, the Florida Legislature passed the 1985 Growth Management Act. The Act required development of comprehensive land use plans for every county within the state. The comprehensive plans were required to have goals, objectives and policies aimed at, among other things, the conservation of vital natural resources.

Hillsborough County's comprehensive plan established the Significant Wildlife Habitat Program. The program is applicable to large tracts and can only protect a portion of a landowner's upland habitat at the time of development. Those habitats that were protected have become more isolated over time and lack consistent management, reducing their ecological function. The county's comprehensive plan also set the context for public acquisition and management of natural areas which began in 1987.

The Jan K. Platt Environmental Lands Acquisition and Protection Program (ELAPP) is an outcome of Hillsborough County Comprehensive Plan. ELAPP is Florida's largest local land preservation program and has been successful in protecting more than 63,000 acres of natural lands across all municipalities in the county. As Hillsborough County continues to urbanize, it is important to focus preservation and restoration efforts on the most valuable ecological landscape corridors critical to maintaining ecological function and biological sustainability across the system.

Keywords

urban forest management, urban forest plan, urban natural areas

INTRODUCTION

In response to sustained rapid development, which began in the 1960's, the Florida Legislature passed the 1985 Growth Management Act. The Act required development of comprehensive land use plans for every county within the state. The comprehensive plans were required to have goals, objectives and policies aimed at, among other things, the conservation of vital natural resources.

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CONTEXT

Due to the rapid increase in population and urbanization in Hillsborough County, many of the lands preserved through the ELAP Program are becoming ecologically isolated and landscape corridors are disappearing. Outside influences along the urban interface (i.e. invasive plants/animals, illegal dumping, and inability to apply prescribed fire) are decreasing ecological function and biological sustainability within the preserves. The County did not have a detailed conservation plan that addressed future preservation/management needs to defend these assets, and county executives were questioning the feasibility of further acquisition of natural areas and the retention of several existing sites.

To protect the County's investment in preservation, staff, in conjunction with the University of Florida, and two committees (technical and public) developed a strategic plan that addresses acquisition, management, and community support/inclusion. The Strategic Plan led to more in-depth studies that show the value of preservation (ecosystem services) and identify the most important conservation/corridor landscapes that should be acquired to provide a resilient, sustainable resource that can be effectively managed in perpetuity.

GOALS

Long Term Goals

A publicly defensible land management system to sustain the biological diversity of the County's native ecosystems

Short Term Goals

1. Develop a sustainable Strategic Plan that guides land management and acquisition.
2. Build a case for nature by showing its economic value through ecosystem services.
3. Create a county wide map that identifies the most valuable ecological areas remaining and use that data to focus limited acquisition dollars on preservation of the highest quality sites and important landscape corridors.

APPROACH USED

1. 2015–2016: Collect input from stakeholders (staff, recreational user groups, and environmental groups) and the public (through public meetings, random mailings, and community surveys) to gain an understanding of what people wanted for the preserves.
2. 2016–2017: Develop a strategic plan that is guided by a Public Steering Committee. Define performance indicators and actions to meet success.
3. 2016–2017: Conduct an ecosystem services analysis to estimate a monetary value for preservation.
4. 2017–2018: Identification of wildlife conservation priority areas. Use the best available existing or new habitat models for a selected set of focal vertebrate wildlife species to identify currently unprotected lands that provide the best opportunities to maximize the protection of sensitive native wildlife species.
5. 2017–2018: Identify wildlife corridor priorities. Combine the existing Florida Ecological Greenways Network with a new analysis identifying additional riparian based and xeric based corridors within Hillsborough County that are locally important for protecting or restoring ecological connectivity in the county and to other adjacent counties.
6. 2018: Revise nomination/ranking-process/acquisition policies to allow staff to focus acquisition on sites identified and be more competitive with high-end buyers (developers).
7. Ongoing: Create public support. Meet with organizations and citizens and provide presentations that show how preserved lands provide ecosystem services and how the program is changing to spend public dollars on the most valuable areas.

8. Provide leadership with guidance of the economic benefits of preserving land and a clear direction on how to move forward without raising taxes.
9. 10/1/2019: Implement strategic plan(s).

RESOURCES

This project was funded by Hillsborough County and involved several partners. The University of Florida Center for Landscape Conservation Planning performed the analysis, modeling all the data, and provided both old and new model scripts for federally listed vertebrates. The Florida Natural Areas Inventory provided occurrence-based potential habitat models and verified model outputs for accuracy. The Florida Fish and Wildlife Conservation Commission provided model data from their potential habitat and Imperiled Species Management Plan. The Environmental Protection Agency (EPA) provided guidance on how to use the H2O Beata Model for ecosystem services. And the University of Florida provided assistance with the development of the strategic plan.

KEY RESULTS

- Strategic plan to prioritize management, acquisition, and develop a system-wide restoration plan to focus limited funding on the most important areas

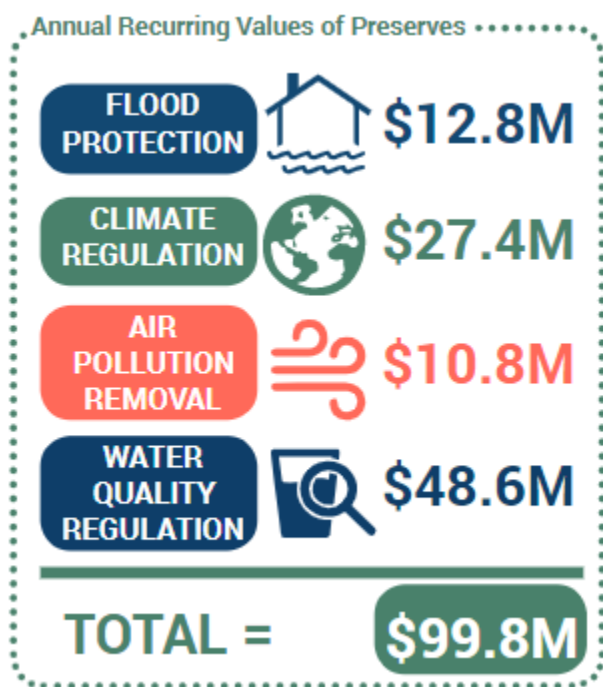


Figure 1. Estimated value of Ecosystem Services provided by preserved lands

- Ecosystem Services Analysis: This is used to place a monetary value on preserved lands and show a return on investment. According to the H2O Beta Model developed by the EPA, lands acquired through the environmental lands program are providing \$99,871,695 worth of ecosystem services on an annual basis.
- Habitat maps for 19 focal species based on the best available habitat models: these maps were one of the factors used to create the Priority Acquisition Map and will be incorporated into restoration planning.

The Priority Acquisition Map highlights the most valuable ecological corridors and is used to focus the programs acquisition funding.

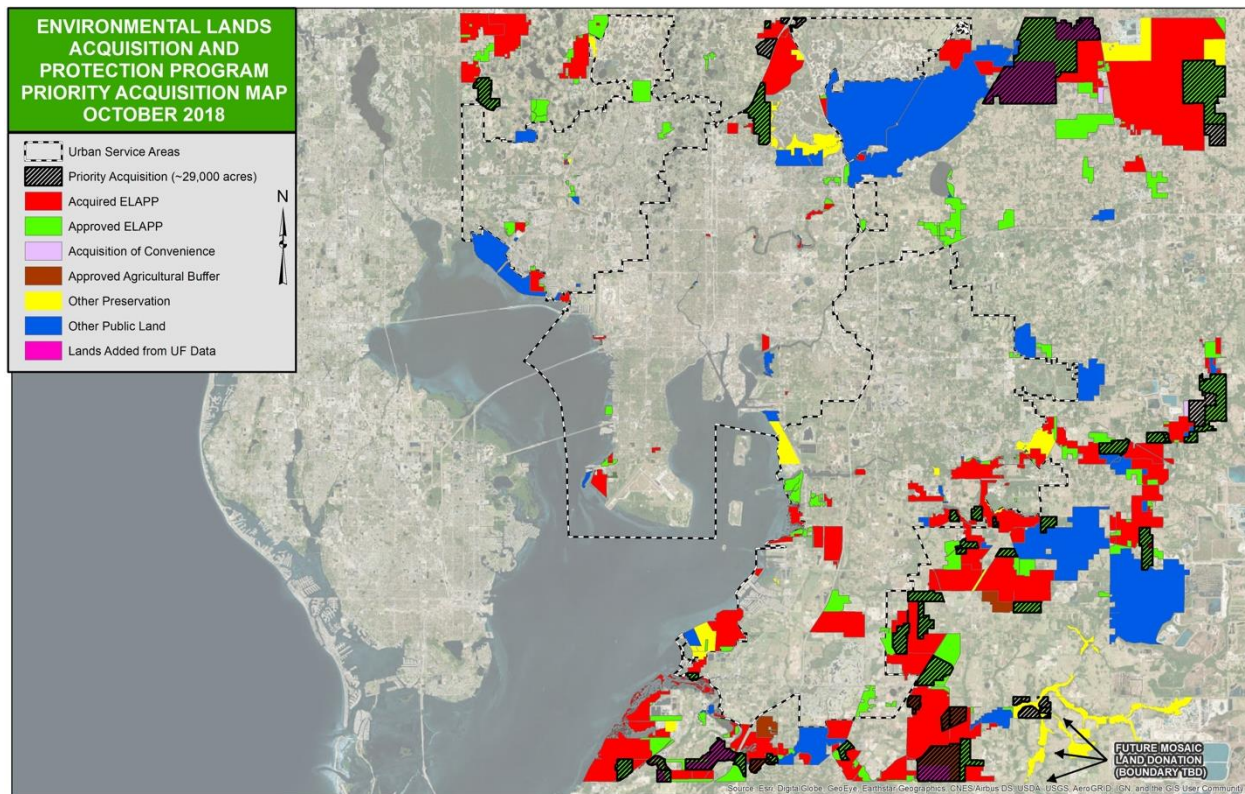


Figure 2. Environmental lands acquisition and protection program priority acquisition map

- Executive and Board of County Commissioners support that led to additional funding for restoration and acquisition: this was accomplished by providing compelling data that showed
 - 1) preserved lands do provide a monetary benefit (ecosystem services).
 - 2) valid landscape corridors still remain in Hillsborough County and their acquisition is critical to the success of the program.
 - 3) a strategic plan to guide management of the system.