



**Hillsborough
County Florida**

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TO: Board of County Commissioners
FROM: Peggy Caskey, County Internal Auditor
DATE: December 5, 2018
SUBJECT: Supplement to Audit Report #IA-18-06 – Jan K. Platt Environmental Lands Protection Program (ELAP Program) Cost Estimates

Dear Board Members,

I was asked to assist management with identifying the resources necessary to keep the ELAP Program running. To accomplish this goal, the County Internal Auditor's Office performed a two-part project:

- 📄 Part 1 – was performed by the County Internal Auditor's Audit Team, Report #IA-18-02, issued on June 20, 2018; and
- 📄 Part 2 – was performed by Barth Associates/project managed by the County Internal Auditor, Report #IA-18-06, issued on December 5, 2018.

In Part 1, the Audit Team reviewed processes and controls for the site acquisition and ongoing site maintenance activities. Due to a lack of sufficient data and record-keeping controls, the Audit Team was unable to determine the resources necessary to maintain the ELAP Program. To identify the resources necessary to maintain the ELAP Program, The County Internal Auditor contracted with Barth Associates to assist management with establishing specific, measurable outcomes for conservation land acquisition, restoration, and ongoing maintenance activities. It is anticipated that these tools will take time to develop but once established, they will provide sufficient maintenance resource activity records and corresponding financial data.

Pulling together analysis and estimates provided by Barth Associates and Conservation & Environmental Lands Management Department's data in the 2017 Master Plan, if the County maintains the ELAP Program at the current inventory level of 63,367 acres, the estimated capital restoration and management costs will be approximately \$27.7 million; with annual reoccurring maintenance costs of approximately \$3.1 million. If the County increases the inventory to 92,367 acres (estimated acquisition costs of \$319 million for the additional 29,000 priority acres), the estimated capital restoration and management costs will increase to approximately \$40.4 million; with annual reoccurring maintenance costs of approximately \$4.5 million. See page 2 for details.

ELAP PROGRAM COST ESTIMATE

Prepared by the County Internal Auditor's Office

Supplement to Audit Report #18-06

There are three key financial elements to consider when determining the resources necessary to keep the ELAP Program running: acquisition, restoration, and ongoing maintenance activities.

Acquisition Costs

Per the 2017 Master Plan, page 44, the County can anticipate paying on average between \$10,000 and \$12,000 per acquired acre. Per the Performance Metrics Analysis, page 15, in Report #18-06, "The expectation is that the remaining \$141 million of ELAP Program funds (\$15 million is currently available; an additional \$126 million is approved through the 2008 ELAP Program referendum, but not yet budgeted by the BOCC) will fund the purchase of approximately 14,000 of these 29,000 acres." (Through fee simple acquisition and conservation easements.) To acquire all 29,000 acres, the estimated cost will be \$319 million.

(2017) Current Acreage	Additional Priority Acreage (~ 29,000 Acres)	Cost Measure - Estimated Average Cost Per Acre	(2017) Current Acreage Cost Estimates	Additional 14,000 Priority Acreage Cost Estimates	Additional 15,000 Priority Acreage Cost Estimates	Estimated Cost For These 29,000 Acres
63,367	14,000 15,000	\$11,000	These acres have already been purchased.	\$154,000,000	\$165,000,000	\$319,000,000

Capital Restoration and Management Costs

Per the 2017 Master Plan, page 126, the County can anticipate paying between \$19,097,453 and \$36,295,013 for preserve funding and staffing needs. This averages to \$437 per acre (includes habitat restoration, exotic plant removal, and facility improvements). If the County increases the inventory to 92,367 acres, the estimated capital restoration and management costs will increase to approximately \$40.4 million.

(2017) Current Acreage	Additional Priority Acreage (~ 29,000 Acres)	Cost Measure - Estimated Average Cost Per Acre	(2017) Current Acreage Cost Estimates	Additional 14,000 Priority Acreage Cost Estimates	Additional 15,000 Priority Acreage Cost Estimates	Estimated Cost For These 92,367 Acres
63,367	14,000 15,000	\$437	\$27,691,379	\$6,118,000	\$6,555,000	\$40,364,379

Annual Recurring Maintenance Costs

Per the 2017 Master Plan, page 128, the County can anticipate paying approximately \$48.82 per acre for annual reoccurring maintenance (includes equipment, supplies and personnel costs). If the County increases the inventory to 92,367 acres, the estimated annual reoccurring maintenance costs will increase to approximately \$4.5 million.

(2017) Current Acreage	Additional Priority Acreage (~ 29,000 Acres)	Cost Measure - Estimated Average Cost Per Acre	(2017) Current Acreage Cost Estimates	Additional 14,000 Priority Acreage Cost Estimates	Additional 15,000 Priority Acreage Cost Estimates	Estimated Cost For These 92,367 Acres
63,367	14,000 15,000	\$48.82	\$3,093,577	\$683,480	\$732,300	\$4,509,357



Hillsborough County Board of County Commissioners

Jan K. Platt Environmental Lands Acquisition and Protection Program (ELAP Program) Performance Metrics Analysis



December 5, 2018



ACKNOWLEDGEMENTS

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CONTENTS

ACKNOWLEDGEMENTS	i
CONTENTS	ii
EXECUTIVE SUMMARY	1
Streamlined Performance Metrics.....	1
Sustainability of the Future ELAP Program Protection Scenario	2
Comparison against other county Environmental Lands Protection Programs	3
Resources Necessary to Sustain the ELAP Program	3
SECTION 1: INTRODUCTION.....	4
1.1 Hillsborough County’s Conservation and Environmental Lands Management	4
1.2 Purpose of this Study.....	5
1.3 Scope of Work.....	6
SECTION 2: LEGISLATIVE AND REGULATORY MANDATES	8
2.1 Requirements from County Ordinances.....	8
2.2 The CELM Department’s Strategic Plan Performance Measures.....	8
SECTION 3: STREAMLINED METRICS FOR NATURAL RESOURCE MANAGEMENT	9
3.1 Acquisition and Management Framework.....	9
3.2 Desired Future Conditions	10
3.3 Indicators of Success.....	10
3.4 Monitoring Protocols.....	10
3.5 Annual Work Plans	10
3.6 Annual Dashboard.....	11
SECTION 4: SUSTAINABILITY AND RESILIENCE OF THE LAND ACQUISITION PROGRAM	12
4.1 Characteristics of ELAP Program Lands.....	12
4.2 Alternative Strategies for Natural Resource Protection	16
4.3 Alternative Funding Options for Restoration and Management	16
4.4 Assessment of the Resilience and Sustainability of ELAP Program Lands	17
4.5 Conclusions.....	18
SECTION 5: COMPARISON WITH OTHER COMPARABLE COUNTIES.....	20
5.1 Acres of Local Conservation Land Acquisition	20
5.2 Local Conservation Land Acquisition as a Percentage of the Total County.....	20
5.3 Conservation Land Acquisition Excluding State and Federal Lands.....	21



5.4 Total Percentage of Land Acquisition by County.....	21
5.5 Local Conservation Land Acquisition of Developable Lands.....	22
5.6 Summary of Comparable County Analyses	24
APPENDIX 1: MANAGEMENT RESPONSE	25
Question 1:.....	25
Question 2:.....	26
Question 3:.....	27
APPENDIX 2: LEGISLATIVE AND REGULATORY MANDATES	28
1. Requirements from the State of Florida Grant Awards.....	28
2. Requirements from County Ordinances.....	28
3. CELM's Strategic Plan Performance Measures	29
4. Requirements from the State of Florida Grant Awards.....	32
APPENDIX 3: DESIRED FUTURE CONDITIONS.....	34
1. Natural Resource Protection and Management	34
2. Facilities and Site Security.....	34
3. Resource-based Recreation	35
4. Partnerships and Outreach.....	35
5. Monitoring.....	35
APPENDIX 4: INDICATORS OF SUCCESS	36
1. Natural Resource Protection and Management	36
2. Facilities and Site Security.....	37
3. Resource-based Recreation	38
4. Partnerships and Outreach.....	39
APPENDIX 5: MONITORING PROCEDURES	40
APPENDIX 6: ANNUAL WORK PLANS	41
APPENDIX 7: ANNUAL DASHBOARD	42
APPENDIX 8: ALTERNATIVE STRATEGIES FOR NATURAL RESOURCE PROTECTION	45
1. Acquisition (ELAP Program)	45
2. Policies.....	45
3. Codes and Ordinances.....	45
4. Incentives	45
5. Partnerships	45
APPENDIX 9: ALTERNATIVE STRATEGIES FOR NATURAL RESOURCE FUNDING	47



EXECUTIVE SUMMARY

Approximately 63,400 of Hillsborough County's +/- 80,000 acres of conservation and environmental lands are considered "preserves." These lands were acquired through the Jan K. Platt Environmental Lands Acquisition and Protection (ELAP) Program for natural resource protection because of their unique natural features, ability to buffer river and stream floodplains, the presence of rare species, location in a wildlife corridor, and/or other similar selection criteria.

Hillsborough County contracted with Barth Associates to conduct this Performance Metrics Analysis to establish measurable outcomes for conservation land acquisition, restoration and maintenance; and to define metrics to track performance towards the desired outcomes. This study also aspires to answer three questions:

- 1) What streamlined metrics can be used to measure the performance of Hillsborough County's ELAP Program, including measurable outcomes for desired future conditions, indicators of success, and monitoring protocols for each site?
- 2) Will the future ELAP Program established by Hillsborough County, including the acquisition of approximately 14,000 additional acres proposed with the remaining \$141 million funds in the ELAP Program, provide a resilient, sustainable resource that can be effectively managed in perpetuity?
- 3) How does Hillsborough County's ELAP Program compare with other Florida counties' acquisition programs, including consideration of the percentage of "developable lands," i.e. those natural areas not protected by other State or Federal conservation agencies, and/or environmental regulations?

Streamlined Performance Metrics

In response to the first question, the Planning Team, comprised of Drs. Barth and Exum, external subject experts; and Hillsborough County Conservation and Environmental Lands Management (CELM) Department staff including Turbiville, Dickerson, Wilson and Bradshaw, created new performance metrics including desired future conditions, indicators of success, and monitoring protocols. The metrics are based on legislative and regulatory mandates for ELAP Program lands including State grants, Hillsborough County ordinances, and Conservation and Environmental Lands Management (CELM) Department Strategic Plan objectives and performance measures. These mandates are all consistent regarding the purpose for acquiring environmental lands, and Hillsborough County's responsibilities for resource management, recreation access, and stewardship.

- *Desired Future Conditions* describe the desired objectives and outcomes from acquisition, restoration, and management activities, based on the legislative and regulatory mandates. Desired future conditions reflect the expected condition of the preserves when conservation objectives are met.
- *Indicators of Success* are measurable outcomes that can be used to measure progress towards the desired future conditions. indicators of success can be used to measure progress for individual preserves, and/or the entire ELAP Program. Well-defined indicators of success provide the ability to compare current conditions with those that are desired, and to intensify or adjust efforts to achieve the objectives.
- *Monitoring Protocols* are the activities required to assess how well each preserve is accomplishing the desired future conditions and indicators of success, leading to corrective actions as needed.



The desired future conditions and indicators of success were integrated into a template for annual work plans for each of the ELAP Program sites. The performance results from each preserve work plan can be aggregated each year to create an annual ELAP Program-wide “dashboard” that measures annual performance and progress towards desired outcomes and can be used to direct needed adjustments for the following year. For example, accomplishment of the desired system-wide, annual prescribed fire performance objectives will require an increase from 3,700 acres to 9,142 acres burned each year in order to meet public safety and ecological objectives for all ELAP Program lands.

Sustainability of the Future ELAP Program Protection Scenario

The future ELAP Program protection scenario as shown on the ELAP Program Priority Acquisition map (Figure 5), including the acquisition of an additional 14,000+/- acres of environmental lands, has the potential to provide a resilient, sustainable resource that can be effectively managed in perpetuity. However, acquisition alone will not be sufficient to ensure sustainability. While it was determined that fee simple land acquisition remains the most effective means of protecting Hillsborough County’s environmental lands, the County should take other actions as well. To ensure that ELAP Program lands will be sustainable and resilient in the future, recommendations include:

- Instill a sense of urgency to utilize additional County funding for land acquisition as approved by voters in the 2008 ELAP Program Referendum, including fee simple acquisition and conservation easements (14.9% of the ELAP Program lands initially approved for acquisition have already been developed);
- Continue the emphasis on obtaining external funding from State and Federal natural resource partners to supplement Hillsborough County’s land acquisition efforts;
- Focus on connecting existing ELAP Program preserves to maintain landscape integrity, prevent habitat fragmentation, and ensure long-term manageability and health of natural ecosystems;
- Adopt the proposed desired future conditions, indicators of success, monitoring protocol and ELAP Program dashboard to ensure management actions will be effective in continuing to sustain Hillsborough County’s natural resources;
- Implement annual work plans for all ELAP Program preserves to direct day-to-day management activities needed to accomplish desired future conditions, including management actions, annual budgets, and staff allocation;
- Utilize indicators of success to measure progress towards desired future conditions. In particular, adhere to the prescribed fire return intervals and invasive exotic plant reduction goals outlined in Appendix 2, and enhance funding accordingly to meet these objectives;
- Continue funding and staffing for the Conservation & Environmental Lands Management Department to implement the management actions defined in approved management plans, particularly ecological burning and exotic species control;
- Implement and enforce Hillsborough County’s policies and regulations that supplement the efforts of the ELAP Program;
- Resist proposed modifications to the Comprehensive Plan or future land use changes that would compromise the integrity and connectivity of the ELAP Program lands;
- Work with municipalities and adjacent counties on a consistent approach to regional comprehensive plan and future land use objectives compatible with the ELAP Program; and

- Prioritize future acquisitions based on a comprehensive strategy for evaluating the resources to be protected, including a vulnerability assessment based on various futuristic assumptions.

Comparison against other county Environmental Lands Protection Programs

Hillsborough County has had remarkable success with acquisition of natural lands using funding established by voter-approved referenda, leveraged with external funding. Hillsborough County is, by far, the most successful county in terms of the acreage acquired compared with other local government acquisition programs, particularly those of the 10 most populous counties in Florida.

However, unlike many other counties in Florida, Hillsborough County's conservation efforts have not been supplemented by expansive land acquisition by Federal and/or State government resources. Therefore, Hillsborough County's preserves are particularly vulnerable to incompatible land uses, fragmentation and development. Since there are no expectations that the State or Federal government will purchase lands at a rate any different than what has transpired in the last three decades, Hillsborough County should assume that the sustainability and resilience of its ELAP Program lands will be achieved primarily through the County taking the lead on acquisition efforts. Any joint participation by other government agencies will occur on a case-by-case basis and be dependent upon available and, oftentimes, limited acquisition funding.

Resources Necessary to Sustain the ELAP Program

The March 2017 *Conservation and Environmental Lands Management Department Master Plan* assesses the resources necessary to operate the ELAP Program. Specifically, Chapter 5 of the Master Plan, the *Operational Needs Assessment*, includes challenges and recommendations for organizational structure, budget, fees and charges, maintenance, programs and services, site security, and technology. The performance metrics and tools developed in this *Performance Metrics Analysis* report – including the desired future conditions, indicators of success, monitoring protocols, annual work plans, and an annual dashboard – will provide the basis for an ongoing assessment of operational needs to meet the goals of the ELAP Program. Based on the process identified in this report, Conservation and Environmental Lands Management Department senior staff will assess the gap between existing conditions and desired future conditions for each preserve, and, using the annual work plan, determine staff and resources needed to meet short- and long-term objectives.





SECTION 1: INTRODUCTION

1.1 Hillsborough County's Conservation and Environmental Lands Management

The recently completed Hillsborough County Conservation and Environmental Lands Management (CELM) Department Strategic Plan notes that:

"The principle purpose of the CELM Department is to manage over 80,000 acres of natural areas found within the County's Preserves and Conservation Parks and Trails for their ecological, social and economic benefit to the citizens of Hillsborough County. Hillsborough County's natural areas play a significant role in maintaining the health and vitality of county residents. Benefits to communities and residents include reduced energy consumption, removal of harmful pollutants from the air and water, reduction in storm water flows, increased valuation of private property, increased worker productivity, reduction in stress and violent crime, as well as providing recreational opportunities, aesthetic diversity and conservation of the County's natural heritage of wild plants and animals."

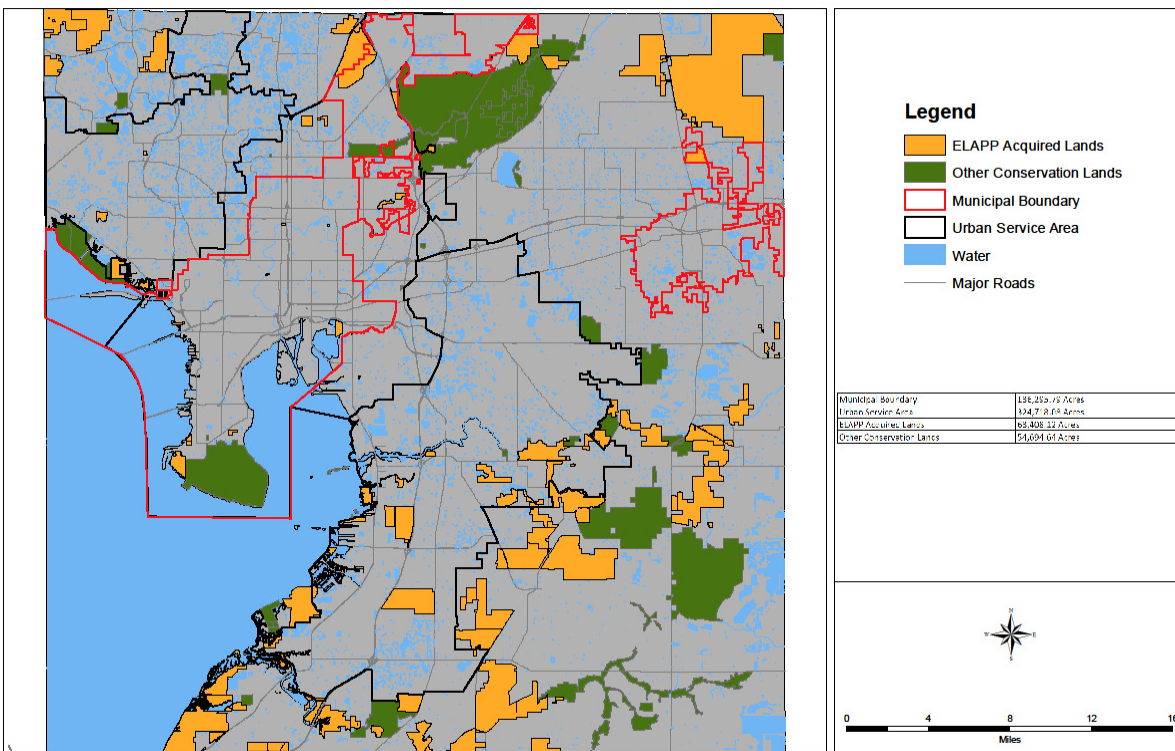
Approximately 63,400 of Hillsborough County's natural areas are considered "preserves." These lands were acquired through the ELAP Program for natural resource protection because of their unique natural features; ability to buffer river and stream floodplains; the presence of rare species; their location in a wildlife corridor, and/or other similar selection criteria. The ELAP Program, approved by the Board of County Commissioners in 1987, is a voluntary program established for the purpose of providing the process and funding for identifying, acquiring, preserving and protecting endangered, environmentally-sensitive and significant lands in Hillsborough County. It is a citizen-based program with volunteer committees involved in every key aspect of the Program. Since the inception of the ELAP Program, Hillsborough County voters have approved over \$321 million for acquisition and management of environmental lands. Management activities include prescribed burning, invasive species control, wildlife inventory, trail maintenance, feral animal control, restoration, and other habitat improvements for endangered and threatened species of plants and animals.

Hillsborough County contracted with Barth Associates to conduct this Performance Metrics Analysis to establish measurable outcomes for conservation land acquisition, restoration and maintenance; and to define metrics to track performance towards the desired outcomes. The County desired to establish measurable outcomes for conservation land acquisition, restoration and maintenance based on established principles, best practices, and/or scientific studies. This study also establishes metrics that can be used to track performance towards desired outcomes. Section 1.2 describes the purpose of the study in more detail.

Sources of legislative and regulatory mandates for ELAP Program lands include State grants, Hillsborough County Ordinances, and CELM Department strategic plan objectives and performance measures. The mandates are consistent regarding the purpose for acquiring environmental lands, and the County's responsibilities for resource management, recreation access and stewardship.

Figure 1 depicts the Hillsborough County ELAP Program lands, and other publicly-owned conservation lands throughout the County.

Figure 1. ELAP Program - acquired lands and other publicly-owned conservation lands in Hillsborough County.



1.2 Purpose of this Study

Specifically, this study aspires to answer three questions:

1. What streamlined metrics can be used to measure the performance of Hillsborough County's ELAP Program, including measurable outcomes for desired future conditions, indicators of success, and monitoring protocols for each site. Streamlined performance metrics can be used to: confirm progress towards objectives, appropriately allocate staff and budgets, document wise use of public funding, and adapt management activities based on quantitative indicators of success.

Performance metrics operate at several levels. For example:

- The level of detail required by a preserve manager to implement complex strategies for natural resource management with a desire to implement the latest information on science and technology requires substantial data and detailed monitoring.
- CELM Department managers need to efficiently compile information on each preserve to assess the comprehensive efforts on all preserves and to appropriately allocate staff and budget according to resource priorities.
- County administration needs performance measures to document the appropriate use of extensive public funds, to provide transparency to the public



on its accomplishments, and to allocate appropriate staff and budgets across all departments within the County.

The purpose of performance measures at each of these three levels differs substantially as does the level of detail.

2. Will the future ELAP Program protection scenario proposed by Hillsborough County, including the acquisition of approximately 14,000 additional acres proposed with the remaining \$141 million funds in the ELAP Program, provide a resilient, sustainable resource that can be effectively managed in perpetuity?

The current ELAP Program protection scenario is at the core of the CELM Department's Strategic Plan and its Environmental Lands Master Plan, both of which will drive the Department's annual funding and day-to-day activities in the coming years. It is important that the County has confidence that the proposed protection scenario will ultimately accomplish its desired future outcomes.

3. How does Hillsborough County's ELAP Program compare with other Florida counties' acquisition programs including consideration of the percentage of "developable lands, i.e. those natural areas not protected by other State or Federal conservation agencies, and/or environmental regulations?

Benchmarking against other entities is a useful tool for measuring successful performance. Benchmarking builds trust and confidence in Hillsborough County government by providing a transparent, objective means of evaluating the County's performance within the context of other counties' performance. Benchmarks can also help set realistic goals and objectives for the ELAP Program, and provide a resource for evidence-based decision-making, resource allocation and promotion of continuous improvement.

1.3 Scope of Work

The Scope of Work for this study included, but was not limited to, the following tasks:

Assess the Sustainability and Resilience of the Land Acquisition Program:

- Conduct a geographic information system (GIS) analysis to assess Hillsborough County's land acquisition program compared with other Florida county acquisition programs with particular consideration of protected "developable lands" (i.e. not covered by wetlands or floodplain, state or federal conservation lands, conservation easements, mitigation banks, etc.).
- Evaluate whether the future acquisition scenario proposed by Hillsborough County will provide a resilient, sustainable resource that can be effectively managed in perpetuity.
- Identify strategies other than Hillsborough County-funded acquisition that could be used to supplement the objectives for natural resource protection.
- Recommend alternative funding options, taxing districts, opportunities for endowments and other innovative methods of revenue generation to reduce the need for annual capital expenditures for restoration and management.

Determine Measurable Outcomes and Standards for Natural Resource Management on Preserves:

- Define a streamlined approach to establishing measurable outcomes in desired future conditions, indicators of success, monitoring protocols for each site.

- Establish programmatic goals for determining success, including consideration of the County's goals related to the ELAP Program, the CELM Department's Performance Measures, the CELM Department's strategic plan performance measures, and the desired future conditions and Indicators of success from the Master Plan.
- Confirm the format for annual work plans.
- Create a dashboard that can be assessed annually to define success and direct needed adjustments.



SECTION 2: LEGISLATIVE AND REGULATORY MANDATES

The first step in the Performance Metrics Analysis was to research the legislative and regulatory mandates that stipulate the use of public funds; and define the objectives and scope for ELAP Program land acquisition, management, access, and restoration. These include the ordinances which established Hillsborough County's funding mechanisms for acquisition; comparable programs at the State level related to matching funds; and the specific requirements of each grant award that must be adhered to in perpetuity. A summary of some of these underlying requirements for the acquisition, restoration and use of lands acquired with public funding is summarized in Appendix 1.

2.1 Requirements from County Ordinances

Several Hillsborough County ordinances, in effect since 1987, define the requirements for the use of acquisition funds for conservation lands. These ordinances and amendments provide the basis for several referenda approved by the voters of Hillsborough County to implement the ELAP Program. The ordinances that had some reference to objectives for measurable outcomes are briefly identified in Appendix 1, Section 2.

2.2 The CELM Department's Strategic Plan Performance Measures

The CELM Department developed a long-range Strategic Plan through a collaborative effort involving:

- Hillsborough County Extension Service,
- University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) School of Forest Resources and Conservation,
- an appointed public steering committee consisting of diverse interests within Hillsborough County, and
- a technical advisory committee consisting of national, regional and local experts in conservation science, outdoor recreation management and ecotourism.

The Strategic Plan addressed the numerous ecological, social, economic and leadership challenges to managing a healthy system of natural areas in an efficient manner within an emerging metropolitan region. Some of the objectives from the Strategic Plan included performance indicators specifically relevant to conservation lands acquisition and management – these are referenced in Appendix 1, Section 3.



SECTION 3: STREAMLINED METRICS FOR NATURAL RESOURCE MANAGEMENT

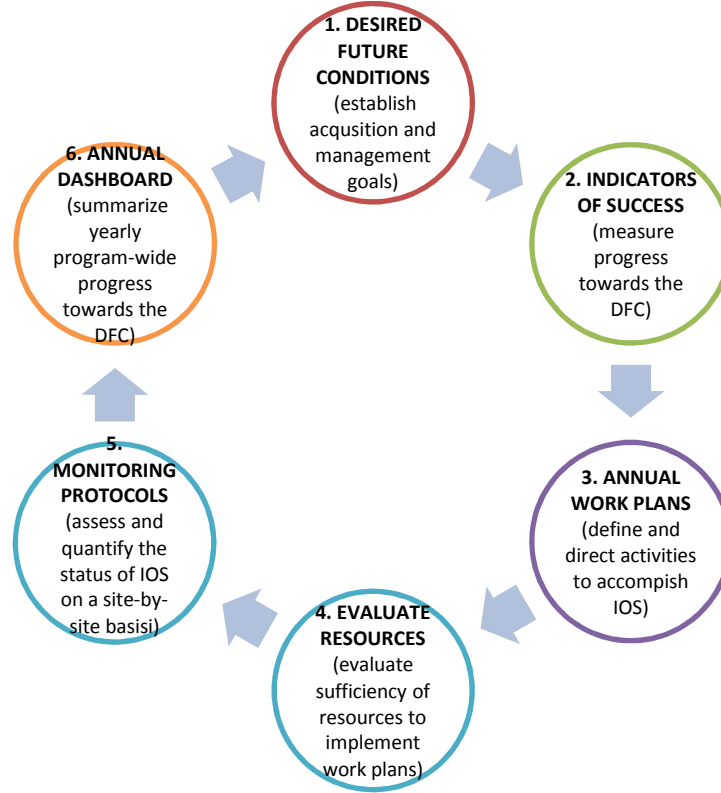
3.1 Acquisition and Management Framework

While the previous section outlined the legislative and regulatory mandates that stipulate the use of public funds for ELAP Program acquisition and management, this section focuses on defining a framework of streamlined metrics for successful acquisition and management activities. The framework includes five elements:

1. **Desired Future Conditions** describe the desired objectives and outcomes from acquisition, restoration, and management activities, based on the mandates discussed in the previous section. Desired future conditions reflect the expected condition of the preserves when conservation objectives are met.
2. **Indicators of Success** are measurable outcomes that can be used to measure progress towards the desired future conditions. Indicators of success can be used to measure progress for individual preserves, and/or the entire ELAP Program. Well-defined indicators of success provide the ability to compare current conditions with those that are desired, and to intensify or adjust efforts to achieve the objectives.
3. **Preserve Work Plans** are the annual plans created by preserve managers to direct the day-to-day management activities needed to accomplish the desired future conditions, including management actions, annual budgets, and staff allocation.
4. **Monitoring Protocols** are the activities required to monitor how well each preserve is accomplishing the desired future conditions and indicators of success, leading to corrective actions as needed.
5. **Annual Dashboard** is used to report program-wide progress towards meeting the indicators of success. The dashboard can also be tracked from year to year to measure trends over time.

Each of these elements plays an important role in measuring the performance of the ELAP Program, and each is necessary but not sufficient by itself. The desired future conditions describe the ultimate expected conditions of Hillsborough County's preserves, and the measurable metrics in the indicators of success allow an evaluation of how well Hillsborough County is progressing towards those conditions. The work plans are developed to guide management actions to achieve the desired future conditions, and monitoring protocols define the process for evaluating progress. Finally, the annual dashboard provides an at-a-glance tool for gauging how the ELAP Program is performing overall, and informs the following year's work plans. The following diagram illustrates the relationship between the elements:

Figure 2. Relationships between the elements of the acquisition and management framework.



3.2 Desired Future Conditions

The desired future conditions proposed in Appendix 2 can be used as a template for all preserves, recognizing that specific conditions and requirements on individual preserves may require adjustments

3.3 Indicators of Success

The indicators of success in Appendix 3 were developed to measure progress towards natural resource protection and management, resource-based recreation, facilities and site security, and partnerships and outreach

3.4 Monitoring Protocols

Monitoring procedures are well-defined and conducted at specified intervals to assess (and quantify, as specified) the status of indicators of success. Public input should be obtained annually by the CELM Department to solicit input on ways to improve recreation experiences and environmental programming, and to establish a diverse constituency that values the ELAP Program in general and the preserve in particular. Data that should be collected annually is in Appendix 4.

3.5 Annual Work Plans

A standard format for annual work plans was developed and tested (by ELAP Program staff), based on the requirements and recommendations of the preserve management plans. The annual work plan includes management tasks, estimated staff hours, and budget; a restoration project summary; and a monitoring checklist. Performance metrics from each annual work plan can also be compiled to create the annual dashboard. Appendix 5 - Table 1 shows the basic annual work plan template.

3.6 Annual Dashboard

The annual dashboard is intended to be used to measure performance towards the desired future conditions and indicators of success from year-to-year to identify management trends. Metrics for the dashboard were created based on the following criteria:

- Does the metric adequately reflect Hillsborough County's mandates, goals, objectives, and/or policies for the ELAP Program?
- Does the metric help measure how well the ELAP Program is being managed?
- Is the data required for each metric available with reasonable effort?
- Does the metric reflect the resources necessary to manage the ELAP Program lands?
- Can the metric be used to report trends over time?

It is anticipated that the dashboard will be adjusted over time based on the Department's priorities, and available data. Appendix 6, Table 1 outlines the proposed initial dashboard:



SECTION 4: SUSTAINABILITY AND RESILIENCE OF THE LAND ACQUISITION PROGRAM

A key question for this study is whether the ELAP Program – including proposed future land acquisitions - will provide a resilient, sustainable resource that can be effectively managed in perpetuity. To answer this question, the Planning Team assessed the characteristics of the lands acquired; evaluated the effectiveness of natural resource protection strategies other than Hillsborough County-funded acquisition; and identified alternative funding sources for restoration and management.

4.1 Characteristics of ELAP Program Lands

Sherri Wilson, the CELM Department's Global Information System Specialist, compiled a substantial dataset to assess Hillsborough County's land acquisition program. The global information system analysis included overlaying numerous data layers including:

- ELAP Program lands acquired,
- ELAP Program lands approved for acquisition,
- Additional lands in public ownership (city, state, Southwest Florida Water Management District),
- Approximate wetland extent,
- 100-year floodplain,
- Hillsborough County-designated areas of significant wildlife habitat,
- Private mitigation banks, gopher tortoise recipient sites and conservation banks,
- lands protected via conservation easement,
- ELAP Program lands approved for acquisition that have already been developed,
- The urban services boundary,
- Municipal boundaries, and
- CELM Department identified priority acquisition areas.

Figure 1 (in Section 1) depicts ELAP Program - acquired lands and other publicly-owned conservation lands in Hillsborough County. Figure 3 depicts the extent of wetlands and additional areas in the 100-year floodplain within ELAP Program and other publicly-owned conservation lands. These wetlands and floodplains would likely be protected from future development by existing ordinances and regulation, even without additional Hillsborough County land acquisition.

Figure 3. Wetlands and the 100-year floodplain within ELAP Program and other publicly-owned conservation lands in Hillsborough County.

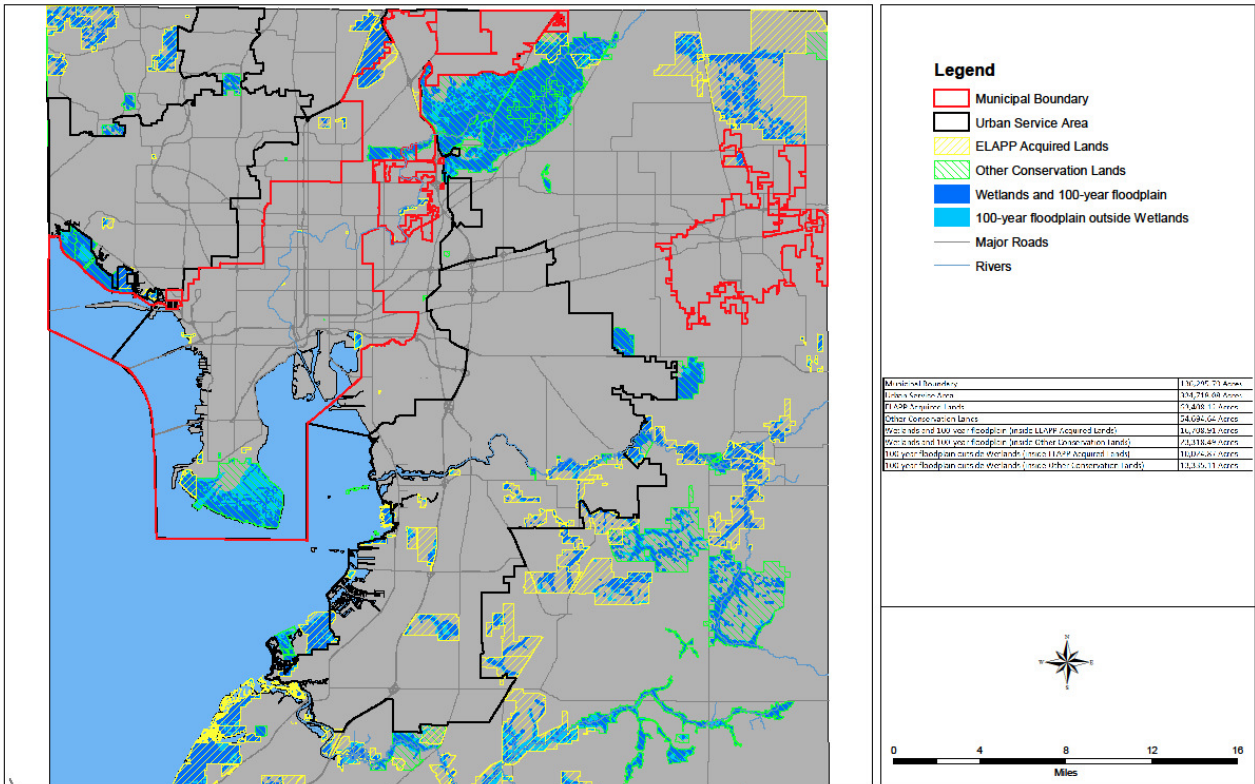


Figure 4 depicts the approximately 33,575 acres of ELAP Program lands approved for acquisition that have not yet been purchased, including approximately 29,000 acres that are the priority areas for future acquisition. These lands include those approved for acquisition by the Board of County Commissioners, land within the agricultural buffer, and high priority lands identified by the recently-completed University of Florida conservation priority analysis. A few other tracts that are necessary to prevent fragmentation and would serve as buffers to existing natural lands are also identified as priority areas for acquisition.

Figure 4. Lands approved for acquisition projected to be purchased with remaining ELAP Program funds.

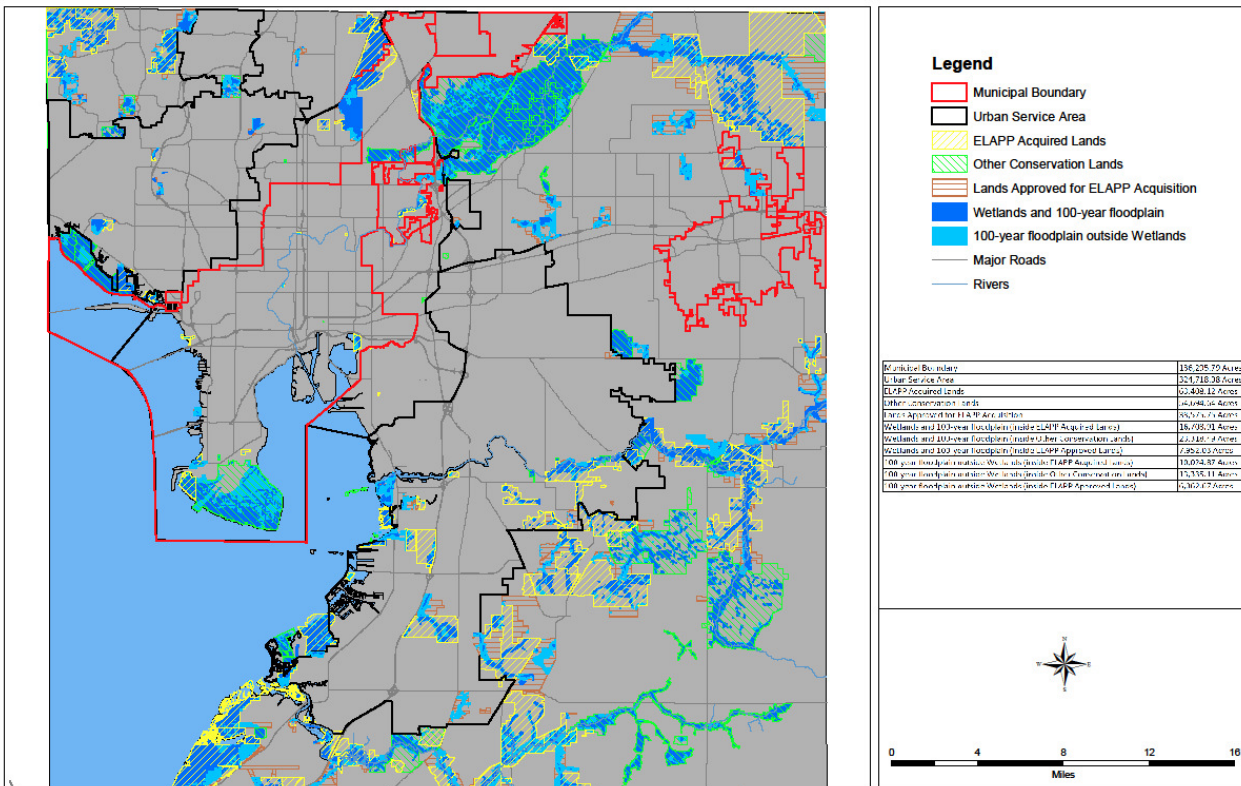


Table 3 provides the acreages of various metrics relevant to this analysis. Of the 63,408 acres of ELAP Program acquired lands, slightly more than 50% are either wetland or 100-year floodplain. A similar percentage of wetlands and floodplain occur on the ELAP Program lands approved for acquisition. As mentioned previously, these lands are already protected by policies and regulations within Hillsborough County and would likely not be developable.

The majority (83.4%) of ELAP Program approved lands are outside of the urban service area boundary. Presumably, this would mean that the likelihood of intense development is lower, the potential for (more compatible) agricultural use is higher, and new infrastructure such as roads and sewer would be less likely. Sustaining the urban service area boundary would likely keep the price of potential ELAP Program acquisitions lower, limit habitat fragmentation and reduce incompatible land uses adjacent to existing preserves and other conservation lands. There should be some sense of urgency with respect to the acquisition of approved ELAP Program lands since almost 15% (more than 5,000 acres) of these areas have already been developed.

Table 3. Characteristics of proposed and acquired ELAP Program lands, and other factors related to the long-term sustainability of the natural resource

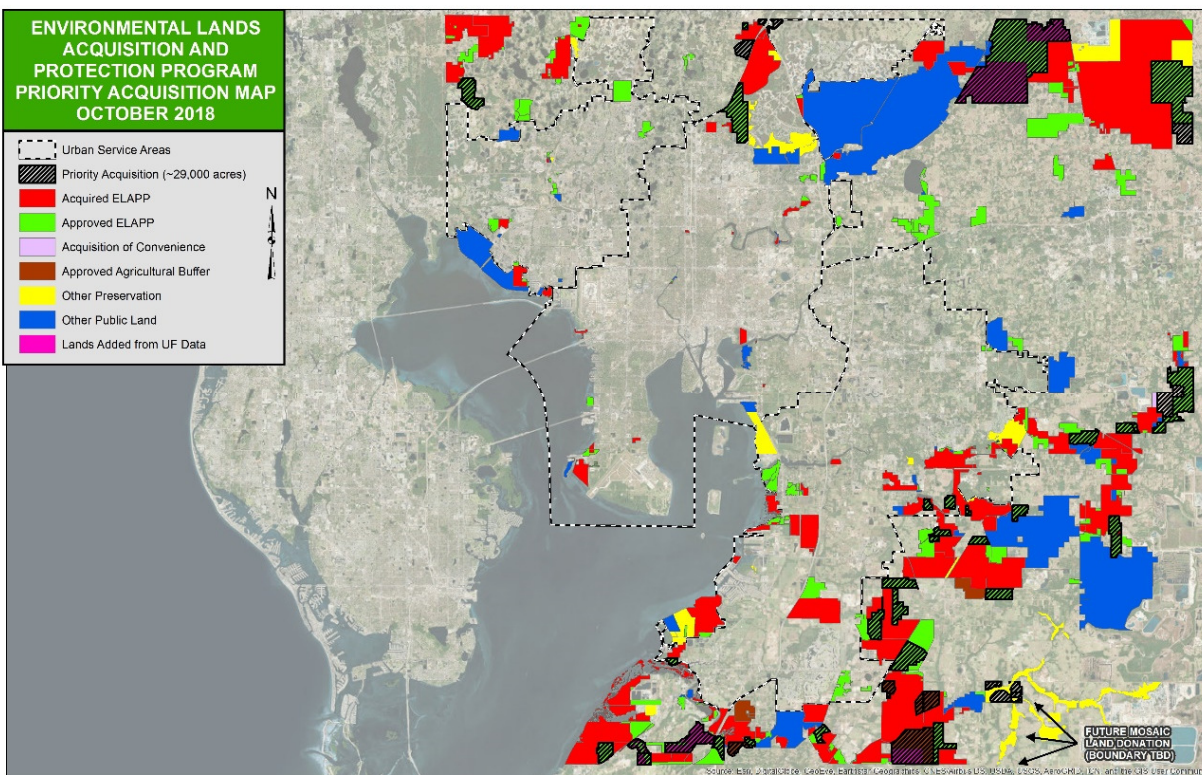
<u>Category</u>	<u>Acres</u>	<u>Percentage of Total</u>
ELAPP-Acquired lands	63,408	100.0%
ELAPP-Approved lands	33,576	100.0%
Wetlands on ELAPP-Acquired lands	22,039	34.8%
Wetlands on ELAPP-Approved lands	10,131	30.2%
100-year floodplain (outside of wetlands) on ELAPP-Acquired lands	10,025	15.8%
100-year floodplain (outside of wetlands) on ELAPP-Approved lands	6,063	18.1%
ELAPP-Approved lands outside of the USA	28,007	83.4%
Developed areas on ELAPP-Approved lands	5,003	14.9%

The CELM Department recently completed an analysis to prioritize future land acquisitions. This was based on Board of County Commission designated lands that have been approved for acquisition. These 33,576 acres have been considered for acquisition by Hillsborough County for some time, and several are likely to be acquired in the relatively near future. In addition to this framework, the CELM Department contracted with the University of Florida to assess priority acquisition areas based on various natural resource elements. These included habitats for focal species of wildlife, landscape connectivity, adjacency to existing conservation lands, potential for aquifer recharge, listed species habitat, etc.

With consideration of this recent research, and as shown in Figure 5, approximately 29,000 acres of conservation lands were prioritized for future acquisition, using both fee simple and less-than-fee (conservation easement) acquisition techniques.

The expectation is that the remaining \$141 million of ELAP Program funds (\$15 million is currently available; an additional \$126 million is approved through the 2008 ELAP Program referendum, but not yet budgeted by the BOCC) will fund the purchase of approximately 14,000 of these 29,000 acres. The final total will depend upon the price of the land, whether the majority of acquisitions are fee simple or easement purchases, and whether additional funding can be obtained from external sources. Some of the lands could be prioritized for conservation efforts other than acquisition. These alternative strategies are referenced in Section 4.2 below.

Figure 5. Priority Acquisition Areas.



4.2 Alternative Strategies for Natural Resource Protection

The ELAP Program is focused on acquisition of large, connected tracts that meet very specific criteria, but there are other measures implemented by Hillsborough County that result in conservation of natural lands. To assess the sustainability and resilience of lands acquired through the ELAP Program, it was also necessary to evaluate how other programs and policies within Hillsborough County contribute to the entire picture of natural lands conservation. As shown in Appendix 7, the complete program for natural lands protection in Hillsborough County includes acquisition alternatives, policies, regulations, incentives, and partnerships.

4.3 Alternative Funding Options for Restoration and Management

Counties and cities throughout the United States have used a variety of alternative funding techniques to leverage funds from existing programs such as the ELAP Program, and or reduce the need for general funding from tax revenues. These include:

- **Fees and Concessions:** Similar to the fees collected in many of Hillsborough County's conservation parks, additional uses fees and concession leases could be charged and collected for programs and activities on ELAP Program lands, without negatively impacting the resources. However, for many agencies, the costs of collecting such fees are higher than the revenues generated.
- **Municipal Service Taxing Units, Taxing Districts, and Special Assessments:** Many agencies assess additional taxes – or dedicate a portion of existing taxes – through the creation of parks districts, conservation districts, municipal services taxing units, and/or

other taxing authorities. This can be accomplished by raising the millage, or asking voters to approve an additional sales tax.

- **Endowments** – Some agencies require the creation of an endowment for operations and maintenance as a condition for land acquisition, often funded by the seller or donor of the property.
- **Joint Funding** – For parcels jointly acquired by local and state/federal agencies, some portion of annual management and/or restoration funding may be reimbursed by state or federal partners. The Southwest Florida Water Management District, for example, reimburses the County for a portion of its management costs on jointly-acquired ELAP Program sites.
- **Resource Harvesting** – Where appropriate, restoration plans may include the sale or lease of resources (such as timber) that will be harvested as part of the ecological restoration strategy. Similarly, grazing rights may be leased as part of the land management strategy. Currently, both techniques are being utilized on select ELAP Program sites, with all generated revenue being directed to site management and restoration efforts.
- **Carbon Credits** – There may be opportunities for revenue associated with carbon credits on preserves that are managed for biological diversity and carbon storage in native forests and grasslands and soil organic matter. This technique is currently being utilized on the County's Lower Green Swamp Preserve, with all revenue supporting site restoration and management activities through 2027.

Appendix 8 shows several grant sources which are available to leverage the ELAP Program funds for fee simple acquisition.

4.4 Assessment of the Resilience and Sustainability of ELAP Program Lands

Basis of the Review

Using commonly understood definitions of sustainability (actions today don't compromise natural resources in the future) and resiliency (the capacity to recover), the Planning Team evaluated whether the existing acreage and locations of ELAP Program lands are sustainable and resilient. The Planning Team created a list of the threats to these variables, and, through an understanding of the current approach to acquisition and management as well as research into Hillsborough County's policies and regulations that supplement the ELAP Program, the Planning Team arrived at conclusions. The conclusions are based on its work with many other municipalities in Florida, an expansive history with conservation on publicly-held lands and discussions about threats and vulnerabilities to the integrity of these natural lands long term.

Threats to Sustainability

- Insufficient Hillsborough County budgets/staffing preclude the ability to effectively restore and manage Preserves;
- Off-site incompatibility increases deleterious edge effects and compromises preserve management;
- Preserves are sold, or incompatible uses are allowed (mining, water is impounded for reservoirs, land use is changed) resulting in degradation of the resource; and
- Fragmentation isolates preserves, prevents genetic exchange, movements across corridors and precludes some wide-ranging species (Florida black bear, Florida panther).

Threats to Resiliency

- Climate Change and the potential for:
 - Extreme flooding;
 - Extreme drought;
 - Extreme wildfires; and
 - Warmer temperatures that stimulate encroachment by invasive exotic species irreparably changes the ecology of preserves
- Incompatible off-site land uses compromise recovery from major events like fire, flood, hurricane
- Exotic species infestation precludes re-establishment of native biological diversity
- Inability to implement ecological burning prevents restoration of fire-adapted communities (and increases risk of destructive fires that extend off-site).

4.5 Conclusions

The ELAP Program strategy has been a thoughtful effort that meets the objectives of a series of ordinances that established the funding mechanisms for the ELAP Program. In the “as is” condition, protection of the natural resource values intended by ELAP Program lands are believed to be sustainable and resilient because they protect wildlife habitat, natural areas, drinking water resources, and the water quality of rivers, lakes and bays; and are (currently) managed to restore historical conditions based on management plans prepared with public review and comment.

For the most part, the ELAP Program tracts have been acquired as part of larger wildlife corridors in conjunction with other public lands or adjacent to natural resources otherwise protected by Hillsborough County and others (wetlands, floodplains). Some tracts are relatively small and isolated and could be most vulnerable to degradation of natural resource values due to encroachment by incompatible land uses (e.g. Violet Cury Preserve, Cockroach Creek Greenway, and Bullfrog Creek Scrub Preserve). Acquiring ELAP Program lands already approved and prioritized for acquisition will enhance the sustainability and resilience of the ELAP Program lands previously purchased by Hillsborough County, especially those within the Alafia, Little Manatee and Hillsborough River corridors.

The future ELAP Program protection scenario as shown on the ELAP Program Priority Acquisition map (Figure 5), including the acquisition of an additional 14,000+/- acres of environmental lands, has the potential to provide a resilient, sustainable resource that can be effectively managed in perpetuity. However, acquisition alone will not be sufficient to ensure sustainability. While it was determined that fee simple land acquisition remains the most effective means of protecting Hillsborough County’s environmental lands, the County should take other actions as well. To ensure that ELAP Program lands will be sustainable and resilient in the future, recommendations include:

- Instill a sense of urgency to utilize additional County funding for land acquisition as approved by voters in the 2008 ELAP Program Referendum, including fee simple acquisition and conservation easements (14.9% of the ELAP Program lands initially approved for acquisition have already been developed);
- Continue the emphasis on obtaining external funding from State and Federal natural resource partners to supplement Hillsborough County’s land acquisition efforts;
- Focus on connecting existing ELAP Program preserves to maintain landscape integrity, prevent habitat fragmentation, and ensure long-term manageability and health of natural ecosystems;

- Adopt the proposed desired future conditions, indicators of success, monitoring protocol and ELAP Program dashboard to ensure management actions will be effective in continuing to sustain Hillsborough County's natural resources;
- Implement annual work plans for all ELAP Program preserves to direct day-to-day management activities needed to accomplish desired future conditions, including management actions, annual budgets, and staff allocation;
- Utilize indicators of success to measure progress towards desired future conditions. In particular, adhere to the prescribed fire return intervals and invasive exotic plant reduction goals outlined in Appendix 3, and enhance funding accordingly to meet these objectives;
- Continue funding and staffing for the Conservation & Environmental Lands Management Department to implement the management actions defined in approved management plans, particularly ecological burning and exotic species control;
- Implement and enforce Hillsborough County's policies and regulations that supplement the efforts of the ELAP Program;
- Resist proposed modifications to the Comprehensive Plan or future land use changes that would compromise the integrity and connectivity of the ELAP Program lands;
- Work with municipalities and adjacent counties on a consistent approach to regional comprehensive plan and future land use objectives compatible with the ELAP Program; and
- Prioritize future acquisitions based on a comprehensive strategy for evaluating the resources to be protected, including a vulnerability assessment based on various futuristic assumptions.



SECTION 5: COMPARISON WITH OTHER COMPARABLE COUNTIES

Assessing the land acquisition program in Hillsborough County, compared with other Florida counties is complicated by several factors.

- First, many other counties have expansive lands owned by the federal government, or a focus by the State or Southwest Florida Water Management District to acquire lands associated with river systems, the Everglades, wildlife corridors, etc.
- Second, although the Florida Natural Areas Inventory compiles a valuable data base on lands acquired by local, State and Federal governments, these data are summarized by either lead management agency, primary owner or secondary owner. Each county has taken a different approach to management and ownership and may or may not have leveraged their local funds with State or Federal grant programs.
- Finally, even the most up-to-date, statewide databases do not include land acquisitions conducted in the past few years. To fully understand Hillsborough County's ELAP Program compared with other comparable counties, the Planning Team evaluated land acquisition under various scenarios, compared with the 10 most populous counties in the State.

5.1 Acres of Local Conservation Land Acquisition

Based on the acreage of conservation lands acquired by the county (including those acquired with funding assistance from the State), Hillsborough County ranks # 1, by a substantial margin, followed by Palm Beach County and Lee County (Table 5). Along with funding assistance from the State, Hillsborough County has acquired 63,408 acres of lands dedicated to natural resource conservation. This exceeds the next most successful local land acquisition program by more than 30,000 acres.

Table 5. Acres of conservation lands acquired by the top 10 most populous counties in Florida

<u>County</u>	<u>Acres Acquired by the County</u> *	<u>County Rank</u>			
Hillsborough	63,408	1			
Palm Beach	31,000	2			
Lee	28,979	3			
Jacksonville/Duval	28,332	4			
Polk	25,000	5			
Brevard	24,000	6			
Orange	22,700	7			
Miami-Dade	20,700	8			
Pinellas	8,827	9			
Broward	1,100	10			

* Obtained from County websites except for Hillsborough - these data were compiled from County GIS analyses

5.2 Local Conservation Land Acquisition as a Percentage of the Total County

Taken as a percentage of the total area of Hillsborough County, Hillsborough still ranks # 1, still by a substantial margin, followed by the City of Jacksonville/Duval County and Lee County (Table 6). Palm Beach County falls to # 7 out of the 10 most populous counties in this analysis.

Table 6. Percentage of conservation lands acquired by the top 10 most populous counties in Florida

<u>County</u>	<u>Acres Acquired by the County</u> [*]	<u>Total Acreage of the County</u> [†]	<u>% Area of Local Conservation Lands</u>	<u>County Rank</u>	
Hillsborough	63,408	672,640	9.4	1	
Jacksonville/Duval	28,332	495,360	5.7	2	
Lee	28,979	514,560	5.6	3	
Pinellas	8,827	179,200	4.9	4	
Orange	22,700	581,120	3.9	5	
Brevard	24,000	651,520	3.7	6	
Palm Beach	31,000	1,301,760	2.4	7	
Polk	25,000	1,200,000	2.1	8	
Miami-Dade	20,700	1,244,800	1.7	9	
Broward	1,100	773,760	0.1	10	

^{*} Obtained from County websites except for Hillsborough - these data were compiled from County GIS analyses

[†] Obtained from March 2018 Florida Natural Areas Inventory (FNAI) Summary Data

5.3 Conservation Land Acquisition Excluding State and Federal Lands

Not surprisingly, when the percentage of State and Federal lands is excluded from the analysis, Hillsborough County is still # 1 in terms of the percentage of local land conservation compared with the total acreage of the County. The City of Jacksonville and Lee County come in second and third respectively based on this analysis (Table 7).

Table 7. Percent conservation lands acquired by the top 10 counties excluding the area of other public lands

<u>County</u>	<u>Acres Acquired by the County</u> [*]	<u>Total Acreage of the County</u> [†]	<u>Acres of State-Owned Lands</u> [†]	<u>Acres of Federally-Owned Lands</u> [†]	<u>% Area of Local Conservation Lands (excluding state and federal lands)</u>	<u>County Rank</u>
Hillsborough	63,408	672,640	43,780	5,550	10.2	1
Jacksonville/Duval	28,332	495,360	29,420	36,080	6.6	2
Lee	28,979	514,560	52,940	5,440	6.4	3
Brevard	24,000	651,520	156,080	93,230	6.0	4
Pinellas	8,827	179,200	1,660	150	5.0	5
Miami-Dade	20,700	1,244,800	281,820	545,430	5.0	6
Orange	22,700	581,120	84,620	0	4.6	7
Palm Beach	31,000	1,301,760	284,810	144,110	3.6	8
Polk	25,000	1,200,000	195,440	58,820	2.6	9
Broward	1,100	773,760	477,410	10	0.4	10

^{*} Obtained from County websites except for Hillsborough - these data were compiled from County GIS analyses

[†] Obtained from March 2018 Florida Natural Areas Inventory (FNAI) Summary Data

5.4 Total Percentage of Land Acquisition by County

Since the extent of total conservation is particularly relevant to the sustainability of protected lands, the Planning Team also evaluated the total percentage of all public conservation lands in the Hillsborough County. Since there is no comprehensive State or Federal land acquisition



program, Hillsborough County ranks # 9 out of the 10 most populous counties relative to the total percentage of conservation lands at 16.8% (Table 8). Of the 10 most populous counties, the 5 who have the lowest total percent area of public conservation lands have no comprehensive program for State and Federal land acquisition. These counties include Jacksonville, Orange, Lee, Hillsborough, and Pinellas Counties. The percent area of all conservation lands in these 5 counties ranges from 18.9% for Jacksonville to 5.9% for Pinellas County.

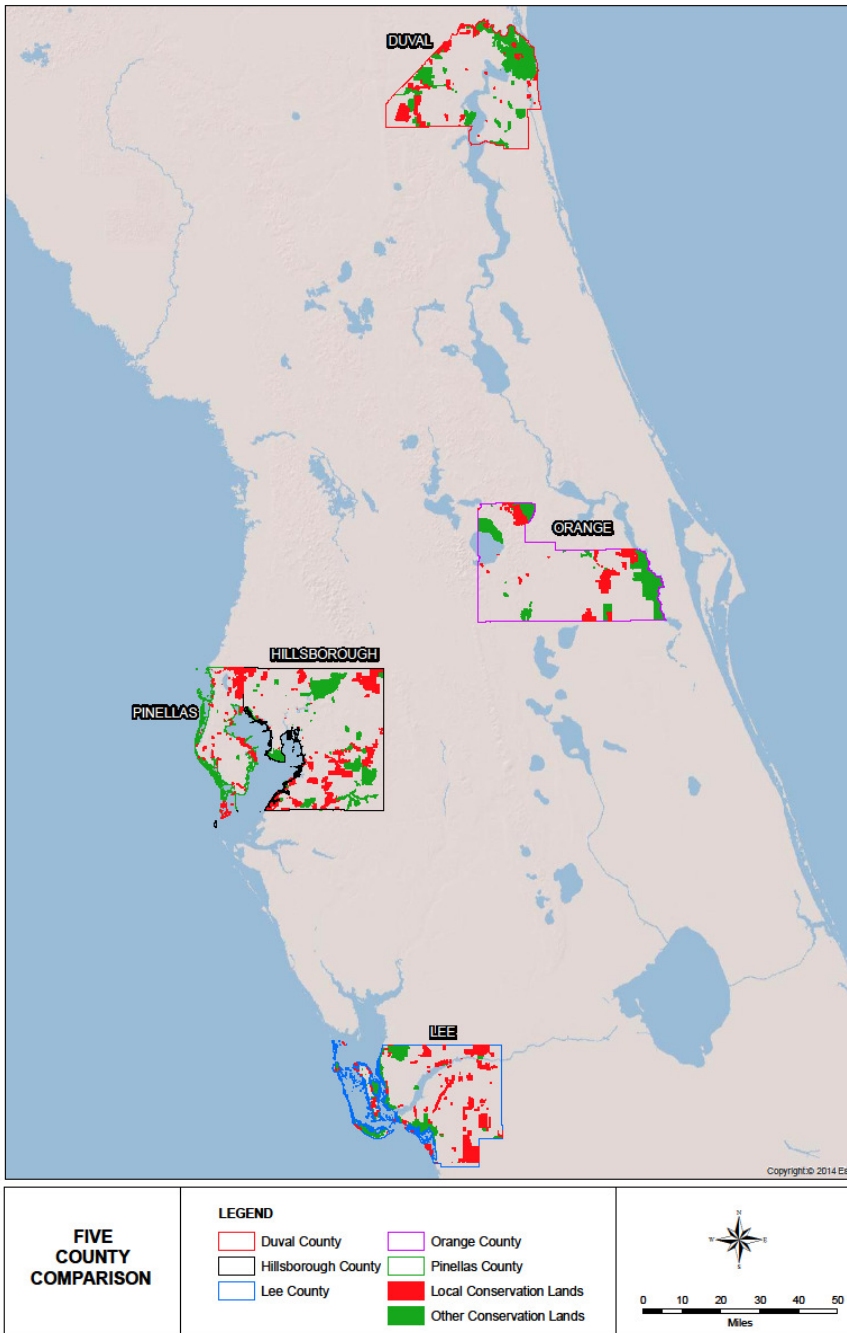
Table 8. Percent of all public conservation lands in the 10 most populous counties in Florida

<u>County</u>	<u>Acres Acquired by the County</u> [*]	<u>Total Acreage of the County</u> [†]	<u>Acres of State-Owned Lands</u> [†]	<u>Acres of Federally-Owned Lands</u> [†]	<u>% Area of All Public Conservation Lands</u>	<u>County Rank</u>
Miami-Dade	20,700	1,244,800	281,820	545,430	68.1	1
Broward	1,100	773,760	477,410	10	61.8	2
Brevard	24,000	651,520	156,080	93,230	41.9	3
Palm Beach	31,000	1,301,760	284,810	144,110	35.3	4
Polk	25,000	1,200,000	195,440	58,820	23.3	5
Jacksonville/Duval	28,332	495,360	29,420	36,080	18.9	6
Orange	22,700	581,120	84,620	0	18.5	7
Lee	28,979	514,560	52,940	5,440	17.0	8
Hillsborough	63,408	672,640	43,780	5,550	16.8	9
Pinellas	8,827	179,200	1,660	150	5.9	10
[*] Obtained from County websites except for Hillsborough - these data were compiled from County GIS analyses						
[†] Obtained from March 2018 Florida Natural Areas Inventory (FNAI) Summary Data						

5.5 Local Conservation Land Acquisition of Developable Lands

To assess the amount of developable land purchased by comparable counties, the Planning Team selected those counties without a comprehensive State or Federal land acquisition program. The CELM Department compiled data on the area of wetlands and the additional area of 100-year floodplain within conservation lands as a way of assessing how much “developable” land was purchased in each of these five counties. Figure 6 depicts the five counties included in this analysis, and the extent of local government acquisitions and other public lands.

Figure 6. Land acquired for local conservation by Hillsborough and four other comparable counties in Florida.



The Planning Team obtained data on the extent of wetlands within conservation lands acquired by the local governments (Table 9). The Planning Team also assessed the extent of the 100-year floodplain outside of wetlands to obtain a gross estimate of the extent of land that could have been developed if it weren't purchased. Two of the counties (Pinellas and Lee) purchased primarily wetlands and floodplain within their conservation lands - less than 30% of the area acquired were not protected by policies limiting development in wetlands and floodplain. For Hillsborough and Orange Counties and the City of Jacksonville, approximately 50% of the

conservation lands acquired were wetlands or floodplain, and, presumably protected from development by policy or regulation.

Table 9. Developable land acquired for conservation by comparable local governments in Florida

<u>County</u>	<u>Acres Acquired by the County*</u>	<u>% of Acquired Conservation Lands that are Wetlands or 100-Year Floodplain[†]</u>	<u>Acreage of Developable Land Acquired</u>	<u>% of Acquired Conservation Lands that were Developable</u>
Orange	22,700	49.0	11,577	51.0
Hillsborough	63,408	49.7	31,894	50.3
Jacksonville/Duval	28,332	53.5	13,174	46.5
Pinellas	8,827	72.7	2,410	27.3
Lee	28,979	75.6	7,071	24.4

* Obtained from County websites except for Hillsborough - these data were compiled from County GIS analyses

[†] Calculated using Florida Natural Areas Inventory shapefiles and statewide coverages of wetlands and floodplain, except for Hillsborough - these data were compiled from County GIS analyses

As shown in Table 9, Hillsborough County's efforts at acquiring primarily developable lands are at least as effective as the efforts of other comparable counties. To the extent that it is practical, Hillsborough County should consider acquiring an even higher percentage of developable lands and using existing policies and regulations to protect the areas that are covered by wetlands or 100-year floodplain.

5.6 Summary of Comparable County Analyses

In summary, Hillsborough County has had remarkable success with acquisition of natural lands using funding established by voter-approved referenda leveraged with external funding. Hillsborough County is, by far, the most successful county in terms of the acreage acquired under virtually any scenario compared with other local government acquisition programs, particularly the 10 most populous counties. However, Hillsborough County conservation lands are vulnerable to incompatible land uses, fragmentation and development because of the lack of comprehensive involvement by the State or Federal government. Since there are no expectations that the State or Federal government will purchase lands at a rate any different than what has transpired in the last three decades, Hillsborough County should assume that the sustainability and resilience of its ELAP Program lands will be achieved primarily through the County taking the lead on acquisition efforts. Any joint participation by other government agencies will occur on a case-by-case basis and be dependent upon available and, oftentimes, limited acquisition funding.





APPENDIX 1: MANAGEMENT RESPONSE

Question 1:

What streamlined metrics can be used to measure the performance of the County's ELAPP, including measurable outcomes for Desired Future Conditions (DFC), Indicators of Success, and Monitoring Protocols for each site?

Management Response

The CELM Department concurs with the recommendations provided in the report. The Department is currently developing a resource tracking program that will allow staff to implement annual work plans for each of the ELAP Program sites. Desired future conditions and indicators of success will be integrated into a template for each annual work plan and performance results will then be aggregated each year to create an annual ELAP Program-wide "dashboard" that measures annual performance and progress towards desired outcomes. These outcomes will be used to direct needed adjustments for the following year. The resource tracking program is expected to be available for use by October 2019.

The CELM Department agrees that additional resources are necessary to adhere to the prescribed fire intervals required to meet desired future conditions for ecological burning. Objective 8 in Section 1 of Appendix 3 states "Adherence to the fire return intervals determined from FNAI guidelines for each natural community type is improving annually across the Preserve with an objective for achieving these intervals for all ELAP Program lands by FY2029. To accomplish this system-wide, annual Prescribed Fire performance objectives will increase from 3,700 acres to 9,142 acres." To meet this objective, and not reduce the department's ability to meet the other 53 metrics created, management believes that establishing a six-member Prescribed Fire Team, dedicated to applying prescribed fire as often as possible, along with the acquisition of additional prescribed fire equipment is necessary. Approximately \$550,000 of one-time funds and \$400,000 of recurring (annual) funds are required to fund the personnel and equipment necessary for the Prescribed Fire Team. These funds will be requested as part of the FY20-21 CELM Department budget submittal.

This Prescribed Fire Team will: 1) increase the Department's ability to meet the referenced ecological objective and 2) improve public safety by reducing the threat of wildfires in the ever increasing wildland-urban interface. A successful Prescribed Fire Team would be comprised of the following:

POSITION	EQUIPMENT
Environmental Lands Management Specialist CNUPP.5	Type 6 Wildlands Fire Truck
Environmental Lands Management Specialist CNUPP.4	Truck (F-250 Crew Cab) or similar
Environmental Lands Management Technician CNUPP.2	Truck (F-250 Crew Cab) or similar
Environmental Lands Management Technician CNUPP.2	UTV
Environmental Lands Management Technician CNUPP.2	Transport Trailer
Environmental Lands Management Technician CNUPP.2	Suppression Tank for UTV

As part of the FY2018 budget, the BOCC provided funding for a seven-member Exotic Plant Control Team that focuses on removing invasive plants on preserved lands. This team will allow the department to meet Objective 12 in Section 1 of Appendix 3, which specifies that less than



10% of Category I invasive plant species occur on each Preserve and newly discovered occurrences of Category I and II species are small in scope and not well-established.

Over the next decade, it is imperative that the BOCC provide the necessary capital restoration and management funding required over 51 ELAP Program sites as outlined in both the 2017 CELM Department Master Plan and Appendices 2 (Sections 1.1 and 1.2) and 3 (Sections 1.5 and 1.6) of this report. Approximately \$27.6 million will be required to complete all capital restoration and management projects over these 51 sites. Projects include upland and wetland restoration, one-time invasive exotic plant treatments, and facility/public access improvements.

Target Completion Date:

The resource tracking program that will allow the CELM Department to implement an Annual Work Plan for each ELAPP site is expected to be available for use by October 2019.

In order to create a Prescribed Fire Team that will allow the department to meet the stated prescribed burn goals by FY2029, approximately \$550,000 of one-time funds and \$400,000 of recurring (annual) funds will be requested as part of the FY20-21 CELM Department budget submittal.

The completion of unfunded capital restoration and management projects over 51 ELAPP sites is dependent upon the allocation of future funding by the BOCC. The required funding to complete all projects is estimated at \$27.6 million.

Question 2:

Will the future ELAPP protection scenario proposed by the County, including the acquisition of approximately 14,000 additional acres with the remaining funds in the ELAPP program, provide a resilient, sustainable resource that can be effectively managed in perpetuity?

Management Response

The CELM Department concurs that the future ELAP Program protection scenario as shown on the ELAP Program Priority Acquisition Map, including the acquisition of an additional 14,000+/- acres of environmental lands, has the potential to provide a resilient, sustainable resource that can be effectively managed in perpetuity. As development pressures continue to increase throughout the County, it is imperative that the ELAP Program be adequately funded in a timely manner by the BOCC so that the most critical parcels already approved for acquisition through the ELAP Program can be acquired by the County prior to being converted to other (residential, commercial, etc.) land uses. These priority parcels consist primarily of important wildlife corridors and additions to existing Preserves. Preservation of these parcels will help maintain landscape integrity, prevent habitat fragmentation, and ensure the long-term manageability and health of natural ecosystems throughout the County.

Land acquisition techniques should include both fee simple and less-than-fee (conservation easement) acquisitions where appropriate. Staff will continue to pursue joint funding from its natural resource partners (primarily the Southwest Florida Water Management District and the Florida Department of Environmental Protection) to supplement the County's land acquisition efforts. Historically, other partner agencies have contributed approximately one-third of all funding for ELAP Program acquisitions.

Target Completion Date:



The target completion date for acquiring an additional 14,000 acres is dependent upon the BOCC funding the remaining \$126 million authorized by the \$200 million ELAP Program Referendum approved by County voters in 2008. As development pressures continue to increase throughout the County, it is imperative that the ELAP Program be adequately funded in a timely manner by the BOCC so that the most critical parcels already approved for acquisition through the ELAP Program can be acquired by the County prior to being converted to other (residential, commercial, etc.) land uses. Time is of the essence.

Question 3:

How does Hillsborough County's ELAPP compare with other Florida counties' acquisition programs, including consideration of the percentage of "developable lands", i.e. those natural areas not protected by other (state or federal) conservation agencies, and/or environmental regulations?

Management Response

The CELM Department concurs that the ELAP Program is the most successful local land acquisition program in the State and that Hillsborough County's efforts at acquiring primarily developable lands are at least as effective as the efforts of other comparable counties. Hillsborough County will continue to emphasize the acquisition of developable lands, especially those that connect or expand existing Preserves. Uplands containing either intact scrub/sandhill habitats or suitable xeric soils for habitat restoration will be prioritized for acquisition. As development pressures continue to increase throughout the County, it is imperative that the ELAP Program be adequately funded in a timely manner by the BOCC so that the most critical upland (i.e. "developable") parcels already approved for acquisition through the ELAP Program can be acquired by the County prior to being converted to other (residential, commercial, etc.) land uses. Critical upland parcels that are adjacent to, near, or within the urban services boundary are at most risk for development.

Target Completion Date:

The target completion date for acquiring additional developable lands is dependent upon the BOCC funding the remaining \$126 million authorized by the \$200 million ELAP Program Referendum approved by County voters in 2008. As development pressures continue to increase throughout the County, it is imperative that the ELAP Program be adequately funded in a timely manner by the BOCC so that the most critical upland (i.e. "developable") parcels already approved for acquisition through the ELAP Program can be acquired by the County prior to being converted to other (residential, commercial, etc.) land uses. Critical upland parcels that are adjacent to, near, or within the urban services boundary are at most risk for development. Time is of the essence.

APPENDIX 2: LEGISLATIVE AND REGULATORY MANDATES

1. Requirements from the State of Florida Grant Awards

Hillsborough County and the State of Florida have partnered to fund acquisition of conservation lands in the County for more than 30 years. With the use of these public funds comes certain requirements for public access, restoration and management of natural resources and monitoring/reporting. Compliance with these County- and State-mandates is required to demonstrate the appropriate use of public funds. Relevant criteria from County ordinances and state rules are briefly describe below.

The State's grant awards for funding assistance include numerous requirements for compliance with State objectives for management of conservation lands. These restrictions require achieving certain milestones to meet land management objectives. For example, some of the requirements relevant to management on the Triple Creek Preserve included:

- The identification of known natural resources including natural communities, listed plant and animal species, soil types, and surface and groundwater characteristics,
- A detailed description of all proposed uses including existing and proposed physical improvements and the impact on natural resources,
- A detailed description of proposed restoration or enhancement activities, if any, including the objective of the effort and the techniques to be used,
- The identification and protection of known cultural or historical resources and a commitment to conduct surveys prior to any ground disturbing activity, if applicable,
- A description of proposed educational displays and programs to be offered, if applicable,
- A description of how the management will be coordinated with other agencies and public lands, if applicable,
- A schedule for implementing the development and management activities of the Management Plan, and
- Cost estimates and funding sources to implement the management plan.

In addition, special management conditions within grant awards are typically defined and specify requirements relevant to that preserve. These could include management for unique resources on- or off-site, consideration of special management needs because of adjacent land uses, implementing programs or constructing facilities specified in the grant application or funding to restore lands that were exposed to incompatible uses in the past.

2. Requirements from County Ordinances

Several Hillsborough County Ordinances, in effect since 1987, define the requirements for the use of acquisition funds for conservation lands. These ordinances and amendments provide the basis for several referenda approved by the voters of Hillsborough County to implement the ELAP Program. These ordinances that had some reference to objectives for measurable outcomes, are briefly identified below:

Ordinance 87-1 initial ELAP Program Ordinance (\$100M)



"It is in the public interest to save those environmentally sensitive lands, beaches and beach access, parks and recreational lands located in Hillsborough County which are presently endangered; and ... in the best interest of the citizens of the County to develop a local program to save its environmentally sensitive lands, beaches and beach access, parks and recreational lands through local acquisitions or acquisitions in conjunction with state programs..

1993 Amendment to 87-1

"Expenditure of these funds is for the purpose of achieving preservation of land for the benefit of the public."

Ordinance 90-19 for a 2nd Referendum for additional ELAP Program funding (\$100M)

"Shall be expanded to acquire, preserve, protect, manage and restore environmentally sensitive lands, beaches and beach access, and parks and recreational lands. Expenditures for site management shall not exceed two percent (2%) of the bond proceeds or additional funding received from other public agencies. "Site management" includes site security, exotic plant control, maintenance of natural systems, and any activities incidental to such purposes. Expenditures for site restoration shall not exceed three percent (3%) of the purchase price of such site and shall not be transferable to another site. Any funds designated for restoration but not expended shall be used for acquisition of additional lands or to retire bonds. Properties purchased through this ordinance may be used for recreational purposes provided that such uses will not disturb or degrade the environmental quality of the site."

Ordinance 08-16 for a 3rd Referendum for additional ELAP Program funding (\$200M)

... "for the purpose of financing and/or refinancing capital projects related to the acquisition, preservation, protection, management and restoration of environmentally sensitive lands which protect wildlife habitat, natural areas, drinking water resources, and the water quality of rivers, lakes and bays."

3. CELM's Strategic Plan Performance Measures

The CELM Department developed a long-range Strategic Plan through a collaborative effort involving:

- Hillsborough County Extension Service,
- University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) School of Forest Resources and Conservation,
- an appointed public steering committee consisting of diverse interests within Hillsborough County, and

a technical advisory committee consisting of national, regional and local experts in conservation science, outdoor recreation management and ecotourism.

The Strategic Plan addressed the numerous ecological, social, economic and leadership challenges to managing a healthy system of natural areas in an efficient manner within an emerging metropolitan region. Some of the Objectives from the Plan included performance indicators specifically relevant to conservation lands acquisition and management. The most relevant Objectives include:

Key Objective 1.1.1: All lands support both biodiversity and public engagement, and tie activities to the ecological quality of the landscape.



Performance Indicators:

Low - Few sites within the system have detailed assessments of ecological composition, structure and function.

Moderate - A majority of sites within the system have detailed assessments of ecological composition, structure and function.

High - All sites within the system have detailed assessments and identified future desired conditions.

Optimal - Activities and infrastructure are based upon site specific future desired conditions as evaluated by peer reviewed science and accepted standards.

Key Objective 1.1.3: Restoration and stewardship to sustain ecological function and values are based upon site-specific management plans.

Performance Indicators:

Low - Site specific management plans are developed for only a few sites and are not based upon a detailed assessment of ecological composition, structure and function.

Moderate - Site specific management plans are developed for a majority of sites within the system and are not based upon a detailed assessment of ecological composition, structure and function.

High - All sites within the system have site specific management plans based upon a detailed assessment of the ecological composition, structure and function.

Optimal - Restoration and stewardship activities are based upon site specific management plans that identify future desired conditions of the ecosystem.

Key Objective 1.2.3: Ecosystems, greenways and trail connections enable people, animals, water, and plants to move unobstructed through the region.

Performance Indicators:

Low - Acquisitions are not prioritized to create greenways and trail connections throughout the region.

Moderate - An acquisition plan is developed to prioritize ecosystems, greenways and trail connections that enable people, animals, water and plants to move easily through the region.

High - County funded acquisitions are prioritized to connect department lands within the region.

Optimal - Partnerships are developed to capitalize on potential connections with private landowners, government agencies and conservation organizations at neighborhood, regional and State levels to protect land and engage people.

Key Objective 2.1.2: The community has a formal and functional role in Department decision making.

Performance Indicators:

Low - No formal and functional mechanism exists to ensure community needs are considered during department decision making.

Moderate - A county appointed public committee comments on department decision making.



High - A county appointed public committee actively participates in the review and monitoring of department decision making.

Optimal - Community needs are integrated on a continuous basis into department decision making.

Key Objective 2.2.2: Provide sites and facilities for community activities and events.

Performance Indicators:

Low - Department has a limited number of sites and facilities to accommodate community activities and events.

Moderate - Department develops a plan to address the community's need for sites and facilities.

High - Department provides additional facilities for significant activities and events identified by the community.

Optimal - Department provides sites and facilities that meet the demand for community activities and events that are consistent with the site-specific management plans.

Key Objective 4.1.2: Maximize operational efficiency by setting baselines, and evaluating performance of all operations.

Performance Indicators:

Low - Develop a 5-year operational management plan which sets baselines and identifies measurable outcomes.

Moderate - The 5-year operational plan is adopted by the BOCC.

High - Implementation and monitoring of the 5-year operational plan.

Optimal - Use adaptive management to adjust plan for efficiency and effectiveness.

Key Objective 4.2.1: Adequately staff the CELM Department with an appropriate mix of permanent and seasonal positions; supplement with strategic partnerships to provide necessary expertise.

Performance Indicators:

Low - The appropriate mix of permanent and seasonal employees and partners for the current 5-year operational plan has not been identified.

Moderate - The appropriate mix of permanent and seasonal employees and partners for the current 5-year operational plan is identified and based on sound professional analysis.

High - Partnerships are used to supplement permanent and seasonal employees to achieve an optimal balance.

Optimal - Appropriate balance of employees is achieved and maintained for present operational plan; the needs for the subsequent 5-year operational plan are identified.

Key Objective 4.2.3: An active Friends group, volunteer corps, and/or youth interns help to support the Department's mission, vision and goals.

Performance Indicators:

Low - Department has limited non-programmatic opportunities for volunteers.



Moderate - Volunteers actively participate in conservation projects and support the CELM Department's mission, vision and goals.

High - A friends of conservation group is established.

Optimal - Friends of conservation group is incorporated into a 501c3 non-profit organization.

Key Objective 4.3.1: Actively pursue regional, state, and federal government grants and technical assistance.

Performance Indicators:

Low – CLEM Department makes grant decisions on a short-term basis and has limited planning.

Moderate – CELM Department develops a five-year grant plan based on analysis of grant and technical services opportunities.

High - Pursue grant and technical services opportunities based on the five-year grant plan.

Optimal – The CELM Department pursues grants to enhance restoration and stewardship funding by 20%.

Key Objective 4.3.2: Fund well-planned capital expenditures for new acquisitions, facilities and restoration.

Performance Indicators:

Low – The CELM Department lacks a ten-year capital expenditure strategy.

Moderate – The CELM Department develops a ten- year financial strategy and identifies gaps between capital budget needs and current budgets.

High - Prioritize budget needs based on the ten-year strategy.

Optimal - Budget needs are met by a combination of funding sources.

4. Requirements from the State of Florida Grant Awards

Hillsborough County and the State of Florida have partnered to fund acquisition of conservation lands in the County for more than 30 years. With the use of these public funds comes certain requirements for public access, restoration, and management of natural resources and monitoring/reporting. Compliance with these County- and State-mandates is required to demonstrate the appropriate use of public funds.

The State's grant awards for funding assistance include numerous requirements for compliance with State objectives for management of conservation lands. These restrictions require achieving certain milestones to meet land management objectives. For example, some of the requirements relevant to management on the Triple Creek Preserve included:

1. The identification of known natural resources including natural communities, listed plant and animal species, soil types, and surface and groundwater characteristics;
2. A detailed description of all proposed uses including existing and proposed physical improvements and the impact on natural resources;
3. A detailed description of proposed restoration or enhancement activities, if any, including the objective of the effort and the techniques to be used;



4. The identification and protection of known cultural or historical resources and a commitment to conduct surveys prior to any ground disturbing activity, if applicable;
5. A description of proposed educational displays and programs to be offered, if applicable;
6. A description of how land management will be coordinated with other agencies and public lands, if applicable;
7. A schedule for implementing the development and management activities of the management plan; and
8. Cost estimates and funding sources to implement the management plan.

In addition, special management conditions within grant awards are typically defined and specify requirements relevant to that preserve. These could include management for unique resources on- or off-site, consideration of special management needs because of adjacent land uses, implementing programs or constructing facilities specified in the grant application or funding to restore lands that were exposed to incompatible uses in the past.

APPENDIX 3: DESIRED FUTURE CONDITIONS

The following desired future conditions are proposed as a template for use on all preserves, recognizing that specific conditions and requirements on individual preserves may require adjustments:

1. Natural Resource Protection and Management

1. Uplands are restored and characterized by:
 - a) native biological diversity representative of the soil/projected community type;
 - b) the planned fire regime;
 - c) structural diversity appropriate for the community type; and
 - d) use by native species of wildlife.
2. Wetlands are restored and characterized by:
 - e) native biological diversity representative of the community type;
 - f) structural diversity appropriate for the community;
 - g) the planned fire regime;
 - h) use by native species of wildlife;
 - i) natural hydrology; and
 - j) and good water quality.
3. Natural fire regimes are maintained based on Florida Natural Areas Inventory (FNAI) recommendations in the *Guide to the Natural Communities of Florida*.
4. Habitat for State and Federally-listed species of plants and animals, including those with a high likelihood of occurrence, is managed to maximize opportunities to sustain viable populations.
5. Invasive exotic species (including non-native fauna) are controlled and maintained so that they do not alter the planned fire regime or impact native biological diversity.
6. Water discharged from Hillsborough County-owned pits from previous phosphorus mining activities does not degrade downstream water quality; and invasive, exotic, aquatic plants are controlled so that they do not spread to natural wetlands or water bodies.
7. Archaeological and cultural resources are well-understood and protected during management activities and through site security measures.
8. The wildland-urban interface zone fuel loads are maintained at minimal fuel levels for the community type.

2. Facilities and Site Security

9. The preserve is safe and secure from unauthorized entry and illegal activities that may degrade the site's ecological, recreational, or cultural resource values.
10. Roads, trails, bridges and boardwalks are maintained to allow access for management and resource-based recreation.



11. Facilities meet the needs of users of the preserve and are well-designed and well-maintained.

3. Resource-based Recreation

12. Appropriate resource-based recreation is available, well-advertised and known to provide fulfilling outdoor experiences.
13. Appropriate access is provided for visitors of diverse backgrounds, ages, capabilities and outdoor skill levels.
14. Recreation uses do not degrade natural resources, impede the ability to implement land management activities or inhibit the ability to meet desired future conditions for resource management.

4. Partnerships and Outreach

15. Partnerships with other natural resource agencies:
 - k) maximize collaboration between staff;
 - l) promote interdisciplinary management;
 - m) share financial burdens of management; and
 - n) exchange technical information.
16. Organized environmental education programs are conducted to diverse groups of participants who are inspired by the material and better informed about the value of conservation on Hillsborough County-owned lands.
17. Appropriate fees are charged for special events, group camping and use of facilities by private businesses and concessionaires.
18. Reliable, well-trained volunteers and interns may assist with invasive, exotic species control, mowing, monitoring, environmental education and public outreach.
19. The public provides frequent input on ways to improve recreation experiences, environmental programming, site access and the ecological benefits of the preserve.

5. Monitoring

20. Regular monitoring informs the management plan; documents changes in site conditions and milestones of restoration success; and proactively averts issues with the public.

APPENDIX 4: INDICATORS OF SUCCESS

The following indicators of success were developed to measure progress towards natural resource protection and management, resource-based recreation, facilities and site security, and partnerships and outreach:

1. Natural Resource Protection and Management

1. The Natural Resource Management Plan for the Preserve is up-to-date and fulfills the requirements of grant awards and funding partners.
2. The annual work plan is current and guided by objectives in the Natural Resource Management Plan. Management needs, staffing and budgets are integrated and prioritized with the needs of other preserves.
3. Florida Cooperative Land Cover community maps have been field-verified and reflect current conditions on the preserve
4. Based on qualitative field assessments, Florida cooperative land cover communities are compositionally and structurally comparable to, or trending toward, Florida nature areas inventory descriptions.
5. The acreage of restored upland communities is determined annually and increases over time.
 - Restored uplands are in the maintenance phase characterized by: native biological diversity representative of the soil/projected community type, the planned fire regime, structural diversity appropriate for the community type, and use by native species of wildlife.
6. The acreage of restored wetland communities is determined annually and increases over time.
 - Restored wetlands are in the maintenance phase characterized by: native biological diversity representative of the soil/projected community type, the planned fire regime, structural diversity appropriate for the community type, use by native species of wildlife, natural hydrology, and good water quality.
7. A geographic information system-based system to track prescribed burns (and wildfires) is used to document the planned fire regimes for each community type and the acres burned each year.
8. Adherence to the fire return intervals determined from Florida Natural Areas Inventory guidelines for each natural community type is improving annually across the preserve with an objective for achieving these intervals for all ELAP Program lands by FY 2029. To accomplish this system-wide, annual prescribed fire performance objectives will increased from 3,700 acres to 9,142 acres
9. A post-burn assessment report is created after each prescribed burn (or wildfire) and the results are used to guide future prescriptions.



10. Preserves are assessed for new outbreaks of Category I and II invasive exotic species at least twice annually. New infestations are documented with a geographic information system location, a description of the area of infestation and a plan for management.
11. The scheduling and frequency of treatments of Category I and II invasive exotic plant species are determined by target species, but do not exceed a one-year interval.
12. Less than 10 percent of Category I species occur on each preserve, and newly discovered occurrences of Category I and II species are small in scope and not well-established.
13. Invasive exotic species of wildlife, particularly wild hogs, are controlled and maintained, and their activities do not result in alterations to the planned fire regime and/or impacts to native biological diversity.
14. A continually-updated list of observed species of plants and animals is maintained, including global positioning system locations of State or Federally-listed species. These data are used to prioritize management for potentially-occurring State- or Federally-listed species.
15. Surveys for archaeological and cultural resources are conducted systematically and the locations of significant resources are mapped (at least internally) prior to any site management activities that could disturb or destroy their value.
16. The fuel loads within the wildland-urban interface zone are maintained at minimum level for the community type.

2. Facilities and Site Security

1. Parking, trash receptacles and facilities identified in the Recreation Plan are in place to accommodate expected users, even during peak days and seasons.
2. Clearly-marked signs that demarcate the preserve boundary are maintained at a minimum of 500-foot intervals along the perimeter and at property corners.
3. Signage is in place to provide environmental education, wayfinding and directions to points of interest.
4. Where necessary, there is an on-site security resident and/or the preserve is regularly patrolled by law-enforcement officers to prevent unauthorized entries.
5. Unauthorized entries that do occur do not degrade ecological, recreational, or cultural resource values.
6. Fencing is maintained in areas where the boundary needs clarification to prevent encroachment.



3. Resource-based Recreation

1. An up-to-date Recreation Plan consistent with user needs and educational opportunities defines existing and proposed uses, facilities, off-site connectivity and access.
2. Access for approved recreational uses is provided, along with adequate parking to meet demand.
3. Well-maintained hiking, cycling and equestrian trails identified in the Recreation Plan are appropriately separated, and various loops are available to accommodate multiple types of outdoor experiences.
4. If included in the Recreation Plan, primitive camping experiences are provided for various-sized groups in scenic areas at multiple locations across the preserve.
5. Minimal costs are incurred to mitigate the impacts of recreational users (authorized or unauthorized) that:
 - a) cause impacts to native vegetation,
 - b) disturb wading bird rookeries or other nesting habitat,
 - c) cause erosion/water quality impacts,
 - d) vandalize facilities,
 - e) create unauthorized access points, or
 - f) damage fencing and signage along the preserve boundary.
6. Based on surveys or interviews conducted every 5 years, at least 90% of users are satisfied with their resource-based recreational experience on the Preserve.
7. Based on surveys or interviews conducted every five (5) years, at least 90% of users on the preserve rank recreation facilities as "good" or "excellent."
8. Recreational use does not impede the ability to:
 - a) implement prescribed fire,
 - b) control invasive exotic species,
 - c) successfully restore altered areas,
 - d) manage for threatened or endangered species, or
 - e) access the site for land management.
9. Resource-based recreation users do not regularly exceed the capacity of parking areas and park in unauthorized areas resulting in impacts to native vegetation or traffic safety issues.



4. Partnerships and Outreach

1. Partnerships with other resource agencies result in reduced management costs, collaboration and the exchange of technical information.
2. A program is in place to recruit and train volunteers to assist with appropriate management and outreach.
3. At least 40 environmental programs are held across all preserves annually, with a goal to have at least 500 total participants in the programs.

APPENDIX 5: MONITORING PROCEDURES

Monitoring procedures are well-defined and conducted at specified intervals to assess (and quantify, as specified) the status of indicators of success. Public input should be obtained annually by the CELM Department to solicit input on ways to improve recreation experiences and environmental programming, and to establish a diverse constituency that values the ELAP Program in general and the preserve in particular. Data that should be collected annually is located in Appendix 0004.

Also, the following data should be collected annually:

- Acres of Category I invasive exotic species treated
- Acres of Category I invasive exotic species remaining
- Acres of fire-adapted communities that were treated with prescribed fire according to the Florida Natural Areas Inventory guidelines
- The number of prescribed burns completed
- The number of post-burn reports completed
- Acres of restored uplands (in the maintenance phase)
- Acres of restored wetlands (in the maintenance phase)
- Acres encompassed by an archaeological/cultural survey
- The updated species observation list, with global positioning system data for listed species observed
- The number of monitoring events
- The number and status of environmental exhibits
- The number of environmental education programs provided and the number of participants
- Total volunteer hours worked on the preserve
- Funding (including staff hours) provided by partners on the preserve
- The number of incidents in which the preserve was degraded by recreation use, cost and the approximate acreage impacted
- The number of known unauthorized entries and costs to repair



APPENDIX 6: ANNUAL WORK PLANS

A standard format for annual work plans was developed and tested (by ELAP Program staff), based on the requirements and recommendations of the preserve management plans. The annual work plan include management tasks, estimated staff hours, and budget; a restoration project summary; and a monitoring checklist. Performance metrics from each annual work plan can also be compiled to create the annual dashboard. The table below shows the basic annual work plan template.

Table 1: Annual work plan template format.

Template for Annual Work Plans for Hillsborough County Preserves

Tasks	Date Scheduled	1st Date Completed	2nd Date Completed	3rd Date Completed	Acreage	Staff Hours Required	Cost	Person(s) Responsible	Funding Source	Partners	Comments
Natural Resource Protection and Management											
Update NRMP											
Field-verify and update CLC Maps											
Confirm CLC communities trending toward FNAI descriptions											
Calculate restored uplands acreage											
Calculate restored wetlands acreage											
Conduct prescribed burns											
Update GIS database for burns											
Complete post burn reports											
Treat invasive exotic plants											
Calculate acres of Category I exotics											
Calculate acres of Category II exotics (and other targeted species)											
Implement exotic wildlife control											
Update biological species database											
Survey vulnerable areas with potential for archaeological/cultural resources											
Resource-based Recreation											
Update Recreation Plan											
Assess parking and access											
Assess quality and extent of multi-use trails											
Assess primitive campsites											
Document recreation impacts											
Complete a user survey											
Assess user conflicts											
Document recreation and management conflicts											
Document recreation and safety conflicts											
Resolve recreation problems, conflicts and insufficiencies											
Facilities and Site Security											
Assess quality and number of required facilities											
Assess boundary markers and fencing											
Assess quality and number of required signs											
Document site security resident presence and law enforcement patrols											
Document impacts from unauthorized entry											
Resolve facility problems, conflicts and insufficiencies											
Partnerships and Outreach											
Document monetary (including in-kind) contributions from partners											
Document number of volunteer hours											
Monitoring											
Conduct periodic (at least 2/yr.) site review											
Conduct qualitative, comprehensive site reviews (at least 1/yr.)											
Conduct quantitative assessments for restoration projects											

APPENDIX 7: ANNUAL DASHBOARD

It is anticipated that the dashboard will be adjusted over time based on the County's priorities, and available data. Table 1 outlines the proposed initial dashboard.

Table 1: Proposed ELAP Program Annual Dashboard.

Proposed ELAP Program Annual Dashboard				
CELM Department's Strategic Plan Performance Measure Categories	Program-Level Performance Measures	Program Level Performance Indicators, based on Desired Future Conditions – as Compared to Previous Audits	Target	Frequency of Monitoring and Reporting/ Source of Data
Acquisition and Other Conservation Lands Protection	Consistency with Requirements of the ELAP Program Ordinances	4. Number of Preserves NOT acquired to preserve, protect, manage and restore environmentally sensitive lands, beaches and beach access, and parks and recreational lands (Sec. 24-21. - Authorization of bonds, 24-23, Hillsborough County municode)	0	5 Years
	Strategic Acquisition Acreage Achieved	5. Acres/percentage of targeted ELAP Program lands protected by the County through fee simple acquisition	TBD	Annually / Targeted Lands Map
		6. Acres/percentage of targeted ELAP Program lands protected by the County through conservation easements	TBD	Annually / Targeted Lands Map
		7. Acres/percentage of targeted lands protected by the County through policies, regulations, or incentives	TBD	Annually / Targeted Lands Map
	Partnerships are Maximized	8. Acres/percentage of targeted ELAP Program lands protected by other agencies	TBD	Annually
Restoration	Restored Upland Acres	9. Acres/percentage of County-owned and managed Preserve <u>uplands</u> that have been restored (in a maintenance condition)	TBD	5 Years / Site Management and Restoration Plans
	Restored Wetland Acres	10. Acres/ percentage of County-owned and managed Preserve <u>wetlands</u> that have been restored (in a maintenance condition)	TBD	5 Years / Site Management and Restoration Plans
Management	Management/ Work Plans	11. Number of ELAP Program sites with management plans and annual work plans	100%	Annually
	Site Monitoring	12. Number of Preserves that have been monitored in accordance with well-defined protocols to assure that conservation and recreation objectives are being met	100%	Annually
	Public Participation	13. Number of residents and visitors that participate in County CELM	.001% of resident,	5 Years

	Broad and Diverse	Department needs assessment program: statistically-valid survey, public meetings, HOA presentations, etc.	10% increase per year	
	Biological Diversity, Listed Species Protection	14. Updated list of observed species, including precise location information for listed species	Stabilized or increased # of species	Annually/ Department database
	Protection of Cultural and/or Historical Resources	15. Percentage of known locations of significant archaeological and cultural resources on Preserves that have been assessed and protected during management activities and through site security measures	100%	Annually/ Archaeological and Cultural Sites Assessment
	Management Objectives Achieved	16. Acres/percentage of County-owned and managed Preserves that have been mapped and verified according to the Florida Cooperative Land Cover (CLC)	100%	5 Years
	Partnerships are Maximized	17. Total volunteer hours that are spent on County-owned and managed Preserves for exotic species control, mowing, monitoring, environmental education, public outreach and other management activities	Annual increase	Annually
		18. Funds (including the value of staff time) provided by other resource agencies that collaborate with the County to manage Preserves	Annual increase	Annually
	Acres Burned	19. Acres/percentage of County-owned and managed Preserves that have been burned in accordance with the natural fire regimes established by FNAI	100% of targeted acreage (per annual burn schedule)	Annually / Site Management and Restoration Plans
		20. Acres of wildland-urban interface treated to reduce wildland fire risk	100% of targeted acreage	Annually/ Wildland-Urban Interface Map
	Exotic Species Controlled	21. Acres/ percentage of County-owned and managed Preserves for which Category 1 invasive exotic species are <u>not</u> controlled and maintained, resulting in alterations to the planned fire regime and/or impacts to native biological diversity	1%	10 Years/ Hyperspectral mapping
		22. Acres/ percentage of County-owned and managed Preserves for which wild hogs and/or other nuisance animal species are <u>not</u> controlled and maintained, resulting in alterations to the planned fire regime and/or impacts to native biological diversity	5%; Stable, percentage of operating budget	2 Years/ Monitoring

	Access to, and Quality of Multiple Recreation Use	23. Percentage of users who are satisfied with their resource-based recreational experience on County-owned and managed Preserves as measured by recreation needs assessment surveys every 5 years	90% or greater satisfaction rating	5 Years / Recreation Needs Assessment
	Degradation from Human Use	24. Costs to mitigate Preserves that have been degraded by recreation, thereby impeding the ability to implement land management activities or inhibit the ability to meet DFC for resource management	Stable, percentage of operating budget	Annually / Monitoring Program
	Environmental Education Displays and Programs	25. Percentage of County-owned and managed Preserves that have environmental education exhibits	100%	5 Years
		26. Number of environmental education programs offered and the number of participants on County-owned and managed Preserves	Minimum of 40 environmental programs serving at least 500 participants on an annual basis	Annually
	Site Security	27. Number of incidents of unauthorized entry or illegal activities	0%	5 Years / Monitoring Program
	Facilities are Exemplary	28. Percentage of users who rank recreation facilities on County-owned and managed sites as "good" or "excellent" as measured by recreation needs assessment surveys every 5 years	90% or greater rating of "good" or "excellent"	5 Years / Recreation Needs Assessment

APPENDIX 8: ALTERNATIVE STRATEGIES FOR NATURAL RESOURCE PROTECTION

The ELAP Program is focused on acquisition of large, connected tracts that meet very specific criteria, but there are other measures implemented by Hillsborough County that result in conservation of natural lands. To assess the sustainability and resilience of lands acquired through the ELAP Program, it was also necessary to evaluate how other programs and policies within Hillsborough County contribute to the entire picture of natural lands conservation. As shown in Appendix 0007, the complete program for natural lands protection in Hillsborough County includes the following acquisition alternatives, policies, regulations, incentives, and partnerships:

1. Acquisition (ELAP Program)

- 1) Fee Simple
- 2) Conservation Easements

2. Policies

- 1) Comprehensive Plan
 - a. Sustainable Growth Management Strategy
 - b. Essential Wildlife Habitat
 - c. Significant Wildlife Habitat
 - d. Shoreline Wildlife Habitat
 - e. 100-year Floodplain Protection
 - f. River Resource Protection
 - g. Transfer of Development Rights, Clustering
- 2) Future Land Use/Urban Service Area

3. Codes and Ordinances

- 1) Land Development Code
 - a. Wetlands
 - b. Uplands
 - c. Listed Species
 - d. Tracts Near Preserves
 - e. River Corridor Policy Overlay
- 2) Hillsborough County Environmental Protection Act/Environmental Protection Commission
- 3) Zoning
- 4) Coastal High Hazard Areas
- 5) Fines

4. Incentives

- 1) Density Bonuses
- 2) Environmentally Sensitive Land Credits
- 3) Tax Reduction

5. Partnerships

- 1) Acquisition/Easements/Grants



- a. Public Sector
 - Florida Department of Environmental Protection
 - Southwest Florida Water Management District
 - US Fish and Wildlife Service
 - Florida Fish and Wildlife Conservation Commission
 - Natural Resource Conservation Service
 - Municipalities
 - b. Private Sector
 - Mitigation Banks, Gopher Tortoise Recipient Sites and Conservation Banks
 - Agricultural landowners
 - The Mining Industry
- 2) Regulations
- a. Wetland Protection
 - b. Listed Species
 - c. Floodplain Protection
 - d. Water Quality Improvement

The effectiveness of the different protection techniques varies according to resource protection priorities, including focal species, riparian buffers and corridors, xeric (scrub) connectivity, rare species habitat, surface water protection, and aquifer recharge. For example, comprehensive plan policies may be effective in the protection of riparian buffers and corridors but are not effective in assuring connectivity of scrub habitat.

The Planning Team assessed the various tools for natural resource conservation to generally identify which were most effective at protecting various natural resource categories relevant in Hillsborough County. Acquisition, policies, regulations, incentives and partnerships all have a role in a comprehensive strategy for natural resource protection. Table 4 indicates which of Hillsborough County's conservation measures are most effective at protecting which resource categories.

Table 1. Effectiveness of conservation measures to protect natural resources

		Resource Category			Surface Water Protection	Aquifer Recharge
	Focal Species	Riparian Buffer/Corridor	Xeric (Scrub) Connectivity	Rare Species Habitat		
<u>Program Types</u>						
Fee Acquisition	✓	✓	✓	✓	✓	✓
Easement Acquisition		✓	✓		✓	✓
Comp Plan Policies		✓			✓	
Land Development Regulations/Wetlands Protection		✓			✓	✓
Incentives (TDR)	✓	✓				
Punitive Measures (fines and mitigation)	✓			✓		



APPENDIX 9: ALTERNATIVE STRATEGIES FOR NATURAL RESOURCE FUNDING

The table below shows several grant sources which are available to leverage the ELAP Program funds for fee simple acquisition, including the following:

Funding Program	Grant Amount	Match Requirement	Types of Eligible Elements	Anticipated Annual Deadline
Land and Water Conservation Grant	\$200,000	100%	Land Acquisition of passive and active recreational facilities	March
Florida Communities Trust (FCT)	\$5,000,000	25%	Land Acquisition of passive and active recreational facilities including those for unique and disabled persons	August
Florida Recreational Development Assistance Program	\$200,000	100%	Land Acquisition of passive and active recreational facilities	September
Outdoor Recreation Legacy Partnership Program (ORLPP)	\$750,000	100%	Land Acquisition for outdoor recreation facilities	May
OGT Land Acquisition Program	\$1,000,000*	0%	Acquisition of trails/greenways that enhance the state system.	October

*Grant Program Funding Amount with no set maximums. Figures shown are either average or recent maximum awards.