



Land Preservation Bond Program



Environmental Protection

Department

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The Land Preservation Bond Program of Broward County assesses, advises, and controls the essential acquisition and protection of the last remaining county lands; and, provides support to municipalities in their efforts to acquire and manage Conservation Lands, Green Spaces and Open Spaces.

Our Parks - Our Land

Our Future



Introduction

The 2000 Safe Parks and Land Preservation Bond Referendum's ultimate goal was to produce a comprehensive plan for improving, expanding and protecting remaining natural lands; expanding the passive recreational opportunities for all county residents; as well as protecting the rich agricultural aspect of our landscape.

The initial effort of Broward County **Environmental Protection Department** EPD (formerly Department of Planning and Environmental Protection DPEP) after the referendum of 2000 produced the ***Conservation Land and Green Space Inventory***, a list of predominantly undeveloped lands with ecological value or connectivity potential. EPD recommend the inventory to the **Land Preservation and Acquisition Advisory Board** LPAB and the **Broward County Board of County Commissioners**.

The Board of County Commissioners, on April 19, 2001, recommended EPD to negotiate with land owners to secure the sites for acquisition. A process started for negotiations, appraisals, due diligence for each individual site. Finally, individual acquisition proposals were submitted to the County Commission for their final purchase resolution.

The initial ***Conservation Land and Green Space Inventory*** became an open process. Addenda to the Inventory was submitted to the County Commission once potential new land acquisition projects emerged.

Additional to the ***Conservation Land and Green Space Inventory***, the program produced an inventory of lands with no further ecological value that could be reclaimed and recovered to a recreational state for use by the residents of Broward County. Consequently the ***Open Space Program*** was created to spread the benefit of passive recreation throughout Broward County, and the Land Preservation Program was developed to assure that all communities in Broward County would receive a fair share of Open Space Sites.

How the Land

Preservation Program Started

In 1998, during its annual goal setting workshop, the Broward County Board of County Commissioners (Board) established a new goal to “protect and restore important public lands, natural habitats and water bodies in Broward County.” At the direction of the Board, a program to implement this goal was initiated in January 1999 by DPEP. The first objective was to create a Geographic Information System (GIS) database of all protected natural lands and recreational facilities, mitigation areas, and other protected open spaces. Secondly, an inventory of all unprotected undeveloped lands was prepared, including most of the agricultural lands. By overlapping these two inventories through GIS techniques, it appeared that many of the lands that were undeveloped at the time of the last County land acquisition program, the 1989 Environmentally Sensitive Lands (ESL) Bond Program, had been developed in the 1990’s. Some of these lands were purchased with the ESL Bond proceeds, and a few were still remaining undeveloped and unprotected.

On those few remaining ecologically valuable lands, development pressure was very intense. Their size was usually limited, averaging around 10 acres per site, and the stability of the native habitat had often been compromised by the invasion of exotic plant species. In Fall 1999, a series of workshops was organized by DPEP where scientists, environmentalists, representatives of regional environmental agencies, as well as representatives of the business and economic industries in Broward County gathered and discussed the development of a new Broward County natural land acquisition program.

At these workshops, the land inventory of potential acquisition lands was reviewed and criteria for land selection were discussed. The ecological assessment of all remaining undeveloped lands was performed by County staff with the support and assistance of Dr. Daniel Austin and Dr. John Volin, plant taxonomist and plant ecologist, respectively, from Florida Atlantic University, who volunteered their time and scientific knowledge. Results of these assessments revealed that: very few unprotected natural lands and open spaces remained in Broward County; most undeveloped lands were used for agricultural practices; many agricultural lands were owned by developers and had a high potential to be developed for residential and commercial uses in the near future; development pressure on the remaining lands was very intense; and based on one year of monitoring, it was estimated that all remaining ecologically valuable lands would be lost in four or five years assuming the current rate of development.

In March 2000, DPEP presented these findings at a County Commission workshop. The possibility of a new bond program, similar in nature to the Broward County 1989 ESL Bond Program, to acquire the remaining natural lands and open spaces was considered for the first time. DPEP recommended the Board take immediate action to save the remaining ecologically valuable lands. At the same time, the Broward County Parks and Recreation Division had been preparing a need assessment to renovate the County’s aging park system, to enhance it and to develop new regional and neighborhood parks. In May 2000, the Board decided to merge the land acquisition proposal and the park enhancement proposal under the umbrella of conservation and recreation and placed the \$400 million Safe Parks and Land Preservation Bond Referendum on the November 7, 2000 ballot.

An intense educational campaign was initiated by DPEP and the Parks and Recreation Division to explain the objectives and benefits of the Bond program to the Broward County residents. In addition, a group of involved citizens, representing numerous interests in Broward County, established the Safe Parks and Land Preservation Citizens Committee to organize grassroots support for the Bond referendum. On November 7, 2000, 74% of the Broward County residents voted in favor to conserve, protect, and enhance Broward County’s natural heritage. The margin by which the Bond referendum passed is testimony to strong citizen support of environmental conservation and represents a clear mandate to the Board to protect our lands, our parks, and our future.

Program Goals and Objectives

The Land Preservation Bond program accomplishes the objective of providing a funding source for the acquisition of lands and development rights, as well as the restoration of the most ecologically valuable lands. Yet, the preservation of our natural resources can be accomplished only if, after the acquisition, appropriate management follows. For this reason, the Land Preservation Bond program is to be viewed as a starting point rather than the final solution. Following the acquisition phase, Broward County and its municipalities will be obligated to maintain the value of today's investments. Therefore, discussions and actions must continue if we are to preserve our resources, our native habitats, and our parks in perpetuity for the enjoyment and education of generations to come.

The comparison between the original habitats and those remaining scattered throughout urban Broward County helps illuminate the level of sensitivity of our natural lands, the need to preserve the plant communities and the wildlife they support and, ultimately, the need to set realistic ecological restoration goals. The Land Preservation Program, as well as the Environmentally Sensitive Lands Program and other land acquisition efforts initiated by the State and by our municipalities, cannot fully restore the function and structure of the original communities. The level to which we can restore the ecology of a community is typically proportional to its level of disturbance. The more these lands are disturbed - deprived of their components (loss of biodiversity), limited in size, isolated from other similar or complementary habitats, invaded by exotic plants and animals, and simplified in their structure - the more difficult and limited their ecological restoration.

Nonetheless, it is important to preserve the remaining pockets of scrub habitats, clusters of pine flatwoods, remnants of mangrove swamps and cypress heads, and even the canopies of the original hammocks which are now deprived of their understories. By maintaining what is left, we:

- maintain habitat for our migratory birds;
- preserve habitat for our listed plant and animal species;
- increase the size of our existing natural lands and add pieces to the existing clusters of natural lands;
- improve the connectivity among the scattered pockets of protected natural lands;
- keep a historic memory of the original South Florida environment for future generations;
- create educational opportunities to explain the importance of preserving nature;
- maintains the amount of unpaved surface for the recharge of aquifers and the maintenance of our water and air quality;
- maintain the historic agricultural landscape; and
- provide open space in an area of the country where roofs, roads, and paved surfaces dominate from the Water Conservation Areas levees to the ocean.

The extent to which these objectives are effectively accomplished by the Land Preservation Program depends on many factors. Clearly, the main influence is the current extent and rate of development. After 18 months of land development monitoring, we found that we lose about 300 acres of ecologically valuable lands every year. At this pace we will lose all of our valuable natural lands in less than five years. Furthermore, every year we lose about 700 acres of lands which have no or marginal ecological value, such as lands cleared for development at some point in time or agricultural lands. The Land Preservation Program is likely the last large scale land protection effort in Broward County. In the future, we can only focus on enhancing what we protect through acquisition today.

Methodology

The initial phase of the Land Preservation Study was the identification of potential acquisition sites on aerial photographs from 1999 flights at an approximate scale of 1"=300'. All protected lands were identified, digitized and classified within the Broward County Conservation and Recreation GIS. Three different inventories were created: the Protected Land Inventory, the Unprotected Land Inventory, and the Agricultural Land Inventory. The Protected Land Inventory included environmentally sensitive lands and other natural parks purchased with the 1978 and 1989 Broward County bond programs, passive and active recreational parks publicly (County, City, or State) or privately owned, public school recreational areas, conservation easements from mitigation of impact projects (this coverage was prepared by the Broward County Property Appraiser's Office), and the State-owned East Coast Buffer lands. The protected land inventory provided a general overview of the extent and distribution of conservation and recreation lands in Broward County.

After this first photo-interpretation phase, a second interpretative analysis of the aerial photographs allowed for the identification and digitizing of all vacant lands throughout the county not already in public ownership, except for a few less than one-acre sites. These sites were included in the Unprotected Land Inventory. All larger tracts of agricultural lands were also digitized and included in the Agricultural Land Inventory. This inventory was not comprehensive, as smaller nurseries were not included, and was based on what appeared to be land in agricultural use on the aerial photographs. Therefore, no cross-checking was done with the agricultural determination of the Property Appraiser's Office. A more thorough agricultural land inventory was prepared and published in the April 2000 DPEP Technical Report entitled, "The Purchase of Development Rights in Broward County: A Feasibility Study."

The Unprotected Land Inventory included vacant lands which appeared to have the potential to be acquired for conservation or passive recreation independent of their vegetation cover. All lands identified in the late 1980's during the development of the Environmentally Sensitive Lands Program were considered. About one-third of these was acquired in the 1990's with the 1989 Bond proceeds, one-third was lost to development, and one-third was still remaining and included in the Unprotected Land Inventory. Furthermore, all lands which were designated Urban Wilderness Area or Local Area of Particular Concern or Natural Resource Area were inventoried and their designations recorded. Lands listed for acquisition in the South Florida Water Management District (SFWMD) East Coast Buffer Program were also inventoried, although not considered for acquisition since they were already on the SFWMD acquisition list. The software Arc view GIS® was used to maintain the database of information collected for each site, such as boundary, ownership, municipality, size, perimeter, and vicinity of schools and other community centers. Almost 400 sites were initially identified. The current number of sites in the inventory is about 450, which includes proposals by County Commissioners, citizens, cities, environmental associations, and landowners received in the past 18 months by the DPEP Land Preservation Section.

All 400 sites identified initially through aerial photo-interpretation and most of the site proposals received from the outside community were visited in the field a minimum of one time. Several ecological parameters were investigated during field visits. Each parameter was chosen to reflect one or more of the ecological criteria necessary to determine the relative environmental value of the sites. These criteria were discussed during two workshops hosted by DPEP in the fall 1999. Several agencies and experts in nature conservation were invited to these workshops, including: all members of the Broward County Environmentally Sensitive Lands Board, the Broward County Urban Wilderness Advisory Board; the Environmental Coalition of Broward County; representatives of academia, including University of Florida, Florida Atlantic University, Florida International University, and Nova Southeastern University; regional environmental agencies, including the Florida Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission (formerly the Game and Freshwater Fish Commission), the SFWMD, and the Regional Planning Council; and environmental associations, including the Sierra Club, Audubon Society, The Nature Conservancy, and Broward Urban River Trails. Furthermore, representatives of the business and economic community were invited to the second workshop.

The wide latitude of the agencies invited to the program development kick-off meetings was intended to provide County staff with feedback on how to develop a new County land acquisition program which would both accomplish the goals of preserving natural lands in our County for residents' and visitors' enjoyment and education, as well as further regional-level goals in terms of land conservation and protection. Several land acquisition issues were discussed at these workshops, from the need to move forward with another, final County acquisition program, to the types of land to be placed under public protection, to the criteria for their prioritization.

Eventually three field forms were prepared for the field visits. Form 1 was developed for all sites and contained the information relative to the entire site. Form 2 was developed for sites containing a viable and/or restorable plant community, subsequently classified as Conservation Lands. In this case, one Form 2 for each plant community (or habitat) type present on the site was completed. Finally, Form 3 was developed for those sites lacking viable and/or restorable ecological communities, subsequently classified as Green Spaces and Open Spaces.

The following parameters were collected for all sites on Form 1: dominant (equal to or more than 30% of the area) and co-dominant (less than 30% of the area) habitat type (according the Florida Land Use, Cover and Classification System, or FLUCCS), habitat diversity (number of communities, physiographic variability), percent cover of exotic species, development pressure, presence of infrastructures, management needs, passive recreation potential, and aesthetic significance (Attachment 4). Form 2 was completed for each plant community and contained the following information: ecological successional phase, presence of viable regeneration (percent cover and species), structural diversity, presence of protected plant species and protected animal species, evidence of wildlife utilization, comprehensive ecological assessment, and plant species list. The flora list was prepared by walking the site and identifying each plant species encountered. Additional notes were made for features not adequately identified by the selected parameters, such as presence of archaeological or historical values, presence of water bodies, hydrology, etc. Each ecological parameter contained in Forms 1 and 2 was assessed using three or four standard descriptive assessments, identified by scores from zero (lowest level of ecological value) to three or four (highest levels of ecological value), with the number of descriptive assessments dependent on the complexity of the ecological parameter being described. Finally, Form 3 was completed for sites not containing viable and/or restorable communities and was used to collect information on presence and characteristics of remnant historic community features, such as tree canopy, listed species, connectivity and buffering potential, clearing of vegetation, and filling.

Field visits on the initial 400 sites were performed by DPEP staff between December 1999 and March 2000. Dr. John Volin, Associate Professor of plant ecology and Assistant Director of Environmental Science at Florida Atlantic University, joined DPEP staff on most of the lands which were subsequently classified as Conservation Lands. All information collected for the Protected Lands, Unprotected Lands, and Agricultural Lands Inventories was merged into the Broward County Land Preservation Inventory. A more detailed description of how the ecological parameters were assessed in the field follows.

Ecosystem Level Analyses: These analyses were intended to provide information on ecosystem-level attributes present on the site. Initially, after assigning an I.D. Number to the site, a Florida Land Use, Cover, and Classification System (FLUCCS) Code was assigned to each Habitat Type or Plant Community present. Each Community Type was identified with a letter (e.g. Site 35A). Letters were also used to identify portions of a site separated by relevant physiographic features, such as canals, or structures, such as roads.

Habitat Diversity of the entire site was assessed using the following four different categories, from highest to lowest ecological value:

- two or more vegetative communities on site and presence of ecotone or significant physiographic variability;
- two vegetative communities present, no ecotone; possible presence of some physiographic variability;
- one vegetative community present; low physiographic variability;
- vegetative community consisting of a exotic species monoculture with little or no native vegetation.

The Presence of Exotic Species was assessed through four levels of infestation:

- less than 10% exotic species cover;
- 11 to 25% exotic species cover;
- 26 to 75% exotic species cover;
- more than 75% exotic species cover.

Landscape Level Analyses: The major aspect of landscape level ecology considered for this study was Connectivity. "Connectivity refers to interconnected pathways or networks that transport something" (Aronoff 1989), in this case: wildlife, seeds, and water. The assessment of connectivity in a fragmented landscape is particularly challenging. Using Arc view GIS®, several proximity analyses were used to determine the level of connectivity for each unprotected land within the Land Preservation Inventory. A proximity analysis is simply the distance measure between two points through network analysis or buffer zones (Aronoff 1989, Burrough and McDonnell 1998). Buffer analysis was the primary method of proximity analysis utilized for this study. The connectivity of each unprotected land was assessed based on the distance from currently protected lands (Protected Land Inventory).

Through this analysis, linkages within habitat or community types become evident. Sites were given a score relative to the distance from protected areas. The highest level of connectivity was given to areas that had high potential for connectivity to other conservation areas (i.e. natural parks, environmentally sensitive lands, and conservation easements). Sites given the highest level of connectivity were those adjacent to or within one-eighth of a mile from protected sites. The second level of connectivity was given to lands that had moderate potential for connectivity to other protected areas (from one-eighth to one half mile from protected sites), while the lowest level of connectivity was given to areas that had low potential for connecting to other protected lands (i.e., greater than one half mile from a protected site).

An additional landscape analysis was performed comparing the Broward County Historical Vegetation Map, developed by Davis (1943), to the remaining native vegetation to determine the extent of change that has occurred over the last sixty years. The overlapping of the historical vegetation with the existing vegetation allowed for the identification of community types which are in special need of preservation throughout the county.

Habitat or Plant Community Analyses: The set of ecological criteria assessed as part of the habitat of plant community analyses was applied to each of the habitat types identified on a site. As mentioned earlier, one site could have more than one community or habitat, such as a system of sloughs and/or prairies scattered within a matrix of pine flatwoods. In this case, the site was divided into sub-units, each identified with a different letter (e.g. 35A and 35B). The presence and delineation of different community types were not the only reason for sub-unit definition within a site, but they were the most common reason. Within each community, classified according the FLUCCS, several ecological criteria were assessed in the field, such as the presence of Viable Regeneration. This is an important ecological parameter, as it not only provides a measure of habitat stability, since healthy communities regenerate periodically or continuously to maintain and evolve their structure and functions over time, but it also gives an indication of what will dominate the site in years to come if current environmental conditions persist. Therefore, regeneration of the main components of the specific habitat type was assessed in terms of percent cover of viable regeneration.

With knowledge of potential regeneration on site, observers were able to assess the Ecological Succession of the site. Ecological succession is "the gradual process of change in species composition, community structure, and physical characteristics that occur following natural... disturbance to a biological community." The assessment of the successional stage involves the identification of the community present and its position within the process of total ecosystem development. For example, a scrub site with extensive coverage of oak and other scrubby species may indicate that the site has not experienced natural fires in a long time and that it is approaching the time when fire is needed for the maintenance of the scrub land. On the other hand, if the percent cover of sand pine is particularly high, the natural fire regime on the site may have been interrupted and the scrub structure and functions may not be maintained in the long run.

In the current study, succession of a site was assessed within one of the following categories:

- good representation of historic vegetative communities through all vegetation strata; regeneration of that particular community present;
- the area represents significant deviation from the native vegetation community due to lack of viable regeneration or driving mechanisms (e.g. fire suppression, substantial changes in hydrological regime); or
- the area represents a substantial degradation of native vegetation communities; no viable and significant regeneration observed.

Structural Diversity was another important determination for each community type on each site. The complexity of structure is a characteristic of each ecosystem and community type and can be used as a measure of biological diversity of natural ecosystems. However, within each community, and depending on its successional phase and level of disturbance, structural diversity may deviate from what would be expected in natural, dynamic conditions. Functional diversity, species diversity, and landscape level diversity are other types of diversity defined at different scales. In this study, the strata of the community being assessed were evaluated in their complexity, observing the presence of different layers (canopy, subcanopy, shrub, or herb layer) and their spatial (horizontal and vertical) distribution within the community type. Structural diversity at each site was assessed based on four categories, from highest to lowest ecological value:

- plant strata intact with few signs of stress or disease; healthy regeneration; high occurrence of indicator species;
- plant strata intact, but signs of stress or disease present; little regeneration; moderate occurrence of indicator species;
- plant strata not well defined with signs of stress or disease; little regeneration; low occurrence of indicator species;
- plant strata completely stressed and/or overtaken by exotic species; no occurrence of indicator species.

An additional score was given for a site's ability to function as wildlife habitat. Wildlife Utilization was evaluated according to three standard assessments, based on high, moderate, or low or no evidence of use of the site by wildlife, or presence of food source, nesting opportunities, and high habitat diversity. The presence, actual or potential, of Protected Species of plants and animals was also recorded. The presence of Federal, State, or County listed plant species was noted based on the following three scenarios:

- significant populations of listed species observed or reported present;
- significant populations possible due to presence of habitat;
- no species observed or reported, and habitat not conducive to support significant populations.

Similarly, the presence of listed animal species was assessed according to following scenarios:

- listed species observed or documented, or frequent use or nesting expected;
- potential or occasional use but habitat not conducive to nesting;
- habitat not conducive to use/no protected species habitat.

A comprehensive Plant Species List was completed for each visited site and for each habitat type within the site. The presence of both native and exotic species was recorded by walking the site and paying particular attention to indicator species. At the completion of Plant Community Analyses, if it was determined that the site contained a remnant native community, an overall Comprehensive Ecological Assessment was performed, summarizing many of the selected parameters and assessing the health of the system globally, its stability and its deviation from the original community. Three categories were created to define this comprehensive evaluation:

- good representative of native Florida ecosystem; high quality ecosystem at least in part (e.g. only one tract may be intact and the assessment is meant to call attention to that site);
- fair example of native Florida ecosystem; portions of the site are disturbed but indicator species are present; or, very disturbed but rare species present;
- poor example of native Florida ecosystem; the site has been cleared; or any human activity has caused or is resulting in ecological degradation to the extent that the site no longer possesses the characteristics of the native ecosystem.

Management Issues: Management needs of the sites were identified during the field visits, particularly as they related to exotic species control. The intensity of an exotic removal operation was assessed separately for herbaceous and woody species. Should a site be ready for acquisition, a conceptual management plan will have to be developed to define in greater detail the management needs to restore the site's ecological values, therefore maintaining Broward County's investment.

For this purpose, a study entitled "Natural Area Restoration and Management Cost Analysis Model" was completed in June 2000 by DPEP and CH2M Hill, Inc. to estimate the cost of restoring and maintaining natural lands in Broward County. The Cost Analysis Model was developed gathering cost figures for several local and private agencies active in natural resource management in South Florida, from Palm Beach County to Miami-Dade County, the SFWMD, and private enterprises performing mitigation and restoration on public lands.

Goals of Site Acquisition: To assist in the definition of the acquisition goals for each site, a series of parameters was assessed, both in the field and through spatial analyses. The potential for Passive Recreation was based on the existence of vehicular access, proximity to paved roads and to populated areas, and suitability to nature-based or passive recreational opportunities. The Aesthetic Significance of the site was also considered as one of the goals for acquisition. It was assessed both in the field and on aerial photographs based on the site's visibility (from a major traffic artery, or from residential or low traffic roads) and its potential as a buffer around industrial/commercial areas. Finally, the Educational Significance of the site was assessed through spatial analyses by the creation of half-mile buffers around public school and educational centers. Sites which were found to be within the half-mile buffer, considered walking distance, were identified as educationally significant.

Results

and Discussion

There are two land types that were identified for natural lands which had the potential to be preserved through the 2000 Land Preservation Bond Program or other protection mechanisms: Conservation Land and Green Space. Both types are defined in the Broward County Land Preservation Resolution 2000-1230 (Attachment 1):

Conservation Land: Land which contains one or more native vegetative community, rare, endangered, threatened or endemic flora and fauna, or outstanding physiographic or archaeological features, or land which functions as an integral and sustaining component of an existing ecosystem.

Green Space: Land where only some aspects of the native vegetative community still remain; or greenway component; or land with a potential as buffer to environmental lands and conservation land, or connector to existing protected natural lands and parks.

In Section 4 of this Resolution, eligibility criteria for the selection of Conservation Lands and Green Spaces are established:

4.01. Property eligible for listing in the Conservation Land Inventory. Criteria for eligibility for inclusion within the Conservation Land Inventory are the following:

- a. Land which contains one or more native vegetative communities, rare, endangered, threatened or endemic flora and fauna, or outstanding physiographic or archeological features, or which functions as an integral and sustaining component of an existing ecosystem; and
- b. Land whose ecological components and functions can be maintained through a management practice aimed at the restoration, stabilization, and enhancement of the existing natural resources for use by the public.

4.02. Property eligible for listing in the Green Space Inventory. Land which does not meet the criteria set forth in 4.01 above may be included in the Green Space Inventory if at least one of the following criteria are met:

- a. Land which still contains the dominant components typical of one or more native vegetative communities, but whose other components have been suppressed by direct or indirect human impacts, and where the extent of the disturbance is such that the main functions typical of that vegetative community are substantially limited and restoration of the native community is not feasible; or
- b. Land which can, once managed appropriately, function as a buffer to existing environmentally sensitive lands or other protected natural lands; the management operations necessary to maintain the buffer function of the land cannot be more intense than the management operations necessary to maintain the ecological components and functions in the buffered land in the absence of the buffer; or
- c. Land which can function as a greenway and used by the public.

Based on these definitions and criteria, a list of recommended Conservation Lands and Green Spaces was completed and is attached to this document (Attachment 2). Summary statistics, results, and explanations of the Conservation Land and Green Space Inventory follow.

- A total of more than 450 sites has been reviewed to date by DPEP for consistency with the Conservation Land and Green Space definitions and selection criteria.
- 123 sites are currently included in the Conservation Land (77 sites) and Green Space (46 sites) Inventory, for a total of 877.5 acres (Conservation Lands: 590.2 acres; Green Spaces: 287.3 acres)
- 23 Conservation Lands (403.2 acres) and 12 Green Spaces (137.3 acres) were lost to development since July 1999, when the first draft of the Inventory was completed by DPEP. Few of the sites identified as being lost to development were partially protected through regulatory mechanisms, although for the most part the protected portion was of much lesser value than the original site.
- Some sites which meet the criteria for selection as Conservation Land or Green Space are not included in the Inventory at this time. These are typically sites of very limited size and whose acquisitions are recommended by DPEP to be contingent to the willingness of the relevant city or town to manage them as city parks. For these sites, the city or town has not expressed, or has declined, its interest in managing these lands as city parks at this time. The total number of sites whose acquisition contingencies have not been resolved at this time, or have been resolved with a recommendation not to pursue acquisition, is 54 (300.0 acres). The termination of these potential acquisition projects, or the amendment to their acquisition contingencies, will be submitted for recommendation to the Land Preservation Advisory Board.
- Of the 123 sites included in the Conservation Land and Green Space Inventory, 37 (315.7 acres) had been listed as potential acquisition sites for the 1989 Environmentally Sensitive Land Bond Program. Some of the lands listed in 1989 were purchased with the Broward County Bond Proceeds, others were developed in the past 10-15 years. Finally, a few of those sites are still available for purchase today and are added to the inventory with an updated ecological assessment.
- Of the 123 sites included in the Conservation Land and Green Space Inventory, 32 sites, or about 25%, have the potential to add to or buffer existing protected environmentally sensitive lands or other conservation areas.
- Some sites recommended for inclusion in the Conservation Land and Green Space Inventory are already publicly owned. In most cases, these are lands with very high ecological value and which are not managed for conservation of their natural resources at this time. These are lands which would not require, in most cases, a fee simple acquisition, as they are already publicly owned. On the other hand, DPEP recommends that an effort be made to find an agreement with the public owner to manage them for conservation and preserve their ecological value in perpetuity through placement of a conservation easement. An example of these situations is represented by the Pompano Airpark scrub lands, which are owned by the City of Pompano Beach with a deed restriction imposed by FAA to ensure that only uses compatible with the airport safety operations are allowed. DPEP recommends that a management agreement is negotiated between the county, the city, and the FAA, which would ensure airport safety and preserve the endangered scrub habitats.
- The 870.6 acres included in the Conservation Land and Green Space Inventory host a range of plant communities. Some of these habitats are locally endangered or threatened, such as the sand pine scrub community. The following is a breakdown of the proposed acres by plant community:

Slash pine flatwoods	177.6 acres
Scrubby flatwoods	9.0
Sand pine scrub	128.0
Hardwood hammocks	93.6
Forested wetlands	146.2
Freshwater marshes	11.5
Mangrove swamps	89.1

Salt marshes	6.9 acres
Beaches/shorelines	16.8
Riparian communities	7.0

In addition, 191.9 acres are covered by exotic vegetation or have been cleared but are included in the inventory for their potential as greenways/blueways, buffers, or additions to existing environmentally sensitive lands.

- DPEP staff attempted to meet with all cities and towns in the month of May, 2001 to review the proposed Conservation Lands and Green Spaces identified within their boundaries. Specifically, the following municipalities were visited: Coconut Creek, Coral Springs, Davie, Deerfield Beach, Fort Lauderdale, Hallandale Beach, Hollywood, Lauderdale Lakes, Lauderhill, Margate, Miramar, Oakland Park, Parkland, Pembroke Park, Pembroke Pines, Plantation, Pompano Beach, Southwest Ranches, Sunrise, Tamarac, and Wilton Manors. A meeting with the City of Dania Beach did not take place because of scheduling conflicts, but DPEP staff met with city staff on several occasions in the past. Finally, a meeting was not scheduled in the month of May for those municipalities with no identified Conservation Lands or Green Spaces within their boundaries: Cooper City, Hillsboro Beach, Lauderdale-By-The-Sea, Lazy Lake, Lighthouse Point, North Lauderdale, Sea Ranch Lakes, and Weston.
- If known, the city's or town's position on the acquisition of each proposed site was included in the site proposals (Attachment 2).
- Following are the inventoried lands by County Commissioner District:

District	Total		Conservation Lands		Green Spaces	
	Sites	Acres	Sites	Acres	Sites	Acres
1	10	73.4	8	55.6	2	17.7
2	11	113.7	10	108.4	1	5.3
3	24	229.2	15	155.7	9	73.5
4	4	7.7	3	3.0	1	4.7
5	1	2.3	0	0	1	2.3
6	18	136.0	14	108.6	4	27.4
7	25	115.8	11	52.0	14	63.8
8	4	84.7	1	9.7	3	75.0
9	26	114.7	15	97.1	11	17.6

• Following are the inventoried lands by municipality:

Municipality	Total		Conservation Lands		Green Spaces	
	Sites	Acres	Sites	Acres	Sites	Acres
Coconut Creek	16	187.0	12	137.4	4	49.6
Coral Springs	1	13.3	1	13.3		
Dania Beach	16	105.0	10	80.4	6	24.6
Deerfield Beach	1	10.3	1	10.3		
Fort Lauderdale	18	107.7	15	96.4	2	11.3
Hallandale Beach	1	9.3	1	9.3		
Hollywood	9	55.1	5	27.7	4	27.4
Lauderdale Lakes	3	14.5	2	12.8	1	1.7
Lauderhill	4	22.2	4	22.2		
Margate	3	28.8	2	17.1	1	11.7
Miramar	3	58.1	1	15.5	2	42.6
Oakland Park	2	5.8	1	5.2	1	0.6
Parkland	2	6.5	1	1.4	1	5.1
Pembroke Pines	1	26.6	1	26.6		
Pompano Beach	7	90.0	7	90.0		
Sunrise	2	8.4	0	0	2	8.4
Wilton Manors	4	13.5	1	1.0	3	12.5
Unincorporated Broward County	30	115.6	13	56.2	17	59.4

Land Selection and Acquisition Process

The Conservation Land and Green Space Inventory which is the object of this report is recommended to the County Commission by the Land Preservation Advisory Board. In particular the Board recommends that the County Commission direct County staff to negotiate to secure the inventoried sites. To better understand the Conservation Land and Green Space selection and acquisition process as it is laid out in the Broward County Land Preservation Resolution 2000-1230, here is a brief overview of the main steps:

- The Participants: the public, Board of County Commissioners, Land Preservation Advisory Board, Broward County municipalities, Land Preservation Section (DPEP), Real Property Section (Public Works Department), County Attorney's Office, Parks and Recreation Division (Community Services Department).
- The Process: project identification; project assessment and designation; project selection for negotiation; project feasibility analyses; project selection for acquisition; real estate closing.
- Project Identification: Anyone can recommend a potential acquisition project to the Land Preservation Advisory Board. Proposed projects may be submitted to the County Commissioners, the Land Preservation Advisory Board, or the Land Preservation Section.
- Project Assessment and Designation: The Land Preservation Section reviews the proposed projects and recommends their designation within one of the three land categories identified in the Land Preservation Resolution 2000-1230 (sites that do not meet the criteria for Conservation Land or Green Space may be proposed for acquisition as Open Space). The Land Preservation Advisory Board approves each project within one of the three land categories.
- Project Selection: The Land Preservation Advisory Board recommends to the County Commission the sites which meet the criteria for Conservation Land and Green Space. The County Commission authorizes County staff to proceed with project feasibility analyses.
- Project Feasibility Analyses: The Real Property Section or their designee contacts the landowner, ascertains the landowner's willingness to sell, and, in conjunction with the County Attorney's Office, performs preliminary title work and obtains and reviews appraisals and surveys on the property. The Land Preservation Section contacts the relevant municipality and prepares, in conjunction with the County Attorney's Office, a land acquisition and management agreement for each site that the municipality is willing to manage as a city park. For those sites which are located within a municipality but because of their ecological sensitivity and/or their potential as an addition or buffer to existing County-owned environmentally sensitive land would be managed by the Broward County Parks and Recreation Division, the Land Preservation Section will obtain a letter of support from the city or town.
- Project Selection for Acquisition: The results of the project feasibility analyses are communicated to the Land Preservation Advisory Board. If a purchase price agreement is reached for the proposed site, an Agenda Item is placed for the County Commission discussion, including a 28-day advance notice of acquisition, when required by the Administrative Code. The Agenda Item will include the results of the project feasibility analyses and the Land Preservation Advisory Board recommendation.
- Real Estate Closing: Once the County Commission resolves to purchase the proposed site, the Real Property Section proceeds with the real estate closing.

Funds allocated for Land Categories

A cursory look at the distribution of the potential Conservation Lands and Green Spaces reveals that most of these lands are concentrated along the Atlantic Coastal Ridge, a physiographic formation aligned north south in Central Broward County. These are the most valuable ecological lands remaining undeveloped and unprotected in Broward County today. They also represent the high landscape diversity which characterizes the Atlantic Coastal Ridge, where the slightest changes in elevation determine very different hydrological conditions, resulting in a large variety of plant communities.

The Land Preservation Bond Program was developed with the goal to acquire all available Conservation Lands and Green Spaces, with the assumption that not all of them will have a willing seller or a successful negotiation, and that some of the County dollars will be leveraged through cities' partnerships and State and Federal land acquisition grants. A total of \$92 million was allocated towards the acquisition and restoration of Conservation Lands, while \$60 million was allocated towards the acquisition of Green Spaces (Attachment 1). At the rate of land loss recorded in the past 18 months, fewer sites remain today which have the potential to be preserved through Land Preservation Bond proceeds. It is established in the Land Preservation Resolution 2000-1230 that dollars which remain unspent in the Conservation Land category will be used to buy more Green Spaces, and dollars which remain unspent in the Green Space category will be used to purchase more Open Spaces.

The Open Space category, for which a total of \$48 million is allocated in the Land Preservation Bond Program, was created to spread the benefit of passive recreation throughout Broward County. The Land Preservation Program was developed to assure that all communities in Broward County would receive a fair share of Open Space Sites.

The Open Space category is defined in the Land Preservation Resolution 2000-1230 as, "Undeveloped land within the urban area of Broward County where the native vegetative community has been cleared or replaced; or agricultural land such as row crops, nurseries, groves, or pasture, or, solely for the purpose of this Resolution, developed land selected for acquisition to be reclaimed to open space in perpetuity." Section 4 of the same resolution establishes the criteria for selection of the Open Space projects:

4.03. Property eligible for listing in the Open Space Inventory. Land which does not meet the criteria set forth in 4.01 or 4.02 above may be included in the Open Space Inventory if at least one of the following criteria is met:

a. Undeveloped or agricultural land which can function, if appropriately developed and managed, to optimize water recharge quality and quantity, air quality and environmental benefits of the site while providing public use; or

b. Developed land, including contaminated land, which can be cost-effectively reclaimed as primarily open space or park in perpetuity to optimize water recharge quality and quantity, air quality and environmental benefits with the agreement of the local government where the land is located.

Several contacts have occurred between DPEP and Broward County municipalities to obtain a proposed list of Open Space acquisitions. The Land Preservation Advisory Board is charged with establishing the selection criteria for the acquisition of Open Spaces (Section 7.04 of the Land Preservation Resolution). Once the selection criteria are established, DPEP will recommend that each municipality comes before the Land Preservation Advisory Board to submit its proposals. The Advisory Board, after reviewing and selecting the cities' proposed Open Space projects, will recommend their prioritized Open Space list to the County Commission.

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Methods



**Land Preservation Program
Environmental Protection Department
Broward County
Board of county Commissioners**

