

Section 1.

## Introduction

### Gwinnett County's Greenspace Program

Gwinnett County is recognized as a leader in both Metro-Atlanta and the Southeast for its rapidly developing Open Space and Greenspace Program. After years of being in the forefront in attracting new homes and businesses, the Gwinnett County Board of Commissioners initiated policies and secured funding to preserve open space throughout the County.

For the past five years, the County has pursued an aggressive program of passive parkland and open space acquisition. Tracts of land throughout the area have been targeted for purchase to preserve land for recreational opportunities. Since 1996, the amount of open space and parkland in Gwinnett County has grown from just over 1,800 acres to over 7,200 acres. Of the land purchased, over 5,300 acres has been targeted for passive recreation uses. The leadership of the Board of Commissioners and the overwhelming support of the citizens to fund open space preservation has led to the development of this Open Space and Greenway Master Plan.

### 1A. What is an Open Space and Greenway Master Plan?

*Open space* or *greenspace* is land in a natural or minimally developed condition that provides community benefits in the form of environmental protection and passive recreation opportunities. *Greenways* are linear corridors of greenspace that frequently contain trails for recreational use and non-motorized transportation. An open space and greenway master plan is a comprehensive guide to protecting greenspace: what, where and how to protect it.

This report presents the results of that master planning effort. It is the culmination of more than a year of research, numerous public meetings and regular discussions with County officials and a citizen advisory committee. It is intended to provide a comprehensive program for greenspace protection in the County. As such, it is not limited to recommendations for park acquisition, but presents policies for managing the type and patterns of development in ways that result in additional open space preservation. It is understood that many of these recommendations will not be implemented immediately but are provided so that they may be considered in future comprehensive planning efforts and updates of development policies.

This report is organized into six sections and appendices. This section provides an introduction to the benefits of greenspace. Section 2 is an overview of the demographic and environmental context of Gwinnett County, with recommended targets for preservation. Section 3 presents the policy recommendations to create a comprehensive system of greenspace protection. Section 4 presents funding options. Section 5 presents results of a land availability analysis performed as part of this study. The sixth section is

dedicated to greenways and proposes two pilot projects that combine greenspace protection with elements of a greenway. Ancillary materials, such as sample documents from other communities, are included in appendices. Throughout the document the term *greenspace* is used interchangeably with *open space*, although the term *greenway* is reserved for linear elements of the greenspace system.

## 1B. How Greenspace Benefits Gwinnett County

Interaction with nature is something that all people enjoy. People use natural settings for relaxation, education and recreation. Thus, how we manage our natural environment directly influences our quality of life. In Gwinnett County, rapid and sustained growth has greatly reduced the amount of available greenspace. By working now to build a system of greenspace and passive recreation areas, Gwinnett County can protect its natural resources, maintain a high quality of life and enjoy economic benefits.

### *Water Quality Benefits*

There are four ways in which greenspace can protect and enhance water quality: by protecting riparian zones; by protecting floodplains; by limiting impervious surfaces; and by protecting groundwater recharge areas.

#### Riparian Zone Protection

The health of watersheds depends greatly on the condition of the streamside areas (the riparian zone). Targeting greenspace preservation efforts to these riparian lands and floodplains can benefit water quality and aquatic habitat, in addition to providing recreational and aesthetic benefits. Services provided by naturally vegetated riparian buffers include: filtering pollutants from runoff; stabilizing stream banks; moderating stream temperature; and providing woody debris for aquatic habitat. Currently, buffers ranging from 25 ft to 100 ft are protected by state and local laws on streams in Gwinnett County. However, existing developed areas were grandfathered under these rules, so many urban and suburban streams lack healthy riparian zones. To restore and protect these buffers, the County may need to acquire them in some manner.

#### Floodplain Protection

Protecting floodplains in a natural, undeveloped state is a very efficient means of controlling floodwaters and maintaining a healthy river ecosystem. Flooding is a normal occurrence that benefits both aquatic organisms and the floodplain plant community. By keeping development out of floodplains, these natural systems are maintained, property damage is minimized and flood storage capacity is maintained. In recent years, Gwinnett County has worked hard to limit growth in floodplains. Providing permanent protection of these lands and incorporating them into the County greenspace system will ensure that these benefits will always be available to residents and property owners. During non-flood periods, the floodplain can be available for passive recreation.

#### Limiting Impervious Surface Coverage

When it rains, stormwater runoff is generated from impervious surfaces such as roads, parking lots and roofs. This runoff, which may carry oil, metals and other contaminants, is frequently routed to streams by storm drains. Gwinnett County has a progressive stormwater management program to improve the water quality of this

runoff. However, the best way to deal with the problem is to minimize the amount of impervious surfaces to prevent runoff from occurring. One way to do this is to provide large areas of greenspace.

#### Groundwater Recharge

Rainwater that infiltrates into the soil can recharge groundwater aquifers. Targeting greenspace protection to important groundwater recharge zones maintains both the quantity and quality of these subsurface water sources.

#### *Economic Benefits*

Greenspace offers numerous economic benefits to Gwinnett County. Proximity to greenspace has been shown to raise the value of immediately adjacent properties by as much as 5 to 20 percent. For example, in a residential development in Apex, North Carolina, new lots situated on greenways were priced \$5,000 higher than comparable lots not located on the community greenway system. One result of these higher values is an increase in property tax revenues. Over time, this extra revenue can repay the cost of acquiring and protecting the greenspace. Commercial and office park developers also realize higher rental values and profits from properties adjacent to protected greenspace.

American Lives, a real estate research firm, completed a national study for the National Homebuilders Association of the top reasons that people chose their new home. Walking and bike paths are viewed as extremely important to 74% of buyers nationally. Furthermore, the availability of greenspace is important to corporate executives in considering where to locate or relocate offices and production facilities.

In Gwinnett County, as in other areas, many developers build upscale developments around golf courses or man-made lakes. Lots along these natural and man-made resources sell at a higher price than those removed from these elements. However, research has shown that many residents of these communities don't play golf or actively use the lakes—they are attracted by the proximity to undeveloped open space. Unimproved greenspace and passive parks can serve the same functions at lower cost to the developer (and reduced impacts to the environment). County and municipal parks likewise serve as magnets to home buyers. In Suwanee, George Pierce Park is quickly becoming enveloped by residential development. Residents want to live close to the park to take advantage of open space and trails, which connect to the Richard Trice Trail, currently the only off-road greenway located in the County.

Publicly available greenspace and greenways can also serve as tourist attractions, generating increased economic activity and sales tax revenues. Some Gwinnett County parks already attract residents from across the Atlanta metropolitan area; as the County expands and connects its greenspace system, it has the potential to become a regional destination for outdoor recreation. Greenways are especially valuable in this regard. The State of Missouri, for example, spent \$6 million to create the 200-mile KATY Trail,

which, in its first full year of operation, generated travel and tourism expenditures of more than \$6 million.

### *Transportation Benefits*

Gwinnett County has grown in a low-density pattern with automobile use as the almost exclusive mode of transportation. As a means to reduce traffic congestion, the County is shifting its transportation planning to include a variety of modes of travel for local residents. The Comprehensive Transportation Plan adopted in September of 2001 has identified numerous transportation alternatives to single family cars including bus service, sidewalks, bicycle lanes, bicycle paths and multi-use paths. A network of greenway corridors is an important component of such a plan.

Greenway corridors throughout Gwinnett County can serve as extensions of the road network, offering connections between home, work, schools, libraries, parks, shopping areas, transit stops and tourist attractions. Greenway-based bikeways and walkways are most effective for certain travel distances. National surveys by the Federal Highway Administration have shown that most Americans are willing to walk as far as two miles to a destination, and bike as far as five miles. Destinations should be linked to multiple origins throughout the community with a combination of off-road trails and on-road bicycle and pedestrian facilities.

### *Air Quality Benefits*

Greenspace improves air quality simply by letting plants do their jobs; plants convert carbon dioxide into oxygen, filtering pollutants in the process. As alternative transportation corridors, greenways can reduce automotive use, providing additional improvements to local air quality. The best example is in trips to parks. For instance, residents who live adjacent to George Pierce Park often drive to the park because there are no trail connections to the residential area. This is a common issue throughout the County and impacts air quality in a negative way. The existing system of community parks dispersed throughout the County lends itself well to greenway connections.

### *Cultural Benefits and Preservation of Historic Resources*

Greenspace can enhance a community's sense of place through protection of its unique natural and historic resources. Preservation of the historic landscape provides a tangible and visible link to a community's past, helping to define the community identity and increasing awareness and appreciation of local history. Additionally, preserving cultural sites within the greenspace network provides controlled public access that protects resources and enhances interpretive opportunities.

Even small pieces of greenspace can serve as community builders. A successful urban greenspace or greenway project can serve as a kind of town commons or main street where neighbors meet, children play and community groups gather. Some communities sponsor "Greenway Days" to celebrate the outdoors and local traditions. Various walking and running events are also held on greenways to support charities or extend

traditional sporting events. Many civic groups adopt segments of parks, greenspace and greenways for clean-up, litter removal and environmental awareness programs.

### *Enhancing Aesthetics*

Greenspace adds comfort to our life by making our communities more inviting. Greenspace can do this by buffering adjacent land uses, thus presenting a more desirable view. Additionally, greenspace offers considerable aesthetic benefits. While it may sound simplistic to say “people like greenspace,” it can be proven that some companies considering relocation include greenspace resources as a part of their evaluation for potential new homes. They recognize that there is value in having protected greenspace and that their employees enjoy the prospect of natural areas near work and home.

### *Safety and Security Benefits*

Although some people express concerns that parks and greenways may harbor criminal activity, a 1998 study, *Rail-Trail and Safe Communities*, written by Tammy Tracy and Hugh Morris of the Rails-to-Trails Conservancy in cooperation with the National Parks Service, Rivers, Trails and Conservation Assistance Program presents documentation of a very safe environment. For example, the national rate of burglary in urban areas is 1,117 incidents per 100,000 inhabitants. None of the urban rail-to-trails in this study reported burglary to adjacent homes in 1996. Only 5% of urban rail-to-trails reported trespassing and 18% reported unauthorized motorized use. For suburban rail-to-trail projects only one burglary was reported and a 3% rate of trespassing was reported. Unauthorized motorized use of the trails dropped to 14%. These statistics point out the low crime rates associated with trails and greenways.

In addition to the low crime rates, Gwinnett County has active patrols in all their parks. The addition of greenways throughout the County will expand the responsibilities of park police, and present added challenges for park security.

The *Rail-Trail and Safe Communities* study shows that parks and greenways have very low incidences of reported criminal activity. Greenspace typically attracts local residents who use the facility frequently, creating an environment that is virtually self-policing and very safe.

### *Health and Recreation Benefits*

Access to greenways encourages more people to walk or bike to short-distance destinations, which improves the health of residents. Studies have shown that as little as 30 minutes a day of moderate-intensity exercise (such as bicycling, walking or in-line skating) can significantly improve a person’s mental and physical health and prevent certain diseases. Providing opportunities for participation in these outdoor activities, close to where people live and work, is an important component of promoting healthy lifestyles for Gwinnett County residents.

### *Plant and Animal Habitat Benefits*

Greenspace provides essential food sources and, in many cases, access to water that is required by all wildlife. While larger areas of greenspace are capable of supporting larger species and larger populations of wildlife, small and linear greenspace corridors can adequately serve as a viable habitat for many species. In addition to providing habitat, greenways may provide movement corridors for small terrestrial wildlife, helping to maintain the integrity of species gene pools. Even in urban areas, restoration and preservation of greenspace can provide significant benefits to more tolerant species of wildlife. Though common, such urban wildlife may be greatly valued by local residents.

## 1C. Master Plan Development

### *History of Greenspace Protection in Gwinnett County*

As summarized in the introduction of this Master Plan, Gwinnett County has focused significant energy and financial resources on the acquisition and protection of open space and passive park properties. The properties acquired have been selected to meet needs identified in the Comprehensive Parks and Recreation Master Plan completed in January 1996 by Lose & Associates, Inc. and the Gwinnett County Parks and Recreation 2000 Capital Improvements Plan completed in January of 2000 by EDAW, Inc. Both of these plans placed a high priority on land acquisition and identified areas with parkland deficiencies. The continuing efforts of the County were reinforced with the development of the state's Georgia Community Greenspace Program. With the development of this program, the County formed coalitions with many of its municipalities to submit an application for state funds. In its initial application for Georgia Community Greenspace funds, Gwinnett County proposed the following program of greenspace protection:

| Potential Lands to be Protected:                                 | Acres         |
|------------------------------------------------------------------|---------------|
| Chattahoochee River National Recreation Area<br>Future Expansion | 2,606         |
| Existing County Parkland and Other Lands to<br>be Protected      | 2,277         |
| New County/City Parkland to be Protected (Passive)               | 1,366         |
| Existing Subdivision Open Space to be Protected                  | 850           |
| Future Conservation Subdivisions                                 | 13,492        |
| Flood Plains and Buffers                                         | 23,000        |
| <b>Total:</b>                                                    | <b>43,591</b> |

The table below expresses the status of existing and potential open space relative to the state of Georgia's goal for 20% protection:

|                                                             | Acres           |
|-------------------------------------------------------------|-----------------|
| Total Gwinnett County Acreage                               | 277,017.00      |
| 20% of County Acreage                                       | 55,403.00       |
| Existing Protected Lands                                    | 2,997.53        |
| Potential Protected Lands                                   | 43,591.00       |
| Total:                                                      | 46,588.53       |
| <b>Deficit to be Identified for Protection (08/03/2001)</b> | <b>8,814.47</b> |

### *Project History*

During the development of the County's greenspace grant application, and the recognition of the scale of the open space protection efforts that would be required to protect approximately 55,000 acres, it was determined that the County should develop a

county-wide master plan to guide long range planning for open space and greenways. In the fall of 2000, Gwinnett County awarded a contract to create an Open Space and Greenway Master Plan to a team consisting of Lose and Associates, University of Georgia Institute of Ecology and Greenways Incorporated. On October 30, 2000, the master planning team held its first public meeting to present the project, along with an overview of open space and greenway issues. Attendees were invited to serve on a citizens' steering committee, and interested citizens were asked to complete an application form.

Following this initial meeting, the planning team worked with staff of the Parks and Recreation Department to establish an overall project schedule and determine the best methods for soliciting input from the public, different interest groups, the various County departments, and the municipalities within the County. Two formal committees were established: (1) a staff steering committee composed of representatives of County departments; and (2) a citizens' steering committee intended to be representative of different geographic areas and interest groups. The purpose of both committees, which were to meet at least six times, was to provide information, general direction and feedback on the planning process. Public meetings and discussions with various interest groups were also planned.

The master planning effort was divided into two phases. Phase One included information collection, public input and analysis of land availability. Thirteen public meetings, six citizens' steering committee meetings, six staff committee meetings and meetings with several special interest groups were held. The final product was an Outline Master Plan, which summarized the findings of the meetings and presented a preliminary list of policies to guide the open space program. A land suitability matrix and a property evaluation criteria process were also developed. Phase Two included additional staff and citizen committee meetings, meetings with the directors of Gwinnett County departments and meetings with representatives of municipalities. Finally, the project team developed the Final Master Plan—this document.

#### *Public Input Meetings*

Public meetings were held in February, March, April, May and June of 2001 in locations around Gwinnett County. Each meeting was conducted by Lose & Associates and included two presentations: one by Greenways Incorporated, titled *Open Space: A National Perspective*, and one by the UGA Institute of Ecology titled *Preserving Greenspace in Gwinnett County: Regulatory and Funding Alternatives*. These presentations were designed to provide an introduction to the benefits of greenspace and ways to protect it.

Following each presentation was a question and answer session and opportunity for public input and discussion. Citizens were asked to identify potential open space properties and routes for greenways. Discussions covered issues such as public access,

uses of greenspace, tools for protection and methods for funding acquisition. Detailed meeting notes are provided in Appendix A.

#### *Citizens' Steering Committee Meetings*

The Citizens' Steering Committee met regularly throughout the planning process to provide feedback to the project team. After several months of meetings, the planning team developed a set of questions and issues that needed to be addressed by the steering committee. In May, 2001, a full day workshop was held with the steering committee to address these concerns, with the goal of developing a set of goals and approaches for the master plan.

At the workshop, the Citizens' Steering Committee identified the following priorities related to greenspace preservation:

- Developing incentives for preservation of open space
- Changing zoning regulations to facilitate open space preservation
- Linking open space to neighborhoods, schools and public facilities was the highest priority

Land preservation methods were prioritized as follows:

- Fee simple purchase
- Incentive policies tied to zoning and development regulations
- Acquisition by donation to a land trust or other non-profit group

Funding sources were prioritized as follows:

- Special Purpose Local Option Sales Tax for purchase by the County
- County General Funds for purchase by the County
- Georgia Greenspace Funds to be used by the County and municipalities

Following the meeting, the project team worked further with both the staff and citizen committees to convert these priorities, along with other input from the public, into a set of primary and secondary project goals. These goals are presented in the next section.

#### *Recommendation Overview*

At this point, the project team had sufficient information to develop a set of policies to implement the open space and greenway program in Gwinnett County. These policy recommendations, presented in Section 3, cover acquisition, regulatory and planning approaches, and administration and management. Recommendations for geographically targeting preservation efforts also emerged out of the priorities and are presented at the end of Section 2. Recommendations on creating a greenway system were developed (see Section 6), and information on funding sources was also assembled (Section 4). Finally, working with staff, the project team developed four potential pilot projects, outlined in Section 6.

## 1D. Goals of the Gwinnett County Open Space and Greenway Master Plan

These goals were developed by the project team in close cooperation with the Citizens' Steering Committee and the Staff Steering Committee, based on input from a range of sources as described in Section 1C. The recommendations provided later in this report are intended to meet these goals.

### *Primary Goals*

The primary goals below drive both the targeting of greenspace and the methods of greenspace preservation.

- Increase recreation opportunities

Recreation opportunities normally associated with quiet areas of traditional parks—such as areas for a quiet walk, a spot to read a book, bird and wildlife observation or simply relaxing and watching nature—are ideally suited for open space areas.

Greenways provide opportunities for more extensive walking, running and cycling. In open spaces with access to streams and rivers, there are opportunities for such pastimes as paddling and swimming.

- Protect and improve water quality

Faced with increasing regulatory controls on drinking water, stormwater management and wastewater management, Gwinnett County benefits by maximizing the water quality benefits of its greenspace program. As discussed in Section 1B, greenspace can protect and improve water quality in a number of ways.

- Increase connectivity via a system of greenway trails

A comprehensive greenway system will not only increase recreational opportunities but will provide environmentally friendly transportation options. The greenway system should provide numerous access points throughout the County. Sidewalks and bike lanes should be developed to complement the multi-use trails and make additional links and loops within the greenway system.

- Reduce environmental impacts of development

A good greenspace plan is more than just a blueprint for parks and trails; it is an integrated approach to protecting natural resources and ensuring that the patterns of development allow for sufficient open space and a high quality of life. Although acquisition may be the focus of Gwinnett County's greenspace program, it alone cannot provide sufficient open space to meet the needs of its residents. Therefore, this plan includes policy recommendations to manage development in ways that result in additional greenspace preservation and environmental protection. These recommendations can help guide future revisions of the County's comprehensive plan, zoning code and development ordinances.

### *Secondary Goals*

The secondary goals were not the major drivers of the policy recommendations, but to the extent feasible, the recommendations are intended to meet these goals as well.

- Enhance aesthetics throughout the County
- Protect plant and animal habitat
- Promote biodiversity
- Enhance air quality
- Improve transportation opportunities
- Mitigate traffic congestion
- Realize economic benefits of open space and greenways
- Enhance tourism opportunities
- Promote good health
- Protect historic and archeological resources
- Protect cultural resources
- Promote safety and security of open space and greenway systems

The next section of the report provides background on the demographic, economic and natural environment of Gwinnett County, all of which will impact the County's open space and greenways program. It also presents a summary of existing greenspace in the County and makes recommendations on how greenspace can be targeted to meet these primary and secondary goals. Sections 3 and 6 present the policies for meeting these goals.