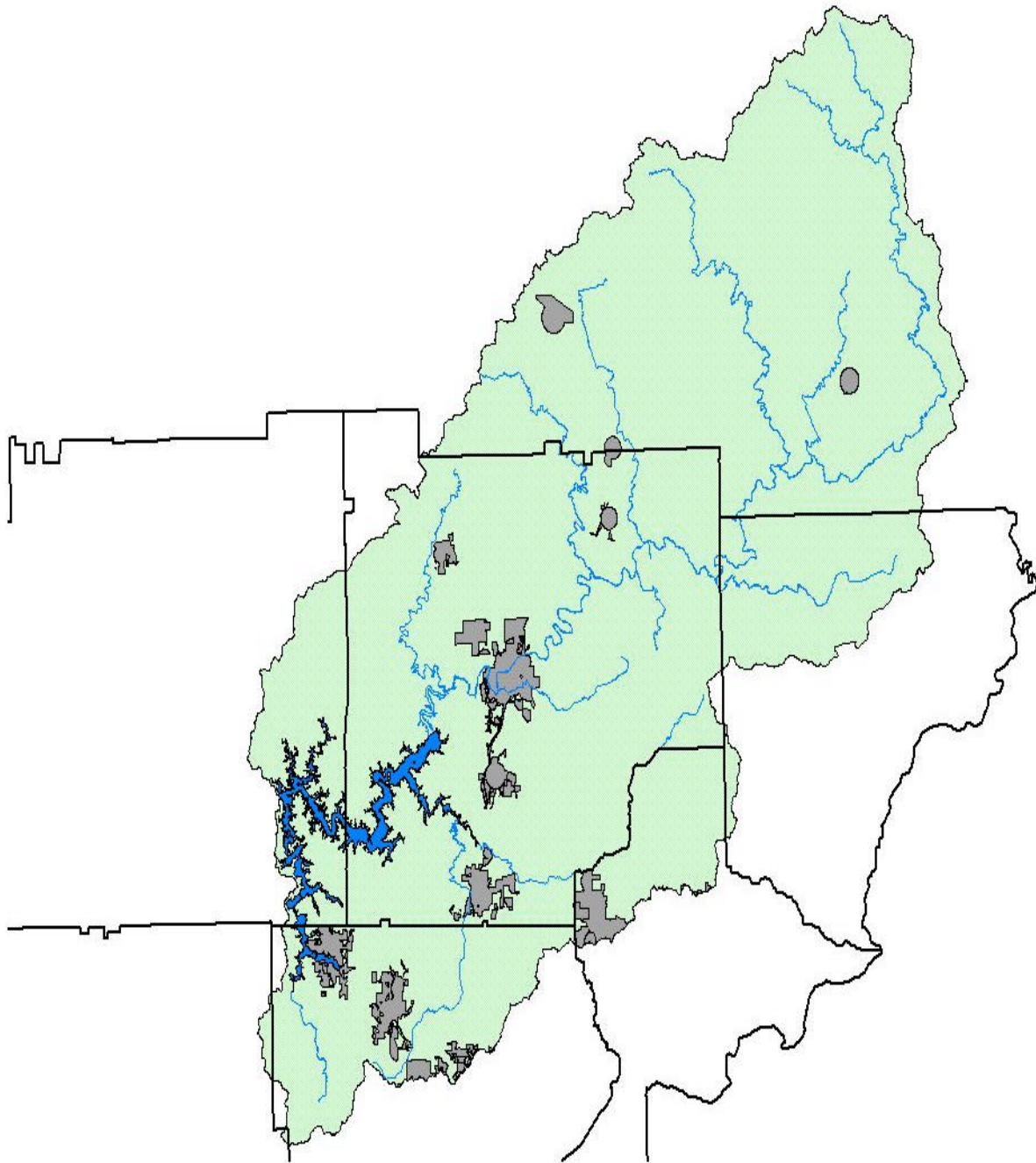


# UPPER ETOWAH & LAKE ALLATOONA REGIONAL GREENSPACE INITIATIVE

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## INTRODUCTION

The Georgia Forestry Commission has funded a group of students and faculty at the University of Georgia to assist local governments in developing a regional greenspace plan in the Upper Etowah and Lake Allatoona watersheds in order to reduce some of the environmental and quality of life threats associated with rapid population growth. This Regional Greenspace Plan will not jeopardize or undermine any of the aspirations set out in the county Greenspace Plans already completed. This process will simply combine existing plans, regional environmental concerns and ecological science to support multi-jurisdictional greenspace planning.

Georgia is experiencing unprecedented population growth, and is under intense development pressure. For example, the metropolitan Atlanta area has been losing 50 acres of forested land per day (Community Green Space Advisory Committee Report, 1999). Since 1972, the Atlanta region has lost 60% of its urban forest to development. In many cases, the conversion of land to developed uses and the subsequent loss of greenspace have resulted in environmental and quality of life impairments. The subsequent increase in impervious surface levels, for example, may disrupt important functions of natural systems, resulting in increases in urban air temperatures and air pollution levels, decreases in water quality, and loss of wildlife (CGSACR, 1999). Issues such as air and water quality degradation, traffic congestion, and urban sprawl have moved beyond the Atlanta area and are now threatening the rural character of the north Georgia region. The Upper Etowah and Lake Allatoona counties have a critical need to act now to develop and implement a plan to address these issues.

To address these concerns throughout the state, Governor Roy Barnes and the Georgia Legislature enacted the Community Greenspace Program (Senate Bill 399) in 2000. The Georgia Greenspace Program provides an unprecedented opportunity to address growth management and natural resource protection in the fastest developing counties of the state by promoting the permanent protection of 20% of each county's land area as greenspace. In order to apply for funding, local governments must develop a 10-yr greenspace plan that includes:

- public participation in the formation of the plan;
- statement of greenspace goals;
- identification of the department or office which will administer its greenspace program;
- establishment of a Community Green Space Trust Fund;
- ten year strategy for preserving greenspace;
- description of the tools the county will use for said purpose;
- identification of existing local land-use ordinances, policies and regulations that will further the preservation of green space;
- identification of legal and structural barriers to the achievement of green space protection;
- and
- description of sources of funds to be used for the program (Georgia Green Space Rules, 2000)

Among the major barriers to greenspace protection identified in the initial applications submitted by local governments in 2000 were the lack of incentives for regionalizing greenspace plans, and the lack of technical assistance to local governments both in identifying greenspace that should be protected and in the legal strategies for protection. Many citizens and elected

officials do not fully recognize the value and shared benefits of greenspace, such as providing natural services of filtering air and water pollutants or protecting habitat. Plus, natural resources do not recognize jurisdictional boundaries; therefore to be most effective county greenspace plans should be coordinated to protect these resources at a multi-jurisdictional-level. This is not currently the case. A large track of forested area that straddles two counties may be protected by large lot zoning in one county but receive little or no protection in the adjacent county.

Water quality and aquatic wildlife habitat concerns are critical given the number of federally imperiled fish species and impaired waters that are located in the Etowah watershed. Federal environmental legislation such as the Endangered Species Act and the Clean Water Act may constrain local land use decision-making power when local governments cannot rectify environmental problems. A Regional Greenspace Plan will provide a vehicle to meet the implementation plans that are mandated under these federal laws in a progressive, non-litigious manner. Planning greenspace on a regional scale will also provide permanent intact natural areas that sweep across the landscape creating non-automotive transportation links between high-density areas, corridors for wildlife and greater scenic preservation.

The Upper Etowah and Lake Allatoona Regional Greenspace Plan will further the principles outlined in the Georgia Greenspace Plan while providing a forum for inter-jurisdictional cooperation and planning. It will provide increased cooperation and information sharing between the counties, increased multi-agency and cross-governmental communication, and it will provide input for changes in municipal, county, and state policies that will encourage the growth management and protection of natural resources.

## **FORMATION OF A REGIONAL GREENSPACE PLAN**

### **OVERVIEW**

We, a group of graduate students in the University of Georgia's Fall 2001 Etowah Practicum, began to lay the groundwork for the regional plan by focusing on 5 of the 8 counties within the Upper Etowah and Lake Allatoona watershed (Bartow, Cherokee, Cobb, Forsyth & Fulton) all of whom are participants in Georgia's Community Greenspace Program. We hope to help counties overcome two of their noted barriers: identifying greenspace for protection and the legal strategies for protection within the regional context. Thus, our work has been divided into two segments: the actual formation of a regional greenspace plan and the legal issues surrounding this plan. The information contained in this report will be divided by these two categories. At this stage, all of our work is preliminary and in draft form. Throughout this process we will be contacting planning staff from the participating counties to share our findings and to receive feedback on conclusions drawn from our work (Appendix 1).

Our first task was to review and analyze each county's individual Greenspace Plans and all other appropriate county materials such as Comprehensive Land-Use Plans and Zoning Regulations. We then prepared a summary of this information, including each county's greenspace goal, current permanently protected areas, and priority areas targeted for permanent protection (Appendix 2).

After reviewing the completed Greenspace Plans for Bartow, Cherokee, Cobb, Forsyth, and Fulton, we realized one of the first impediments towards developing a regional greenspace plan was that the visual maps produced by each county were in several different formats. Therefore, one of our first tasks for completing a regional plan was to bring all of the visual

components into the same format. We chose to utilize the format of Geographical Information Systems (GIS) because GIS allows us the most flexibility in overlaying and analyzing spatial data.

We worked with each county to gather the information necessary to create a GIS map of the county's greenspace plan. In some instances, this required requesting existing GIS information from the county planners or other appropriate entity. However, for those counties which had not used GIS we: 1) determined the format the maps were in, 2) obtained those maps and 3) hand digitized the information into a GIS coverage. Figure 1 (large map attached) shows a draft of the combined individual greenspace maps as we are currently in the process of contacting each county to confirm that this map represents their individual Plans.

Our next step was to analyze both the text and the maps to determine the similarities between each of the individual county's Greenspace Plans. For example, every county was concerned with issues surrounding water quality and chose to target protection within the floodplains and/or stream buffers.

After comparing each county's greenspace plan to identify any common trends, we began formulating a common language between the counties based upon the similar characteristics within their individual plans. This was necessary both within their written plans and their associated maps. For example, neighboring counties may both target riparian areas in their greenspace plans yet in one plan refer to them as stream buffers and in the other as riparian corridors. Developing a consistent terminology between the two counties, both in the text and on the maps, will aid in the sharing of information and lead to greater cooperation between counties in the region. Figure 2 (large map attached) shows a map of the similar themes found between the individual county greenspace plans.

Following our formulation of a common language between the individual counties, we looked at opportunities for using multi-jurisdictional greenspace planning to address regional environmental concerns. We are currently looking at different ecological and legal issues that can best be addressed by regional greenspace planning. These two factors are discussed in the following sections entitled "Ecological Drivers" and "Regional Greenspace in the Context of Federal Environmental Law."

## ECOLOGICAL DRIVERS

The geographical scope of this project encompasses the Upper Etowah and Lake Allatoona watershed. A watershed is the land area that is drained by a body of water, in this case the upper Etowah River, Lake Allatoona and the tributaries that feed them. It includes a mosaic of land and water features such as forests, wetlands, mountains, agriculture fields, riparian corridors, rivers and streams. Watersheds rely upon a network of ecological systems in order to operate properly. These systems must be protected to secure watershed health including water quality and aquatic species diversity and habitat.

Ecological systems that sustain watershed health are very complex and difficult to measure. Therefore, land and water types that, in concert, capture the services and drive these ecological systems have been identified as protection priorities. These land and water types are described as ecological drivers and include floodplains, riparian corridors, wetlands, groundwater recharge areas and steep slopes. Protecting these lands and waters throughout all counties in the region as permanent greenspace, will provide for the healthy ecological systems that the Upper Etowah River and Lake Allatoona watershed depends upon.

Because every county was concerned with issues surrounding water quality all counties had targeted some form of protection to the ecological drivers of the floodplains and/or stream buffers. Floodplains are fluctuating water level ecosystems on the low-lying land along streams that absorb high waters during a flooding event. They are ecotones, transitional areas between land and water that support a high diversity of plants and animals. Flooding provides ecological benefits to both land and water communities. The floodwaters provide rich, highly productive alluvial soil to the surrounding land. In return, floodplains enrich water bodies with high nutrient organic matter, providing the foundation for a healthy aquatic food web.

Four of the five counties (Bartow, Cobb, Fulton & Forsyth) identified floodplains as targeted conservation areas within their greenspace plans. Figure 3 shows that 100-year floodplains identified as targeted conservation areas in these four counties. Although Cherokee County did not include floodplains as a targeted area for protection they did include another ecological driver: riparian corridors.

Riparian corridors are bands of vegetation along streams and rivers. They have no set boundaries, but are defined by soil properties, vegetation and flooding events (Maddock, 1996). They influence stream temperature and light quantity as well as preserve water quality through the filtering of sediments from runoff, protecting stream banks from erosion, providing migration routes for wildlife, and preserving open space and aesthetic buffers for humans.

Three of the five counties (Cherokee, Bartow & Cobb) listed riparian corridors as targeted conservation areas; Fulton and Forsyth counties were the only exceptions. The extent of the buffers varied considerably throughout the watershed and within the counties themselves. Cherokee and Bartow Counties gave primary streams a higher priority than secondary and tertiary streams. Cobb County has the most stringent policy for riparian corridor protection. All streams in this county have a minimum 50-foot protected buffer. The graduated buffer requirement increases to 75, 100 and 200 feet depending upon the drainage area of the stream. Figure 4 shows the stream corridors within the project that have been identified as targeted protection areas by each county.

Wetlands are areas with permanently or temporarily saturated soils that influence the unique plant and animal communities living here. This ecological driver is characterized by oxygen-poor soil in the upper levels and supports predominantly water-loving plants (Mitsch 1993). In the Piedmont ecoregion there are several types of palustrine (freshwater) wetlands including Piedmont bogs, beaver ponds and bottomland hardwoods. They purify polluted water, and mitigate the destructive power of floods and storms. Wetland vegetation filters and retains sediments and toxins protecting the quality of downstream waters. Water stored in or slowed by a wetland can more easily be absorbed as groundwater. Wetlands were identified by Bartow, Cobb and Forsyth counties as protection priorities. Figure 5 is a map extending wetlands as targeted protection areas throughout all of the five counties composing this project.

Groundwater recharge areas allow precipitation to infiltrate the earth's surface into the cracks and spaces found in soil and rocks. These recharge areas are often much smaller than the total aquifer, but they are important in influencing stream flow and providing a local water supply for human populations (Steiner, 1991). They can become polluted by landfills, septic tanks, leaking underground gas tanks, and from the overuse of fertilizers and pesticides. Also, increasing impervious surfaces through building and paving can adversely affect the recharge areas. Bartow was the only county that identified groundwater recharge areas as a target area for permanently protected greenspace, although no area was specifically targeted in the Etowah

Figure 3. 100-Year Floodplains within each Individual Greenspace Plan

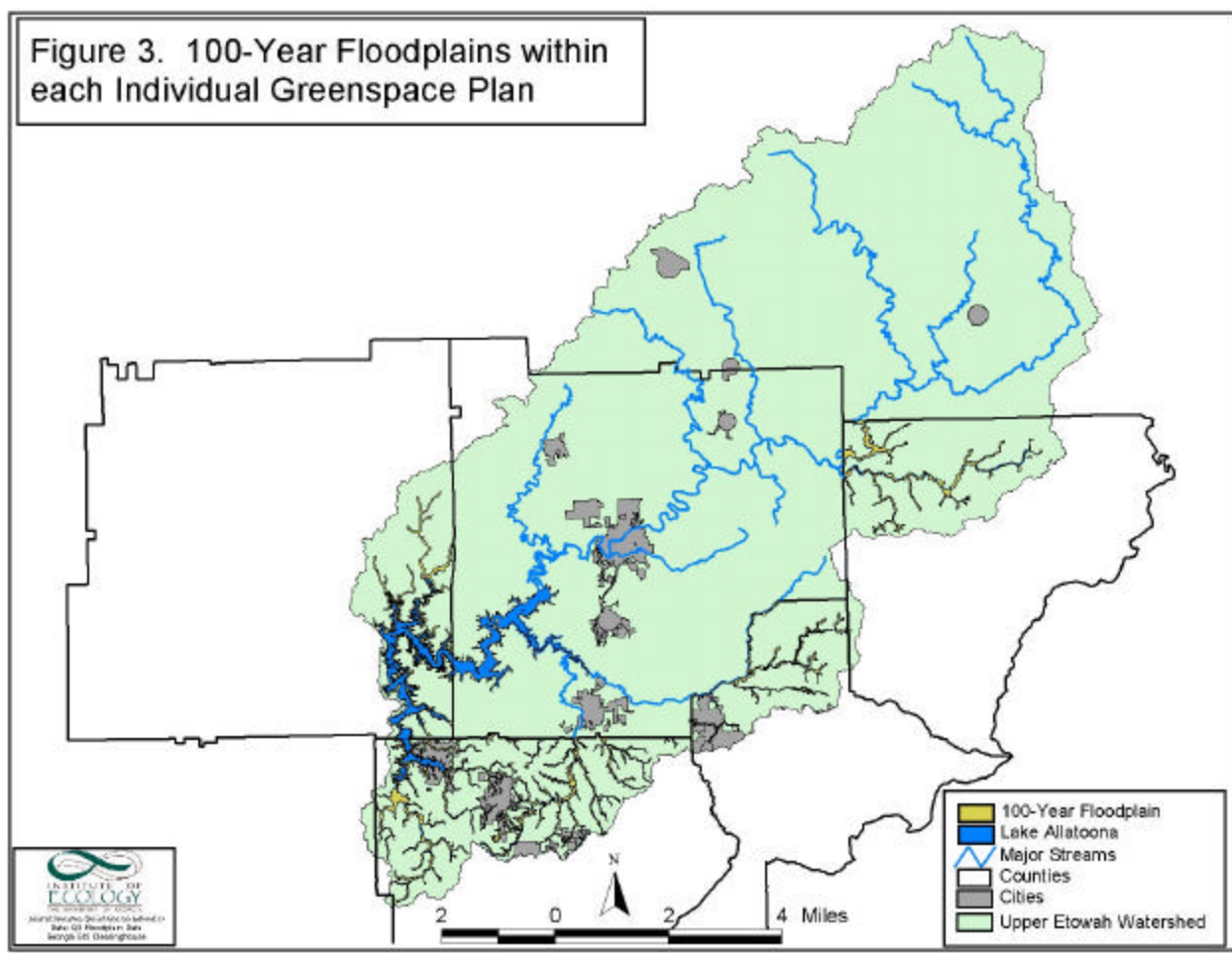




Figure 4. Priority Stream Buffers designated within each Individual Greenspace Plan

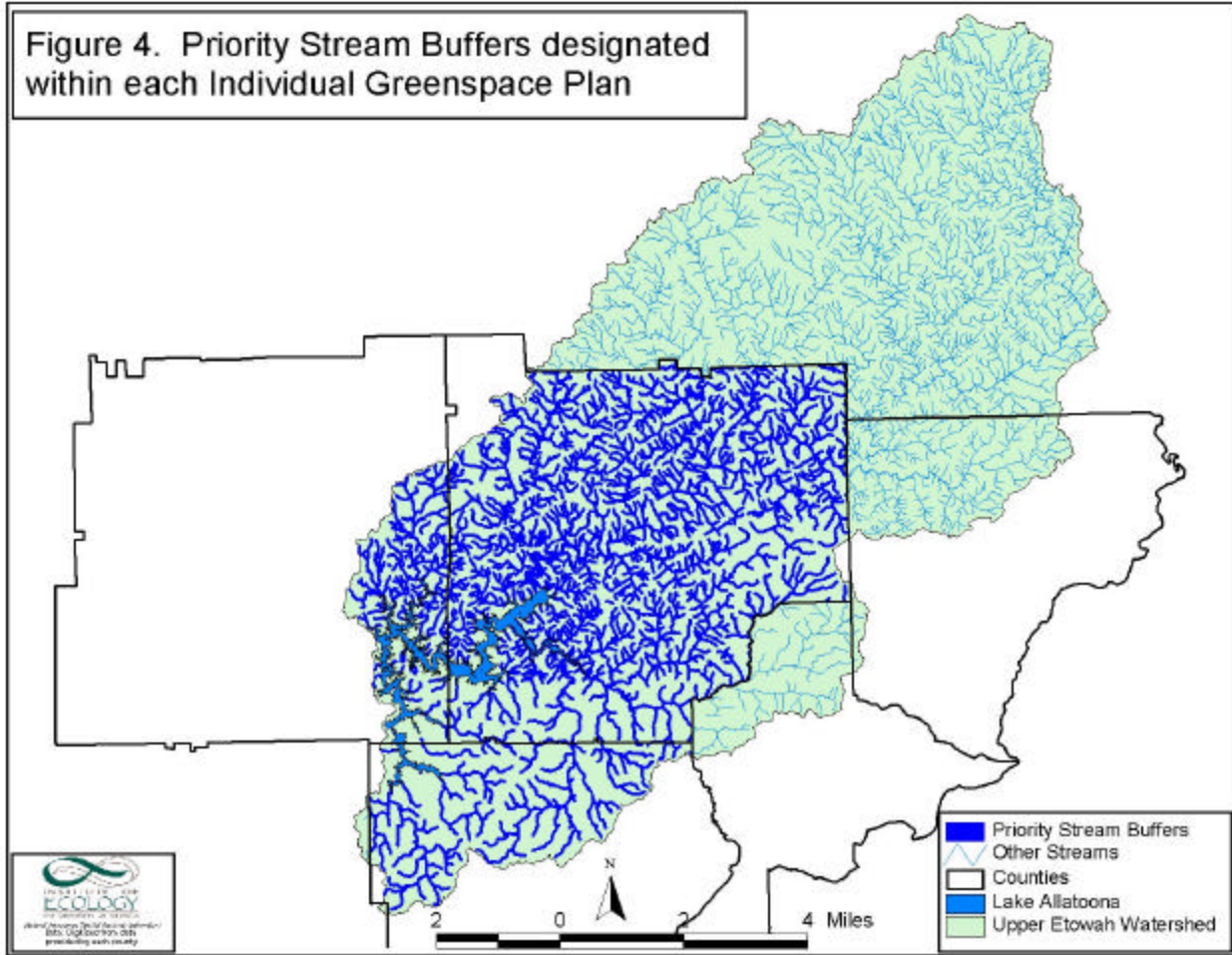
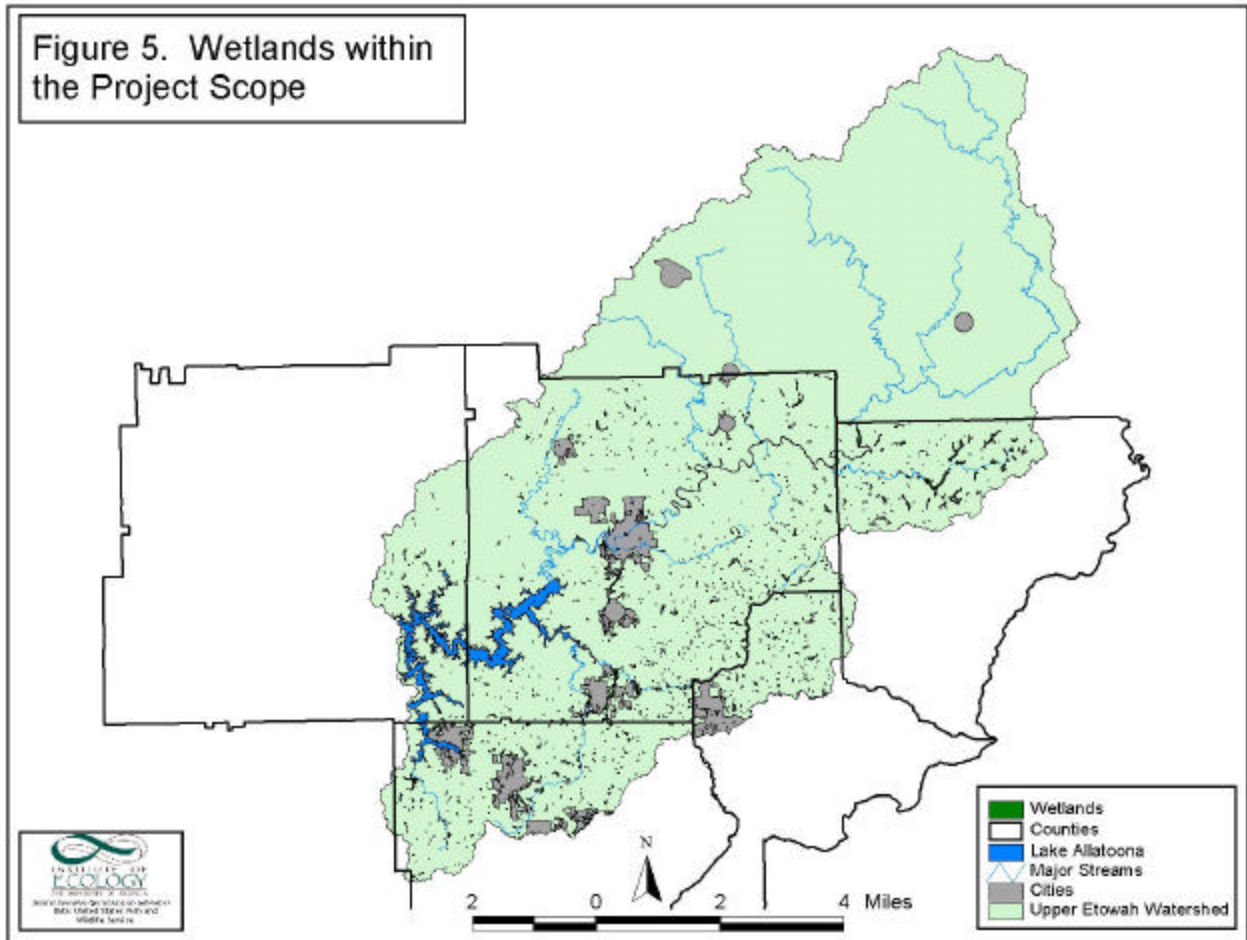


Figure 5. Wetlands within the Project Scope



watershed. Figure 6 shows that most significant groundwater recharge areas throughout the project range that could be targeted for greenspace protection.

Steep slopes can be defined as having a gradient of 15% or more. The steepness of slopes has an impact on the water quality of a watershed. The stormwater runoff rates are faster on slopes with greater declines. In developed areas, stormwater quality tends to worsen with higher runoff rates (Marsh, 1991). When vegetation is removed from steep slopes, the soil surface is exposed to erosion. Protecting the integrity of steep slopes prevents this erosion and sedimentation from entering nearby streams. Bartow identified severe steep slope areas (=20%) as protection priorities while Forsyth County listed areas with slopes >15% as protection priorities. Figure 7 shows targeted steep slope areas within Bartow County (=20%), Forsyth County (>15%), and extends this ecological driver within the 4 remaining counties (slopes >15%) as possible areas to target for greenspace protection.

Extending the targeted protection of these important ecological drivers (floodplains, riparian corridors, wetlands, groundwater recharge areas & steep slopes) throughout the entire region will help to maximize their benefits and increase the quality of life of citizens in the watershed. Many of these drivers may overlap each other, and some may be included in other areas targeted for protection priorities such as view sheds and recreational greenways thus the counties will receive even more benefits for permanently protecting them.

#### APPLICABLE FEDERAL ENVIRONMENTAL LAW

Two federal environmental laws are expected to substantially affect the development of the Upper Etowah and Lake Allatoona watersheds in future years. Section 303(d) of the Clean Water Act requires that all impaired waters, water bodies that do not meet their designated uses, be listed as such and that action plans be written for their clean up. The Endangered Species Act prohibits the “taking” of a federally endangered, threatened or candidate species or its habitat. The following sections outline how establishing regional environmental goals within the upper Etowah watershed can help meet the requirements of these federal laws.

##### The Clean Water Act

The upper Etowah watershed contains numerous impaired bodies of water, or those that do not meet their designated uses (Figure 8). These streams are out of compliance with the chemical and biological standards that were assigned by the state in order to meet the Clean Water Act. Section 303(d) of the Clean Water Act requires restoration plans called Total Maximum Daily Loads (TMDLs) for each of these impaired waters. TMDLs are allocation budgets between point source pollutants, or those originating from a pipe, and non-point source pollutants, or those deriving from runoff across polluted land. Greenspace protection has been identified as an action to restore waters impaired from non-point source pollution in several of the TMDL implementation plans written by the Regional Development Centers around the state. Whitfield County and the cities of Dalton and Varnell have identified Georgia’s Greenspace Program as an action to restore the waterbodies within their jurisdiction. Columbia County has also listed greenspace protection as a solution to the waters that do not meet state standards within the Savannah River watershed (Community Watershed Project, 2001).

Although counties have identified greenspace protection as a tool to restore waterbodies, the effectiveness of this tool has not been tested. Implementing a Greenspace Plan traditionally

Figure 6. Significant Groundwater Recharge Areas within the Project Scope

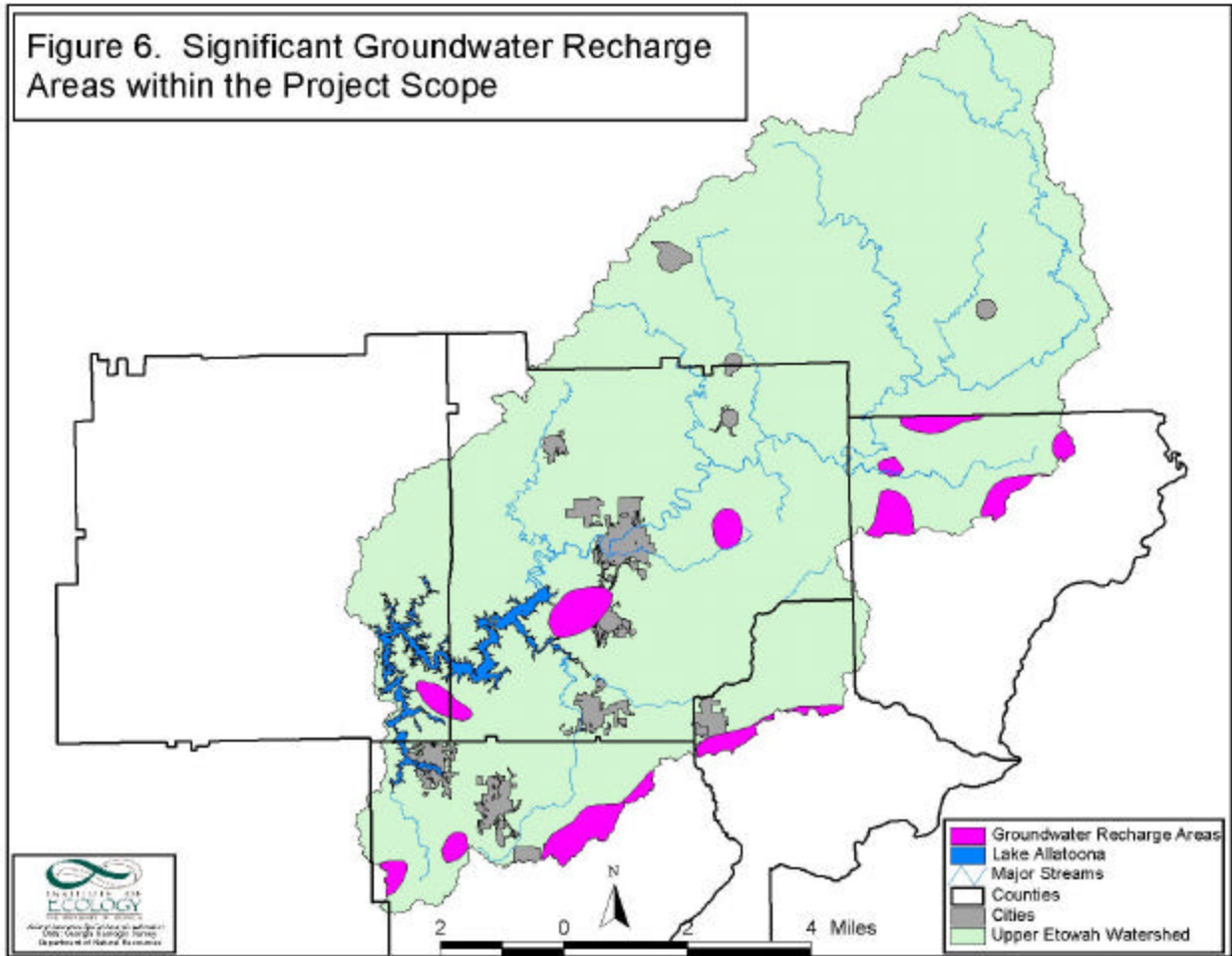


Figure 7. Steep Slopes within the Project Scope

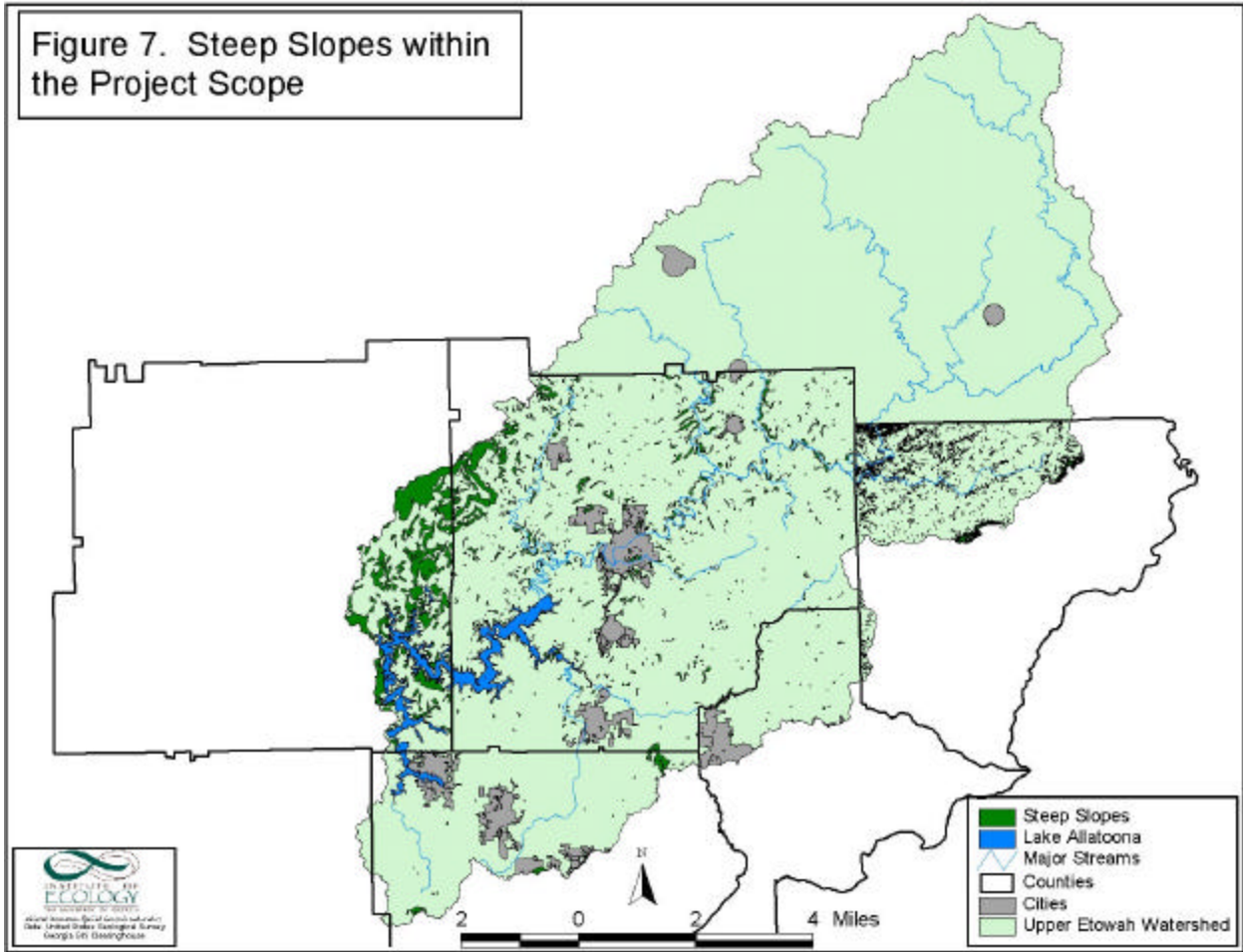
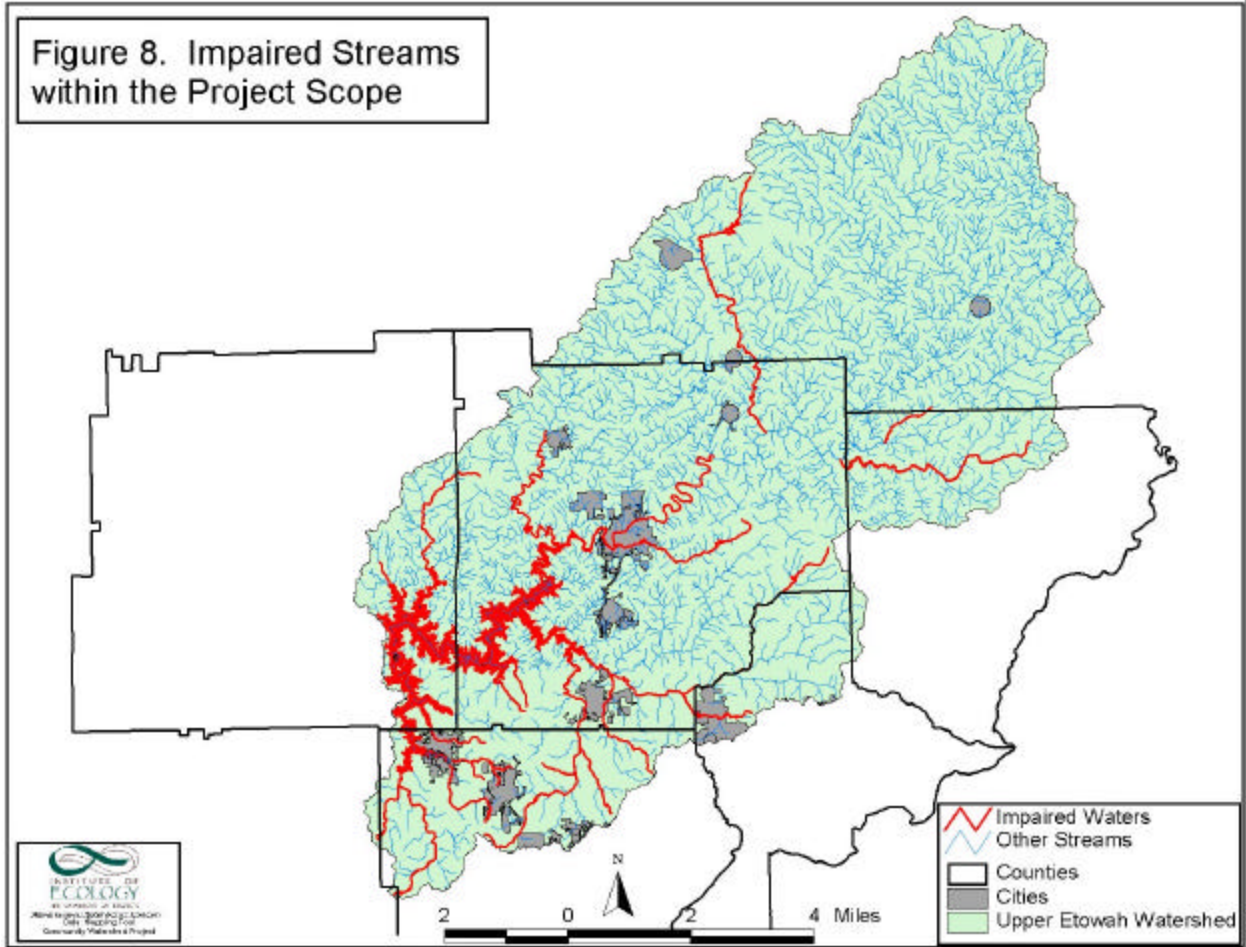




Figure 8. Impaired Streams within the Project Scope



protects land from development and therefore effectively prevents further water quality degradation, but its merit as a restorative mechanism has not been quantified. Most of the over 100 water quality standards that are assigned by the state are chemical in nature, such as numeric criteria for copper, phosphate, dissolved oxygen, mercury and toxaphene. Permanently protecting non-developed land alone will not reduce these inputs. However, greenspace protection coupled with stormwater control structures will capture non-point source pollution, preventing the direct flow of contaminated runoff into waters.

The use of greenspace protection to restore impaired waters is best exemplified in the Etowah watershed when the out of compliant parameter is biota and habitat. There are four of these impaired waters in the watershed (Figure 9). These parameters are not being met due in part to changes in the hydrological cycle from slow filling of surface waters after a storm to flash floods that despoil the integrity of the stream and ruin habitat for biota. Flash floods occur because of the rapid transport of water across impervious surfaces and directly into streams via culverts. The creation and protection of stormwater wetlands and other natural structures that capture the first flush pollutants after a storm will slow and treat runoff before it is discharged into streams. A Regional Greenspace Plan can be used to convert underused impervious surfaces to permanently protected greenspace that will trap non-point sources of pollution and restore these impaired waters.

### The Endangered Species Act

Three federally listed fish species inhabit the upper Etowah watershed. The amber and Etowah darters (*Percina antesella* and *Etheostoma etowahae*) are small, endangered fish that inhabit shallow, riffled areas of the Etowah River and its tributaries. The Cherokee darter (*Etheostoma scotti*) is a threatened species that is found in much smaller streams within the upper Etowah watershed. Figure 10 shows the distribution of these three fish species within the project scope. All three of these species are protected from harassment, harm, capture, collection, trapping, or killing under the Endangered Species Act (16 U.S.C. §1532 (3)(19)). The Endangered Species Act further includes habitat modification as harm as long as there is a showing of actual injury to the wildlife. Here lies the essential nexus between the harming of listed fish within the upper Etowah watershed and the Endangered Species Act.

Sedimentation from land disturbing activities has been proven to injure benthic fishes like these by ruining habitat for their prey (Quinn et al. 1992 in Burkhead et al. 1997), homogenizing their substrate habitat (Berkman and Rabeni, 1987 in Burkhead et al. 1997) and suffocating eggs and larvae by smothering these fragile organisms in a fine layer of silt (Chapman, 1988 in Burkhead et al. 1997). Therefore, any action that results in a sedimentation event that affects these essential behavioral patterns is a violation of federal law.

The United States Fish and Wildlife Service administers the terrestrial and freshwater section of the Endangered Species Act. Incidental take permits are issued by this agency when parties are engaging in an otherwise lawful activity that happens to result in a taking of species. This mechanism allows land-disturbing activities such as primary home and commercial construction to continue in a landscape containing imperiled fish. Incidental take permits are not given out quid pro quo. They require a lengthy public comment period and obligate the applicant to assure the United States Fish and Wildlife Service that the effects of the taking will be minimized and mitigated.

Figure 9. Biota and Habitat Impaired Streams within the Project Scope

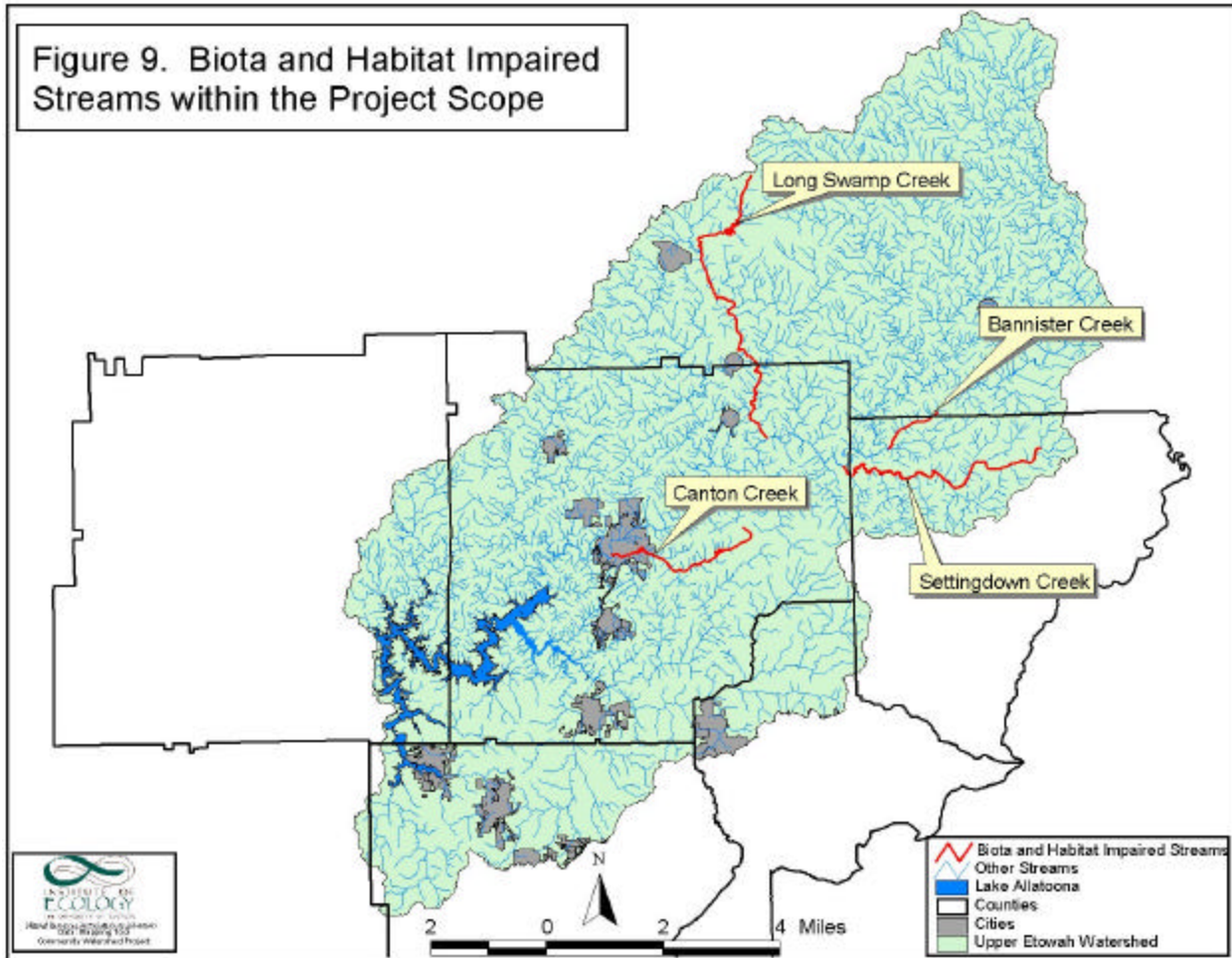
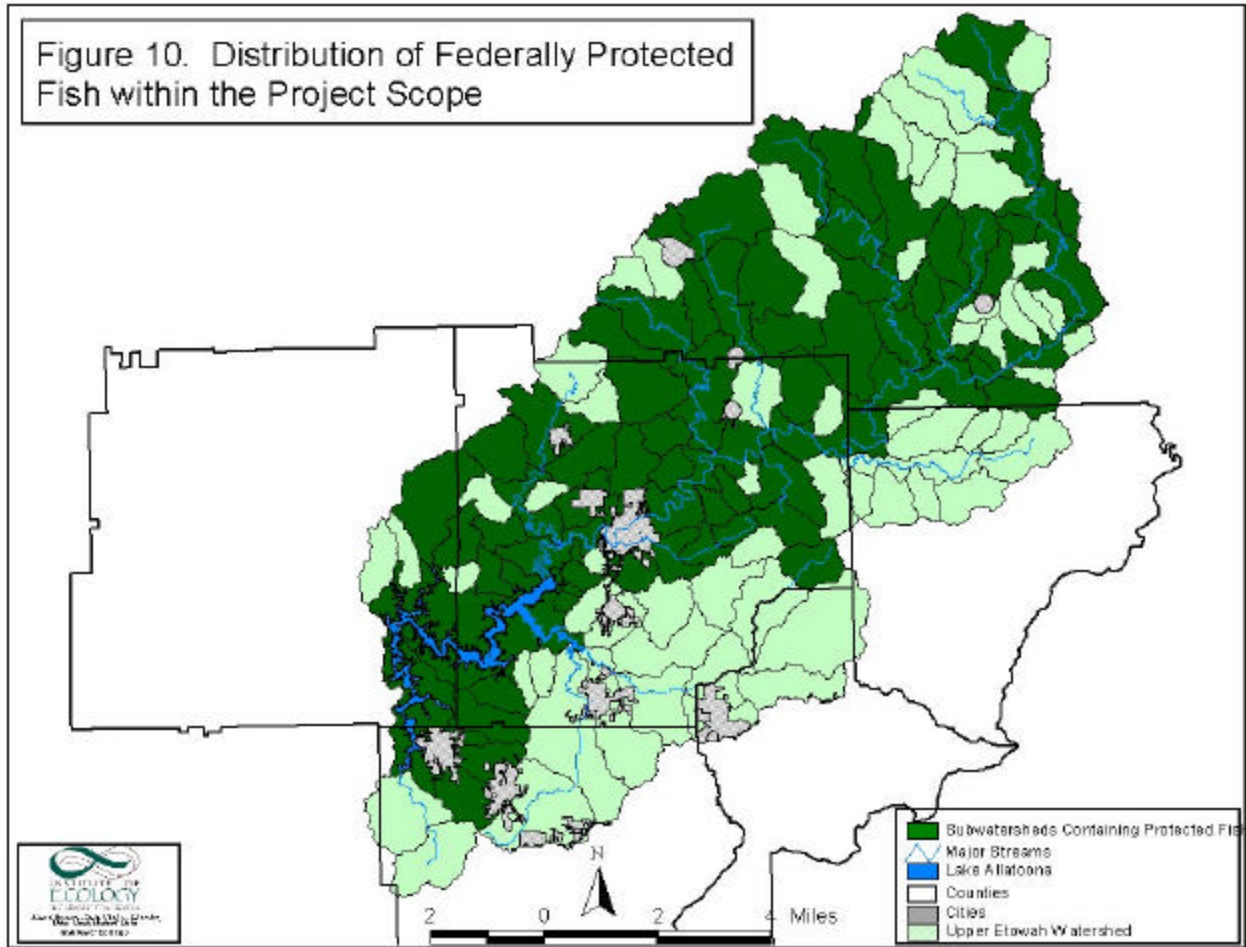




Figure 10. Distribution of Federally Protected Fish within the Project Scope



A Regional Greenspace Plan that protects landscape-scale ecological drivers is a tool that local governments can refer to in order to receive incidental take permits. Once these permits are received from the federal government, local development activities can proceed as usual. In other words, each developer will not have to go through the federal incidental take permit process for each project but will receive a default permit from the local government. A Regional Greenspace Plan can help protect the habitat needs of these listed species while subsequently reducing the burden associated with permitting development activities in a landscape containing said species.

## SUMMARY

Looking at ecological drivers and regional greenspace in the context of federal environmental law is just the beginning of the issues that will be examined for the formation of a regional greenspace plan in the Upper Etowah watershed. Following further development of these and other relevant issues we will be working with local government and citizens to determine the needs of the Etowah watershed in order to produce a final structure for the Upper Etowah Regional Greenspace Plan.

## LEGAL ISSUES AFFECTING REGIONAL GREENSPACE PLANNING

### OVERVIEW

A firm understanding of the legal issues inherent in the formation of a regional greenspace plan is essential to realizing the maximum benefits from that plan. The following sections set out the basic legal tools used in protecting greenspace and discuss successful land conservation efforts from other parts of the country. Using this information we adapted the available tools to the Etowah watershed taking into consideration Georgia law and local needs.<sup>1</sup>

### LAND CONSERVATION TOOLS

#### Conservation Easements

A conservation easement is a voluntary agreement between a property owner and a second party (the easement holder) that restricts the use of the property in order to protect natural or cultural resources. In the case of conservation easements, the easement holder is generally referred to as a land trust. Land trusts can be either non-profit corporations, or divisions of local government. In either case they are responsible for ensuring that the property rights (specifically development rights) associated with the easement are not utilized. It is the responsibility of the land trust to monitor the property to ensure that all parties comply with the terms of the conservation easement. If necessary the land trust may take legal recourse to ensure compliance.

Georgia's Uniform Conservation Easement Act, O.C.G.A. §§44-10-1 et al, authorizes and promotes the use of conservation easements to "retain or protect natural, scenic, or open

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<sup>1</sup> A review of county zoning ordinances capable of permanently protecting greenspace within the region may be found in Appendix IV.

space values; assure availability for agricultural, forest, recreational or open space use; protect natural resources; maintain or enhance air or water quality; and preserve the historic, architectural, archaeological or cultural aspects of real property.” Public access is not necessary.

The value of the easement can be deducted from federal and state income tax to the landowner. The deduction is up to 30% of the landowner’s adjusted growth income over a period of six years until the value of the easement is exhausted. In addition, the landowner’s estate and property taxes should both decrease proportionally.

### Restrictive Covenants

Restrictive covenants are promises by a landowner not to make certain uses of his or her property. For example, the landowner could covenant not to engage in land disturbing activities within the area of a designated stream buffer. This covenant can technically be permanent and legally binding in perpetuity, even against future owners of the land. The promise that gives rise to the covenant can be the product of bargained-for exchange and purchase or can be donated by the landowner. The promise not to make the proscribed use may be held for the benefit of either another piece of property or for the benefit of a person or organization. The owner of the beneficial property, or the person or organization benefited can take legal action to ensure that the covenant is enforced.

Restrictive covenants have one major shortcoming as a permanent tool for land protection. Under Georgia law, O.C.G.A. §44-4-60, a restrictive covenant is limited to a term of twenty years unless it is written in favor of, or for the benefit of, any federal, state or local unit of government or any corporation, trust or other organization *holding land for use of the public*. Restrictive covenants so held for the use of the public can be permanent in their duration. There has been no case law in Georgia defining “use of the public” as it applies to a restrictive covenant. However, courts have defined “use of the public” in eminent domain cases. The classic definition comes from Jones v. North Georgia Electric Company in which the Supreme Court of Georgia quotes Judge Cooley:

“The reason of the case and the settled practice of free governments must be our guides in determining what is or is not to be regarded a public use; and that only can be considered such where the government is supplying its own needs, or is furnishing facilities for its citizens in regard to those matter of *public necessity, convenience, or welfare*, which, on account of their peculiar character, and the difficulty – perhaps impossibility – of making provision for them otherwise, it is alike proper, useful, and needful for the government to provide.”

While the question of whether restrictive covenants aimed at protecting greenspace are to be considered as held for the use of the public and therefore entitled to indefinite duration is one that still remains in doubt, the Georgia Supreme Court has held that environmental concerns may be substantially related to the public welfare. Parking Ass. of Georgia, Inc. et al v. City of Atlanta, 264 GA 764 (1994). Given that decision it is reasonable to assume that the Court would hold that a restrictive covenant aimed at protecting greenspace (which itself is designed to meet environmental concerns) may be enforced permanently.

### Purchase of Development Rights (PDR)

A PDR Program involves the purchase of a landowner's development rights by a local or state government, or by a private conservation organization. It functions much like a traditional conservation easement; indeed, a conservation easement is placed on the property as a result of the PDR process. The characteristic that distinguishes a PDR program from conservation easements is that rather than relying on landowner generosity in donating easements, the purchasing body in a PDR program actively seeks out owners of properties that have a high conservation value and purchases an easement from those landowners. The landowner retains ownership of the property and usually continues traditional uses of the land, such as farming or forestry. The purchasing party holds the development rights and prevents their use. In consideration of the sale of development rights, the landowner agrees to allow a conservation easement to be placed on the property, which restricts certain future uses of the property in perpetuity.

### Transferable Development Rights (TDR)

Transferable development rights programs differ from the land use tools described above in that they require the active participation of local government. A TDR program involves placing limits on the development potential of one piece of land and allowing greater development on another piece of property. Local governments select areas with significant amounts of undeveloped land and resources in need of protection and designate them as "sending areas". They also designate areas that are amenable to greater development as "receiving areas". Landowners with sending area properties can sell the "excess" development potential of their lands to landowners or developers in receiving areas. To create demand for the eventual transfer of development rights, the local zoning board will place a limitation, or a "floor," on development potential within receiving areas. This is the maximum development that can take place without purchase of development credits from a sending area. At the same time the board will place a "ceiling" on development potential within the receiving area, which spells out the limit on development after purchase of credits.

Property owners within these sending areas can voluntarily choose to sell their development credits to other landowners or developers interested in building projects in the receiving zones. Credits can be used for a number of things such as increasing building height or increasing the number of units per acre. Note, however, that the local zoning board maintains a "ceiling" to prevent development to reach undesirable densities and to keep developers from stockpiling credits in one area.

Georgia's law on the transfer of development rights is found in O.C.G.A. §36-66A-1 and 2. As stated:

"the governing body of any municipality or county by ordinance may, in order to conserve and promote the public health, safety, and general welfare, establish procedures, methods, and standards for the transfer of development rights within its jurisdiction."

Any proposed transfer from the sending area is subject to the guidelines of §36-66-4, outlining the process on hearings on proposed zoning decisions. Any proposed transfer to the

receiving property is subject to the notice, hearing, and signage requirements, if any, of the municipality having jurisdiction over the property. Any proposed transfer is subject to the approval and consent of both property owners and is subject to a *separate vote of approval or disapproval by the local governing authority*.

## CONSERVATION TOOLS ON A REGIONAL SCALE

### OVERVIEW

Most land use planning in Georgia has traditionally taken place on a county-by-county basis. If greenspace plans are to be expanded to deal with regional issues the traditional tools have to be expanded or modified as well. “Traditional” is really a misnomer in this context; while conservation easements and restrictive covenants are a well established tools, TDR and PDR programs are relative newcomers to the field of land use. In Georgia they are almost untested. Unfortunately, once land use planning expands beyond county borders the well-developed tools lose a great deal of their efficacy. Conservation easements and restrictive covenants cannot be the driving vehicles for permanent greenspace protection on a regional level. Both conservation easements and restrictive covenants are focused directly on protecting individual, discreet properties, and are of limited use by themselves in meeting the needs of regional planning.

The newer, more advanced tools are more amenable to application on a regional scale. Both PDRs and TDRs can be used across areas that span county boundaries. Unfortunately, both tools, even in their single-county form, are new to Georgia. In order to gain an understanding of how they can be modified or adapted to operate on larger scales it is helpful to look at how they have been used to protect resources in other areas of the country.

### SUCCESSFUL REGIONAL LAND CONSERVATION PROGRAMS<sup>2</sup>

#### Montgomery County, Maryland

Montgomery County, Maryland is a well-known success story in the use of TDRs to preserve undeveloped land. It is not a regional program, but its successful use of TDRs is an excellent model for a well-structured TDR program. Montgomery County’s program focuses on the protection of agricultural lands from the inroads of development. As early as the mid-1950’s Maryland already recognized a need to protect farm lands from development, but despite several early protection efforts the 1960’s and 1970’s saw significant losses of farm land in the county. This led to the appointment of a task force to develop methods to stem the loss of agricultural land. The task force considered three options: purchase of agricultural rights, downzoning, and transfer of development rights. The task force concluded that purchase of development rights would be too expensive. Downzoning alone might not be politically feasible and could have the unintended effect of satisfying the demand for exurban development using 25-acre estate lots. In addition, there was a concern that downzoning without some form of compensation could make

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<sup>2</sup> Additional land conservation efforts and tools from other jurisdictions are located in Appendix V

it difficult for farmers to get loans due to reduced land values. Consequently, the task force recommended a combination of downzoning and TDR.

Montgomery County followed this recommendation. They designated prime farmlands as sending areas and downzoned those properties from a zoning of 1 unit per five acres to one unit per twenty-five acres. In return, landowners were granted one development credit for every five-acre reduction in zoning. To effect transfer of those development credits the county required that the landowner place a conservation easement on his property permanently protecting the tract as undeveloped or agricultural land. Increased development pressures and an increase in the number of receiving areas in which the credits could be used created a functional market for the credits and to date 45,000 acres have been permanently protected in Montgomery County.

### The Pinelands, New Jersey

In 1978, the U.S. Congress designated the Pinelands as the country's first National Reserve; the federal legislation also authorized the creation of a regional planning agency. Subsequently, the governor of New Jersey established the Pinelands Commission, a regional agency incorporating seven counties and 53 local jurisdictions. The 15-member Commission consists of seven representatives appointed by the seven Pineland counties, seven members appointed by the Governor and one member designated by the U.S. Secretary of the Interior.

As prescribed in Section 502 of the National Parks and Recreation Act, the federal government's primary roles in the Pinelands protection effort are to provide money for public land acquisition and to monitor the implementation of the plan.. The federal law originally authorized \$26 million for land acquisition and planning for the Pinelands. However, a cornerstone of the National Reserve concept was that public land acquisitions could not guarantee sufficient protection for the Pinelands unless accompanied by regulatory measures. Still, government purchase was sometimes recognized as the best way to keep particularly sensitive parcels free of development. The Commission proposed in the Plan that the state acquire about 100,000 acres in the Pinelands, adding to the then current total of 265,000 acres of publicly owned open space in the Pinelands. The estimated cost of that program was \$81 million, which was obtained from various federal and state sources. To date, over 65,000 acres have been purchased with state and federal funds.

If the Pinelands had been an uninhabited wilderness under no pressure for development, it might have been feasible for the government to buy the entire area outright. But that was not the case in southern New Jersey in the 1980's. Because of its proximity to Philadelphia, New York, and Atlantic City, the Pinelands' perimeter was quickly becoming attractive real estate. The forested core was immune from that kind of development pressure for the time being, but it was also the bastion of the cranberry and blueberry farms, whose thriving operations the government had no reason to acquire. Making a wholesale government purchase even more impractical was the history of private land ownership in the Pinelands, with many families tracing their occupancy back a century or more. Then there are the large and small towns that dot the region from end to end.

The success of the Pinelands TDR program can be allocated to this early purchase of development rights throughout the region. By purchasing these development rights, the Commission not only decreased the amount of land available for development, but also concentrated the future demand for development credits in a regional TDR program. Once the

TDR program was initiated, however, purchasing by governmental agencies continued in an effort to keep prices competitive on the private TDR market.

In 1981, the Burlington County Conservation Easement and Pinelands Development Credit Exchange was established by Burlington County, one of the seven counties within the Pinelands. The Exchange was funded by the issuance of a \$1.5 million county bond. The Exchange operated as a buyer of last resort for development credits severed from land in Burlington County; however, development credits purchased by the Exchange were sold for use on receiving sites anywhere in the Pinelands. From 1981 to 1987, the Exchange purchased 91.75 development credits, representing a preservation of 2,400 acres of land. The Exchange has now sold all of its development credits.

In 1987, the State of New Jersey established the New Jersey Pinelands Development Credit Bank and capitalized it with \$5 million from the state general fund. The Bank acts as a buyer of last resort, and must pay at least \$10,000 per development credit. The Bank may periodically increase its purchase price. However, state legislation prohibits the Bank from buying development credits for a price greater than 80% of market value.

The Bank sells development credits through auctions. The minimum bid must be \$2,500 per right (or \$10,000 per development credit); however, the Bank can set a higher minimum bid in order to avoid impairment of private development credit sales.

Most transactions now occur in the open private market. For example, in 1993 and 1994, the PDC Bank purchased only one development right while 156 development rights were purchased in private sector transactions. From 1990 to 1994, the Bank sold only five development rights, compared with 328 development rights transferred between private parties. The success of the Pinelands TDR program can be contributed to its carefully designed Comprehensive Plan that combines both the purchase and the transfer of development rights. On sending sites, a four-to-one transfer ratio provides a substantial motivation for property owners to sell development rights rather than build on site. And on the other end of the transfer, the Plan designates growth centers that are capable of accommodating the transferred development. Furthermore, the Pinelands Commission has prevented local governments from increasing density, through rezoning or planned unit developments, unless purchased development credits are used. Finally, as mentioned above, the program is assisted by the Pinelands Development Credit Bank

## REGIONAL GREENSPACE PLANNING IN THE ETOWAH WATERSHED

### Regional TDR Programs in Georgia

Georgia's legislative law on TDRs is found in O.C.G.A. §36-66A-(1-2) (see Appendix III). New to Georgia law is an amended section on intergovernmental TDR programs that went into affect on April 28, 2001. This amendment allows municipalities and counties that are jointly affected by development to create a regional TDR program. The intergovernmental agreement that creates the program ensures that the participating counties pass interdependent ordinances providing for the transfer of the development rights.

An example of this type of agreement is not available in Georgia. In fact, a TDR program has not been implemented anywhere in the state on a county level. However, we may presume how a regional TDR program might operate based on its defining laws in Chapter 66A of Title 36 in the O.C.G.A.

Following are the sequential steps, according to Georgia law, that would lead to an actual transference of development rights in a regional TDR program:

- 1) Contracting counties earmark specific sending and receiving zones within their political boundaries
- 2) A property owner in a sending zone agrees to sell his or her development rights
- 3) A property owner in a receiving zone agrees to buy the development rights
- 4) The proposed transfer passes a vote of approval by the local governing authority of the sending area
- 5) The proposed transfer passes a vote of approval by the local governing authority of the receiving area

In addition, subsection (f) provides that any ordinances enacted pursuant to a regional TDR program may provide for additional notice and hearing and signage requirements applicable to properties within sending and receiving areas in each participating political subdivision.

### Regional TDR Programs and the Etowah

The benefits of a regional TDR program in the Etowah Watershed are apparent. Working in the supply and demand conundrum of economics, one can see how adaptable a regional network of sending and receiving zones would be to the program's success, particularly in an area as diverse as the watershed itself. Obviously, the supply of development rights being transferred out of sending areas would be generous. More importantly, however, a larger base of receiving areas would provide the needed demand to create a healthy market for the transfer of development rights.

One might assume that with the success of Montgomery County's TDR program that a regional TDR program in the Etowah Watershed would work just as well. However, there are weaknesses to such a program in Georgia. First, unlike that of Maryland, the transfer of development rights in Georgia does not involve downzoning sending areas and handing out development credits to affected landowners. Instead, Georgia relies on a landowner to voluntarily apply for these credits. This is a limitation because the necessary supply of credits is not guaranteed.

Second, sending areas are out of necessity large tracts of land. It would be difficult for a TDR program to concentrate on the smaller areas of land, areas owned perhaps by a few individual landowners, which are just as critical, if not more so, in environmentally sensitive regions. Riparian zones, wildlife corridors, steep slopes, ground-water recharge areas, and other ecological drivers mentioned earlier in our report are essential elements in the success of a regional greenspace plan.

Third, the process for transferring a development right in the state of Georgia is relatively complicated. As noted supra, the transfer requires not only the consent of both landowners, but also a separate approval vote by each local governing authority. At the very least, four different parties will be involved in the transaction.

To complement these limitations, some regions have also incorporated the use of a purchased development rights program (PDR). The purchasing of development rights would not only foster a healthy market for the transfer of those rights on an open market, but it would also aid in assessing the other weaknesses of a regional TDR program. This has been the secret to the tremendous success of the Pinelands, New Jersey protection efforts.



## Regional PDR Programs and the Etowah

The counties of the Upper Etowah watershed can duplicate the successes of a program like the Pinelands in New Jersey. Purchase of Development Rights (PDR) programs are readily adaptable to a regional scale and face relatively few impediments from Georgia law. The purchase of development rights allows for the solution of several of the shortfalls extant in Georgia's regional TDR framework. As noted earlier, TDR programs have their greatest efficacy in protecting large tracts of land. It is difficult to target the ecological drivers discussed above (p. 3) by the process of designating sending areas for those environmental features. Since PDR programs involve the directed purchase of conservation easements it is relatively simple to concentrate purchasing efforts in those areas where the greatest ecological benefits can be realized. PDR programs are also simpler to administrate than the Georgia TDR process. There is no need to put together buyers and sellers of development credits and no need for the approval process required by Georgia law for the transfer of those credits. Finally, given the relative recent development and limited use of TDR programs in Georgia it should prove simpler to convince landowners to part with the development interest of their property in return for payment instead of what may be a confusing and ill-understood development credit.

To become effective regional tools only two aspects of a PDR program are of real concern. First, regional PDR programs require that purchasing decision be made with an eye towards region-wide benefits. Second, the counties in the region need to develop a mechanism or mechanisms capable of adequately funding the program. However, while there may only be two critical concerns, there are myriads of options that may be useful in addressing those concerns.

Obviously, the benefits of regional greenspace planning will only accrue if protection efforts are made with an eye towards the needs of the region. Dollars spent on the purchase of development rights can be targeted to focus on those economic and legal drivers mentioned earlier, but since those drivers themselves and their benefits and effects cross county lines a focus on benefits solely within individual counties will result in a less than efficient allocation of resources throughout the region as a whole. To avoid this pitfall there are two readily available solutions.

Individual counties may desire to operate a PDR program benefiting the region as a whole but wish to remain completely autonomous in their purchase activities. To accomplish this they only need share information on protection needs and efforts throughout the region. If purchasers are willing to consider the issues facing the region as a whole and they have a ready source of information this is feasible. This approach would require a great deal of communication and coordination between purchasing bodies in the various counties. A "clearinghouse" for relevant information, which is updated and assessed regularly by those responsible for purchasing decisions, should effectuate this need.

In the alternative, individual counties within the region could cooperate to form a regional purchasing agency responsible for PDR acquisitions throughout the Etowah watershed. The constituent counties would basically form a cooperative land trust to act as purchaser of development rights. Since purchasing decisions would all emanate from a central location the process would be significantly streamlined. Additionally this arrangement would make it easier to share information, as transactions in every county would be handled by the same organization.

## Funding a Regional PDR

Obviously, one major impediment to the effectiveness of a PDR program is the need to allocate funds for the purchase of development rights. Without an adequate funding mechanism a PDR program is unable to function. There are two funding mechanisms particularly appropriate for use in Georgia. Revenues can be generated through a Special Purpose Local Options Sales Tax (SPLOST) referendum or funding can be leveraged through a process known as installment purchase agreements.

O.C.G.A. § 48-8-121 has authorized local governments to impose a special sales tax (SPLOST) as approved by voters in a referendum. Monies must be earmarked for specific projects at the time a SPLOST referendum is approved. Last year, Gwinnett County voters chose to use more than forty-two percent of a one percent SPLOST to fund land conservation efforts. Revenue available for the fund will be worth anywhere from \$190 to \$320 million over the next four years. This shows both the potential power of SPLOST fundraising and, equally as importantly, points out the willingness of Georgians to fund land conservation efforts such as greenspace programs. When combined with the availability of federal matching funds SPLOST revenue could fund a very effective purchasing project.

Another funding option available for counties in the Etowah watershed is the use of installment purchase agreements (IPA). Howard County, Maryland has successfully implemented the use of installment purchase agreements in funding the purchase of development rights. IPAs are designed to allow jurisdictions faced with a limited availability of funds to finance the purchase of development rights and begin protection efforts immediately.

Installment purchase agreements revolve around the issuance of a bond. In consideration for placing a conservation easement on his or her property, the landowner receives security interest (bond). Since these bonds do not become fully redeemable for many years, counties are able to maximize their purchase power of the funds immediately available to them. This means that property can be protected before it is developed and also helps to insure that easements are placed on property before increasing development pressures cause land prices to skyrocket making PDR programs prohibitively expensive.

Bonds issued under an IPA program are zero-coupon bonds. "Zeroes" do not generate regular interest income. Instead, they yield a lump sum when the bond matures. Because zero coupon bonds cost a fraction of their face value, the public entity leverages available funds. "Zeroes" with a face value equal to the purchase price are usually purchased the day before settlement.

At settlement, the landowner grants the jurisdiction a permanent agricultural conservation easement in exchange for an installment purchase agreement. Then the jurisdiction begins making tax-exempt interest payments twice a year. The balance of the purchase price is paid to landowners at the end of the agreement. The landowner may sell or "securitize" the IPA on the municipal bond market to recover the outstanding principal before the end of the agreement.

In Howard County, if the current yield is less than 8% (or the interest rate "floor" as established by the Board in consultation with the Dept. of Finance, Office of Budget and financial advisors) the interest paid is 8%. If the yield is higher, interest is paid at that rate. Howard County enters IPAs with a term of approximately 30 years. Every two years after execution, the County pays a portion of the purchase price (usually \$5,000) with the remaining amount of the purchase price paid at the end of the agreement. In addition, the County pays semi-annual interest on the outstanding balance of the purchase price.

There are two primary benefits for the landowner. First, the interest payments received biannually are exempt from federal, state and local income taxes. Second, pursuant to the Internal Revenue Code of 1986, the landowner may, in certain instances, defer recognition of capital gain until he or she actually receives the principal amount of such purchases.

Benefits also exist for the counties participating in the agreements. By deferring principal payments, counties can buy more easements while land is available and relatively affordable. Also, by purchasing zero-coupon bonds, jurisdictions spend a fraction of the negotiated purchase price at closing and are able to leverage available funds.

The concept of installment purchase agreements is a viable option for funding the purchase of development rights in the Etowah Watershed. The issuance of municipal bonds is already a familiar and common occurrence in Georgia. Given the rate of development within the Watershed, counties will be hard-pressed to allocate funds for the immediate acquisition of development rights on undeveloped land. Installment purchase agreements provide that needed assistance.

## SUMMARY

Regional greenspace efforts in the upper Etowah watershed will be best served by a program that combines the beneficial aspects of both PDR and TDR programs. Purchase of development rights, whether made by individual counties taking into consideration regional need or by a regional purchasing authority can be used to target protection efforts towards those properties with the most conservation value to the community. Simultaneously, the purchase of these development rights will reduce the amount of property available for development creating a higher demand for development credits. This increased demand for TDR credits will ensure more attractive prices for potential sending zone sellers and drive a more robust TDR program.

## CONCLUSION

This is just the beginning of the process to form a Regional Greenspace Plan in the Upper Etowah watershed. Over the coming months we will be working with local government and citizens in an effort to encourage and aide in the development and implementation of the greenspace plan. We will expand our effort out of the 5 counties we are currently working in to include Dawson, Pickens, and Lumpkin counties. When completed, the Upper Etowah and Lake Allatoona Regional Greenspace Plan will further the principles outlined in the Georgia Greenspace Program while providing a forum for inter-jurisdictional cooperation and planning. A cooperative effort between counties in the watershed which promotes consistency between both the ecological and quality of life goals and legal structures of their greenspace plans will result in aggregate benefits across the watershed providing friendlier, healthier, and more enjoyable conditions for their citizens.

## BIBLIOGRAPHY

- Berkman, H.E., and C.F. Rabeni. 1987. Effect of siltation on stream fish communities. *Environmental Biology of Fishes* 18:285-294. *in* Burkhead, N.M., S. Walsh, B. Freeman, and J. Williams. 1997. Status and Restoration of the Etowah River, an Imperiled Southern Appalachian Ecosystem *in* *Aquatic Fauna in Peril: The Southeastern Perspective*. Special Publication 1, Southeast Aquatic Research Institute, Lenz Design & Communications, Decatur, GA.
- Beyond Municipal Boundaries; Designing a Regional Land Conservation Strategy in Washington County, Rhode Island. 2001. [www.envstudies.brown.edu/thesis/2001/goldsmith/writeup/dreamweaver](http://www.envstudies.brown.edu/thesis/2001/goldsmith/writeup/dreamweaver)
- Chapman, D.W. 1988. Critical review of variables used to define effects of fines in redds of Salmonids. *Transactions of the American Fisheries Society* 117:1-21. *in* Burkhead, N.M., S. Walsh, B. Freeman, and J. Williams. 1997. Status and Restoration of the Etowah River, an Imperiled Southern Appalachian Ecosystem *in* *Aquatic Fauna in Peril: The Southeastern Perspective*. Special Publication 1, Southeast Aquatic Research Institute, Lenz Design & Communications, Decatur, GA.
- Community Greenspace Advisory Committee Report. 1999. A report summarizing Georgia's Community Greenspace Program. Carl Vinson Institute of Government. University of Georgia. [www.cviog.uga.edu/projects/projects.htm](http://www.cviog.uga.edu/projects/projects.htm)
- Community Watershed Project. Unpublished data gathered for the analysis of 2001 Georgia TMDLs. Data provided by Beth Fraser, Community Watershed Protection Coordinator, Georgia Legal Watch. November 22, 2001.
- Exclusive Farming Zoning. 2001. [www.oda.state.or.us/Natural\\_Resources/landuse.htm](http://www.oda.state.or.us/Natural_Resources/landuse.htm)
- Howard County, Maryland: Pioneering IPA financing. 1999. [www.farmlandinfo.org/fic/tas/tafs-ipa.html](http://www.farmlandinfo.org/fic/tas/tafs-ipa.html)
- Installment Purchase Agreements(IPA). [http://sites.pa.us/PA\\_Exec/Agriculture/bureaus/farmland\\_protection/IPA.htm](http://sites.pa.us/PA_Exec/Agriculture/bureaus/farmland_protection/IPA.htm)
- Limited Development: [www.asu.edu/caed/proceedings97/lima.html](http://www.asu.edu/caed/proceedings97/lima.html)  
[www.santaluciapreserve.com/pages/cnsrvncy.htm](http://www.santaluciapreserve.com/pages/cnsrvncy.htm)
- Maddock, Tara Ames. 1996. Managing Riparian Ecosystems for Water Quality: Buffer Design and Land Use in the Broad River Watershed, Georgia. Master of Arts Thesis, University of Georgia.

- Marsh, William M. 1991. Landscape Planning: Environmental Applications. John Wiley & Sons Inc., New York
- Mitsh, William J. and James G. Gosselink. 1993. Wetlands. Van Nostrand Reinhold, New York.
- New Jersey Pinelands Commission. 2001. [www.state.nj.us/pinelands/](http://www.state.nj.us/pinelands/)
- OLR Research Report: Towns using tax increment financing for economic development projects. 2001. [http://www.cga.state.ct.us/2001/rpt/htm/2001\\_R\\_0653.htm](http://www.cga.state.ct.us/2001/rpt/htm/2001_R_0653.htm)
- Pinelands Alliance. 2001. [www.pinelandsalliance.org/](http://www.pinelandsalliance.org/)
- Quinn, J.M., R.J. Davies-Colley, C.W. Hickey, M.L. Vickers, and P.A. Ryan. 1992. Effects of clay discharges on streams, 2. Benthic invertebrates. *Hydrobiologia* 248:235-247. in Burkhead, N.M., S. Walsh, B. Freeman, and J. Williams. 1997. Status and Restoration of the Etowah River, an Imperiled Southern Appalachian Ecosystem in Aquatic Fauna in Peril: The Southeastern Perspective. Special Publication 1, Southeast Aquatic Research Institute, Lenz Design & Communications, Decatur, GA.
- Steiner, Fredrick R. 1991. The Living Landscape: An Ecological Approach to Landscape Planning. Mc Graw-Hill, New York.
- Suffolk County Agricultural Protection. 2001. [www.co.suffolk.ny.us/planning/publications/AGPLAN/z18act.htm](http://www.co.suffolk.ny.us/planning/publications/AGPLAN/z18act.htm)

## **APPENDIX I: Communication with Stakeholders**

### **Upper Etowah & Lake Allatoona Regional Greenspace Planning in Bartow, Cherokee, Cobb, Forsyth and Fulton Counties**

Georgia is experiencing unprecedented population growth forcing the conversion of land to developed uses and the subsequent loss of greenspace. In many cases this has resulted in environmental and quality of life impairments. Issues such as air and water quality degradation, traffic congestion, and urban sprawl have moved beyond the Atlanta area and are now threatening the rural character of the north Georgia region. Regional problems such as these require regional solutions. Georgia's Greenspace Program provides no incentive for counties to collaborate and identify target areas or concerns of regional importance. An Upper Etowah & Lake Allatoona Regional Greenspace Plan carries on the principles outlined in the Georgia Greenspace Plan while providing a forum for inter-jurisdictional cooperation and planning.

Water quality and aquatic wildlife habitat concerns are critical given the number of federally imperiled fish species and impaired waters that are located in the Etowah watershed. Federal environmental legislation such as the Endangered Species Act and the Clean Water Act preempt local Home Rule authority, constraining county land use decision-making power when local governments cannot rectify environmental problems. A Regional Greenspace Plan will provide a vehicle to meet the implementation plans that are mandated under these federal laws in a progressive, non-litigious manner. Planning greenspace on a regional scale will also provide permanent intact natural areas that sweep across the landscape creating non-automotive transportation links between high-density areas, corridors for wildlife and greater scenic preservation.

The Upper Etowah & Lake Allatoona Regional Greenspace Initiative is a group of students and faculty at the University of Georgia that seek to assist local governments in looking at regional land use trends when making decisions on the location and type of greenspace that should be permanently protected. The Initiative also strives to promote greater use of the resources available from the University of Georgia Schools of Ecology, Environmental Design, Forestry and Law. During the next few months members of the Initiative will begin working with local governments and interest groups in an effort to foster an increased awareness of regional issues and to develop solutions aimed at helping local governments use greenspace protection to reduce some of the environmental and quality of life threats associated with growth. A Forestry Commission grant has been secured that will allow the University of Georgia to complete a Regional Greenspace Plan in 2002 for the counties that compose the upper Etowah Watershed.

We are currently reviewing the completed Greenspace Plans for the counties listed above and comparing them to see if trends emerge. We will be contacting planning staff from the participating counties to share our findings and to receive feedback on conclusions drawn from our review. A Regional Greenspace Plan does not jeopardize or undermine any of the aspirations set out in the county Greenspace Plans already completed. This process will simply combine existing plans, regional environmental concerns and ecological science to support multi-jurisdictional greenspace planning. Any questions about the Upper Etowah & Lake Allatoona Regional Greenspace Initiative can be directed by e-mail to Raysun Goergen, Research Assistant, at [leadfreeus@yahoo.com](mailto:leadfreeus@yahoo.com). Please feel free to contact us if we can be of any assistance.

Thank you.

Jeffrey Boring, Marcie Diaz, Raysun Goergen, Brannon Hancock and Clif Henry  
Graduate and Law Students of the University of Georgia  
Upper Etowah & Lake Allatoona Regional Greenspace Initiative



Mr. John Smith  
Greenspace Coordinator  
1234 X Street  
Smithville, GA 12345

Dear Mr. Smith:

In our effort to create the draft of a unified Greenspace Plan for the region of the State that composes the upper Etowah River watershed, we have assembled all of the appropriate individual county Greenspace Plans. Before we begin analyzing the plans to identify any common themes or connect target areas with corridors, we would like to confirm with you that we have interpreted your Greenspace Plan accurately. After this analysis is complete, we will plan a meeting to bring all of the greenspace planners together to share our findings and get feedback.

Enclosed please find a hard copy of the map that we created from the electric files provided by each local government's planning staff. There is also a letter of understanding that we would like to have signed for our records. We will be using each local government's Greenspace Plan as the foundation for a regional plan and want to make sure that we have captured the intended design. The signed letter of understanding has no legal merit, but simply conclusively confirms our interpretation of your work.

Thank you for your cooperation. Please return the signed letter in the self-addressed stamped envelope. We will be contacting you within the next couple of weeks if we have not received the letter.

Sincerely,

Raysun Goergen  
Research Assistant  
Upper Etowah Regional Greenspace Initiative





## APPENDIX II: Synopsis

### **Title: Land use Synopsis of the Greenspace Plans for X County and the Participating Municipalities within the Etowah Watershed: X, Y, and Z...**

- A Mission
  - 1. Motive for participation in greenspace program
- B Statistics:
  - 1. Total county acreage
  - 2. 20% greenspace acreage
  - 3. existing permanently protected acreage and percent of 20% goal
  - 4. greenspace acreage needed to meet 20% goal (percent of 20% goal)
- C Permanently Protected Areas Within The Watershed
  - 1. details on areas permanently protected within the watershed including names, acreage, and general location
- D General Priority Areas for Additional Permanent Greenspace
  - 1. Priority Areas/categories of areas ex. Riparian buffers
  - 2. Expected acreage and percent of total area type ex. 10,000 of 200,000 (5%)
- E Specific Details on Priority Areas within the Etowah Watershed
  - 1. general priority area
  - 2. total acreage within watershed and % of acreage expected to be protected
  - 3. specific details: names, location and other details like buffer size etc.
- F Miscellaneous Information
  - 1. Misc. such as other important info, mention of Regionalization etc.
- G Questions
  - 1. you have about the plan and any of the details
- H Outstanding Needs
  - 1. Exact info that is still needed to help us get the info into GIS form
- I Relevant Information in Greenspace Plans
  - 1. List of all maps and tables etc.

## Landuse Synopsis of the Greenspace Plan for Bartow County

### A. Mission

Bartow County proposes to implement a countywide program to permanently set aside land solely and exclusively for the purposes listed within the nine Greenspace Goals that are outlined in Section 391-1-4-.02 of the Official Code of Georgia.

### B. Statistics

County Size (acreage): 296,900 (GS Plan); 301,232 (e00 files)

Greenspace Goal (acreage): 59,380

Currently Permanently Protected Acreage: 7,526 (12.7%)

Acreage Needed to Meet 20% Goal: 51,854 (87.3%)

### C. Permanently Protected Areas within the Watershed

<u>Name</u>	<u>Acreage</u>	<u>Location</u>
1. Allatoona Recreation Area	5,427	Lip around Lake Allatoona
2. Red Top Mountain S.P.	1,907	Lake Allatoona area

### D. General Priority Areas for Additional Permanent Greenspace

<u>Type</u>	<u>Acreage in County</u> <sup>1</sup>	<u>Acreage Targeted (%)</u>	
1. Public Rec. Areas not Perm. Protected	56	56 (100%)	
2. Severe Slope/Scenic Areas	23,746	17,808 (75%)	
3. Water Resource Areas	Unknown	31,020	
a. Ground Water Recharge Areas	89,069	17,783 (20%)	
b. Floodplain Buffer Zones (9 Priority Streams, see Plan)	1,936	1,936 (100%)	
c. Water Supply Watersheds (Oothkalooga and Pine Log Creeks)	20,873	11,301 (54%)	
d. Lake Allatoona (meaning unclear)	5,053 <sup>2</sup>	Unknown	e.
Wetlands	9,519 <sup>2</sup>	Unknown	f.
Springs	Unknown	Unknown	
g. Watershed Structures/Ponds	1,537 <sup>2</sup>	Unknown	
h. Expanded Stream Buffers	Unknown	Unknown	
4. Historic Preservation Zones	29,690	2,970 (10%)	

### E. Specific Areas in the Etowah Watershed that Meet General Priority Criteria

<u>Type</u>	<u>Acreage w/i Watershed</u> <sup>2</sup>	<u>Location, Details</u>
2. Severe Slope Areas (≥20%)	12,287 of 47,131	Throughout, see GIS
3a. Ground Water Recharge Area	0	Allatoona area, see GIS
3bi. Stamp Creek (100'buffer)	78.1 <sup>1</sup>	Through Pine Log WMA
3d. Lake Allatoona (meaning unclear)	5,246	Lake itself, not greenspace
3e. Wetlands	5,276	See GIS
3f. Springs	Unknown	Unknown
3g. Watershed Structures/Ponds	348 <sup>2</sup>	See GIS
3h. Streams (buffer width unspecified)	Unknown	All permanent streams?, see GIS

### F. Miscellaneous Information

No municipality has developed its own Greenspace Grant Application to seek individual funding through the Greenspace Program. No jurisdictions with permanent greenspace or that have proposed to permanently protect greenspace are within the

Etowah watershed that we have defined. Bartow County understands that to meet the 20% goal land must be set-aside in the Land Use Planning process, that the Greenspace Program alone is not enough.

This plan seems to be very progressive. Over 93% or 48,298 acres of Greenspace will be provided by the placement of development regulations on steep land, groundwater recharge areas, and stream buffers. Although this sounds noble, broad scale land use regulations on land without compensation may bring takings cases. It is not clear if this is a realistic mode of land protection or not. No regional goals are mentioned.

#### G. Questions

We are missing the location of any existing abandoned railway corridors, the nine priority streams including Nancy Creek and streams that did not make the priority list like Jones Branch, Salacoa Creek and Drum Creek.

#### H. Outstanding Needs

1. See section G.
2. The unknown information in Sections D and E.

#### I. Relevant Information in Greenspace Plan

1. Figure of the General Greenspace Target Areas.
2. Acreage figure for each Target Area that will be protected.
3. Percent of total for each Target Area that will be protected.
4. Percentage of acquisition via each available tool.
5. GIS coverages of each Target Area.

<sup>1</sup>Statistics provided by Bartow County in the Greenspace Plan.

<sup>2</sup>Statistics derived through the summary tool in ArcView. Digital files were either provided by Bartow County or from the US Fish and Wildlife Service.

**Landuse Synopsis of the Greenspace Plans for Cobb County  
and the Cities Kennesaw and Marietta**

A. Mission

The Cobb Community Greenspace Program will:

- (1) create verdant havens adjacent to publicly owned areas,
- (2) establish permanent creek and stream buffers,
- (3) protect wetlands and floodplains,
- (4) craft neighborhood greenspace areas, and
- (5) raise community awareness of protecting green areas.

B. Statistics

County Size (acres): 216,825  
 Greenspace Goal (acres): 43,365  
 Currently Permanently Protected Acreage: 8,487.62 (19.6%)  
 Acreage Needed to Meet 20% Goal: 34,877.38 (80.4%)

C. Permanently Protected Areas within the Watershed

Name	Acreage	Location
1. Kennesaw Mountain	2,884.20	SE of Kennesaw City Limits
2. Allatoona Lake Multi-Use Area	1,829.00	Lip around Lake Allatoona
3. Noonday Creek mitigation (McCollum Airport)	23.40	SE of Kennesaw City Limits
4. Lake Acworth	950.00	City of Acworth
5. Legacy Park	97.51	City of Kennesaw
6. Others?		

D. General Priority Areas for Additional Permanent Greenspace

Type	Acreage in County	Acreage Targeted	(%)
Floodplains	24,888 <sup>1</sup> or 26,253 <sup>2</sup>	24,888	(100%)
Wetlands	1,404 or 6,646 <sup>2</sup>	1,404	(100%)
Adjacent to Public Property	Unknown	Unknown	
Adjacent to Streams	Unknown	Unknown	
In New Developments	Unknown	Unknown	

E. Specific Areas in the Etowah Watershed that Meet General Priority Criteria

Type	Acreage w/i Watershed	Location, Details
1. Floodplains	8,482 <sup>2</sup>	see GIS
2. Wetlands	1,109 <sup>2</sup>	see NWI maps
3. Adjacent to Public Land	unknown	see C
4. Adjacent to Streams (buffers)		graduated buffer widths (25-200')
ii. Little Allatoona Creek	unknown	crosses Stilesboro Road
iii. Allatoona Creek	unknown	crosses Stilesboro Road
iv. Butler Creek	unknown	crosses HW 41
v. Proctor Creek	unknown	drains into Lake Acworth

vi.	Tanyard Creek	unknown	flows across northern Acworth
vii.	Noonday Creek	unknown	crosses HW 41
viii.	Little Noonday Creek residential	unknown	drains the north-central area of Cobb County
ix.	Smaller stream orders unmapped	unknown	unknown
5.	In New Developments	unknown	unknown

F. Miscellaneous Information – Evaluation criteria have been created in order to score incoming land and prioritize for the use of funds. Criteria including: proximity or linkage to other properties, within the Chattahoochee watershed, greater than 375 acres in size, allows for passive recreation, transportation alternatives or archaeological and historic resources are weighed most heavily. A regional theme is represented by the county’s commitment to extending the Silver Comet Trail, a passive transportation corridor, and to create other similar trails. Regionalization is not recommended for wildlife corridors or ecosystem protection.

G. Questions

1. Where are all the permanently protected areas listed on page 8 of the Greenspace Plan? The hard copy map we received illustrates the location of permanently protected sites but does not list the name of the sites.
2. What kind of greenspace will be protected from the remaining 8,585.38 acres needed to satisfy the 20% goal? Floodplains and wetlands will compose 24,888 1,404 and acres respectively. Three priority areas remain, but no acreage goals have been given for these three areas. The number of acres provided by protecting stream riparian areas could be calculated relatively easily, however, protecting all the floodplains may also protect the riparian areas depending on the buffer width and floodplain size.
3. Identification of where the various stream buffer regulations apply.
4. The acreage and percentage of each priority area that is found within the Etowah watershed in Cobb County.
5. How can biodiversity and ecosystem functioning be better represented in the score-card? Greenspace is weighed towards satisfying human needs and not protecting plant and animal habitat or water quality. Ecological criteria like steep slopes, groundwater recharge areas and plant diversity needs to be considered.

H. Outstanding Needs

1. Digital copy of the Cobb Future Land Use Map (CFLUM) and other maps submitted to the State.
2. Name of the currently protected lands illustrated on Potential Greenspace Areas Near Public Facilities/Historic Sites.
3. Cobb County Stream Buffer map and location of various buffer width regulations.

I. Relevant Information in Greenspace Plan

1. Table illustrating the types and size of landholdings that will comprise the 20% goal (page 1).

2. Table illustrating the current permanently protected areas within the county (page 8).
3. Table illustrating the evaluation criteria for prioritizing land (page 17).

<sup>1</sup> Data provided by the Cobb County Greenspace Plan Report.

<sup>2</sup> Data generated through the analysis of GIS data.

**Land Use Synopsis of the Greenspace Plans for  
Cherokee County and the Participating Municipalities within the Etowah Watershed:  
Canton, Woodstock, Ball Ground, and Mountain Park.**

A. Mission

1. Cherokee county recognizes the need to act now in order to ensure that “a meaningful and attractive quality of life continues” for their residents. They also recognize that they can not accomplish these objectives by themselves and look at the Greenspace Program as a way to stimulate their own preservation efforts.

B. Statistics

1. Cherokee County Total Acreage = 274,813
2. 20% for Greenspace = 54,963
3. Existing Permanently Protected acreage = 11,643 (21.18%)
4. Resulting Greenspace acreage Need = 43,320 (78.82%)

C. Permanently Protected Areas Within The Watershed

1. Land surrounding Lake Allatoona federally owned by Corps of Engineers (11,643 acres)

D. General Priority Areas for Additional Permanent Greenspace

Note: During their visioning process it was determined that “Greenspace along waterways was the most valuable use of preserved land in the county.”

<u>Priority Area</u>	<u>Acreage</u>
1. watersheds	9,841 of 65,604 (15%)
2. primary stream buffering/greenways	
a. targeted primary streams	2,434 of x(100%)?buffer size
b. secondary & tertiary streams	7,369 of 24,563 (30%) ???
3. openspace/viewsheds	
a. 4 District Parks (N,S,E,W)	400 of 400 (100%)
b. 4 viewshed corridors along roads	4,285 of 17135.4 (25%)
c. All others	11,176 (varies)
4. agricultural lands	5,325 of ??
5. comprehensive plan related protection	2,500 of ??

E. Specific Details on Priority Areas within the Etowah Watershed

Priority Area	Targeted Area	Location	Acreage
1. watershed	a. Etowah River	NE	4,486 of 2,9907 (15%)
	b. Shoal Creek	W	2,230 of 14,865 (15%)
	c. Salacoa Valley- only partially in watershed	NW	3,125 of 20,832 (15%)
2. primary stream buffering/ greenways	a1. Little River	SE	1,103
	a2. Rubes Creek	SE	90
	a3. Noonday Creek	SE	290
	a4. Mill Creek	SE	413
	a5. Long Swamp Creek	NE	234
	a6. Sharp Mtn. Creek	N	304
	b. Secondary & tertiary stream buffers		7,369 of 24,563 (30%)
3. openspace/ viewsheds	a1. N District Park	N	100
	a2. S District Park	S	100
	a3. E District Park	E	100
	a5. W District Park	W	100
	b1. SR 20	NE-W	3,763 of 15,051 (25%)
	b2. SR 372	NE-N	97 of 387.9 (25%)
	b3. SR 140	SE-NW	61 of 242 (25%)
	b4. I 575	N-?	364 of 1,454.5 (25%)
	c1. Pine Log Mtn. only ½ in watershed	NW	5,720 of 11,439 (25%)
	c2. Waleska Park Expansion	NW	713
	c3. Brick Mill Falls park/neighborhood buffers	Center	4,693
	c4. Greshan Mill point of interest	S	50
	4. agricultural conservation		5,325 of ??
5. comprehensive plan related protection		2,500 of ??	

F. Miscellaneous Information

1. Cherokee County plans to incorporate the Greenspace Plan into their 2001 Cherokee County Comprehensive Plan. They also have included an element from the Comp. Plan in which they wish to protect the Etowah River through: the preparation of a master land use plan for the Etowah River Corridor that identifies

the need for additional protection measures and provides a detailed analysis of potential land uses within the corridor.

2. Cherokee County is already thinking about a regional approach. In their Greenspace Plan they have plans to: maintain close contact with Greenspace coordinators in neighboring counties; and identify locations and funding for trails and natural areas spanning two or more counties. They have also stated that the Community Greenspace Program will not reach its full potential unless regional networks of Greenspace are created. Protected river corridors, bicycle paths and wildlife habitats that end at a political boundary are of limited use. The Community Greenspace legislation should therefore provide incentives for the regional coordination of Greenspace planning.

G. Questions:

1. If eleven conservation subdivisions have been created already why are they not counted as areas already permanently protected?
2. Priority Area 2 are the acreage 100% of buffers along these streams? And what size buffers?
3. Priority Area 3 Brick Mill Falls if this is a residential area what % does the acreage represent?
4. What are the % representation for county farmland sites and comp plan elements?
5. Where does I 575 go to ?

H. Outstanding Needs

1. to scale hardcopy greenspace map

G. Relevant Information In Greenspace Plan

- 1.

**A Landuse Synopsis of the Greenspace Plan for North Fulton County**

A. Mission

To permanently protect 20% of the county's geographic area in greenspaces that are in close proximity to citizens and that protect our water resources.

B. Statistics

Total County Acreage: 196,092

Greenspace Goal (acreage): 39,218

Currently Permanently Protected Acreage: 2,200 (5.6% of GS goal)

Acreage Needed to Meet 20% Goal: 37,018 (94.4% of GS goal)

C. Permanently Protected Areas Within the Watershed: None

D. General Priority Areas for Additional Permanent Greenspace

<u>Type</u>	<u>Acreage in County</u>	<u>Acreage Targeted</u>
-------------	--------------------------	-------------------------



1. Rural Areas	60,000	11,946 (6.1%)
2. Future Development Areas	71,000	5,183 (7.3%)
3. Existing Development Areas	64,000	4224(6.6%)
4. 100 year Floodplain	18,395	1,711 (9.3%)

E. Specific Areas in the Etowah Watershed That Meet General Priority Criteria

<u>Type</u>	<u>Acreage w/i Watershed</u>	<u>Location; Details</u>
1. Rural Areas	?	Northern-most
2. Future Development Areas	?	“
4. 100 Year Floodplain	?	“

F. Miscellaneous Information

1. Fulton County is divided into 4 distinct planning areas, we are only concerned with North Fulton.
2. Fulton County has one participating municipality in the Etowah Watershed, the City of Mountain Park. See separate synopsis.
3. Fulton County just published “Proposed North Fulton Comprehensive Plan Amendment ‘Maintaining Rural Character in Northwest Fulton County, Georgia’”. This may have more greenspace information in it.

G. Questions

H. Outstanding Needs

1. The specific acreages for section E. of this synopsis.

I. Relevant Information in Greenspace Plans

1. Map-Fulton County Community Greenspace Program Conceptual Diagram
2. Table of Generalized Land Types in Greenspace Goal; pg.6-7
3. Table of Strategy for Preserving Greenspace in Rural Areas; pg. 7
4. Map- Appendix B: Fulton County Protected Lands by Protection Type

**A Landuse Synopsis of the Greenspace Plan for Forsyth County**

A. Mission

It is a step towards achieving their vision of providing a wide range of active and passive recreation opportunities for their residents and visitors.

B. Statistics

County Size (acreage): 156,864

Total Used to Calculate Greenspace Goal (the rest is under water): 143,928.

Greenspace Goal: 28,786 acres

Currently Permanently Protected Acreage: 10,781.7 (37.5% of goal)

Acreage Needed to Meet 20% Goal: 18,004.4 (62.5%)

C. Permanently protected Areas Within the Watershed

<u>Name</u>	<u>Acreage</u>	<u>Location</u>
<i>Some waterway</i>	<i>Use GIS</i>	NW corner

D. General Priority Areas for Additional Permanent Greenspace

<u>Type</u>	<u>Acreage in County</u>	<u>Acreage Targeted (%)</u>
Passive Use		1439
Greenways		576
Bikeways		150
Private Developments		1,439
Corps of Engineers Sites		4,722
Steep Slopes	4,979	4,979 (100%)
Wetlands	2,640	2,640 (100%)
Agricultural Lands	6,226	3,209 (51.5%)
Floodplains	9,632	9,632 (100%)

E. Specific Areas in the Etowah Watershed that Meet General Priority Criteria

<u>Type</u>	<u>Acreage w/i Watershed</u>	<u>Location, Details</u>
1. Passive use	12.05?	NW corner
3. Bikeways	TBD	S.R. 369; S.R. 9; S.R.20
6. Steep Slopes	?	NW corner
7. Wetlands		NW corner
8. Agricultural Lands		NW corner

F. Miscellaneous information

The continued use of ordinances, land use policies and regulatory measures as a means of protecting greenspace will be a key implementation tool of the Greenspace Program

G. Questions

What waterway is privately protected?  
Status of bikeways

H. Outstanding Needs

Acreage of potential greenspace acquisition areas of steep slope, A2 and wetlands in Etowah watershed

I. Relevant information in Greenspace Plan

- Table 1 Greenspace protected by Public or Private Entity; pg. 12
- Map-Existing Protection Areas by Ownership Type
- Map- Existing Protection Areas by Ownership Agreement
- Map- Forsyth County Comprehensive Plan
- Map- Comprehensive System-wide Recreation Master Plan 2000-2006
- Figure 1- Existing Recreation Sites
- Table 2- Targeted Acquisition Strategy
- Map- Potential Greenspace Acquisition Areas

## APPENDIX III

### Official Code of Georgia Section 36-66A-1.

As used in this chapter, the term:

- (1) “Development rights” means the maximum development that would be allowed on the sending property under any general or specific plan and local zoning ordinance of a municipality or county in effect on the date the municipality or county adopts an ordinance pursuant to this chapter. Development rights may be calculated and allocated in accordance with factors including dwelling units, area, floor area, floor area ration, height limitations, traffic generation, or any other criteria that will quantify a value for the development rights in a manner that will carry out the objectives of this Code section.
- (2) “Person” means any natural person, corporation, partnership, trust, foundation, nonprofit agency, or other legal entity.
- (3) “Receiving area” means an area identified by an ordinance as an area authorized to receive development rights transferred from a sending area.
- (4) “Receiving property” means a lot or parcel within which development rights are increased pursuant to a transfer of development rights. Receiving property shall be appropriate and suitable for development and shall be sufficient to accommodate the transferable development rights of the sending property without substantial adverse environmental, economic, or social impact to the receiving property or to neighboring property.
- (5) “Sending area” means an area identified by an ordinance as an area from which development rights are authorized to be transferred to a receiving area.
- (6) “Sending property” means a lot or parcel with special characteristics, including farm land; woodland; desert land; mountain land; a flood plain; natural habitats; recreation areas or parkland, including golf course areas; or land that has unique aesthetic, architectural, or historic value that a municipality or county desires to protect from future development.
- (7) “Transfer of development rights” means the process by which development rights from a sending property are affixed to one or more receiving properties.

### **36-66A-2. Procedures, methods, and standards for transfer of development rights.**

- (a) Pursuant to the provisions of this Code section, the governing body of any municipality or county by ordinance may, in order to conserve and promote the public health, safety, and general welfare, establish procedures, methods, and standards for the transfer of development rights within its jurisdiction.

(b) (1) Any proposed transfer of development rights shall be subject to the approval and consent of the property owners of both the sending and receiving property and shall be subject to a separate vote of approval or disapproval by the local governing authority

(2) Notwithstanding the provisions of paragraph (1) of this subsection, an ordinance enacted by the governing authority of a consolidated government may, but is not required to, provide that any proposed transfer of development rights shall be subject to a separate vote of approval or disapproval by the governing authority.

(c) Prior to any transfer of development rights, a municipality or county shall adopt an ordinance providing for:

(1) The issuance and recordation of the instruments necessary to sever development rights from the sending property and to affix development rights to the receiving property. These instruments shall be executed by the affected property owners and lien holders;

(2) The preservation of the character of the sending property and assurance that the prohibitions against the use and development of the sending property shall bind the landowner and every successor in interest to the landowner;

(3) The severance of transferable development rights from the sending property and the delayed transfer of development rights to a receiving property;

(4) The purchase, sale, exchange, or other conveyance of transferable development rights prior to the rights being affixed to a receiving property;

(5) A system for monitoring the severance, ownership, assignment, and transfer of transferable development rights;

(6) The right of a municipality or county to purchase development rights and to hold them for conservation purposes or resale;

(7) The right of a person to purchase development rights and to hold them for conservation purposes or resale;

(8) Development rights made transferable pursuant to this Code section shall be interests in real property and shall be considered as such for purposes of conveyance and taxation. Once a deed of transferable development rights created pursuant to this Code section has been sold, conveyed, or otherwise transferred by the owner of the parcel from which the development rights were derived, the transfer of development rights shall vest in the grantee and become freely alienable. For the purposes of *ad valorem* real property taxation, the value of a transferable development right shall be deemed appurtenant to the sending property until the transferable development right is registered as a distinct interest in real property with the appropriate tax assessor or

the transferable development right is used at a receiving property and becomes appurtenant thereto; and

(9) A map or other description of areas designated as sending and receiving areas for the transfer of development rights between properties; and

(10) Such other provisions as the municipality or county deems necessary to aid in the implementation of the provisions of this chapter.

(d) (1) Prior to the enactment of an ordinance as provided in subsection (c) of this Code section and prior to any action to approve or disapprove a proposed transfer required by paragraph (1) of subsection (b) of this Code section, the local governing authority shall provide for a hearing on the proposed ordinance or transfer. At least 15 but not more than 45 days prior to the date of the hearing, the local governing authority shall cause to be published in a newspaper of general circulation within the territorial boundaries of the political subdivision a notice of the hearing. The notice shall state the time, place, and purpose of the hearing. Any proposed transfer of development rights requiring approval or disapproval of the local governing authority shall be subject to any signage requirements required by law for rezoning.

(2) Prior to any changes in an area designated in an ordinance as a sending or receiving area, the local governing authority shall provide for notice and a hearing as provided in paragraph (1) of this subsection.

(e) Proposed transfers of development rights shall become effective upon the recording of the conveyance with the appropriate deed-recording authorities and the filing of a certified copy of such recording with the local governing authority of each political subdivision in which a sending or receiving area is located in whole or in part.

(f) Municipalities and counties which are jointly affected by development are authorized to enter in to intergovernmental agreements for the purpose of enacting interdependent ordinances providing for the transfer of development rights between or among such jurisdictions, provided that such agreements otherwise comply with applicable laws. Any ordinances enacted pursuant to this subsection may provide for additional notice and hearing and signage requirements applicable to properties within the sending and receiving areas in each participating political subdivision.

## APPENDIX IV

### County Zoning Ordinances Important for Greenspace Protection in the Etowah Watershed

#### Bartow County:

The only provision of the Bartow County Zoning Ordinance that presently appears to have application for greenspace protection is Ordinance 7.14. This ordinance provides for Planned Unit Developments (PUD). To meet the requirements for development of a PUD 20% of the total tract must be designated as “greenspace”. Since Bartow County does not define greenspace or set out a structure for designation and protection of such land, it is unclear whether such property in PUDs would meet the requirements of greenspace under the Initiative.

#### Cherokee County:

Cherokee County Zoning Ordinance Article 23: Conservation Subdivisions.

Cherokee County’s conservation subdivision ordinance presents a mechanism whereby the County can insure that land is put under permanent protection as greenspace. At its heart Article 23 provides a mechanism for greater flexibility in design and placement of buildings than would otherwise be permissible in a new subdivision. Total density of units per acre may not be increased, however, lots may be clustered in a smaller area with the remainder of the area placed under protective covenants or conservation easements. It must be recognized that a conservation subdivision is still development. Land that is currently undeveloped (and therefore “greenspace” in the basic meaning of the word, though not protected) will become development. However, the end result of the development of a conservation subdivision is the permanent protection of a portion of the property. This protected area can be counted towards the 20% protection goal set as the target by the Greenspace Initiative.

Article 23 is structured as a floating zoning designation and permitted as a matter of right in development of any area located in residential zoning districts. Total density of units per acre cannot be increased over the level that would be permitted under a traditional subdivision development in any particular zoning district. However, minimum lot sizes are reduced allowing the development to have a smaller overall “footprint”. In return for this ability to cluster units, the remainder of the property must be preserved as “open space”. Cherokee County has provide three mechanism whereby these “open spaces” may be protected: 1) Ownership of the “open space” by a mandatory Home Owners’ Association (HOA) responsible for maintenance and upkeep of the property; 2) Dedication of the subject property to Cherokee County Board of Commissioners or the Cherokee County Parks and Recreation Authority; 3) Dedication of the subject land to a Land Trust established under Georgia law and for “conservation purposes”.

Article 23 further requires that the eventual owner or owners of the “open space” in question convey a conservation easement or other legal conveyance approved by the County. Such a conservation easement can effectively meet the permanent protection requirement of the Greenspace Initiative. Unfortunately, Cherokee County suggests in Appendix 23-III that a minimum of 10% and a maximum of 50 % of the “open space” should be used for active recreation such as ball fields, swimming pools or tennis points. Any part of the “open space” put towards such a use would not satisfy the definition of greenspace and would reduce the percentage of the subject land that could be considered towards the eventual 20% protection

goal. Further, there remains an issue of whether a land trust or conservation organization would be willing to hold an easement over property put to such uses, creating a potential conflict in the operation of Article 23.

#### Forsyth County:

Forsyth County has recently adopted a new Unified Development Code. This code contains two chapters that are of particular interest for greenspace protection.

#### Chapter 19: Conservation Subdivisions

Chapter 19 provides for the construction of Conservation Subdivisions in special overlay zones that may be applied in areas zoned for residential development. Prior to development of the conservation subdivision Section 3.1 requires that all “Primary Conservation Areas” (defined as habitat for endangered or threatened species, wetlands, flood plains, water bodies, shorelines, adjacent riparian zones or upland buffers, historical, cultural and archaeological sites and steep mountain slopes) be permanently protected in undivided units. Section 3.2 requires that all or a portion of “Secondary Conservation Areas” (defined as prime farmlands and open meadows, tree coverage areas and mature woodlands, aquifer recharge zones, steep slopes and scenic views or sites) be identified and incorporated into the protective scheme. The total percentage of property protected must exceed forty (40) percent of the total area and the protected area must have a minimum contiguous size of two (2) acres. Permanent protection must be in the form of a conservation easement approved by Forsyth County and held by either an approved land trust, home owners association or Forsyth County. In any case it must be co-signed by the County (presumably meaning enforceable by the county, but this is not made clear). The property interest not associate with the conservation easement must be owned by either a homeowners association or Forsyth County. Obviously, land held under such a conservation easement would meet the definition of protected greenspace unless its specific use (i.e. active recreation) was outside the scope of conservation purposes; since Forsyth County does not list such a possible use, this seems unlikely.

#### Chapter 15: Agricultural and Conservation Districts

Chapter 15 Section 2 provides for Agricultural Protection Districts (A2). This is not, in and of itself, a greenspace tool, but can be used to aid in greenspace protection. Basically this is an overlay zoning which a group of landowners in an area zone as Agricultural (A1) may voluntarily request. If accepted, the ability to conduct activities outside the pale of traditional agriculture is severely limited. In return the County Board of Tax Assessors will assess the value of the property for *ad valorem* tax purposes at seventy-five (75) percent of the value other tangible real property would reassessed for bona fide agricultural uses. This is not permanent protection, but it can be a funding tool to help promote conservation easement on property making such an easement a more attractive and affordable proposition for the landowner.

Chapter 15 Section 4 provides for Conservation Districts (CONS). This requires that the landowner enter into a conservation agreement under O.C.G.A. § 48-5-7.4. Landowners entering into such agreements will be assessed at forty (40) percent of the properties use value. Again,

since the agreements are temporary and can be breached (though with heavy tax penalties) they are truly useful in a permanent sense as an additional vehicle to help fund and promote permanent conservation easements.



## APPENDIX V

### Alternative Land Conservation Tools and Programs

#### Limited Development

Limited or partial development can be loosely defined as financing the preservation of threatened property by developing a portion of it for sale. Following are descriptions of two examples which illustrate the range of possibilities for limited development.

##### *Government Canyon, San Antonio, Texas*

The Trust for Public Land was used to negotiate the acquisition of 5,150 acres and to hold it until public funds could be appropriated. The Trust negotiated the sale over a two-year period, finally arranging a bargain sale with the assistance of \$1 million from the Edwards Underground Water District and \$500,000 each from the San Antonio Water System and the Texas Parks and Wildlife Department.

However, this assistance was short of the sales price. In order to provide the necessary income to close the sale, the Trust identified 450 acres that were already cultivated and that did not have a significant natural resource value. After placing restrictions on the 450 acres to limit its development potential and its impact on water resources, the Trust sold the land to a private party. The income from this sale provided the additional amount necessary to meet the sales price.

The 4,700 acre tract will be managed by the Texas Parks and Wildlife Department for conservation and recreation purposes, with the Edwards Underground Water District and the San Antonio Water System having access to the property for research, water quality protection and educational purposes.

##### *The Santa Lucia Conservancy*

A Partnership was formed between Pacific Union Real Estate and Japanese investors to purchase 20,000 acres for \$70 million. In order to maintain, manage and financially support the preservation of the 20,000 acres, the Partnership created the Santa Lucia Preserve. The Preserve in turn, created a plan which involved a limited development community restricted to 2,000 of the total amount of acreage.

The legal and management vehicle for assuring the protection of the Santa Lucia Preserve is the Santa Lucia Conservancy, which was incorporated as a subsidiary of The Trust for Public Land. The Conservancy will be the legal vehicle for enforcing restrictive covenants and for managing the 18,000 acres of protected natural resource land. The Conservancy's operating funds will come from a \$25 million endowment that will result from the proceeds of the limited development residential community.

#### Suffolk County, New York

Suffolk County, New York is one of New York states most productive agricultural regions. In an effort to halt losses of farmland to suburbanization the county has used a tax incentive-based conservation easement program. Unfortunately, the program has not met with much success. The county set a goal of 20,000 permanently protected acres of farmland. It has

only succeeded in protecting 7,000 of those acres. The county predicts that at current rates of development there will only be 10,000 acres of farmland remaining undeveloped by 2012. Suffolk County is currently considering the use of a PDR program and possible IPA funding to make its conservation efforts more effective.

### Washington County, Rhode Island

Washington County is in the process of developing a regional greenspace protection plan. Working with a state greenspace initiative much like Georgia's, this southern Rhode Island county and at least five of its neighbors are trying to initiate regional greenspace plans and greenspace protection efforts. They are being aided in this process by the Washington County Land Trust and students at Brown University. This is a project that is very similar to that of the Upper Etowah and Allatoona Regional Greenspace Initiative and bears further review.

### Southern Pennsylvania

Bucks, Chester, Delaware, Montgomery and Philadelphia Counties in southern Pennsylvania are currently engaging in a region-wide effort to promote greenspace. An organization known as the Greenspace Alliance with wide-ranging public and private membership has been formed to promote the project.

### Oregon Exclusive Farming Zoning

Oregon has taken a different tack than many other states in its efforts to curb urban sprawl. In the 1970's it became clear that the city of Portland and her suburbs were going to spread throughout the Willamette valley, some of the richest farmland in the state. In response to this threat, the state of Oregon made changes to its zoning enabling act requiring municipalities to designate urban growth zones surrounding cities and essentially designating all other properties as exclusively for agriculture or forestry. Given the strong home rule tendencies of the state of Georgia this was deemed an untenable option for the Etowah region.

### Massachusetts

Massachusetts has a farmland protection plan. It is not particularly novel nor has it met with noticeable success. Basically, the Massachusetts effort relies on a conservation easement and PDR program operated by private land trusts.

### TIF financing<sup>3</sup>

Local government finance tool used for infrastructure finance for redevelopment of depressed areas.

When tax revenues in a discrete redeveloping or developing area can reasonably be expected to increase in the near future, a municipality, county, state, or other political subdivision may designate that particular geographic area as a tax increment district, and pledge

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<sup>3</sup> Research by Mick Womersley, "Tax Increment Financing"

a portion of, or all, future property tax increments above the base or starting level from that district, to infrastructure development projects in that district.

Ex: Grand Rapids, MI used TIF financing to create a downtown riverfront park. The park is considered an attractive public amenity, and adds to the value of property and the volume of business in the area.

A county or municipality may undertake the redevelopment necessary to a greenspace project either under its own auspices as a “redevelopment agency” or create a separate non-profit greenspace program as a “redevelopment agency” for that purpose. Both of these options are legal under O.C.G.A. §36-44-4 (Redevelopment Powers Act)

§36-44-4 permits local redevelopment, using TIF financing, of “substantially underutilized” land containing “open lots or parcels.”

*What are the steps towards TIF financing?*

Someone identifies a local greenspace project appropriate to the use of TIF funds. The property must be closely linked to, and probably geographically part of, or adjacent to, a residential or commercial development or redevelopment where property taxes can reasonably be expected to rise in the near future, and where a further incremental rise in property values can be expected as a result of the greenspace development.

Note: It is not presently state law that full public access be provided to TIF funded improvements and amenities. However, it is recommended that public access should be provided.

Having decided to use TIF financing for greenspace development, and chosen a corporate vehicle for such development, a county or municipality will then “cause” a redevelopment plan to be prepared. §36-44-5(2) and §36-44-3)

The plan must stipulate both the nature and specifics of the redevelopment, as well as the tax increment district from which taxes are to be drawn, the actual costs of work and materials, including administrative costs, and the estimates of the future tax increments that such costs are to be borrowed against.

A public hearing is then held within sixty days of the plan’s final preparation. Once approved, the municipality or county may issue tax increment bonds. These monies are used to finance the greenspace development either directly by the jurisdiction, or through the greenspace program “redevelopment agency.”