

History

- ◆ Natural History
- ◆ Environmental History
- ◆ Human History

Present

- ◆ Watershed Health
- ◆ Ecological Make-up
- ◆ Public Opinion

Future

- ◆ Community Resource
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Ben Burton Park



And the Middle Oconee Riverway Project

A Comprehensive Report Constructed By English 3590 Professional and Technical Communication

This document is a comprehensive report on Ben Burton Park and the Middle Oconee Riverway prepared by the students in ENGL 3590, Professional and Technical Communication, advised by Dr. Fredric Dolezal and Andrew Burke. We include in this document the history of the land and its interaction with the people that lived on it and around it. This document also includes detailed information on the flora and fauna found at Ben Burton Park and its watershed. You will also find current issues concerning the park and an overview of park management including a proposal for managing Ben Burton Park

I am of old and young, of the foolish as much as the wise; Regardless of others, ever regardful of others, Maternal as well as paternal, a child as well as a man, Stuff'd with the stuff that is coarse, and stuffed with the stuff that is fine; One of the Great Nation, the nation of many nations, the smallest the same, and the largest the same; A southerner soon as a northerner -- a planter nonchalant and hospitable, down by the Oconee I live; A Yankee, bound my own way, ready for trade, my joints and the limberest joints on earth, and the sternest joints on earth; A Kentuckian, walking the vale of the Elkhorn, in my deer-skin leggings -- A Louisianian or Georgian
 ... Walt Whitman

Introduction

On the west side of Athens is a small, thirty-two acre park named after its benefactor, Ben Burton. Ben Burton was the Vice President of Georgia Power in 1967, when the company sold the land to the county government, designating it as a recreation area, as the plaque in the front of the park says, “for the pleasure of the people.” This land could have been sold for more lucrative purposes, but it was deemed important, more important than profit, to preserve the land now called Ben Burton Park.

Over thirty years later, one would think that Ben Burton Park would be considered one of Athens’ well-known historical landmarks and public recreation facilities. However, as evident by its lack of management, Ben Burton Park is rarely considered at all. In the Athens-Clarke County Leisure Services Department Spring bulletin, Sandy Creek Nature Center and Bear Hollow Wildlife trail headline with advertisements of many upcoming events. Ben Burton

Park is mentioned in the bulletin only as a footnote.

The Park’s neglect has had negative effects, giving it a stigma that is now its most prevalent legacy. Many of those who visit the park are accompanied by large dogs that, unleashed, roam freely throughout it, creating an unsafe environment for children. The lack of onsite supervision makes the park a haven for illegal activity, deterring area residents from frequenting the park. Many rocks and structures near the entrance of the park are marred by spray-painted obscenities. Across the river, a developer is digging up the floodplain as part the construction of a subdivision. The leniency observed by the park’s authorities concerning these activities is evidence that Ben Burton Park is not considered a valuable public resource. We, however, believe that this land has a wonderful history and the potential for a strong future. Not only is it a park, but it is an artifact—a fossil that tells the story of the industrial evolution of Athens.

Ben Burton Park’s history speaks of a growing town sustained by its agrarian foundation, which at the

turn of the century, was a growing city powered by electricity. The roots of this growth hold fast at the site of Ben Burton Park. The land was once the site of a grist mill which provided food for the citizens of Athens. Later, the same land housed a small hydroelectric power plant that supplied electricity to the growing Athens, flanked by plantation style homes and trolley car lined streets. The homes were lit and the trolley cars were powered by the electricity generated from the hydroelectric power plant. Today, remnants of the old hydroelectric plant remain at Ben Burton Park, pieces of history that tell a wonderful story to those who will listen. As our class continues to discover the history of Ben Burton Park, the history of Athens is found with it.

The future of Ben Burton Park is just as important as its history. With the right level of care and management, Ben Burton Park can be a valuable social resource for generations of Athenians to come. A

section of Ben Burton Park is composed of a floodplain which gives it unique characteristics that make it a useful educational resource. Sediments are continually washed away by annual flooding, exposing layers of bedrock. This bedrock provides a geological timeline showing the land's formation over millions of years. The ecological habitat comprising the park and the river that runs through it is a virtual laboratory providing studies of biodiversity and water quality, as well as studies of animal life, marine life, and plant life. And aside from its educational potential, the park's beautiful landscape is a scenic asylum from the bustle and commotion of everyday life, providing an isolated area for recreation and relaxation. The potential of Ben Burton Park can be realized when it is given the attention and support it needs.

The vitality of the park's history and future are controlled by its present. If the park continues to be neglected as it now is, the prospects

of its past being preserved and its future being productive are bleak. Knowing what this land once was and what it can be drives us to do all we can to make sure that Ben Burton Park is appreciated. We are looking for ways to ensure that Ben Burton Park's past, present, and future are given the dignity they deserve. To do this we are exploring the area's history, ecology, management, and public policy to tell the whole story of Ben Burton Park from its formation millions of years ago to the current issues that plague it today. Our goal is to present a proposed management plan to the Athens-Clarke County government in the near future. Athens-Clarke County's Master Plan is currently under revision making this an opportune time for the class to submit a proposal with a comprehensive plan to manage Ben Burton Park. Responsibly managing Ben Burton Park will enrich Athens history while improving its present and future.

Methods

Our Methods for research fall under four general categories: 1) **Archival Research**, 2) **Interview/Case Study**, 3) **Document Retrieval/Bibliographic Research**, and 4) **Preliminary Cost Analysis and Feasibility for Improvements**.

Archival Research

Archival research includes searching and acquiring a) ATHENS CLARKE COUNTY LAND DEED RECORDS; b) archival information from GEORGIA POWER; documents and maps from the HARGRETT RARE BOOK AND MANUSCRIPT LIBRARY; c) the SCIENCE LIBRARY (UGA); d) the Main LIBRARY (UGA); and e) the ATHENS-CLARKE COUNTY REGIONAL LIBRARY. Information also came from various experts at the University of Georgia, Police Records, and newspaper articles.

Interview/Case Study

We conducted interviews with expert consultants; city administrators and officials in park management; City Council members; park users; local residents; botanists; ecologists; geologists; ornithologists; zoologists; and representatives of various community organizations interested in management and environmental issues. We have also conducted numerous on-site observations of park usage at various times of the day, days of the week, and during different weather conditions.

Document Retrieval/Bibliographic Research

We have studied and synthesized park management plans and texts, UNITED STATES GEOLOGICAL SURVEY (USGS) maps and data concerning the UPPER OCONEE RIVER BASIN; GEORGIA WILDLIFE FEDERATION data concerning biodiversity and watershed preservation; Georgia Department of Natural Resources Environmental Protection Division's data including the OCONEE RIVER BASIN MANAGEMENT PLAN 1998 draft; the GEORGIA AUDUBON SOCIETY's literature on rivers and wildlife; and watershed data from the UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.

Preliminary Cost Analysis and Feasibility for Improvements

We have contacted service providers and contractors to find the costs and feasibility of making park renovations. Keeping in mind the limited budgets of local governments, we have also explored grants to supplement the cost of park improvements and to provide a public awareness program to help protect our watershed.

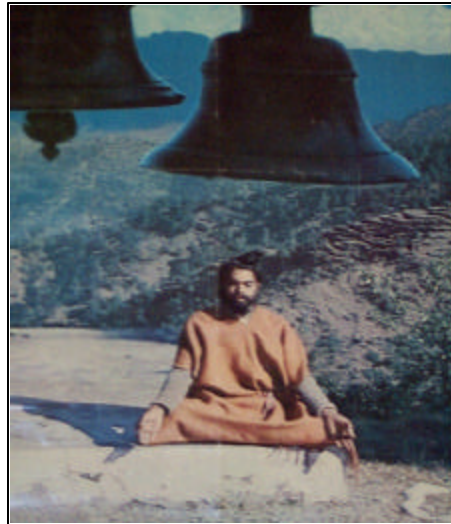
Our Natural Culture

The land now known to Athens and surrounding communities as Ben W. Burton Park is a place that has been important to people living here for perhaps thousands of years. It is not a question of whether or not we interact with this land, but how we understand our human relationship to it. Upwards of 10,000 years ago, people probably fished on these shores and hunted in the nearby woods. While we may not associate this river with these people, we can never separate ourselves from our past. Just as what we call progress depends on that which came before, our architectural structures depend on the resources from which they are built. We can never put ourselves outside of history; we can never put ourselves outside of nature. This New World Athens, and the buildings that line the streets, the streets themselves, and the people who scurry or mosey along them are all of nature. Our industrial and natural heritages are but the same history written under two headings.

A symbol of this historical synthesis exists at Ben Burton Park, where the remnants of a dam stand beneath and beside the rushing waters. These remnants invite us to remember what came before us. What thousands of years ago provided space for people to hunt and fish was later used as a source of sustenance and power by people who would first call themselves Americans, and later, Southerners.

In 1777 Georgia's Revolutionary House of Assembly passed a bill which encouraged settlement of newly opened lands by offering large tracts to the builders of grist mills, saw mills, and iron works.

The area now known to us as Ben Burton Park became property, and by 1816, was home to a grist mill. First using the power of the river to grind grain into flour and then using the river to harness energy, Athenians would come to ride in trolley cars through town, and store their food in refrigerators, not iceboxes. Memories of trolley cars and first lightbulbs bring romantic images to mind, but this land leaves no part of our history untold, even those parts we do not want to remember, but will never escape.



In an October 7, 1852, advertisement for this tract, the seller offers not just land, but "also a part of the negroes if not previously disposed of"--a painful reminder to people in a city who want to accentuate progress, yet know too well what "east side" and "west side" really mean.

The owners of the hydroelectric power plant, who called themselves Athens Electric and Railway Company, harnessed more energy than they could store or use; they encouraged the people to use electricity to light their homes, to store their food, to ride through town on a trolley car, to iron their clothes, and do chores of the common day.

By 1965, there was more need than supply, and the river could not feed Athens' electric appetite. In a switch from renewable to non-renewable energy, Georgia Power Company, created from the merging of several electric companies, blew up their dams and moved to the burning of fossil fuels. The company sold the Mitchell Bridge Site to the Athens-Clarke government for \$10, with the understanding that the land would be made into a park named after the energy company's Vice-President, Ben W. Burton.

This land and this river are integral to our understanding of our past, and essential to our present and future. We cannot avoid interacting with this land. Will we respect the site that has fueled not only our industrial development, but our cultural identity? We realize the challenge we face in Athens today is not to see what else we can take from this river, but to acknowledge how and what we have taken and will continue to take, and to express our thanks by respecting and conserving the natural dominion we have been given. We cannot respect ourselves without respecting that from which we come. The great blue herons, the catfish, the kingfishers, the beavers, the hikers, the shade cast by the leaning river birch remind us that we are part of this world, and just as we depend on the river, the river and the land depend on us.

Once out of nature I shall never take
My bodily form from any natural thing,
But such a form as Grecian goldsmiths make
Of hammered gold and gold enameling
To keep a drowsy Emperor awake;
Or set upon a golden bough to sing
To lords and ladies of Byzantium
Of what is past, or passing, or to come.
William Butler Yeats, "Sailing to Byzantium"

Reconsidering Industrial History and Heritage in Athens, Georgia

On the bank of the Middle Oconee River lie the ruins of a grist mill that provided flour for the city of Athens, a hydroelectric power plant that provided electricity for the city's street lights and for a mass transportation system at the turn of the century. A public park that is a memorial to our natural and civic landmarks was once pragmatically called the Mitchell Bridge site, but is now known as Ben Burton Park.

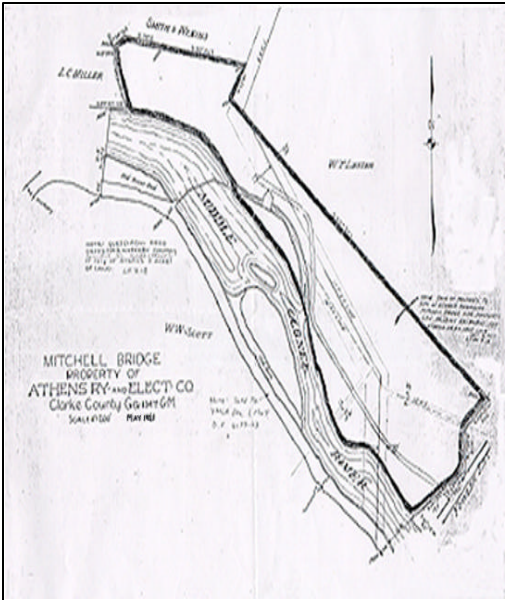
Revolutionary Ideas Advance

In 1777, Georgia's Revolutionary House of Assembly passed a bill which offered reserves of land to the

builders of grist mills, saw mills, and iron works, encouraging settlement of newly opened lands. Two thousand acres of oak and hickory land including Turkey Creek and Mill Creek (future Ben Burton Park) were surveyed for Ignatius Few in 1786. Uriah Humphries bought the land from Few in 1809. Water power was not mentioned at the time of the sale. However, seven years later, a grist mill had been erected. Ownership of the land known as Ben Burton Park changed hands several other times throughout the course of the 19th and early 20th centuries. See chart for details on other owners.

Ownership From the Beginning

Name	Dates owned	Ownership Specifics
Ignatius Few	1786-1809	Oak and hickory land including Turkey Creek and Mill Creek, [present day Ben Burton Park]
Uriah Humphries	1809-1818	Water power not mentioned at time of sale, but developed within 7 years
Thomas Mitchell	1818-1852	[See advertisement below]
Francis McLeroy	1857-1895	Merchant flour mill
Athens Electric and Railway Company	1895-1926	Used for providing electricity to Athens' industry and transportation
Georgia Power	1926-1967	Final owners and destroyers of the hydroelectric dam and power plant



Mitchell Buys Land

A Great Bargain--2,500 acres lying in Clarke county on the middle, being the main branch of the Oconee Rivers within from two to four miles of Athens--well improved...3000 acres cleared and in cultivation, a good dwelling house, 44x20 feet with three brick chimneys--a good gin house and a gin with 40 saws--other out houses and good apple and peach orchards. The land lies along the river...and embraces an excellent shoal, well adapted for water machinery, on which are erected and in operation saw and grist mills in good repair, the grist mill running two pair of stones and furnished with a good bolting cloth and other necessary apparatus for facilitating the usual operations of dressing the stone etc. Also two stills.

from The Athens Gazette September 19, 1816

Athenians Experience Industrialization Before Others in the State

The industrial development of the Mitchell Bridge power plant site was underway for 100 years before it provided excitement beyond local production of necessities. As the street railways were laid, the community looked forward to what was in store. The following is an article that ran in the *Athens Banner* on **May 29, 1891**:

The Track Finished

And is ready for the Electric Cars. The track of the electric street railway has been finished, and the cars will be gliding over it ere many days. The last spike was driven yesterday. Manager Voss says he will be ready to start the cars on Monday morning, if the electric men do their part and have the cars ready. Everything now depends upon the cars being in proper shape on Monday. If they are, the new line will commence work, if not, then the people will just have to wait a while until they are ready for service.

Less than one month later, on **June 23, 1891**, the new streetcar barn, located off Boulevard on land donated by the Athens Park and Improvement Company opened for the first time. The three streetcars, "**Lucy Cobb**," "**No. 2**," and "**Pocahontas**," rolled out to service an excited and enthusiastic populace at a speedy eight miles per hour, much too fast for the more cautious citizens of Athens. Athenians seemed to enjoy the streetcars and were soon

able to attest to the excellence of Snodgrass's service.

On **December 12, 1896**, Athenians were introduced to residential electricity as current generated from the "white coal" of the Middle Oconee River Mitchell Bridge site lit Brumby's Drugstore downtown. Also receiving electricity were several industrial companies, including Athens Water Works, Southern Manufacturing Company, Athens Foundry and Machine works

and the Athens Coca-Cola Bottling Company.

By **1932**, there were 364 electric streetlights in Athens. By **1938**, 35,000 homes have electricity. In **1948**, Athens paid the largest amount in its history, \$19,476.59 for additions and upkeep of: 450 of the 600 candle power (cp) lights, 40 of the 250 cp lights, 36 of the white way 600 cp lights. All of the preceding examples of electric use derived their power in part or whole from the Mitchell Bridge power plant.

History of Ben Burton Park- As Told By Its Vegetation



Most of the land in and around Ben Burton Park has been disturbed at one point or another by human use and development. Land deeds and mill advertisements only go so far in telling the story of the land's historical development. Looking further, park vegetation gives testimony to the human history of the Park.

Even the forested area of the Park, though it is in later stages of

succession, has been subject to human encroachment. It is home to American sycamore trees, which were often planted as ornamentals near stream bottoms. The smilax in the branches of some of these trees also indicates human activity, as it was used as Christmas decoration. Pine trees including the loblolly and short-leaf varieties are pioneer species, as is the long-lived tulip poplar, bearing witness to clear-cutting in the last few centuries. A tall old beech tree near one of the

trails even wears the initials of lovers and passersby. Privet, originally imported from China, was introduced to the area by humans. Flowers such as daffodils blooming in the Park are a sure sign of a homestead sometime in the early part of this century. This speculation is confirmed by the remains of an old house on a hill near easement area in the park.

Obviously, the area used by Georgia Power for its power lines is disturbed. The company cuts down vegetation in a three-year cycle. Though the easement area is stripped of trees, it is far from barren. It provides us with a unique opportunity to see natural succession in action. Succession is the process by which an environmental community evolves. In Georgia, this means an area goes from a virtually barren landscape with only a few annual weeds to a diverse forest landscape with all types of plant growth from mature hardwood to low-growing shrub. This process does not happen overnight. It takes about 150 years for a Piedmont community to reach the climax stage. The easement area provides a visible cross section of this process. Directly beneath the power lines there are tall grasses, flowers like the buckeye and viola, and bushes including blackberry and yellow jasmine. Moving to the margins of the forest the plant get older and

larger: young pines and hardwoods mixed with shrubs.

The variety of plants in this area provides habitat for a vast array of avian and mammalian wildlife. The red-shouldered hawk uses the easement for hunting and the forest for nesting. It is attracted by prey such as squirrels and chipmunks who are in turn attracted by nuts and berries. Flowering plants attract insects who attract songbirds. Other songbirds are drawn by the same forage which is attractive to small mammals.

The flora and fauna in the Park are not just beautiful. They offer a window to the history and future of Ben Burton Park's land use. But it does not stop there.

The rocks themselves in the Park reveal Athens' history. The metamorphic rock called *gneiss* (pronounced: nice) that underlies much of the Piedmont region is visible at Ben Burton Park, making it an excellent study site for geology students and professionals. In most other places, soil and vegetation hide

Piedmont gneiss. The rock is composed of light and dark minerals giving it a banded or foliated appearance. One of these minerals is biotite, which contains iron (Fe). As weathering occurs, flakes of biotite break away and the iron becomes oxidized. Oxidized iron looks red, and as a result, so does Georgia clay.

It is a type of human invasion that has brought nonnative species of plants to this area. This invasion has ultimately brought plant diversity and an aesthetic to the land. Another type of human invasion is threatening this aesthetic. At the present, vandals have defaced many rocks and structures. Just like the introduction of the Japanese Honeysuckle, this vandalism brings a new look to the park. The change from residents introducing new plant varieties to residents introducing spray paint and obscenities is a poor one. It is our goal that human intervention will show an improvement and not a regression.

PARK MANAGEMENT PLAN

Planning in leisure services and park design, as in any area, must be deliberate and directed if it is to be effective. In accordance with this idea, the Philosophy of Service for Ben Burton Park states that leisure services play a growing role in modern life. The government has an obligation to provide varied opportunities for creative and constructive recreation to improve the quality of life by enriching industrial heritage and culture while protecting the natural environment

Hand in hand with the Philosophy of Service stands the Mission Statement. The Mission Statement

of Ben Burton Park states that recreation should be available and enjoyable to every Athenian. The park should progress towards renovation and improvement while aligning itself with the ecological and historical heritage which must be preserved. Together, the Philosophy of Service and Mission Statement should guide every decision made regarding the present and future of Ben Burton Park.

Because the Athens-Clarke County Master Plan is currently under revision, we propose a park management plan that will fit seamlessly with the Master Plan. The



purposes of a Master Plan are as follows:

- 1) The master plan provides detailed researched facts concerning the community and the role of parks and recreation.**
- 2) The master plan establishes priorities and statements of direction based on researched and documented facts, not on opinion, bias, or hearsay.**
- 3) The master plan provides direction for the community for a five to ten year period and can also determine immediate as well as long-range goals.**
- 4) The master plan serves as a decision-making document that allows other parks and recreation decisions, problems and questions to be determined in relationship to the master plan.**
- 5) The master plan can be utilized by all community decision makers, not just the parks and recreation authority.**
- 6) The master plan allows for a consistency in planning that can survive changes in governmental leadership.**

These purposes must be kept in mind as plans for Ben Burton Park are decided upon, and our proposal supports each of these objectives. First, it relies on a realistic understanding of cost, policy, and administrative circumstances. Second, the park management plan's proposed renovations and improvements that rely on what the park could be and not what many view it to be. Third, the park management plan offers realistic solutions to real-life problems broken down into three distinct implementation sections. Fourth, it will serve as the reference document for Ben Burton Park with recommendations that will

improve all sites under the governance of the Recreation and Leisure Services Department. Next, it outlines ideas and suggestions that are applicable to many sectors of the community. Last, the park management plan is a framework that will guide decisions while accommodating the changing needs of recreation in Athens.

We are not proposing a list of "quick fix" remedies for the park's problems. An effective plan for Ben Burton Park includes the formation of a community-based partnership consisting of the Athens Clarke County government, the University of Georgia, non-government organizations (NGO's), and area residents that will make holistic,

innovative efforts to improve and protect the park through public awareness, action, and education.

Ben Burton Park is in desperate need of improvement. If renovated and improved, Ben Burton Park will stand as an educational park that will serve residents of West Athens that currently do not have a recreational area. "Contemporary park designs must respond to sociological, environmental, economic and energy parameters that were non-existent in the past: Intense and diverse user demands, a well-informed and involved public, tax referendums and demands for energy conservation are but a few of the developments". In order to respond to these diverse demands, the evaluation of Ben Burton Park must be careful and deliberate. Keeping in mind the

Philosophy of Service and Mission Statement, answering the needs of park goers through our park management plan will be effective and worthwhile.

Why preserve and protect Ben Burton Park? This question is easily answered with statements that explain the historical significance of the grist mill and hydroelectric power plant. But why protect it in this way, involving the Athens-Clarke County Government, residents of Athens and members of the University community? “The environmental/aesthetic/preservationist approach (to leisure

services) ... links several groups in society who are concerned with preserving the natural environment and the nation’s historic heritage with others who see the preservation of natural beauty and visually appealing man-made environments as a critical aspect of government’s responsibility”. By bringing together various groups in Athens over the same issue, this park management plan ensures an environment that will educate and entertain all Athenians.

If we are to improve Ben Burton Park, we must first identify the problems facing it. The trails are often treacherous, as a hiker must

navigate sinkholes up to four feet in depth. Plagued by a negative image due to illegal sexual and drug activity, those who do choose to hike or bike in the park avoid the hiking paths, which are considered by some Athenians to be the most beautiful. The public restroom facilities are always locked. Dogs run off leash throughout the park and deter families with small children from enjoying the natural landscape. Confronted with a lack of management, Ben Burton Park has descended into disrepair.

Current Policies and Issues

Characteristics of

Regional Analysis

Ben Burton Park sits on the shore of the Middle Oconee River on the West side of Athens. When improved, it stands to serve an area of Athens that is in need of a recreational and educational site. But beyond this, Ben Burton Park rests in an important watershed area. As a part of the Upper Oconee River Basin, Ben Burton Park is a vital part of this watershed

the Upper Oconee River Basin¹

Examining Ben Burton Park and the Middle Oconee River requires the examination of the Upper Oconee River Basin. Ben Burton Park and the Middle Oconee River are integral parts of the Upper Oconee River Basin. Looking at only Ben Burton Park or the Middle Oconee River without looking at the entire river basin is like believing that an iceberg consists of only that which sits above the surface of the water. Ben Burton Park and the Middle Oconee River are linked to the Upper Oconee River Basin. What happens to one affects the others.

Ben Burton Park and the Middle Oconee River are part of the Upper Oconee River Basin (United States Geological Survey Catalog Number 03070101). This watershed² contains 54 streams and rivers providing a total of 3724.5 total river miles. The 3724.5 river miles sit in 2925.27 square miles of land, which is 1% urban, 97% forest, and 7% crop use (these figures exceed 100% because of overlapping attributions³).

Examining the watershed is important because it is the region that supplies its rivers and streams with their water. Changes in the land of a watershed will change the rivers’ and streams’ water level, silt level, chemical level, as well as affecting the species that live in and around the water. As it rains, the water collects in the rivers and streams. The vegetation, i.e. the plants, trees, grasses, leaves, etc. that cover the watershed regulate the speed in which the surface runoff reaches the rivers and streams. When vegetation is cleared, the runoff, as well as additional mud and debris washes into the rivers and streams at an accelerated level. In populated areas, this runoff is augmented with litter, bacteria, pesticides, fertilizers, metals, oils, soap suds from people washing their cars, and many other pollutants. This type of pollution is

Key Terms

- ¹ A River Basin is a region that is drained by a single river system; in this case, the Upper Oconee River System.
- ² Like the River Basin, a Watershed is the area of land that drains into a body of water.
- ³ Overlapping Attributions means that an area can be considered both forest and crop land, etc.
- ³ Stressors are things like pollution and development which affect the stasis of the watershed.
- ⁴ Toxics Release Inventory System includes all the elements of the Toxics Release Inventory: Facilities, Businesses, Releases, Toxic Chemicals, Activities, and References.

called **nonpoint-source pollution**. The level of nonpoint-source pollution is positively correlated with the density of human population. The more cars being washed, the more soap suds being washed into the river.

Nonpoint-source pollution is carried into the streams and rivers by storm water. In some areas, the rivers and streams do not wait for the pollution to come to them, but actually reach out and grab nonpoint-source pollution when they flood. The Middle Oconee is one of these rivers. For rivers whose watersheds have mild land disturbance and whose surface is impervious to water, this flooding occurs on an average of once every one-and-a-half years (Leopold, p. 134). The Middle Oconee River floods two to four times a year, which is a high frequency compared to the national average. The land on both sides of the Middle Oconee River, including Ben Burton Park, is a floodplain. Any development or clearing of the floodplain, like the clearing at the River Shoals development across the river from Ben Burton Park, increases the level and frequency of flooding which significantly affects the land-use in and around the floodplain. Development and clearing of the floodplain also increases the level of pollutants carried into the river.

Assessments of the Upper Oconee River Basin

The Environmental Protection Agency Index of Watershed Indicators

The United States Environmental Protection Agency has rated the Upper Oconee River Basin a four on a scale of one to six. A score of four indicates less serious water quality problems but a high vulnerability to pollutants. Less serious water quality problems means that the aquatic health conditions are below the state's water quality limits; however, a high vulnerability to stressors⁴ means that the watershed data shows significant pollution and/or other stressors which makes the watershed more susceptible to declines in aquatic health. According to the EPA, watersheds with a score of four have the greatest need for actions to protect water quality and to prevent declines in aquatic health (www.epa.gov/surf2/hucs/03070101/score.html). To give a brief overview of the EPA Index of Watershed Indicators (IWI) rating system, the score is derived from fifteen indicators, seven of which are **Condition indicators** and eight of which are **Vulnerability indicators**. The Condition indicators are the following: Waters Meeting State or Tribal Designated Uses (Designated Uses), Fish Consumption Advisories, Sources of Drinking Water, Contaminated Sediments, Toxics in Ambient Water Quality, Conventional Ambient Water Quality, and Wetland Loss. The Vulnerability indicators are the following: At Risk Wetland and Aquatic Species, Annual Discharges of Toxic Pollutants, Conventional Loads Over Permit Limits, Urban Runoff Index, Agricultural Runoff Index, Population Change, Hydrologic Modification from Dams, and Estuarine Pollution Susceptibility Index. The Condition indicators are rated at *More Serious*, *Less Serious*, and *Better*. The Vulnerability indicators are rated at *High*, *Moderate*, and *Low*. Under the Condition indicators, the Upper Oconee River Basin scored a *More Serious* in Sources of Drinking Water, three *Less Serious* in Fish Consumption Advisories, Conventional Ambient Water Quality, and Wetland Loss, one *Better* in Contaminated Sediments. It was scored in neither Designated Uses nor Toxics in Ambient Water Quality for lack of sufficient data. Under the Vulnerability indicators, the Upper

On the banks of the Oconee river—one fork of which runs close by the town of Athens, in a deep valley, the town itself being on a hill, and the other forks at a distance for a few miles only—are three cotton factories all worked by water-power, and used for spinning yarn, and weaving cloth of coarse qualities for local consumption only. I visited one of these, and ascertained that the other two were very similar to it in size and operations. In each of them there are employed from 80 to 100 persons, and about an equal number of white and black. In one of them, the blacks are the property of the mill owner, but in the other two they are the slaves of planters, hired out at monthly wages to work in the factory. There is no difficulty among them on account of colour, the white girls working in the same room and at the same loom with the black girls, and boys of each colour, as well as men and women, working together without apparent repugnance or objection.

James Silk Buckingham, *The Slave States of America*, 1842

The white families engaged in these factories, live in loghuts clustered about the establishment on the river's bank, and the negroes repair to the huts allowed them by their owners when they are near, or stay at the mill, when their master's plantation is far off.

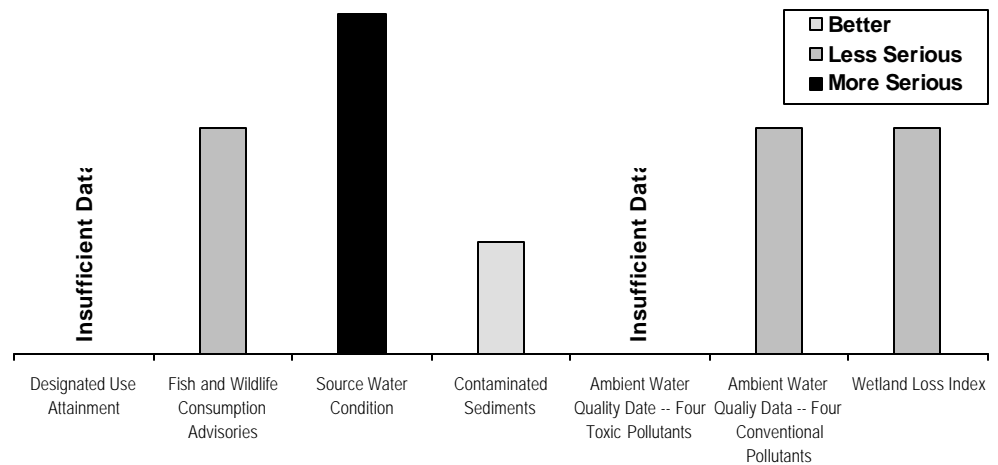
Ibid

The whites looked miserably pale and unhealthy; and they are said to be very short-lived, the first symptoms of fevers and dysenteries in the autumn appearing among them at the factories, and sweeping numbers of them off by death.

Ibid

Oconee River Basin scored four *High* in At Risk Wetland and Aquatic Species, Agricultural Runoff, Population Change, and Hydrologic Modification from Dams, one moderate in Annual Discharges of Toxic Pollutants, and two *Low* in Conventional Loads Over Permit Limits and Urban Runoff Index. The watershed was not scored in the Estuarine Pollution Susceptibility Index also for lack of sufficient data.

The indicators that rated *More Serious* and *High* will be examined in the next five headings. For an illustration of all of the indicators please see www.epa.gov/surf2/husc/03070101/indicators/indindex.html



Source: Environmental Protection Agency

Figure 1.1 Condition Indicators for Upper Oconee Watershed

Sources of Drinking Water

The availability of clean and safe drinking water sources is a good indicator of a watershed's condition. If source waters are impaired, prompt corrective actions need to be taken including additional treatment to ensure that tap water meets safe drinking water standards. Of the 2261 watersheds in the nation, 281 (12.43%) are considered significantly impaired. The Upper Oconee River Basin is one of the 281 significantly impaired watersheds. According to the EPA's assessment of the Upper Oconee River basin, steps should be taken to help improve the area's water quality. Before steps can be taken to improve water quality, steps should be taken to prevent its further degradation.



Under the most favorable circumstances, I think the Factory system detrimental to health, morals, and social happiness; but in its infant state, as it is here, with unavoidable confinement in a heated temperature, and with unwholesome associations, it is much worse, and I do not wonder that the most humane members of the community deplore the introduction of factories in the South, and wish that the labours of the people should be confined to agriculture, leaving manufactures to Europe or to the States of the North.

Ibid

At Risk Wetland and Aquatic Species

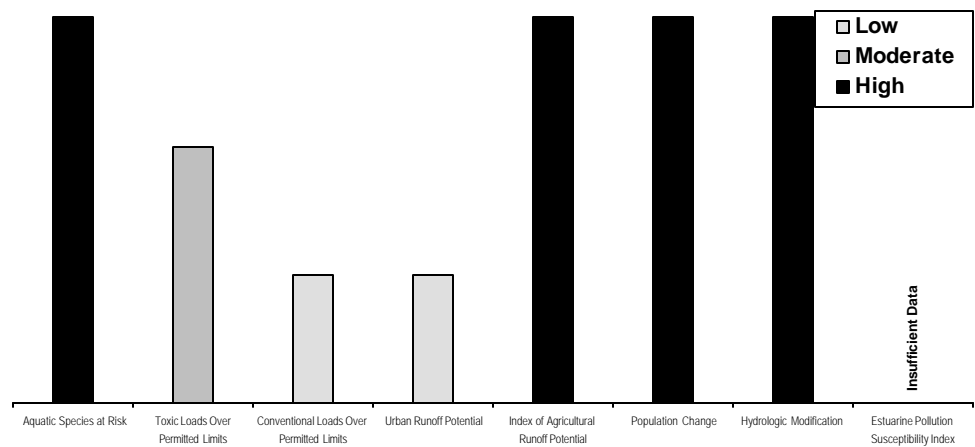
As the score indicates, there is a high presence of species at risk in the Upper Oconee River Basin. The score *High* means that there are more than five species at risk in this watershed. The presence of rare and/or endangered species in a watershed is not necessarily an indication of poor watershed conditions, for in many cases the persistence of these species depends on having good conditions to survive. However, having a high prevalence of rare and/or endangered species means that the watershed is especially vulnerable to future water quality problems which could jeopardize the survival of these species. The Upper Oconee River Basin may require special attention to protect or restore its water quality to maintain its rare and/or endangered species.

Agricultural Runoff

Agricultural runoff includes runoff from combinations of pesticides, nitrogen, and sediment. Watersheds that score a *High* have a greater risk of water quality impairment. Of the 2,261 watersheds in the nation including the Upper Oconee River Basin 529 have a score of *High*.

Population Change

The growth of human population positively correlates with the growth of pollution and land use change. More humans bring more consumption and more waste. More homes have to be built to accommodate these humans, which means more forests have to be cleared, producing more nonpoint-source pollution and increased sewage volume. More homes bring more paved roads, which increase the area of impervious surfaces; with an increase in impervious surfaces come increases in the rate and speed of storm water runoff and nonpoint-source pollution. More people also mean more industries, which can be sources of many types of pollution.



Source: Environmental Protection Agency

Figure 1.2 Vulnerability Indicators for Upper Oconee Watershed

Dr. DeVorse, Professor Emeritus at the University of Georgia, concluded an essay for the Athens Historical Society with the following paragraph:

This essay has only hinted at the richness of the historical record which the early water-powered industries of the Athens-Clarke area left behind. Much additional research needs to be done in an effort to trace more clearly the way in which they influenced the community's developing economy and attitudes. There can be little if any doubt that industrial enterprises contributed to those developments in large measure from a very early date. It is hoped that current attention in the general area of historical architectural and site preservation will be extended to include examples of these important early industrial complexes. Athens-Clarke is fortunate in that many tangible remains of historic industrial structures such as dams, raceways, factory buildings, and mill village houses are still present for study and analysis in today's landscape. It is hoped that some of the best examples can be identified and preserved along with the documentary record of this significant facet of industrial history. Future generations are deserving of this form of stewardship.

Early Water-Powered Industries in Athens and Clarke County.

A paper given before the joint meeting of Georgia Historical Society and Athens Historical Society in October, 1977.

Hydrologic Modification Caused by Dams

Scoring a *High* in this category means that the watershed has a high reservoir impoundment volume. Building dams and reservoirs changes the characteristics of the rivers and streams. Their flow is interrupted as well as their depths. The lakes and reservoirs that are formed in the process of damming rivers also changes the characteristics of the watershed. The forming of a new water body brings in new types of species into the area, changing the biological balance and, in turn, increasing the vulnerability of the watershed.

According to the EPA's IWI, these five areas as indicated in the previous five headings are of the greatest concern for the Upper Oconee River Basin. The data indicates that the watershed is sensitive to any additional pollution and/or unwise land use. The negative effects of over development of the watershed do not only affect the wildlife in the area, but also the quality of the drinking water that runs to our faucets and water fountains.

Toxic Chemicals and Compounds Released into the Upper Oconee River Basin

In the Upper Oconee River Basin there are 50 TRIS⁵ facilities that release and/or transfer more than 650 toxic chemicals and compounds to the environment. These chemicals are released into the air, water, by injection into the underground, and through land disposal sites. The Toxic Release Inventory (TRI) listing the TRIS facilities can be accessed via the Internet at

[wysiwyg://50/http://www.epa.gov/surf2/hucs/03070101/](http://www.epa.gov/surf2/hucs/03070101/)

Hazardous Waste

In the Upper Oconee River Basin there are 50 RCRIS facilities that generate, transfer, treat, store or dispose of Hazardous wastes. RCRIS stands for the Resource Conservation and Recovery Information System. This system was enacted in support of the Resource Conservation and Recovery Act (RCRA). The RCRA requires that all generators, transporters, treaters, storers, and disposers of hazardous waste provide information concerning their activities to state environmental agencies who, in turn, provide the information to the National Environmental Protection Agency. A list of the RCRIS facilities in the Upper Oconee River Basin can be found at the Web URL listed above.

The Unified Watershed Assessment Process in Georgia

The Chief of Georgia's Water Protection Branch, with the Georgia Environmental Protection Division, and the State Conservationist of the Natural Resources Conservation Service (NRCS) established a team to collaborate in the development of Georgia's Unified Watershed Assessment (UWA). The UWA promoted local level involvement. The watersheds were assessed under four criteria using research data from "documented water quality impairments [305{b}]; documented resource concerns and issues identified at the local level [Local Work Group Proposals];

documented threatened and endangered species data; and protection of drinking source water intakes” (p. 1). The four criteria used to assess Georgia’s watersheds are Documented Impaired Stream Segment Data, Local Work Group (LWG) Proposal scores as evaluated and reviewed by a state technical committee, Surface Water Intake Data, and Threatened and Endangered Species Data. Each criterion is assigned a maximum allowable point total with the maximum total of all the criteria equaling 100.

The point distribution		The Upper Oconee River Basin Score	
Element	Points	Element	Points
Impaired Streams Segments	31	Impaired Streams Segments	31
Local Work Group Proposals	23	Local Work Group Proposals	15.33
Source Water Intakes	23	Source Water Intakes	23
Threatened and Endangered Species	23	Threatened and Endangered Species	7.33

As the figure illustrates, the Upper Oconee River Basin Scored the highest possible amount in Impaired Streams Segments and Source Water Intakes. This means that over 8% of all stream miles in the watershed are impaired, The LWG proposals scored between 49-62 points by the NRCS State Technical Committee, there are over six Source Water Intakes in the watershed, and one to five species are threatened and endangered. These scores classify the Upper Oconee River Basin a Category I Watershed, consistent with the Georgia River Basin Management Plan (RBMP), giving it priority for restoration.

Georgia’s UWA varies from the EPA’s IWI assessment only because of different criteria examined. In the criteria where the two assessments were looking for similar data, the scores are consistent. They both rate the Upper Oconee River Basin with the maximum impairment on water condition and document five endangered species. This information tells us that something needs to be done to improve the conditions of the Upper Oconee River Basin. Local governments and grassroots organizations are encouraged to take part in the restoration of their watersheds. A good place to start in the Upper Oconee River Basin is in Ben Burton Park and the Middle Oconee Riverway.

What We Can Do For Our Watershed

The data shows that something needs to be done with the watershed. Fortunately, there are many resources available to aid in the improvement of the watershed. These resources range from watershed alliance groups which provide knowledge and manpower to watershed assistance grants which provide funding. The most abundant and most powerful

resources, however, are the Athens and Clarke County citizens. The best approach to improve and preserve our watershed is to form a community-based partnership that joins the local government, local watershed alliance groups, the University of Georgia, and the general public and that will make holistic, innovative efforts to preserve

and protect the watershed through information, action, and education.

There is a definite interest in Clarke County for watershed preservation, especially in the city of Athens. At the University, individuals in the Ecology, Geography, Geology, English departments, and the College of Environmental Design are all very



interested in our project, and we are sure that other departments, which we will soon talk to, will also be interested. We are sending out letters to over twenty-five watershed alliance groups, inviting them to join us in this endeavor. We feel that we will have a positive response. Through interviews with patrons of the Ben Burton Park we have found that people in the community, at least those who the park, want to preserve the Middle Oconee River and adjacent natural lands.

A group as diverse as the one we propose could work at several levels to educate people about watershed conservation. The public could be reached through classes and seminars as well as a monthly newsletter with updates on the current events concerning watershed conservation. The partnership can design activities for the adults and children of the community such as nature walks and clean-up days to help disseminate the importance of watershed conservation. Through the

cooperation of the University and local watershed alliance groups, classes for homeowners in the watershed can be offered to instruct the homeowners on what they can do in their own yards to help improve the quality of the watershed. When this is done home by home, it can have impressive results. With problems as far reaching as those in the Upper Oconee River Basin, it is only through community awareness and involvement that progress can be made in the improvement of our watershed.

The Community Watershed Project is attempting to do just that, with a grassroots program started by the Georgia Center for Law in the Public Interest, with its founder, Doug Haines. The goal of the program is to activate the community in monitoring and preserving its watershed.

Because the government cannot spend money *carte blanche* for the environment, a community-based group such as the Community Watershed Project could do their part in policing the watershed effectively without tapping into resources that are just not there.

Athens-Clarke County is the smallest county in the state of Georgia. It also has 50% of its land owned by non-profit and tax-exempt organizations. This lack of taxable land makes for both a small pie and small pie pieces to be served for public projects.

The best way around the lack of government programs to fix what's broken is to have the community members do it. In addition to the effectiveness of a community-based project is the increased cohesion and

efficacy of the community itself. When the community joins together to form a project like the Community Watershed Project, the community grows stronger.

An obstacle in forming a group of this size is getting it organized. Organizing a group this size will require some funding. Fortunately, River Network is offering a Watershed Assistance Mini-grant⁶ for up to \$4000 to help fund community-based partnerships, which work to conserve rivers and watersheds. The \$4000 Mini-grant could seed fund the formation of a local community-based partnership in the Clarke County area.

The proposal must have a cover sheet of one page providing applicant information including organization



type (nonprofit, tribal, governmental, etc.), project manager, address, telephone, fax, email and web-site address. In addition to the applicant information, project information is needed including project title, requested amount, project duration,

and project purpose in 50 words or less. The proposal consists of one to two pages. It must include **Background Information** about the watershed and information about the partnership including its stage (e.g., just beginning, performing well, etc.). The **Key Personnel** section must identify the members of the project team and partnership including those supported by this request, by other funding sources, and volunteers, indicating their roles, responsibilities, and qualifications. The final part of the proposal is the **Financial Plan**. This section must present the project budget in summary categories: personnel, equipment and supplies, travel, consultants, overhead, etc. This cover sheet and proposal, along with the resume of the project manager needs to be mailed to the following address:

River Network
Watershed Assistance Mini-Grants
Attn: Kathy Luscher
PO Box 8787
Portland, OR 97207

¹ The application and criteria for this grant along with deadlines can be found at <http://www.rivernetwork.org/wagapp.htm>



User Analysis

When planning the improvements for Ben Burton Park, it is crucial that these improvements are aligned with the user demands. In other words, our proposal must work to enhance the experience of current park

patrons while attracting new patrons.

Different areas of the park are used by different groups of people in different times of the day. In order to accommodate these groups, it was necessary to interview park patrons in different weather conditions, times of day and areas of the park.

We spoke to and observed people during the week and on the weekend. We spoke to college students, professors, families, bike riders, dog owners, and senior citizens. We spoke to and observed people who came to play with their dogs, to fish, to hike to pray, to relax, and to escape. All of these people have different backgrounds, but they do share one thing in common: They love the park.

However, we find that there is no consensus concerning the future development of the park. The public does not generally know the history of the park, nor its industrial and agricultural past; this tells us how important a broad-based public awareness program will be.



Recommendations and Rationale

Our recommendations evolve from the considerations of a number of possible solutions and are shaped by a realistic understanding of cost, policy and administrative circumstances. Keeping in mind the criteria by which ideas and visions for Ben Burton Park are evaluated, we divided the recommendations for the site into three sections. First, the immediate goals are those that we would like to see addressed first; they include the creation of an educational partnership between the University of Georgia, Athens-Clarke County government and local residents. Second, the short range goals include ideas for park improvement and renovation that rely on SPLOST monies. These recommendations are listed in the order we propose they be implemented. Third, the long-range goals further the community-based partnership among the citizens, University community and Athens-Clarke County government.

Immediate Goals

- To have our proposal considered by the SPLOST Committee for the purpose of allocating funds to Ben Burton Park.
- To initiate a community-wide focus group to study recommendations for managing Ben Burton Park. The focus group should include members of surrounding communities, University faculty and students, Athens-Clarke County government officials, and local community organizations. The focus group should outline its goals for community improvement and renovation and keep these in mind as it reviews renovation recommendations.
- To consider cost and manpower expenditures for each recommendation.



Short Range Goals

- To increase the safety and improve the reputation of BEN BURTON PARK through the following park improvements.
 - 1) **Signage inside BEN Burton Park** - Unfortunately, many park patrons are unaware of the history of the Ben Burton Park area. Installing signs will educate park patrons as to the unique history of the area. For example, Precision Design Systems, Incorporated produces interpretive signs perfect for this application. We recommend four signs of 11 inches by 17 inches be purchased. Three would be installed at the former power plant site, the

former Mitchell Bridge Site and the quarry area. The fourth sign would be installed near any historically significant home or area in the rear of the park to encourage hikers and bikers to use the rear trails. These signs cost \$65.45 each. Also, we recommend the purchase of ten signs measuring 3 inches by 5 inches to be placed near various botanical or ecological specimens. These signs cost \$9.50 each. A one-time setup fee of \$33.50 to include photographs, combined with the per-sign cost, brings the price for this improvement to less than \$400. Sign posts, while not included in this estimate, are also available from Precision Design Systems and would be a minimal additional cost.

- 2) **Signage outside BEN BURTON PARK** - Currently there are no signs advertising the existence of Ben Burton Park. A small sign attached to the sign of the Tallassee/Oglethorpe Road exit along the Highway 10 Loop would greatly increase park attendance by attracting residents who live in other areas of Athens. Also, new park signage would increase park attendance by giving park patrons the feeling that Ben Burton Park is supervised and maintained. The signs could be produced in-house by Athens-Clarke County Public Works.
- 3) **Visibility Improvement from Mitchell Bridge Road** - A major problem of Ben Burton Park is its secluded entrance and parking area. We propose cutting the grasses and shrubs that grow between the parking area and Mitchell Bridge Road to increase park patronage and deter illegal activity. Accompanying this improvement, we also propose erecting a new sign along Mitchell Bridge Road. The current street sign, small and inadequate, should be replaced by a larger sign in the style of the new inside gate. Crafted of stone, a new sign would blend well with the natural land of Ben Burton Park while adequately highlighting this historical site.
- 4) **Graffiti Removal** - Guests are greeted by obscenities when they enter Ben Burton Park. Removing these vulgarities would improve the overall appearance of the park and make park patrons feel welcome and safe. The cost of this improvement would be insignificant when compared to its benefits.
- 5) **Trail Improvements** - Currently, the trails of Ben Burton Park are dangerous to hikers and bikers. Sinkholes up to 4 feet deep and water gullies can be found on nearly every trail.
- 6) **Pay Restrooms** - According to city officials the only restroom facilities in Ben Burton Park are closed to public use due to vandalism and illegal activity. To deter these problems, we propose a pay restroom facility similar to those at Sandy Creek Nature Center that cost twenty-five cents to enter. These restrooms would deter vandals from entering while providing park patrons with a much-needed restroom facility.
- 7) **Park Ranger System** - We propose a park ranger system that would rotate between Ben Burton Park, Sandy Creek Nature Center, and Memorial Park. The duties of the park ranger would include, but not be limited to, patrolling trails, answering questions and assisting park patrons, recording park use trends and monitoring trail wear. The presence of a park ranger at Ben Burton Park would probably curtail if not end illegal activity.
- 8) **Covered Picnic Area Renovation** - While being the most expensive of our proposed improvements, the renovation of the covered picnic area is also the most needed. The current building is unused as a picnic area and restroom facility. Renovations would include providing a base office for the rotating park ranger as well as facilities for the public. Also, the new building could house botanical and ecological specimens and a diorama of park terrain and trails.
- 9) **Security Plan Development** - Currently, Ben Burton Park is only locked at dark. To effectively reduce illegal activity, a security plan for after hours is necessary. This plan would outline guidelines and procedures for

situations a rotating park ranger or Athens-Clarke County police officer may encounter. Also included in the security plan would be procedures in case of an emergency during normal park operating hours.

- 10) **Off-leash Area Identification** - Ben Burton Park is used by many Athens residents as a place for dogs to run and play off-leash. We propose that an area be designated specifically for off-leash dogs; another simple solution would be to designate off-leash hours. This proposal will not limit park attendance and will ensure the safety and enjoyment of all park patrons.

Long Range Goals

- Continue to establish community-based projects concerning our natural and cultural heritage that will foster alliances among the University of Georgia, Athens-Clarke County government and community members through the use of externally funded assistance grants. A group as diverse as the one we propose would work at several levels to educate and include many people in conservation and historical appreciation efforts. Every sector of the community should feel that communication lines are open in every direction and be able to introduce ideas and projects that are in accordance with the goals of the original focus group.
- Develop the site as a regional center for the study and appreciation of how our technological and natural resources have supported civilizations along the river.

BEN BURTON PARK—Findings and Conclusions

Sound park planning requires a systematic process of a) establishing goals and objectives, b) gathering and analyzing user-resource data, c) exploring alternatives and d) developing solutions. Park design is an artistic, form-giving process that presents a view of how major components of the park and park spaces are arranged. We propose that our study and analysis of BEN W. BURTON PARK provide the foundation for creating a comprehensive park recreation and public education management plan that would give the park the identity of a *learning and recreation center*. The findings and conclusions in this document are a summary of our comprehensive study of the past, present and future management of the former MITCHELL BRIDGE SITE.

Findings

- 1) There is no master plan for management or development of the site that addresses recreation, environmental, educational and legal issues;

- 2) The park suffers from a “bad reputation”;
- 3) The site attracts cyclists, hikers, dog-walkers, picnickers and fishers;
- 4) The site attracts and sustains a diversity of wildlife;
- 5) The park resides on a site that has historical, cultural and environmental importance for ATHENS-CLARKE COUNTY;
- 6) The city does not provide on-site management.

With adequate funding, care and attention to the systematic development of the park as a recreational and educational community resource, we can create opportunities in the place of problems and deficiencies.

Conclusions

- 1) Development and management of the park has been inconsistent; the lack of sustained management has impeded visitor enjoyment and

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resource protection. The park has drifted into this state of affairs because there has been no well-defined purpose or master plan;

- 2) The site has an infrastructure that needs to be maintained and developed;
- 3) The site represents a diversity of natural and cultural values that have not been sufficiently appreciated in the consideration of its purpose or management;
- 4) The negative reputation of the park is the result of benign neglect and the absence of a sustainable management plan;
- 5) The park has facilities and activity areas that are compatible with the inherent resource potentials of the site;
- 6) The recreational use of the park would be enhanced if land abutting and surrounding the site could be bought or designated as a buffer zone between the park and nearby residential areas.
- 7) The site gives the citizens, University, and other interested community groups the opportunity to create a partnership to enhance both the recreation and education potential of the park.

Developments Across the River—Findings and Conclusions

Findings

- 1) A development called RIVER SHOALS is being built on the banks of the MIDDLE OCONEE RIVER across from the site known as BEN W. BURTON PARK;
- 2) The MIDDLE OCONEE RIVER and UPPER OCONEE RIVER BASIN are part of an environmentally sensitive and fragile ecosystem;
- 3) The builders are clear-cutting trees on the steeply graded river banks overlooking the river in order to build very large houses;
- 4) The developers are disturbing large areas of land in the MIDDLE OCONEE RIVER floodplain.

Conclusions

- 1) Damage to our watershed areas, aquatic life and our aesthetic enjoyment of the remaining urban wilderness continues because the citizens and the city government do not take a more active role in supervising the development of land in environmentally sensitive areas;
- 2) The citizens and government can protect and sustain our natural heritage by enforcing existing laws and passing new laws concerning the disturbance of land in sensitive watershed areas;
- 3) The community can enhance its "quality of life" by preserving its natural and cultural heritage through sound recreation, park and wildlife management.

Conclusion

Ben Burton Park is in dire need of protection, improvement and renovation. We hope that the implementation of our plan, which involves various community groups and offers a range of possibilities, will ensure the park's enrichment. We look forward to continuing our discussions with you and working towards the common goal of developing and improving Ben Burton Park.

