

5. _____ Natural Resources

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5. Natural Resources

■ Introduction

An important element of land use planning is the assessment of how natural resources are responsibly utilized, managed, developed and preserved within a community. This chapter provides an inventory and assessment of locally significant and unique natural resources and presents a determination of natural resource vulnerability to the impact of growth and development. This assessment also identifies opportunities and constraints on the way land is inventoried include: mineral resources, soils, water and native fauna.



Douglas County has taken a of its natural and sensitive continues to develop, more finding a balance between

and water, the availability of water, retaining areas of natural significance for animal and plant habitats, and those of development and growing population. As part of the implementation of this plan, the County has revised its Codes and Regulations to guide development away from sensitive areas. Increased education of the general public and developers with regard to environmental issues will bring about increased awareness of the importance of maintaining a proper balance between people and their environment.

proactive stance on the protection resources. As Douglas County and more effort is being put into environmental needs of clean air

■ The Natural Environment of Douglas County

Douglas County comprises 128,146.7 acres or 200.2 square miles. The Chattahoochee River comprises the Southeastern boundary with Fulton County, Cobb and Paulding Counties the northern boundary, and Carroll County the western boundary.

Climate

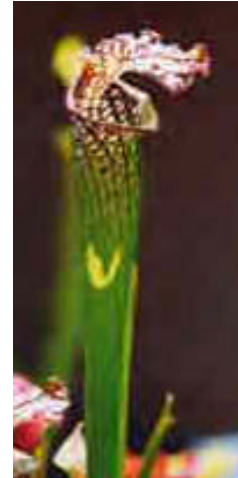
Douglas County has a moderate climate due to its geographic location. Summers are warm and humid, but not to an excessive degree. Maximum summer temperatures average around ninety (90) degrees. Minimum summer temperatures range in the low seventies. Nighttime temperatures tend to be very pleasant.

Like most southern regions, winters in Douglas County are mild. Freezing occurs on an average of about forty-five times per winter. No month has an average temperature below freezing. This climate is suitable to agriculture because the ground seldom freezes to a depth of more than three inches and rarely stays frozen more than four days. Because of this mild climate, outdoor related activities and natural amenities are an integrated part of the Douglas County lifestyle.



Topography and Steep Slopes

Douglas County is located primarily within the Northern or Upland Piedmont Province with the eastern edge of the County along the Chattahoochee River located in the Gainesville Ridges. The Upland Piedmont Province is a broad plain that is dissected by streams. Average elevation is 500 to 1500 feet above sea level. The Chattahoochee River drains the entire Piedmont Province, which includes Douglas County. Most of the county slopes southeast to the Chattahoochee River, but approximately twenty percent of the county slopes northwest and drains into Sweetwater Creek and then into the Chattahoochee River. Almost all of the upland areas of Douglas County are well drained by one of the many branching creeks or intermittent streams. These areas are gently sloping or rolling, but some of the areas along drainageways have steep slopes.



Protected Mountains

There are no mountains categorized as “protected mountains” by DNR within Douglas County.

Soils

As part of the Upland Piedmont Province, Douglas County is an old land surface with rounded slopes, which are underlain by acid crystalline and metamorphic rock. Schist, biotite gneiss, and other metamorphic rock underlie approximately seventy to seventy-five percent of Douglas County. The remaining underlying rock structure is composed of igneous rock, such as Augen gneiss, hornblende gneiss, granite gneiss, and granite intrusions. Elevations range from 500 to 1500 feet above sea level. Steep relief tends to have shallow and weakly developed soils. Flat relief has deeply weathered soils with deep clay subsoils.

Soil type and distribution are important attribute during the development process. Because the majority of new development utilizes septic systems for sewerage disposal, soil capabilities such as percolation capability are important to land use patterns. In addition, as will be outlined later in greater detail, soils associated with groundwater recharge areas require special protection.

Mineralogy

Many parts of the Atlanta Regions, including Douglas County, have been prospected and mined for their mineral resources. Twenty-eight variant mineral types were historically mined in the Greater Atlanta Region. Currently barite, ocher, sand, granite, and granite gneiss, limestone, structural clays, and marble are still being mined. Douglas County is home to one of the most famous gold mines in the area; the Stockmar Gold Mine near Villa Rica was once a busy and productive facility.

Douglas County Mineral Mines

Asbestos, Talc, Soapstone, Sericite, and Chlorite: The J.L. Walton & T.J. Carnes Properties in Winston;

Clay: Siskey Hauling Inc., property in Campbellton areas and on the Jenkins Brick Company Property in Ben Hill area;

Gold: Triglone Mine, the Thomas Roach property, the Carnes property, the John Baggett property, and the Villa Rica mine on the Durgy property,

Granite, Crushed and Dimension: The Consolidated Quarries in Winston and at the Lithia Springs Quarry in Austell

Pyrite: The Hancock Prospect and the Villa Rica Mine on the Durgy property.

Sand & Gravel: The Anneewakee Creek in the Campbellton area.

Mining operations can be disruptive and harmful to the natural environment if not regulated properly. Unfortunately much of the potential damage occurred before environmental damage and resource destruction were recognized. Douglas County has taken steps through its regulations to prevent any further damage.

Prime Forest and Agricultural Land

Douglas County was once covered almost entirely by trees, although by the early 1900's, most of the original virgin forests had been cleared. The remaining forests consist mainly of three major forest types: Oak and Hickory, Loblolly or Slash Pine and Mixed Oak and Pine. About seventy-five percent of the total forested acreage is of the mixed type. Currently, 79,300 acres in Douglas County are forested. There are 4,870.13 acres classified as timbered land on the 2004 existing land use plan map. Of the agriculturally and timber land use categories 5,587 acres is included within the County's Conservation Program. The timber industry is the highest valued commodity harvested in the County.



The Georgia County Guide classified approximately 3,362.89 acres as agricultural in 2004. In 1997 there were 107 farms in the County, the average size being 91 acres, although the median farm size was approximately 36 acres. Crops include corn, soybeans and wheat. Commodities include forestry, dairy, beef cows and greenhouse production. Hogs and chickens are not raised commercially in the County. The average growing season is 228 days. The County ranked 131 within the state for commodity production. Both harvested cropland and livestock production have been steadily decreasing. In 1997 harvested cropland was approximately 1,465 acres. In 1997, 1,848 heads of cattle were reported.

As the County continues to develop, it is anticipated that farm, timbering and livestock production will continue to decrease as agricultural uses are converted into residential and commercial uses. Currently, two of the largest farms within the county are located in the southwestern portions of the county, and identified on the Future Land Use Plan Map. In order to balance development pressures with the need to preserve both the rural character and sensitive environmental resources, the County has taken pro-active measures within this plan and it's UDC and on the Future Land Use Plan. The "Rural Places" character area not only features conservation, agricultural land and prime forestland, but also goes one step further in Greenspace conservation within the sensitive watersheds of the County. The use of the watershed protection overlay, the conservation program, the County's tree conservation regulation and the "rural places" character area will ensure the protection of these important features within the County.

Major Parks, Recreation and Conservation Areas

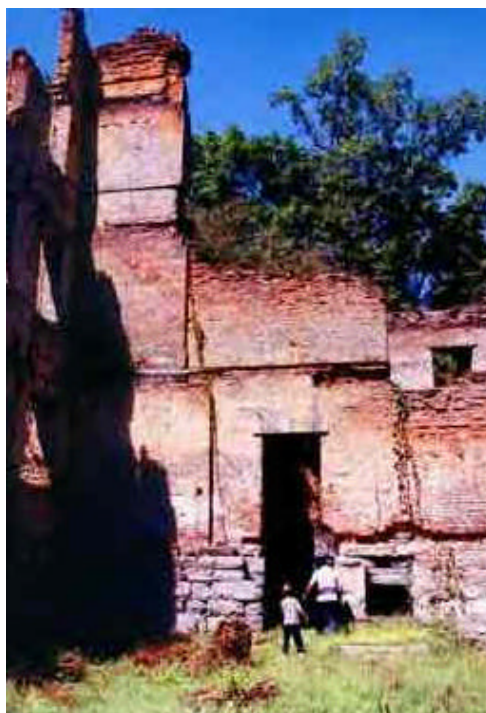
Douglas County is fortunate to have many conservation, recreation and natural areas. As mentioned earlier the county's mild climate is very conducive to outdoor activities. This section identifies con-

ervation areas and State Parks within the County. Additional information regarding parks and recreation facilities is located in the Community Facilities and Services Chapter of this plan.

Clinton Farm: A large tract of land originally belonging to John Clinton, a Revolutionary War soldier, which was given to Douglas County for recreational use. It is also the site of the Carnes Cabin, the second oldest existing home in Douglas County.



Sweetwater Creek State Conservation Park: This 2,000-acre park was developed for the restoration and preservation of the New Manchester Mill and New Manchester town. General William T. Sherman destroyed the town and mill during the Civil War. The factory began production 1849 and manufactured cotton and wool textiles. It was sold to New Manchester Manufacturing Company in 1857, and its post office opened in 1859. By 1862, the mill was supplying cloth and leather goods to the Confederate war effort. The cloth was used for tents, clothing, powder bags and blankets. The leather was used for shoes, straps and belts. It was destroyed by order of General Sherman on July 9, 1864. Factory employees were sent north of the Ohio River for the duration of the war. The Friends of Sweetwater Creek Park are currently engaged in a \$3 million fund drive to build an interpretation center. Friends of Sweetwater Creek State Park sponsor three annual festivals, Native American Festival and New Manchester Days. The 215-acre George Sparks Reservoir is located within this park. This water source is well used and is a pretty setting for viewing ducks, canoeing, and fishing for area residents.



Buzzard Roost Island—This Island in the Chattahoochee River identified the starting point for the Indian Nation Boundary line and was a major Civil War site. Today it is the corner point of Douglas, Cobb and Fulton Counties.

The Geltner-Aubun Wildlife Sanctuary—A 187-acre tract on Annewakee Creek north of Annewakee Road that serves as a natural habitat for area wildlife. Working with the Chattawah Open Land Trust, a conservation easement has been placed on the tract that will forever prohibit development of the property.

Greenspace Program

The County is currently participating in the newly adopted Governor's Greenspace Program. The intent of the program is to assist localities with the preservation and creation of passive open space. Utilizing resources from this program and others, the County has recently adopted a plan to develop a system of greenways to interconnect recreation, living and working areas throughout

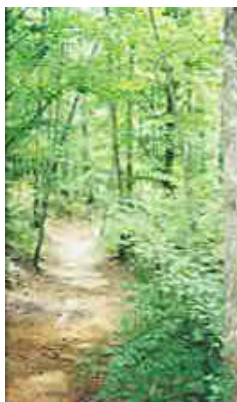


the County that include scenic corridors and sensitive natural resources, such as wetland areas

To accomplish this long-range goal of greenspace preservation, the County will utilize several tools such as:

- Obtaining conservation easements on privately owned land to protect natural, historic, or recreational resources, or to protect agricultural or forestry uses,
- Acquiring land in fee simple to ensure its permanent protection as greenspace, and
- Entering into contractual arrangements to ensure that, if the protected status is discontinued, such land will be replaced by other greenspace of equal or greater monetary and resource protection value.

Thus, the Douglas County from the state in order to lever permanent protection of valuable program will develop a spaces that interconnect throughout the County. The protect sensitive natural re-county. The objectives of this guiding principles for protecting the rural character alternatives and linkages. program include:



Greenspace Program will utilize resources age the additional funds needed to achieve able greenspace in the County. Ultimately, system of greenways and protected open recreation, living and working areas program will preserve scenic corridors and sources, such as the wetland areas of the program are closely tied to this plans protecting natural and scenic resource, of the county and to provide transportation Highlights of the counties Greenspace

Cooperative efforts with the Chattahoochee Hill Country Alliance to develop a regional mixed use (non-motorized) 98 mile trail connecting 4 counties;

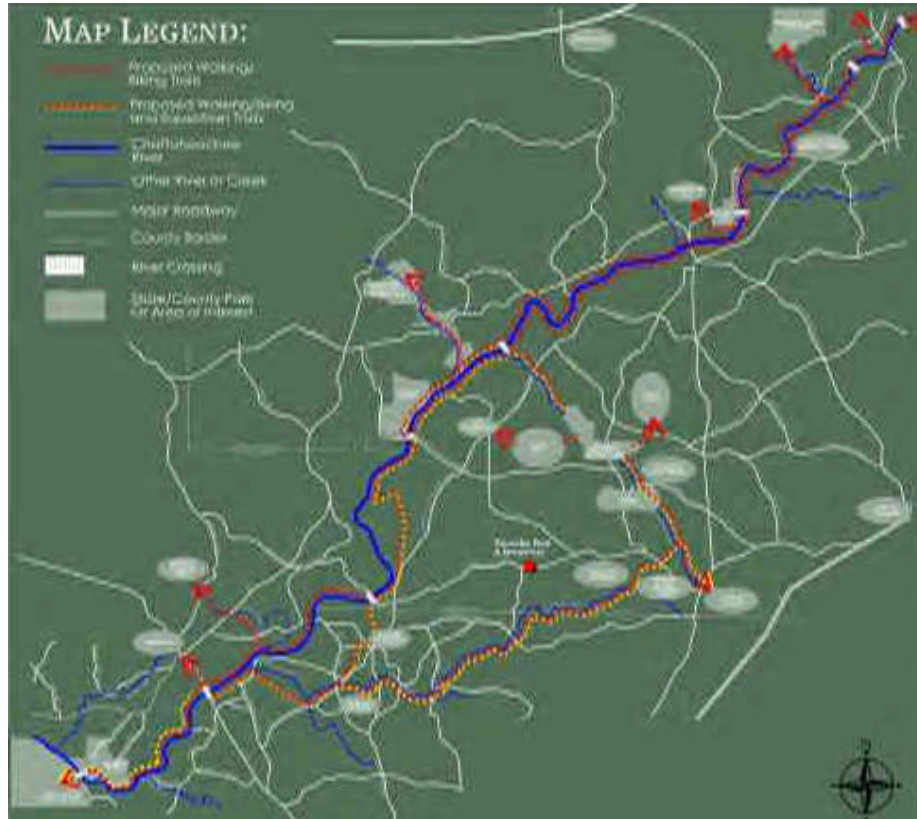
The purchase of over 1,3000 acres of Greenspace on the Dog River and Chattahoochee;

The recent conveyance of 802 acres of pristine land along the Dog River for Greenspace protection; and

Continued acquisition of greenspace through SPLOST and other county funds.

Chattahoochee Hill County Regional Greenway Trail Master Plan

The Path Foundation, working with the Chattahoochee Hill Country, representatives of Coweta, Carroll, Fulton and Douglas county governments, local landowners and outdoor enthusiasts, completed the Chattahoochee Hill County Regional Greenway Trail Master Plan in September of 2003. The commissions of Carroll, Coweta and Douglas counties have adopted the Master Plan. The four county governments jointly funded the master plan to determine if a four-county recreational trail system could be deigned connecting existing greenspaces.

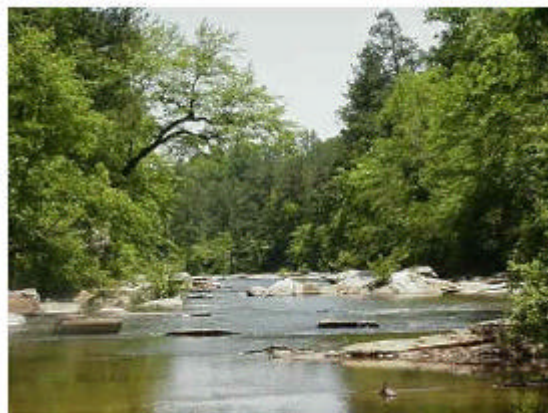


Connecting the desired destinations throughout 60,000 acres and portions of Carroll, Coweta and Douglas counties while preserving and even enhancing the natural environment became a fundamental goal of the plan. The Chattahoochee River corridor serves as the spine of the proposed trail system. The plan envisions the trail criss-crossing the River on four new bridges, two pedestrian-scale ferries, and two existing highway bridges.

Dog River Land Trust

In 2002 the Trust for Public Lands conveyed 802 acres of pristine land along the Dog River to Douglas County – the funding for the government’s purchase generated by SPLOST voters approved earlier that year. The county acquired the land to protect the quality of its drinking water and to provide recreational opportunities for county residents. This property is adjacent to a 470-acre tract along the Chattahoochee River that will also be the site of a future park. The project will protect 2.13 miles of Dog River buffer and approximately 1 mile of Flyblow Creek, a tributary of the Dog River.

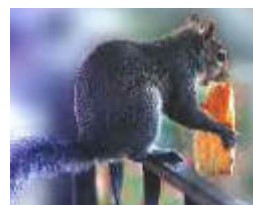
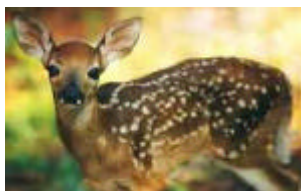
THE DOG RIVER UPSTREAM



■ Environmentally Sensitive and Ecologically Significant Areas

Plant and Animal Habitats

Before western settlers arrived around in the early 1800s forests and wetlands dominated the uplands of Douglas County. These forests consisted of a combination of hardwoods and evergreens. Both wetlands and forest areas provided natural habitats to wildlife and animals. Due to growth and development of the century. hundreds of acres of wetlands have been lost to development, construction and flooding by dams throughout the county. Wetlands provide habitat areas for fish, wildlife and vegetations that provide opportunities for study and education. While many of the county's remaining wetlands are well buffered with natural vegetation, there are several areas where development is encroaching. Several habitat protection measures are available through the State of Georgia.



Conservation tax credit

A conservation tax credit reduces property taxes on properties declared to be under conservation use. Although these properties are not permanently protected, the tax rate reduction allows an owner to maintain natural areas at a reduced tax rate even as these properties experience increased development pressure.

The Georgia Department of Natural Resources has created the Georgia Natural Heritage Program to focus on natural elements of concern within the states. Elements of the program include plant species, animal species, or natural community types that are especially rare or threatened.

Douglas County is home to several species of plants and animals that are classified as

Threatened or Endangered Species within Douglas County		
Common Name	Biological Name	Details
Animals		
Bald eagle	Haliaeetus leucocephalus	Inland waterways & estuaries
Red-cockadade Woodpecker	Picoides borealis	Nest in mature pine with low understory veg.
Bluestripe Shiner	Cyprinella calitaenia	Brownwater streams
Highscale Shiner	Notropis hypsilepis	Sandy runs and pools of creeks & small rivers
Plants		
Little Amphianthus	Amphianthus pusillus	Shallow pools on granite outcrops.
Bay Star-vine	Schisandra	Twining on subcanopy & understory trees/shrubs in rich alluvial woods
Piedmont Barren Strawberry	Waldsteinia lobata	Rocky acidic woods along streams with mountain laurel

Animals and Plants of Special Concern	
Common Name	Biological Name
Plants	
Pink Lady Slipper	Cypripedium acaule
Large-flowered Yellow Lady Slipper	Cypripedium parviflorum var. pubescens
American Ginseng	Panax quinquefolius

endangered, threatened, or rare. State and Federal legislation relating to endangered plants and animals include the Endangered Species Act of 1973, the State Wildflower Preservation Act of 1973, and the Endangered Wildlife Act of 1973. The following list includes all plant and animal species that have been found in Douglas County, which are classified as protected by the State of Georgia and/or the Federal Government. Classifications are as follows: Threatened and/or Endangered. A third category is species of management concern. The Fish and Wildlife Service

are currently evaluating plants and animals within this category for population threats and trends. Plants and animals include:

The Georgia Natural Heritage Program (GNHP) is organized to collect information on rare species gathered throughout the state. Properties using federal funds, applying for federal permits or State public agencies using federal funds must survey their properties for endangered species and prepare plans to reduce or avoid impact. As part of the County's Tree Ordinance, developments must retain certain existing mature trees and replant additional trees. Native vegetation is suggested to provide habitats for indigenous birds and animals.

Protected Greenspace areas, such as those along the Dog River provide sanctuary to protected species. The following are two major wildlife sanctuaries within the county:

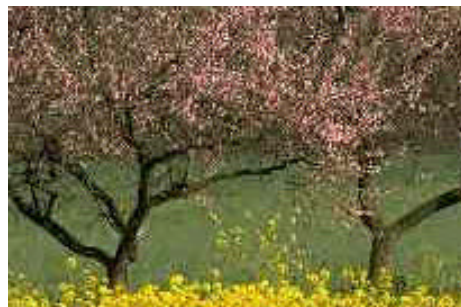
Sweetwater Creek State Park's Interpretation Center & Museum

Sweetwater Creek State Conservation Park is home to many unique plants. This area is greatly influenced by the presence of the Bevard Fault zone, which runs directly through the Sweetwater Creek basin. This fault created rising elevations giving the park a more mountainous environment than the surrounding area. The Interpretative Center and Museum will serve as a gateway to the parks trails and the historic New Manchester Manufacturing Company mill ruins. Conceived as a site-integrated building, the design derives its form from program requirements, site topography, climate and solar orientation.



Geltner-Audubon Wildlife Sanctuary

The Geltner-Audubon Wildlife Sanctuary is a 186-acre tract located on Annewakee Creek was donated to the Atlanta Audubon Society in 1997. Annewakee Creek and Crooked Creek run through the property and form Lake Monroe. Industrious beavers have created their own huge lake with a dam that spans 200 feet. This "lake" has created an undisturbed habitat that is a sanctuary to the ducks, geese, blue heron and other wildlife that live there. The land features gently rolling hills covered with mature hardwoods, wetlands, creeks and lakes.



■ Air Quality

Air quality has a direct and far reaching impact on public health and well-being. Young children, the elderly, and people with asthma and other respiratory ailments are especially vulnerable to polluted air conditions.

Air quality is affected by a number of factors including dust, pollen, temperature, humidity, smoke and chemical emissions. Natural sources of air pollution, such as weather conditions and seasonal changes (pollen) are difficult to control. However, the greatest amount of polluting emissions released into the atmosphere comes from man-made sources.

Ground level ozone is the most serious threat to ambient air quality in Douglas County. Ground level ozone is the principal component of smog, which is a major irritant to the mucous membranes and causes burning and irritation of the eyes, nose and throat. As much as half of the ground level ozone found in urban areas can be traced to mobile sources of air pollution, such as automobiles, trucks and buses.

Another important air pollutant is carbon monoxide (CO), an odorless and colorless gas that in high enough concentrations can cause brain damage. Approximately 90% of carbon monoxide emissions in the atmosphere come from motor vehicle exhaust.

Douglas County is part of the Atlanta metro area's urban air quality basin. As part of the overall growth management plan of the County, several policy goals are aimed, in part, on promoting cleaner air, including the promotion of a compact urban form, the development of the greenspace plan and the careful prioritization of infrastructure improvements to discourage sprawl. In addition, the proposed comprehensive transportation plan will further study ways to reduce automobile dependency in the County. Air quality conditions will continue to be monitored in the future.

■ Hazardous Site Inventory

There are currently 8 companies that are listed on the Hazardous Site Inventory:

Arivec Chemicals	Wallace Lake Road Dump	Basket Creek Drum Disposal
Young Refining	Dry Cleaners-5998 Fairburn	SNG-Yates Junction Meter Station
CR&A Battery Company	Douglas County Landfill	

■ Water Resources

Douglas County is characterized by a series of broad to narrow, gently sloping ridge tops and moderately steep hillsides adjacent to numerous, small drainage ways that dissect the areas.

Availability of water and water quality are major issues for the Douglas County area. Maintaining high standards for water quality results in public health benefits that are advanta-



geous to all Georgians. Land-disturbing activities associated with development can increase erosion and sedimentation, stormwater runoff, and the loss of animal and plant habitats. The transport and storage of hazardous or toxic waste materials pose a potential risk of contamination groundwater and surface water public drinking water supplies. Water resources are considered state assets that we all share in; and, therefore it is essential that the quality of public drinking water be ensured. For this reason it is necessary to protect the water resources that Douglas County and the surrounding communities rely on as sources of public water. The county has taken several steps to protect its water resources:

- The development of the Greenspace Plan. In conjunction with State funding, the County aims to set aside 20% of its land mass in permanent open space. A large percentage of open space will be along waterways in order to promote higher water quality standards.
- Septic tanks are restricted to areas of low density, and are subject to additional requirements within groundwater recharge areas.
- The County has adopted a River Corridor Protection Plan for the Chattahoochee River Corridor that meets the requirements of the Mountain and River Corridor Protection Act of 1991.
- Environmental over-lay districts for Groundwater Recharge Areas, Wetlands, and Watersheds have been adopted in the County's UDC.
- Larger stream buffer than required by the State have been adopted for all watershed districts.
- Larger lot zoning districts and land use patterns on the FLU map has been developed to protect environmentally sensitive areas.

In 2001, the Georgia general assembly created the Metropolitan North Georgia Water Planning district to help address the need for long-range water planning. The goal of regional water plans is to protect water quality, provide for water supply, protect recreational values and minimize the potential for impact from development on rivers, lakes, and streams in and downstream of the district. A full discussion of water planning issues is presented in the Community Facilities and Services Chapter of this plan. Specific environmental measures are presented here.

Douglas County has a relatively self-contained water supply, which must maintain its quality to serve existing and future residents. Development pressures encroach on sensitive water supply watersheds and the County must be resolute about enforcing the adopted standards of development in these areas.

As part of the requirements of the Georgia Department of Community Affairs' Minimum Planning Standards, communities must adopt at least the minimum DNR's "Part 5 Minimum Environmental Standards," these statewide standards were developed by DNR pursuant to Code Section 12-2-8 and address three basic concerns:

- Aquifers and groundwater recharge areas;
- Water supply watersheds; and
- Wetlands.

Douglas County has adopted environmental protection standards within the County's UDC that exceed DCA's Part 5 standards.

Stream and Watercourses

All watercourses that appear as a solid or broken line on the U.G.S. Quadrangle maps are considered regulated streams. Other natural watercourses may be classified as regulated streams.

All watercourses, whether “regulated” according to the U.G.S. Quadrangle map, are protected within Douglas County. The state requires a minimum of a 25-foot buffer on any stream. The Douglas County UDC outlines buffer requirements within each watershed.

Of the significant rivers and streams in Douglas County, the US Environmental Protection Agency, via the Georgia Environmental Protection Division (EPD), identifies many of them as not supporting the Clean Water Act (CWA) mandate of being “fishable and swimmable.” The list of waterways not meeting the CWA mandate is referred to as the 303d list. Additional information on non-point source pollution can be found later in this chapter.

Public Water Supply Sources

Land disturbance and development can increase erosion and sedimentation that decrease the storage capacity of reservoirs. In addition stormwater runoff, particularly from impervious surfaces, can introduce toxins, nutrients and sediment into drinking water supplies.

Water Supply Watersheds

A water supply watershed is the area of land upstream of a public drinking water intake. *The Wetlands Heritage of Georgia*, defines a watershed as an area of land drained by the same brook, stream, creek or river. Precipitation that is not immediately absorbed by the soil, detained by lakes or ponds, or siphoned off for into streams, rivers, area of the drainage basin is the total area surface water formastream). The State legislation setting requirements and limitations to reduce impacts of storm erosion. Watershed have been adopted as County UDO that than DNR’s mini-

Protection of water helps keep drinking contamination. By of pollution that gets governments can purification and guarantee improved public health. DNR categorizes watersheds as either large or small. More stringent watershed protection criteria are applied to water supply watersheds less than 100 square miles in size due to their increased vulnerability to contamination, additional protection requirements are instituted for Reservoirs.

Although DNR Criteria only requires large watersheds with reservoirs and small watersheds (with or without reservoirs) to institute buffer and impervious surface restrictions, Douglas County requires a measure of protection to all watersheds in the County. All land within unincorporated Douglas County is regulated by one of the water protection districts. Components of the plan for watershed protection include setbacks, buffer and density requirements as strict, or in many cases significantly more restrictive than the state. The county has regulations regarding:



man-made uses drains or lakes at the lowest basin. A drainage drained by a major tion (i.e. river, of Georgia has passed minimum buffer impervious surface the environment water runoff and soil protection measures part of the Douglas are more restrictive mum standards.

supply watersheds water free of limiting the amount into the water supply, reduce the cost of

- Septic tank absorption fields;
- Erosion and sedimentation control;
- Overland and flow/non-point source discharges;
- Development densities, setbacks, & buffers;
- Impervious surface limitations;
- Public education; and
- Water conservation.

All land within unincorporated Douglas County is regulated by one of the watershed protection districts. In 2003 the County adopted the Dog River Basin overlay to specifically regulate portions of this basin. The districts are established and designated on the Official Zoning Map of Douglas County and the natural features map corresponding to the topographical features that delimit the drainage basins of the respective creeks, rivers, and reservoirs. Grandfathered uses, DNR permitted mining activities outside of stream buffers, special forestry and agricultural activities consistent with Best Management Practices (BMPs) are exempt from watershed restrictions.

The following are limited within any watershed protection district:

Primary conservation areas, such as regulated streams, wetlands, 100 year floodplains and required stream buffers shall not be included as minimum lot area required by the zoning ordinance. Required stream buffers (but not regulated streams or wetlands) may be included in the gross land area for purposes of calculation of the percentage of a site's impervious surface area.

All property within watershed protection districts may be developed or redeveloped as permitted by its base zoning, provided the development is also in compliance with these watershed protection regulations of if within a district overlay.

New hazardous waste treatment or disposal facilities are prohibited.

New sanitary landfills, if permitted by DNR, shall have synthetic liners and leachate collection systems.

Any new facility that handles hazardous materials of the types listed in Section 312 of the Resource Conservation and Recovery Act of 1976 (excluding underground storage tanks) and in amounts of 10,000 pounds or more on any one day, shall perform their operations on impermeable surfaces having spill and leak collection systems as prescribed by DNR.

The application of animal waste on land must follow guidelines established by the United States Department of Agriculture, Natural Resource Conservation Service, *Agricultural Best Management Practices*.

Utilities that cannot be feasibly located outside the greenway or setback area must be located as far from the stream bank as reasonably possible; installed and maintained to protect the integrity of the greenway and setback area as best as reasonably possible and must not impair the quality of the drinking water system.

New streets that cross perennial streams shall be designed in such a way as to avoid direct runoff from the paved surface into the streams they cross. Such design features shall be shown on the site plan.

Douglas County has one large watershed with a reservoir and 4 small watersheds, 2 of which contain reservoirs. The following watershed protection areas are located within the County: Dog River, Bear Creek Anneewakee Creek, Sweetwater Creek, Beaver Run Creek, Gothers Creek, Hurricane Creek and the Chattahoochee River Direct Drainage Basin.

Reservoirs

Buffers around public water supply reservoirs shall be maintained as required in the Watershed management Plan for the respective reservoirs. In no case shall the required buffer be less than 150 feet in width. Vegetation, land disturbance and land uses shall be controlled by provisions of the applicable Reservoir Management Plan, as approved by the Georgia Department of Natural Resources (DNR).

Private Artificial Reservoirs

Reservoirs created on private property by either building a dam across or diverting flow from a regulator stream are only permitted with the approval of Douglas County and all relevant and state federal agencies. In order for a private artificial reservoir to be approved, engineering documentation that demonstrates that the project will be adequately designed and safe; will not diminish the flow of water to the public water supply reservoirs; and demonstrating documentation that the project will have a net positive impact on water quality within the regulated stream and its watershed when compared with a no-build alternative must be provided. A management plan for the reservoir showing the type and size of the vegetative buffer is also required.

Large Watershed

Sweetwater Creek: Large water supply watershed with an existing water intake facility and the Sparks River Reservoir is located in the northeastern portion of the County. It has a surface area of approximately 256 square miles. The City of East Point, withdraws fifteen (15) million gallons per day (MGD) from Sweetwater Creek. The Sweetwater Creek Basin contains Sweetwater Creek State Park, which serves as an invaluable recreational and natural resource for Douglas County and the region. A watershed management plan has been established to protect the reservoir. The following restrictions have been established:

Stream buffers as established in the UDC, widths and setbacks from streams shall be regulated as specified within the Environmental Chapter.

No impervious surface shall be constructed within the protected stream corridor.

Septic tanks and septic tank drain fields are prohibited within the protected stream corridor.

New facilities located with seven (7) miles of a water supply intake or reservoir, which handle hazardous materials of the types listed in Section 312, of the Resource Conservation and Recovery Act of 1976 (excluding underground storage tanks) and amounts of 10,000 pounds or more on any one day, shall perform their operations on impervious surfaces and in conformance with applicable federal spill prevention requirements or the requirements of the Standard Fire Prevention code.

A natural greenway shall be established and maintained within 150 feet of the banks of the reservoir boundary. Vegetation, land disturbance and land uses shall be controlled by the provisions of the Reservoir Management Plan, as approved by the Georgia Department of Natural Resources (DNR).

Small Watersheds

Anneewakee Creek: Its drainage basin is approximately 29.72 square miles, and located within the central part of the county. A reservoir is located within this watershed.

The Chapel Hill Water Treatment Plant currently takes in One-Million MGD, from Anneewakee Creek. This basin is the most heavily developed basin in the County with more than 70% of the land area currently developed. Considerable growth in this area is projected in the future due to its water and sewer amenities.

Bear Creek: The Bear Creek and Dog River Watersheds are both contain reservoirs. Watershed Management Plans for both the Bear Creek and Dog River Reservoirs have been established. Both have an intake for WSA on the reservoir.

Bear Creek is located in the west central portion of Douglas County. The Bear Creek reservoir withdraws Six (6) MGD. The Bear Creek reservoir was discontinued as a water source for Douglas County. Because of water source reallocation issues as a result of the North Georgia Water District Plan, Bear Creek may once again be considered as a primary water source. Unfortunately, water quality within this reservoir is poor due to septic tank leakage. The County is seriously studying ways to regulate land use to prevent further damage, and has designated portions of this basin as part of the Dog River Overlay District. Approximately 40 percent of the land and upstream of the reservoir are developed.



Dog River is located in the western portion of Douglas County. Its basin is approximately 76 square miles in area. Less than ten (10) percent of the land in the Dog River Basin is developed. The 300-acre Dog River Reservoir holds approximately 1.2 billion gallons, and is the primary water source for Douglas County. Due to its water resource importance the County has developed an overlay to his area restricting impervious surface and a minimum lot size to 3 acres or greater.

Beaver Run Creek Watershed—intake of Sweetwater 23.03. 5% developed.

Limitations within the 7-mile protection area:

Stream buffers, impervious surface limits, development setbacks and maximum residential density as specified in the UDC within the Environmental Protection Chapter.

Industrial land use classifications within the basins are prohibited.

The impervious surface area, including all public and private structures, utilities or facilities, of the entire watershed protection area shall be limited to 25%, or the area covered by existing uses, whichever is greater. Any individual development that will result in more impervious surface than 25% of the total area of the property must be specifically approved.

New hazardous waste treatment or disposal facilities are prohibited.

New sanitary landfills, if permitted by DNR, shall have synthetic liners and leachate collection systems.

Reservoir protection. A natural greenway shall be established and maintained within 150 feet of the banks of any public water supply reservoir boundary within the protected watershed area. Vegetation, land disturbance and land uses shall be controlled by the provisions of the _____ Reservoir Management Plan, as approved by the Georgia Department of Natural Resources (DNR).

Any new facility that handles hazardous materials of the types listed in Section 312 of the Resource Conservation and Recovery Act of 1976 (excluding underground storage tanks) and in amounts of 10,000 pounds or more on any one day, shall perform their operations on impermeable surfaces having spill and leak collection systems as prescribed by DNR.

Secondary protection areas:

Stream buffers, impervious surface limits, development setbacks and maximum residential density as specified in the UDC within the Environmental Protection Chapter.

Other Watersheds:

Streams within areas of the County which are not classified as small or large water supply watersheds (such as the Chattahoochee River direct drainage basin, the Hurricane Creek watershed and Gothards Creek) are also worthy of protection. Stream buffers, as established in the UDC) widths and setbacks from streams shall be regulated as specified in the table located in subsection (1)(e).

Stream buffers, impervious surface limits, development setbacks and maximum residential density as specified in the UDC within the Environmental Protection Chapter.

Coordination among adjacent jurisdictions is necessary in order to ensure the protection of water supply watersheds. The Dog River Watershed occupies Douglas and Carroll County, and the Sweetwater watershed occupies major portions of Cobb and Paulding Counties. Currently there are no interjurisdictional protection policies for the Dog River Watershed, in addition to state law. All applicable jurisdictions will be under the guidance of the North Georgia Water District Plan regulations in the future.

River and Stream Corridors

All watercourses that appear as a solid or broken line on the U.S.G.S Quadrangle Maps are considered regulated streams. Other natural watercourses may be classified as regulated streams if they possess one or more of the following characteristics, as determined by County staff based on data analysis and/or field review.

Evidence of significant water flow along the channel or bed of the watercourse, characterized by one or more of the following: hydraulically sorted sediments; scouring of vegetation and vegetative litter; loosely rotted vegetation caused by the action of moving water.

Evidence of hydric soils, hydrophytic vegetation, or wetlands in or around the channel or bed of the watercourse.

Stream buffers from the banks and setbacks for regulated activities differs by watershed and ranges from 200 feet in the Dog River Watershed, to a minimum of 25 feet for any stream. A table outlining requirements can be found in the UDC. All stream buffers must be maintained with appropriate indigenous plant spaces and groundcover to limit erosion. Construction, grading, cleaning, grubbing, excavating, filling or other land development activities are prohibited outside the minimum setbacks of the regulated buffers.

Other Major Perennial Streams within the County include:

Tanyard Creek	Baldwin Creek	Fly Blow Creek
Little Bear Creek	Bluff Creek	Ayers Creek
Mobley Creek	Long Creek	Little Baby Bear Creek
Billy Creek	Big Branch Creek	Cain Creek
Keaton Creek	Nancy Long Creek	Poole Creek
Crawfish Creek	Yellow Rock Creek	

Protected River Corridor

The Metro River Protection Act, requires local governments to include a river corridor protection plan as part of the comprehensive planning process. The Chattahoochee River bounding Douglas County to the southeast is a protected River Corridor. Although not a direct water source for Douglas County, the Chattahoochee River is the largest source of water for municipalities upstream of the County.

The Chattahoochee River is located adjacent to the southeastern border of Douglas County. The river begins to flow by Douglas County at a point near Buzzard's Roost Island, where Douglas County, Cobb County, and South Fulton County meet. The River continues past Douglas County until it reaches a point where Douglas County, Carroll County, and South Fulton meet. Thus, the Chattahoochee River makes up a significant boundary of Douglas County. The boundary line on the Douglas County side is made up of only one governmental jurisdiction, unincorporated Douglas County.

Following the requirements as established by the Georgia Planning Act and the Mountain and River corridor Protection Act has developed the Douglas County River Corridor Protection Plan. Similar to the comprehensive plan, this plan includes an inventory of existing conditions, an assessment of these conditions and a statement of needs and goals consistent with the inventory and assessment. Goals, policy statements, and action statements, were developed based on perceived needs and general goals. In addition, a strategy for the implementation of goals, policy statements, and action statements, was developed including a short-term and long-term work program.

Public participation was considered for the River corridor Protection Plan, as part of the overall comprehensive planning process. As this plan was part of the overall plan document, the public had an opportunity to review and comment on this plan during the second public hearing for the comprehensive plan.

Land Uses:

Land uses in Douglas County adjacent to the Chattahoochee River include agricultural uses such as pastureland and crops, low-density residential uses, dredging operations, vacant forested and cleared lands, old private landfill sites, junkyards, a private airstrip, and a variety of small commercial operations.

Current Protective Mechanisms:

Douglas County utilizes several protective mechanisms that apply to lands adjacent to the Chattahoochee River a natural vegetative greenway of 100 feet is required along the river banks. Flood hazard districts as depicted on the FEMA Flood Plain Maps govern all flood plains. Also, the County administers a soil erosion and sedimentation control Ordinance through the WSA. All land disturbances and the ARC as required by the MRPA must renew development within the CRP. Development permits are not issued by the County prior to this review. The CRP area is shown on the natural resource map. See also the section on Greenspace to see further descriptions of river protection.

Floodplains

In the majority of the County, floodplains tend to be narrow, except in the southern part of the County where they are moderately wide. The upland soils are generally well drained. The bottomlands waterways drain off slowly and remain wet for long periods. Much of this area is contained in the flood plain areas, and is usable to some extent for non-intensive uses such as agriculture, recreation, etc.

Unwise development within flood plains and general development elsewhere reduces the amount of land, which absorbs runoff. Runoff over greater areas of impervious surfaces increases the amount of water that reaches rivers and streams, as well as, backyards and other areas never before experiencing floodwaters. Flood plains control floodwater, silt overflow and recharge groundwater. This increased flow extends the boundaries of 100 Year Flood Zones, and increases the possibilities of general flooding. Douglas County must take steps to more comprehensively deal with storm water runoff as a system; versus lot by lot, or strictly subdivision oriented storm water runoff consideration.

Floodplain management is required under the National Flood Insurance Act of 1963 and the Flood Disaster Protection Act of 1973. The County has incorporated Flood Damage Prevention within the UDC. Additional restrictions regarding lots containing floodplain areas include a required natural resource easement for additional protection.

Aquifers and Groundwater Recharge Areas

Recharge areas are portions of the earth's surface where water infiltrates the ground to replenish an aquifer, which is any stratum or zone of rock beneath the surface of the earth capable of containing or producing water from a well. The water in the fully saturated portion of the aquifer is called groundwater. Groundwater comprises more than thirty times the amount of water, than do all of the rivers, lakes, and streams of the world. The surface region over which an aquifer collects is called a groundwater recharge area. Groundwater recharge areas are areas where the slope is less than 8%, and two or more rock types contact each other within a four square mile area. Recharging of groundwater occurs by the seeping of precipitation through porous rock and openings in exposed rock. Geologic conditions determine the size and amount of recharge in a particular area.

In order to avoid toxic and hazardous waste contamination to drinking water supplies, groundwater recharge areas must be protected. While recharge takes place throughout practically all of Georgia's land area, the rate or amount of recharge reaching underground aquifers varies from place to place depending on geologic conditions.

Areas with thick soils and gentle slopes are ideal development sites, but they are also the most susceptible to groundwater pollution. Therefore, areas that are the most desirable for development are also the most susceptible to groundwater pollution. Measures to reduce groundwater recharge area pollution include reducing impervious surfaces, controlling hazardous spills, and dumping. Currently subsurface water supplies account for a small percentage of Douglas County's water use.

Due to the non-porous underlying rock structure in Douglas County, groundwater recharge areas have been identified as having "low-pollution susceptibility" by DNR. According to data provided by the Georgia Department of Natural Resources on the Ground-Water Pollution Susceptibility Map of Georgia, Hydrologic Atlas 18, 1999 Edition, Douglas County contains several significant groundwater recharge areas. The 4 groundwater recharge areas designated by the Hydrologic Atlas 18, 1999 Edition, are as follows:

- Area 1: In District 3 between Dog and South River
- Area 2: On the Douglas/Carroll County border off Ephesus Church Road
- Area 3: Parallel to Interstate 20 from Villa Rica to Winston
- Area 4: The largest groundwater recharge area underlies the most developed region of Douglas County. This recharge area parallels Interstate 20 from Highway 5 to Lithia Springs.

Both the state and federal government regulate land uses within groundwater recharge areas. A Groundwater Recharge Area Protection District (GW) has been established to protect the quality of groundwater by regulating land uses within significant groundwater recharge areas. Groundwater recharge areas in Douglas County are mapped on the Official Zoning Map of Douglas County and the natural features map, corresponding to the areas mapped as significant recharge areas by the Department of Natural Resources (DNR). Requirements from the Environmental Protection Division, (EPD), include restrictions and regulations on sanitary landfills, land disposal of hazardous wastes, spray irrigation of wastewater and wastewater treatment basins.

As stated above, groundwater recharge areas in Douglas County have low pollution susceptibility. The County within the Unified Development Ordinance has adopted the following protection restrictions:

- Protect groundwater quality by restricting land uses that generate, use or store dangerous pollutants in recharge areas;
- Protect groundwater quality by limited density of development; and
- Protect groundwater quality by ensuring that any development that occurs within the recharge area shall have no adverse effect on groundwater quality.
- Sanitary sewer shall serve new manufactured home parks.

Overall additional requirements of significant recharge areas with low pollution susceptibility, as defined and delineated by DNR, are as follows:

- New hazardous waste treatment or disposal facilities are prohibited.
- New sanitary landfills, if permitted by DNR and the zoning district, shall have synthetic liners and leachate collection systems.
- Any new facility that handles hazardous materials of the types listed in Section 312 of the Resource Conservation and Recovery Act of 1976 (excluding underground storage tanks) in amounts of 10,000 pounds or more on any one day shall perform their operations on impermeable surfaces having spill and leak collection systems as prescribed by DNR.
- Any new above-ground chemical or petroleum storage tanks, having a minimum volume of 660 gallons, shall have a secondary containment for 110% of the volume of such tanks or 110% of the volume of the largest tank, in a cluster of tanks. Such tanks used for agricultural purposes are exempt, provided they comply with all federal requirements.
- New agricultural waste impoundment sites larger than 50 acre-feet must be lined as described by the Soil Conservation Service (SCS).
- Any new home served by septic tank/drain field system must be approved by the County Health Department and must have a lot that is at least 110% of the minimum lot size required by Table MT-1 of the Department of Human Resources' Manual for On-site Sewage Management Systems.
- See above restrictions on new manufactured home parks.

The Douglas County Environmental Health Department approves all septic tank permits. This department will ensure the minimum lot sizes are met and the requirements of the Department of Human Resources "Manual for On-site Sewerage Management Systems" are met for all groundwater recharge areas.

Wetlands

Wetlands serve as important fish and wildlife habitats and breeding ground, and are an integral factor in food chain production. Numerous plant and animal species have adapted to the special conditions of freshwater wetlands and cannot survive elsewhere. Wetlands serve as storage areas for flood protection/control, erosion control, water quality maintenance, and groundwater recharge, supply and recreation opportunities. Wetlands generally include swamps, marshes, bogs and similar areas. Douglas County's wetlands can be found along major creeks, rivers, and lakes, usually within their respective flood plains. Wetlands serve as:

- Recharge areas for groundwater;
- Habitats for fish, plants, and other wildlife;
- Flood control devices;
- Water purifiers by filtering and trapping pollutants and sediment;
- Transition zones between terrestrial and aquatic environments; and
- Buffers between developed and undeveloped areas.

Wetlands can be classified into two groups, open or closed. Closed wetlands exchange relatively little material with other environments. Conversely, open systems exchange significant amounts of material and energy with other environments. However, no wetland is exclusively closed or open. Wetlands protection comprises the following two categories:

- All lands mapped as wetlands areas by the U.S. fish and Wildlife Service National Wetlands Inventory Maps (Generalized Wetlands Map); and
- All lands that, in the course of development review are determined by Douglas County to have significant evidence of wetlands.

In common terms, wetlands refer to bogs, marshes, swamps, floodplain areas, ponds, and lakes. A less clear definition includes areas meeting certain criteria as wetlands. These criteria are: "vegetation, similar to that of traditional wetlands; soils heavily influenced during some portion of the year by water; and complete ground of surface water saturation during a portion of the growing season."

The Generalized Wetlands Map is adopted by reference and declared to be part of the UDC. This map is to serve as a guide during the wetlands permitting process. The Generalized Wetlands Map cannot serve as a substitute for a delineation of jurisdictional wetland boundaries by the U.S. Army Corps of Engineers, as required by Section 404 of the *Clean Water Act, as amended*. Any action by Douglas County under this ordinance does not relieve the landowner from federal or state permitting requirements.



Wetlands are threatened by a number of human and natural actions. Some of these are direct human threats such as drainage of the wetlands for land reclamation, construction of dikes, dams and levees which alter wetlands, and discharge of toxic materials such as oils, pesticides or other pollutants which destroy plants and wildlife within the wetlands. Other human threats are indirect such as sediment diversion by dams and channels, and subsidence due to extraction of groundwater, oil and other minerals. Finally, some other threats are natural such as storms, droughts, and destruction by animals. No activity which will, or which may reasonably be expected to result in the discharge of dredge or fill material in the Waters of the US will be permitted within the wetland protection district without written permission or a permit from Douglas County.

The Clean Water Act of 1990 requires entities to obtain a permit if land disturbing activities are to be performed on the wetland. The Corps of Engineers has specified the possible development uses of wetlands.

Local Wetland Protection Criteria

A land disturbance permit is required for all development activities in Douglas County. The County's Engineering Department issues land disturbance permits and has been supplied with a copy of the National Wetlands Inventory Maps (U.S. Department of the Interior) which by adoption of this plan, become the official reference maps for the identification of wetlands within Douglas County. The Engineering Department will determine whether a given development will fall within a wetlands area as shown on the map, and whether the wetlands area has been designated as a significant wetland. If so, the following evaluative criteria will be used to determine the impact of the activity on the wetland area:

Will the land use lead to permanent alteration of the wetland that will negatively affect its natural functions (including water quality maintenance, erosion control, etc.)?

If yes, the activity in question should be restricted.

Will the use cause permanent alteration of the wetland that will negatively affect its recreational or fishing use, if any?

If yes, the activity in question should be restricted.

Will the impact of the land use be temporary or permanent?

If permanent, the activity in question should be restricted.

All jurisdictional wetlands will be referred to the Corps. Of Engineers for a designated 40 Permit or Letter of Permission. No local permit will be issued until this requirement is fulfilled.

Section 404 Permits

The Environmental Protection Agency (EPA) is responsible for restoring and maintaining the environmental integrity of the nation's wetland resources. The major federal regulatory tool for achieving this is "Section 404" of the *Clean Water Act*. Section 404 establishes a permit program to regulate the discharge of dredge or fill material into waters of the United States, including most wetlands. To protect these environmentally sensitive areas, the EPA's goal is to allow no long-term degradation and no net loss of wetlands. A 404 permit may be required for any discharge of dredge or fill material in wetlands of over .1 acre in size; penalties for beginning work without a permit are severe. The Clean Water Act requires that a determination of jurisdiction for any work that would result in altering over one-acre wetlands.

The County amended its Unified Development Ordinance (UDO) to clearly require Section 404 review by the Corps of Engineers of any land disturbance proposed in a wetland area. Hazardous or toxic waste receiving, treatment or disposal facilities and sanitary landfills are prohibited within wetland areas.

All development proposals in wetlands, whether significant or non-significant wetlands, will be referred by the Engineering Department and the Permit Department to the Army Corps of Engineers, who will determine whether a Section 404 Permit will be required for the project.

Utilizing the Georgia Planning Act of 1990 criteria for wetlands protection, land uses that are deemed acceptable within wetland and flood prone areas include:

Conservation or preservation of soil, water, vegetation, fish and other wildlife, provided it does not affect waters of Georgia or of the United States in such a way that would require an individual 404 Permit.

Outdoors passive recreational activities, including fishing, bird watching, hiking, boating, horseback riding, and canoeing.

Forestry practices applied in accordance with best management practices approved by the Georgia Forestry Commission and as specified in Section 404 of the Clean Water Act.

The pasturing of livestock, provided that riparian wetlands are protected, that soil profiles are not disturbed and that approved agricultural Best Management Practices are followed.

Education, scientific research and nature trails.

Other uses permitted under Section 404 of the Clean Water Act. In addition, as outlined elsewhere in this chapter, the County is working towards developing a greenway system to further protect sensitive areas.

As Douglas County grows, it must consider the natural habitats of all species. Wetland protection is required by the Wetland Protection Act of 1990. Economic incentives can be obtained from the Federal Government, if wetland conservation is practiced (Wetland Reserve Program).

■ Water Quality and Pollution

The 1997 Amendments to the Federal Safe Drinking Water Act brought about new pollution prevention and protection measures that help ensure clean and safe drinking water. As a first step, the USEPA requires all states to perform Source Water Assessments for each drinking water intake. The Georgia Environmental Protection Division contract with ARC to coordinate and facilitate the implementation of the State's Source Water Assessment Plan for 28 metro Atlanta public drinking water intakes. The Douglasville-Douglas County Water and Sewer Authority and the Atlanta Regional Commission have completed a source water assessment itemizing potential sources of surface water pollution to the drinking water supply. Two types of water pollution generators have been identified: Point Source Pollution and Non-point Source Pollution.

Dog River –Water Supply Watershed	
Inventory of Potential Point Sources of Pollution	Facilities
Agriculture	1
Asphalt Plants	2
Electric Substations	3
Fuel Facilities	11
Garbage Transfer Stations	1
Hazardous Waste Facilities	4
Landfills	1
Large Industries--Federal Categorical Standards	2
Land Application Site (LAS) Permit Holders	31
Large Industries-utilize hazardous chemicals	3
Lift Stations	1
Mines	4
NPDES Permit Holders	3
Wastewater Treatment Facilities	3
Oil/Gas Pipelines Crossing Streams	17
Total	57

Bear Creek--Water Supply Watershed	
Fuel Facilities	1
Hazardous Waste Facilities	1
Large Industries which Utilize Hazardous	1
Land Application Site (LAS) Permit Holders	2
Lift Stations	1
NPDES Permit Holders	2
Total	8

Point Source Pollution

Individual Source Pollution involves actual facilities, which have contaminants on site, which can pose a potential health risk if humans consume those contaminants. Currently 57 facilities have been identified within the Dog River Water Supply Water shed, and 8 within the Bear Creek Watershed.

Non-Point Source Pollution

Non-point source pollution is caused by development and everyday activities that take place in residential, commercial and rural areas and is carried by rainfall to streams and lakes. Non-point source pollution is the most significant source of water pollution within Douglas County, as is in the entire metropolitan Atlanta Region. Nonpoint source pollution, which comes from an array of sources such as farms, cars, fertilizers, construction sites and atmospheric deposition, is carried by stormwater into local streams. Each time it rains, the resulting runoff from rooftops, lawns, streets and parking lots pick up debris such as:

Dust and Dirt;

Oil and other vehicle leaks;

Pet waste;

Lawn pesticides and fertilizers

Leaves and grass clipping

Leaky septic tanks and sewer lines, construction sites and bare ground areas are other sources of non-point source pollution.

The EPD has indicated its intention to develop stormwater and watershed plans for basins affected by nonpoint source pollution. The county should encourage the planning process to occur within a timely manner and work to achieve its implementation at both the state and local level. Non-point pollution levels will continue to be monitored within the County.

Douglas County is very proactive towards the protection of its water sources. WSA is now administering the stormwater protection program and monitoring soil erosion in order to coordinate new development and potential impacts within the county. There are several protection mechanisms in place through the UDC that contribute to improved water quality. Extra protection through strict impervious surface limitations and large lot configurations within the Dog River Basin add further protection. In addition the county has adopted a strong tree ordinance, landscape and buffer standards and is encouraging environmentally friendly master planned development.

■ **Scenic Views and Sites**

Douglas County is a county of natural beauty. Although the County has experienced rapid growth within the last decade, its rural heritage is still greatly intact. Several specific scenic views and sites have been identified and specifically conserved such portions of the Chattahoochee and Dog River. Several others have been identified in the Historic Resources of this Plan. The County will continue to work through its future land use plan to conserve additional scenic views and sites.

■ Potential Non-Regulatory Programs

Non-regulatory programs include incentive programs, citizen involvement efforts, and technical assistance and education.

Conservation Use Program

Tax benefits for land conservation are provided through the Conservation Use Program. Under this program, the State of Georgia offers a tax incentive to qualifying property owners who wish to enter into a conservation covenant. Owners of qualified property must enter into a covenant with the state stipulating that the land will be maintained in its current condition for a period of 10 years. In exchange for the covenant, ad valorem tax will be assessed on the value of the property's current use rather than the fair market value. Strict penalties are enforced if the covenant is broken before the 10-year agreement expires. Covenants can be re-established after each 10-year period.

Property eligible for the Conservation Use Program includes environmentally sensitive land, residential transitional property, and certain agricultural and forestry property. Environmentally sensitive land includes steep slopes, mountain slopes and mountain tops, wetlands, floodplains, habitats which contain endangered or threatened species and provide a significant portion of the species' biological requirements, significant groundwater recharge areas, and undeveloped barrier islands. Residential transitional property is defined as property that includes a maximum of five acres surrounding the residence of a single-family homeowner, or is located in transitional developing areas as evidenced by recent zoning changes, the purchase of adjacent property by a developer, or the close proximity to property, which has undergone a change from single-family residential use. Agricultural and forestry property includes land used for a variety of row crops, aquaculture, horticulture, floriculture, forestry, dairy, livestock, poultry, and apiarian products.

Conservation Easements

Under the Georgia Uniform Conservation Easement Act, conservation easements are non-possessory, in-perpetuity interests in real property created for any of the following purposes:

- Retaining or protecting natural, scenic, or open-space use;
- Assuring the availability of land for agricultural, forest, recreational, or open-space use;
- Protecting natural resources;
- Maintaining or enhancing air or water quality; or
- Preserving historical, architectural, archeological, or cultural aspects of real property.

A Conservation Easement is a legal agreement a property owner makes to restrict the type and amount of development that may take place on the property. Each conservation easement's restrictions are tailored to the particular property and to the interests of the individual landowner.

Georgia Adopt-A Stream

Georgia Adopt-A-Stream is a citizen involvement and water quality-monitoring program focusing on nonpoint source pollution. Volunteers adopt a section of stream, river, lake or wetland for one year. During that time, they evaluate water quality and habitat conditions, pick-up litter, and increase community awareness of these resources. Georgia Adopt-A-Stream provides education on nonpoint source pollution and protection of stream and river corridors. Currently more than 5,000 volunteers participate in individual and community sponsored Adopt-A-Stream Programs.

River Care 2000 Program

River Care 2000 is a conservation program established by Governor Zell Miller in September 1995. One key objective of this program is acquisition of river corridor lands for purposes of protection and to forestall unwise development in flooding prone areas. The Coordinating Committee has approved procedures for three types of projects—Riverway Demonstration Projects, which improve public access to a river with scenic and recreation uses and protect natural and historic resources by acquiring and managing land in the river corridor; Significant Sites, tracts of land the DNR will acquire and operate as traditional state public-use facilities and Restoration Sites, which are tracts of land the state will identify, acquire, and manage to reduce nonpoint source pollution.

Wildlife Resources Division (WRD) Land Acquisition

DNR's Wildlife Resources Division began a land acquisition program in 1987 to acquire 60,000 acres of additional lands for Wildlife Management Areas (WMAs) and Public Fishing Areas (PFAs). This initiative was funded by a \$30 million 20-year obligation bonds to be paid off by hunting and fishing license increases and WMA permit fees.

Nonpoint Source Education: Project WET (Water Education for Teachers)

A report outlining a plan for nonpoint source education in Georgia was completed in 1994. Titled Georgia Urban Waterbody Education Plan and Program, the report laid out nonpoint education strategies for seven target audiences—general public, environmental interest organizations, civic associations, educators, business associations, local government officials and state government officials. EPD initially targeted its education efforts towards educators and students in grades K to 12. Covering impacts on ground water and surface water, the curriculum addresses the following nonpoint sources: agriculture, forestry, urban and construction. EPD began implementing Project WET in December 1996. In 1997 WET Facilitator Training Workshops were successfully completed in Alpharetta, Macon and Savannah, Georgia. Currently there are 86 Project WET Facilitators in Georgia.

Greenprint Georgia

The Greenprint Georgia program is an innovative way to help local governments protect their critical natural and cultural resources and build enduring, prosperous communities. The Trust for Public Lands is helping Georgia communities create practical greenprints that not only protect important natural resources—like drinking water, watersheds, wetlands, parks and other open space, but also the special places that define an area's history and unique character.

Chattahoochee Riverway

The Trust for Public Land has launched a campaign to transform the Chattahoochee River from one of the nation's most threatened rivers into a vital center of community life for metro-Atlanta. This 180-mile ribbon of green would stretch from the North Georgia Mountains to Columbus, protecting safe drinking water and enhancing communities with recreational and natural lands.

■ Summary and Needs Assessment

Douglas County has an abundance of natural resources that warrant attention because of their sensitive nature and valuable contribution to the community. The County has taken several specific steps for the protection of water resources and conservation of the natural environment. Overall the county is more stringent than the State's minimum environmental requirements. Protection measures include larger required stream buffers, more stringent impervious surface requirements, Watershed protection overlay within the Bear Creek and Dog River (portions) watershed, strong tree conservation, landscape and buffer requirements, required primary resource conservation easement protection, and

local non-jurisdiction wetlands permitting. In addition to direct protection of the natural environment, the County will continue to educate its citizens about local threatened or endangered species and environmental impacts through the County web page. The County's vision, guiding principles, goals and objectives and the Future Land Use Plan have all been developed with natural resource protection in mind. A lower land use impact has been planned in environmentally sensitive areas.

Responsibility for the protection of the natural environment is regulated under several agencies and regulations: through the County—Chattahoochee River Corridor Protection Plan, the newly adopted UDC which contains sections on tree protection, soil & erosion practices, flood protection regulations, environmental overlay areas and septic tank restrictions; "greenway" stream corridors, site plan/engineering review, land disturbance and building permits and construction permits; through the Georgia DNR—Water resource and soil erosion regulations and inspections; and through the US EPA/Corps of Engineers—wetland (404) permits. Due to the anticipated growth of the County, the County will continue to enforce current regulations with regards to floodplains, wetlands, groundwater recharge areas, Chattahoochee River Protection Act, and UDC and to develop additional regulations and requirements as necessary in the future.

Not only is the County strong on protecting its existing natural and sensitive resources, the County is also proactive in acquiring new open space with the goal of protecting Douglas County's rural heritage. The new SPLOST program emphasized parks, recreation and Greenspace. The land component is almost \$20 million and will allow the purchase of about 2,000 acres of parklands and Greenspace.

The County will continue to control development location and practices so that unsuitable soils are not built on, erosion is minimized, wetlands are not disturbed and floodplains are avoided. The County currently enforces responsible development practices through land disturbance and building permits, inspection and review process. This process adequately mitigates negative development practices and will remain intact in the future.

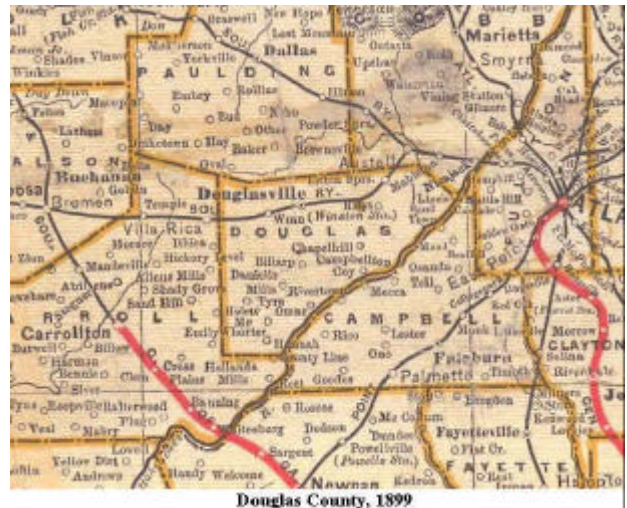
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6. Historic and Cultural Resources

■ Introduction

Historic resources include landmark buildings, historic structures and sites, commercial and residential districts, historic rural resources, archaeological and cultural sites, and the historic environment in which they exist. Historic Resources serve as visual reminders of a community's past, providing a link to its cultural heritage and a better understanding of the people and events that shaped the patterns of its development. Preservation of these important resources makes it possible for them to continue to play an integral, vital role in the community. Currently the County has five properties listed on the National Register of Historic Places; the John Thomas Carnes Family Log House at Clinton Nature Preserve; the old Douglas County Courthouse; the Douglasville Commercial Historic District; the Col. William T. Roberts House; and the Sweetwater Manufacturing Site at Sweetwater Creek State Park.



As in many Georgia counties, distinct periods of building activity are apparent. Main building period in the County was between 1880 and 1919, better known as the period of the New South. Other major historical time periods represented include Ante-bellum, Reconstruction, Roaring Twenties, Great Depression, and World War II/pre-Cold War. For Douglas County, this was a period of growth and expansion brought on by the construction of the Georgia Pacific Railroad. Varying styles of architecture include examples of Victorian, Queen Anne, Craftsman, Minimal Traditional, Colonial Revival, Romanesque, Italianate, Beaux Arts Classicism, and Tudor Revival. Craftsman and Minimal Traditional are the most common architectural styles found in Douglas County.

■ Cultural and Historic Organizations

Douglas County has an active and informed Historic Preservation Commission as well as a city/county historical society. The Douglas County Historic Preservation Commission and the Douglas County Historical Society have created several informational pamphlets and booklets on the history of the county.

■ Historic and Cultural Programs

The Cultural Arts Center of Douglasville/Douglas County brings to the residents of Douglas and surrounding counties a wide variety of performing arts including concerts, plays, lectures, recitals, and

cultural festivals at the Center and various other locations throughout the community. Events such as Pioneer Days at Clinton Farm and Nature Preserve, held in the fall, offer a whole day of festive and educational fun through demonstrations of quilting and candle making to exhibitions of old farm equipment and tools. The Friends of Sweetwater Creek State Park hold an annual Native American Festival each year at the Park. Demonstrations such as the “Ama Kanasta” village represent how a Native American chief lived along the banks of Sweetwater Creek 300 years ago.

■ A Brief History of Douglas County

Early History

The earliest documentation of human habitation in Douglas County is approximately 10,000 BCE (before current era). More recently, two distinct Native American groups, the Lower Creek and the Cherokee, inhabited Douglas County. The Lower Creek Nation is a Muskogean language family, while the Cherokee are Iroquoian language speakers, associated with northern groups such as Mohawk. The Lower Creek settled along the Chattahoochee and Flint Rivers in North Georgia. The northern boundaries of the Lower Creek Nation were in what was to later become Douglas County. This settlement numbered approximately 22,000 at the time of first contact with Europeans, in the form of Spanish explorers. Due to the unpleasant nature of these early contacts with the Spanish, the Creeks thereafter aligned themselves with the British. The Cherokee Nation numbered approximately 29,000 at the time of their first European contacts. The southernmost settlements of the Cherokee Nation were also in what was to become Douglas County.

The first known settlement in Douglas County was called Skint Chestnut. This point in the landscape rises to an elevation two hundred feet higher than the surrounding countryside. The Indians used a large Chestnut tree as a landmark for years prior to European occupation. In order for the tree to be more conspicuous, the Indians removed the bark from top to bottom. Here, over time, the roads to this site began to converge this early settlement was later incorporated as the City of Douglasville.

In 1821, due to ongoing conflict between the two groups, the Federal Government established a line separating the Creek and Cherokee Nations. This line began at Buzzard’s Roost, an island in the Chattahoochee River, dividing modern day Douglas, Fulton and Cobb Counties. The Government subsequently removed the Creeks in 1828 due to hostilities between this group and the European settlers. President Andrew Jackson signed the Indian Removal Act in 1830, which required all tribes located east of the Mississippi River to be removed and relocated west of the Mississippi. Due to this Act, and the fact gold was discovered in North Georgia soon thereafter, the last of the Cherokee were forcibly removed in 1838, in what would later be known as the “Trail of Tears”.

Early Development

Early European settlers in what is now Douglas County arrived in the 1820’s from Virginia, the Carolina’s and the eastern portions of Georgia. These settlers received land grants from a state lottery system designed to increase settlement into the western portion of the State. Early farming operations, the primary trade at this time, were geared to growing corn, wheat, and barley, or raising livestock, such as, cattle, hogs, chickens, and sheep. This type of farming was for home use and local trade, and was primarily subsistence in nature. Settlers usually lived in log cabins, using logs hewn from the abundant local hardwood. Gold was discovered in the northwest section of the County and scarred earth from these operations is



still visible. While no major strikes occurred, the mere presence of the ore made for some interesting times. This area of Douglas County was established as part of Campbell County in 1828.

Douglas County was created by an Act of the State Legislature, on October 17, 1870, as the 131st Georgia County. The name “Douglas” was derived from Senator Stephen A. Douglas, of Illinois, prominent for his role in the Lincoln-Douglas debates, which took place before the Civil War.

A number of local industries were established, and by the 1840’s cotton mills, rope factories, sawmills, and grain mills dotted the landscape. The best known was the Manchester Mills, at a settlement called New Manchester. Union soldiers burned this settlement, located on Sweetwater Creek, in what is today part of Sweetwater Creek State Park, in 1863. Women from the mills were captured and exiled to Indiana.

The idea for a railroad from Atlanta to Birmingham was conceived well before the Civil War, yet it was many years after the war before the idea became a reality. Work was begun on the railroad as track laying commenced in November of 1881, and track was laid to the City of Douglasville by April of 1882. Villa Rica was reached in July of 1882, and the line was completed between Atlanta and Birmingham by November of 1883. The line was eventually connected to the Texas and Pacific Railroad in Columbus, Mississippi. As the primary long-distance freight and passenger mode of transportation at the time, railroads breathed life into small communities, as they became local centers of commercial and social activity. Bankhead Highway paralleled the railroad and this corridor served as the commercial backbone of Douglas County until Interstate 20 opened new areas for development.

Four areas were incorporated within the County:

Douglasville

Douglas County was created by an Act of the State Legislature on October 17, 1870, as the 131st Georgia County. The name Douglas was derived from Senator Stephen A. Douglas of Illinois, prominent for his role in the Lincoln-Douglas debates that took place before the civil War. The site known as Skint Chestnut was chosen for the origin of the Town of Douglasville. The act to incorporate Douglasville was approved on February 25, 1875. Douglasville was granted a city charter by the State Legislature in 1895 and was designated as the Douglas County Seat.



Old Douglas County Courthouse -- Early 1900s



Lithia Springs

Lithia Springs was originally known as Deer Lick and Sweetwater Town during the time of the Cherokee, and later as Salt Springs. Lithia Springs had a glorious, yet fleeting history as a resort town. Spring water, rich in minerals, including lithium bicarbonate, emanated from the ground in the area. Businessmen latched on to the idea of bottling the waters and developing a health resort, which led to the commercialization of the area. Salt Springs was incorporated as a town by the State legislature on December 12, 1882. This resort town became quite fashionable to the elite both regionally and along the eastern seaboard as a place for rest and recover from “nervous ailments”, given the claimed restorative powers of the spring water. The railroad helped spur growth for the area, which eventually developed a grand hotel known as the Sweetwater Park Hotel and the Piedmont Chautauqua, a Victorian institution aimed at self-improvement. The new century brought decline to the resort as the Chautauqua failed financially and was discontinued. The resort hotel burned to the ground. The town now known as Lithia Springs had fewer than 150 citizens by 1933. A referendum for the revocation of the charter was held. There is no record of the results of this election and its current status is unclear. In 1992, a strong movement to re-establish the official status of Lithia Springs had emerged and has culminated in a 1993 ruling in Douglas County Superior Court that stated the City of Lithia Springs has officially existed throughout the sixty (60) year period. The State Legislature would have to officially establish the current boundaries of the City of Lithia Springs. An election requested citizens of Lithia Springs to decide whether to accept their charter or dissolved was taken in January of 1994. The vote was in favor of remaining a city. Although Lithia Springs was formally re-chartered, the city was dissolved in 2001.

Villa Rica

The City of Villa Rica is located in Carroll and Douglas Counties. The City has annexed approximately 2900 acres within Douglas County. The Douglas County portion of the City of Villa Rica is largely suburban in character with medium-density subdivisions. The population of the Douglas County portion of the City is estimated to be 2,267.

Austell

The City of Austell is located in Cobb and Douglas Counties. The City has annexed approximately 37 acres within Douglas County. The Douglas County portion of the Austell is largely suburban in character with medium-density subdivisions. The population of the Douglas County portion of the City is estimated to be 97

■ **Historic Resources**

The following sections discuss the commercial, residential, institutional and archeological resources of Douglas County. The county’s rich history is made evident by the numerous historic buildings dispersed throughout the area. A survey of historic and cultural resources was completed in September 1999. The Douglas County Historic Resources Survey was performed as part of a countywide effort initiated by the Douglas County Board of Commissioners to identify and survey all historically significant properties, communities, and towns in Douglas County, excluding the City of Douglasville.



The survey was funded by a contract from the Historic Preservation Division of the Georgia Department of Natural Resources and matched in part by the Douglas County Board of Commissioners. The County has a total of 17 identified properties that are eligible for the National Register of Historic Places.

Federally Registered Sites

Currently, the County has five properties listed on the National Register of Historic Places:

DO-338 and DO-345 The John Thomas Carnes Family Log House at Clinton Nature Preserve. The Carnes Cabin and the home of Christopher Columbus Clinton located here are thought to be the oldest “still standing” structures in Douglas County;



The old Douglas County Courthouse. Completed in 1956, it is just one of four buildings still standing in the United States that was designed in the international style of the 1950's



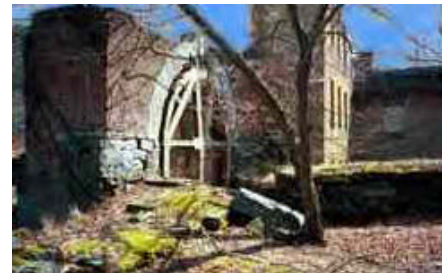
The Douglasville Commercial Historic District. This district was built between the late 1880's and early 1920's with a wide variety of building styles including Italianate and Beaux Arts;



The Col. William T. Roberts House, also known as the Roberts Mosley House is a late-Victorian style house and is currently home to the Douglasville/Douglas County Cultural Arts Council;



DO-298 The Sweetwater Manufacturing Site at Sweetwater Creek State Park. The mill went into operation on December 21, 1849, and its products rapidly became known throughout the south. In addition to the textile operations, there was a flour and gristmill to the south and water powered saw mill one mile north.



Historic Residential Resources

A majority of the historic resources identified in the 1999 Historic Resources Survey were residential in nature. Examples of sites that could be eligible include:

DO-L-039 Sweetwater Cottage at 6660 s. Sweetwater Road. The date of construction is approximately 1900-1909 with no specific academic style.

DO-L-016 Maxwell House at 6655 Marsh Avenue built in 1888 in the Folk Victorian style.

DO-L-082 Summerlin-Bowden House at 3126 Bankhead Highway. The date of construction is approximately 1840-1849 with no specific academic style.

DO-157 Bullard/Hendley/Sprayberry House at 5135 Highway 92 built circa 1835-1839 in the Greek Revival/Folk Victorian style.



Historic Commercial Resources

Only a small handful of possible historic commercial resources exist. One site that could be eligible is:

DO-016 Good Hunt/Bill Arp/Banks Grocery at 4991 Highway 5 built circa 1905-1924 with no specific academic style.

Historic Industrial Resources

Only a small handful of possible historic industrial resources exist. Two sites that could be eligible are:

DO-294 Fouts Mill built circa 1936 with no specific academic style.

DO-278 Stockmar Goldmine built circa the 1880's with no specific academic style.

Historic Rural Resources

None.

Historic Institutional Resources

Several historic institutional resources exist. Examples of sites that could be eligible include:

DO-052 Middle Courthouse District 1271 built circa 1905-1914 with no specific academic style.

DO-077 Chapel Hill Courthouse, District 736 built circa 1905-1914 with no specific academic style.

DO-165 Pleasant Grove Baptist Church built circa 1900-1909 with no specific academic style.

DO-216 Beulah Baptist Church on Bankhead Highway built in 1947 in the English Vernacular Revival style.



Transportation Resources

The Chattahoochee River line begins at the intersection of Riverside Parkway and Camp Creek Parkway. The Buzzard's Roost is perhaps the most well known landmark in Northwest Georgia. The island is about ¼ mile north of the Camp Creek Parkway Bridge. When Cobb, Paulding and the northern portion of Campbell counties were originally surveyed, the engineers began at Buzzard's Roost Island. All early maps indicate that the Sandtown Road, which leads from Tennessee and Alabama, east, crosses at Buzzard's Roost. The Sandtown Road, Perhaps as old as any road in the south, links with old routes to the east coast of Georgia.

■ Archaeological and Cultural Sites

There are _____ recorded archeological sites in Douglas County on file at UGA, including _____ cemeteries. There are 14 Civil War military sites in the County as well.

Cemeteries and Burial Grounds

The Chattahoochee River line area near Buzzard's Roost has been noted as an area of importance to the Indians along the river. Woodland and Mississippian village and mound centers run along both sides of the river for some distance. Sandtown burials were excavated and noted the presence of an earth lodge on the Douglas County side of the river. Later work indicated a conical "Hopewell" type burial mound on a bluff overlooking the Buzzard's Roost crossing.

Near the intersection of Highways 5 and 166 is the Flint Hill Methodist Church. Two of General Hood's troops died near the arbor of this church and were subsequently interred and are two of the many graves in the church cemetery.

Historic Campbellton is located in and around a site on Highway 92 three miles from Highway 166. In the floodplains in this area were settled by Indians who built ceremonial mounds and great villages. Cherokee and Creeks also inhabited this area. The last group of Indians recorded in this area was the "Anawaki". A conical mound was excavated in the area that had been built as early as 600 AD.

Civil War Military Sites

At the intersection of Rockhouse Road and Riverside Parkway is a two-story rock house built of flagstone and mortar, with a chimney on the southeast end and the front facing the southeast on the old road. It is adjacent to a hill near the River. The hill included a trenchline held by the State Militia and the 3rd Texas Calvary on July 3rd and 4th, 1864. The house was owned by Lawyer Edge. When federal troops reached the river opposite Sandtown in early July, they commandeered Edge's home, his crops and stock.

Riverside Parkway at the bridge over Sweetwater Creek is adjacent to the site of Aderhold's Ferry. The ferry had two stops on the west bank of the Chattahoochee River. July 3, 1864 it was the site of the battle at Sweetwater Bridge.

Historic Campbellton is also the site of the Bullard-Henley-Sprayberry house. It was built by Thomas and Susan Bullard in the 1840's and was the site of several Civil War skirmishes and used as headquarters by General McCook before the raid on Newnan.

A dirt road near the intersection of Highway 166 and West Chapel Hill Road leads to the site of Smith's Ferry. Smith's Ferry is noted as the point of crossing used by General McCook in his raid on the West Point railroad in late July, 1864.

Highway 166 at the Chattahoochee River bridge is the site of Gorman's and Austell's Ferries. Both sites were visited several times during the war, but saw little action.

Phillips Ferry is located 15 miles from Buzzard's Roost. The first settlers at Phillips Ferry settled in what was known as Rivertown. After the raid on Newnan, Phillips Ferry would become a large camp of Confederate Cavalry and Infantry, preparing to cross the river and march on Sherman's rear position. The Jones house in Rivertown is one of the few remaining structures in Rivertown. Trenchlines are still visible on both sides of the road all the way to Palmetto.

Generalized Archaeological Areas

Many of the areas along the banks of creeks, streams and rivers throughout and bordering Douglas County are the sites of prehistoric archaeological resources. Along the Chattahoochee River alone 12 Indian Mounds are noted and many are referenced in earlier parts of this chapter.

■ Historic Markers

The following historic markers are located in Douglas County (the marker number, as assigned, is given): In front of the Old Douglas County Courthouse due to the fact it is the location of the original Courthouse.

■ Adequacy of Current Preservation Efforts

Douglas County does not have an active Cemetery Commission and no quasi-governmental entity to keep track of historic sites and their preservation. It is suggested that either a Cultural Resource Manager or planner handle cemetery and historic site issues. The overall level of integrity of the properties analyzed in the 1999 survey ranged from fair to good. A considerable number of resources exhibited a moderate degree of integrity loss. The physical conditions of about 20% of the historic resources surveyed are in poor or deteriorated condition. A majority of these structures are located in the rural, unincorporated areas. Given the extraordinary amount of development that Douglas County is experiencing, it would be wise to adequately map historic sites relative to the Future Land Use Map.

■ Coordination of Land Future Land Use and Preservation Efforts

As a result of the Historic Resources Survey of 1999, the County should overlay known historic and archaeological sites on the new Future Land Use Map in order to protect those valuable resources in future development decisions.

■ Summary and Needs Assessment

Douglas County recognizes that the preservation and maintenance of archaeological sites and historic structures contribute to the cultural heritage of the county and are in the long-term best interest of the county. The Historic Resources Survey of 1999 involved the identification and documentation of all buildings, structures and sites, which contribute to the historic character of the area. The survey also identified potential threats to their survival. In response to this concern, Douglas County should adopt regulations concerning the demolition of historic structures. Decisions should also be made on how historic structures should be protected. The county should take action to protect these sites before they are destroyed.

While the county has begun work toward the goal of preserving the county's historic resources, there are additional steps that should be taken. These include:

Adoption of a countywide historic preservation ordinance in compliance with the Georgia Historic Preservation act of 1980.

Seek certification as a Certified Local Government under the Historic Preservation Division of the Georgia Department of Natural Resources.

Investigate preservation incentives.

Utilize current state and federal programs, which provide funding, staff and services in the area of historic preservation.

Potential financing mechanisms

Several financing mechanisms are available to assist in preservation planning:

State Tax Incentives—a state income tax incentive to encourage the rehabilitation of historic properties that includes a 25% credit for income-producing properties; a 30% credit for residential properties; a mortgage certificate program; and a pass-through provision;

The Georgia Land, Water and Wildlife and Recreation Heritage Fund

Heritage tourism grants;

Georgia Heritage Program grants;

HPD Georgia Historic Resources Survey Contracts

7. **Community Facilities**

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1. Community Facilities and Services

■ Introduction

A community's public facilities and services define a government's commitment to excellence in providing a framework in which the community functions. Services such as public safety, education, solid waste disposal, general government, and a variety of other services play a vital role in how a community functions, perceives itself, and how it is perceived by outsiders. Often, communities provide a competitive edge in attracting outside investment and residents by providing high quality and efficient public services for the lowest cost possible. This chapter will provide summary descriptions of all major public facilities and all major public services currently provided and proposed in the future. The county's guiding principles regarding community facilities include the following:

- Plan and program infrastructure on the basis of land use patterns as outlined on the future land use plan map.
- Target and program infrastructure to areas of proposed higher density and designated commercial and industrial nodal areas.
- Require infrastructure concurrency within zoning and the land development process.

■ General Government Services

Government Facilities Inventory

The following table lists the general government facilities in Douglas County.

Table CF-1
General Government Facilities

Facility	Address	Square Feet	Acres
County Court House	Hospital Drive	n/a	n/a
Transportation Center	Doris Road	n/a	n/a
County Court House (old)	6754 Broad Street	38,144	0.88
Vehicle Maintenance	8251 Chicago Avenue	18,840	0.43
Vehicle Maint. Storage Garage	8251 Chicago Avenue	961	0.02
Caretaker's House	8251 Chicago Avenue	n/a	n/a
Landfill Offices	1730 Humane Society Blvd.	2,079	0.05

Government Structure

Douglas County is governed by a five-member Board of Commissioners, which is elected to staggered terms to ensure continuity. The Chairman of the Board of Commissioners serves full time while the four District Commissioners serve on a part-time basis. County policy is set by the Board of Commissioners who meets for two work sessions on the first and third Mondays of the month and for two commission meetings on the first and third Tuesdays of the month. County administrative and operational duties are handled by a full time County Manager.



Assessment and projection of need for government services

The County has recently reorganized to provide a better quality of service to its residents. Currently office space is sufficient to meet county needs, but will continue to be monitored during the budget update process.

Public Safety

Public safety is one of the primary elements of public service that has a profound effect on the quality of life in a community. Douglas County is well known for its quality public safety efforts. The following table lists the public safety facilities operated by Douglas County.

Table CF-2
Public Safety Facilities

Facility	Address	Square Feet	Acres
County Sheriff's Office	6840 W. Church Street	59,568	1.37
Jail Annex (under construction)	W. Church Street	n/a	n/a
Fire Station #1	Sweetwater Street	4,634	0.05
Fire Station #2	Connors Road	7,850	0.23
Fire Station #3	Kilroy Lane	3,764	0.08
Fire Station #4	S.R. 166	2,988	0.07
Fire/EMS Admin Station #5	Chapel Hill Road	10,540	0.24
Fire Station #6	Lower River Road	3,956	0.09
Fire Station #7	U.S. 78/Bankhead Highway	3,114	0.07
Fire Station #10	Pray Street	5,055	0.12
Fire Station #11	S.R. 92/Fairburn Road	4,332	0.10
Animal Shelter	1755 Humane Society Blvd.	3,440	0.08
E-911/Safety Bldg.	n/a	4,508	0.10
Storage Building	6704-B E. Church Street	n/a	n/a
Storage Building	Kilroy Lane	816	0.02

Fire/EMS Department

The joint Douglasville/Douglas County Fire/EMS Department has 9 stations strategically located throughout the City and County. Current level of staffing is 157 including those assigned to fire

Table CF-3
Fire Department Personnel

Uniformed Firefighters	Management & Administration	Total Fire Department Personnel
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suppression apparatus, EMS equipment, and management and supervision, clerical, supply and maintenance, training, and fire prevention. The department provides border-to-border fire protection for the entire county, incorporated and unincorporated areas alike.

The following table lists the size of each fire station, as well as the apparatus (heavy vehicles) at each location.

Table CF-4
Fire Stations and Apparatus

Station	Square Footage	Apparatus (Heavy Vehicles)
Fire Station #1	4,634	1 Engine; 1 Ambulance
Fire Station #2	2,544	1 Engine; 2 Ladder Truck; 1 Ambulance
Fire Station #3	3,764	1 Engine; 1 Ambulance
Fire Station #4	2,988	1 Engine; 1 Ambulance
Fire/EMS Admin Station #5	10,540	1 Engine; 1 Ambulance; 3 Reserve Ambulance; 1 Mini Pumper
Fire Station #6	3,956	1 Engine; 1 Ladder Truck; 1 Trench Truck; 1 Reserve Engine
Fire Station #7	3,114	1 Engine; 1 Ladder Truck; 1 Support Truck; 2 Reserve Engine
Fire Station #10	5,055	1 Engine; 1 Quick Response Vehicle
Fire Station #11	4,332	1 Engine; 1 Ambulance
Total:		40,927

Current LOS and Projection of Need

The current level of service, in terms of capital facilities, can be determined by dividing the current facility space (46,233 square feet) by the population served. The population served by the county fire and EMS department is the residents and employees in the county (154,787 persons in 2004). This translates to a facility level of service of 0.299 square feet per person. The department has stated that the addition of two new stations will serve the entire county for the foreseeable future. This will maintain and enhance current service in terms of response time and insurance ratings. Adding two stations to the system, assuming an average size of 5,000 square feet each, translates to a year 2025 level of service of 0.161 square feet per person. In addition to the construction of these two stations, replacement of aging equipment, additional equipment and personnel to outfit the new stations, and the renovation of Stations 5, 6, and 11 will be critical over the next few years. Current plans also call for Station 1 to be relocated.



Sheriffs Department

The Sheriffs Department, located at 6840 W. Church Street, is responsible for all phases of law enforcement in unincorporated Douglas County. The Department includes both uniformed officers and administrative personnel.

Table CF-6
Sheriff's Office Personnel

Civilians	Deputy Sheriffs	Jailers	Total Sheriff's Department Personnel

The following table summarizes crime statistics for the County for the period 1998 through 2002. According to these statistics violent crime has increased over this period, while non-violent crime rates have generally decreased.

Table CF-7
Crime Statistics

Offense	1998	1999	2000	2001	2002	% change, 1998-2002
Murder	4	3	0	2	9	125%
Rape	10	11	14	28	11	10%
Robbery	50	60	53	70	75	50%
Assault	191	235	176	211	200	4%
Burglary	651	623	455	578	577	-11%
Larceny	2774	3293	2604	3014	2849	3%
Vehicle Theft	409	468	278	372	328	-20%

Source: Georgia Department of Public Safety.

The 5.05 acre site housing departmental operations contains three (3) buildings. The main building containing 46,376 square feet houses administrative offices and jail operations. A smaller (11,560 sq. ft.) building to the rear houses patrol operations, communications, the Special Investigation Division, training, and storage. A third small building (1632 sq. ft.) to the rear houses shop operations.

LOS, Capacity and Future Demand



The current level of service, in terms of capital facilities, can be determined by dividing the current facility space by the population served. The population served by the county jail (46,376 square feet) is the residents and employees in the entire county (154,787 persons in 2004). This translates to a facility level of service of 0.3 square feet per person. In order to maintain this level of service, 58,506 square feet of detention space would need to be added by 2025. Separate from jail, the population served by the Sheriff's Patrol facility (11,560 square feet) is the residents and employee of the unincorporated portions of the county (108,446 persons in 2004). This is a current level of service of 0.11 square feet per person. In order to maintain this level of service to the planning horizon, 14,382 new square feet of Sheriff's Patrol facility space would be required.

Georgia State Patrol

The Georgia State Patrol maintains a post in Villa Rica that serves the Douglas County area. The State Patrol handles law enforcement activities along State and Federal highways, which include the enforcement of traffic laws.

Safety/Emergency Management

The Safety/Emergency Department, located in a building at 8595 Club Drive in Douglasville, is responsible for occupational safety in County government and for emergency management including civil preparedness. The safety function of this department includes inspections and assessment of all facets of County operations including buildings, land, and motor vehicles. Emergency management includes civil preparedness and emergency operation plans for Douglasville and Douglas County. This department has two (2) full-time staffers in approximately 1000 square feet of space. Staff has identified the need for an additional employee. In addition, there is a need for additional space for storage and the additional employee.

Animal Control

The Animal Control Department, located at 1755 Humane Society Boulevard, is responsible for services related to animals including adoption, community education, removal of dead animals, quarantining of bite cases, and the overall administration and enforcement of all Douglas County animal control ordinances. Until recently the animal control the Humane Society on behalf of

the county operated facility and services. The County has taken over animal control operations and intends to bring about a change in practices. The Humane Society provided a staffing level of seventeen persons; the County is operating with a staffing level of ten and one-half personnel. The following table presents statistics related to the last year of Humane Society operation of animal control services.

Table CF-8
Animal Control Statistics

Disposition	Number of Animals	Percent of Total
Adopted	803	13%
Euthanized	4,547	76%
Reclaimed	658	11%
<hr/>		
Total	6,008	100%

While the current facility is adequate to serve the county at present, the Department is planning some changes in the disposition of animals that will necessitate some changes in facility configuration. The County intends to reduce the number of citations issued, which are considerably higher than citations issued by other similar agencies in the area. In the last reported annual period the Department issued 1,221 citations; the goal is to reduce this number to about 300 annually. In addition the County intends to increase the number of animals adopted out of the animal control facility, aiming for adoptions to make up about 18% of all animals handled. This would also have the effect of reducing euthanized animals to roughly 70%. In order to meet these goals—increased adoptions and a decrease in animals that must be put down—the Department plans to expand the current facility by adding outdoor kennel and walking areas, as well as septic system upgrades.

Emergency Communications

Enhanced 911 (E911) services are provided to the entire county through a single emergency communications facility. The E911 center is currently housed in a 4,508 square foot facility previously shared with other public safety offices. The current facility is adequate to serve the county, though maintaining an adequate staffing level is an on-going challenge.

While the current facility is adequate to serve the county at present there is no additional capacity, in terms of facility space, available at the location. Continuing development of Douglas County will require more facility space over time. Also, the current building was not constructed to specifically withstand severe weather conditions (e.g. high winds, micro-bursts, tornadoes), creating a potential service delivery problem during a time when critical demand would naturally be increased. Taken together, these factors point to the need for E911 services to be housed in a different facility, either new or existing, where additional space and a more secure building type will provide for service into the future.

■ Public Utilities

Public utilities are the lifeblood of a community providing residents and businesses with vital services necessary to their quality of life and productivity. The availability, the programming and implementation of these facilities provide one of the guidelines in the development of overall land use patterns within the county. The following is a summary of those public utilities serving the Douglas County area.

Douglasville/Douglas County Water & Sewer Authority

In 1985, merging the City of Douglasville's water and sewage facilities with Douglas County's facilities created the Douglasville-Douglas County Water & Sewer Authority (WSA). Prior to this merger, water and sewerage service were provided independently by the City and the County. The independent service was not efficient and, often, redundant in terms of service provision. The Authority purchased all the facilities and capital of the independent entities. It is a quasi-governmental agency funded through user fees and new connections to the system. No tax dollars are received. The WSA Board of Trustees is made up of eight members including the Commission Chairman of Douglas County and the Mayor of Douglasville. The WSA is a member of the Metro North Georgia Water Planning District.

The Authority exclusively provides water and sanitary sewer services to Douglas County, with the exception of Villa Rica and Austell, Georgia. The Authority supports various types of customers, including residential, commercial, industrial, multi-family, mobile home parks and governmental accounts. The Authority operates and maintains a water and sanitary sewer system consisting of water reservoirs, water and wastewater treatment plants, water distribution and sewerage collections lines, and the use of meters to bill consumption. As of June 30, 2003, the net property, plant and equipment value of the combined System was \$184,572,874.

Historically, growth has had a positive impact on Douglas County; however, the current and projected growth patterns will strain the capacity of water and sewerage infrastructure of the County. This recent growth has led the authority to develop a five-year capital improvement plan to guide system growth. They are currently expanding this plan to encompass the next 25 years. WSA has identified needed system improvements, upgrades, and new construction to meet the increased demand in water and wastewater service.

Water Supply and Treatment

The WSA currently supplies 70% of the county with public water. The city of Villa Rica supplies customers in the unincorporated area.

The WSA system consists of a countywide network of water lines ranging in size to support residential to industrial customers. TWSA obtains water from four sources. Two of these sources, Bear Creek and Dog River provide raw water to the Authorities Bear Creek Water Treatment Plant. Raw water flows from Bear Creek into a 40-acre man-made reservoir prior to treatment, where withdrawals of up to 6.0 MGD are permitted by the State of Georgia. The Authority is currently permitted to withdraw up to 15.89 MGD of raw water directly from the 215-acre Dog River Reservoir. The Bear Creek Water Treatment Plant has a maximum treatment capacity of 16.4 MGD.

The third source of water to the System is a wholesale connection to the Cobb-Marietta Water Authority, which extends to the year 2026 and permits WSA to purchase an average of 2.30 MGD of treated water. The fourth source of water to the System includes up to an estimated 2MGD provided through a retail connection to the Cobb County Water System.

The Bear Creek Water Treatment Plant has been in operation since 1978. It has been expanded three times to its present day capacity of 16 MGD. The plant is located in the southern portion of the county, approximately 6 miles from the Dog River Reservoir and 4 miles from the Bear Creek Reservoir. The potable water storage of the water system consist of clear wells at the plant totaling 3.775 million gallons and six elevated storage tanks throughout the county totaling 8 million gallons. The total combined storage of potable water is 11.775 million gallons, slightly more than 100% of one day's annual average system wide usage. The system is served by approximately 771 miles of distribution lines in various diameter sizes throughout the County.

Water is consistently treated to meet state and federal water quality guidelines. Water studies are underway in the Gunther's and Anawakee creek watershed, and the Authority plans to conduct water quality studies on the remaining four watersheds—Sweetwater Creek, Bear Creek, Dog River, and Hurricane Creek.

Assessment

The mission of the Douglesville-Douglas County Water & Sewer Authority has developed a system-wide plan to serve the expected population base in the City of Douglasville and unincorporated Douglas County. Expansion of the water system is based primarily on fire service needs and the protection of groundwater within the County. To meet the demands of the rapidly growing population of Douglas County, WSA is continually upgrading and expanding its water distribution system.

The Water and Sewer Authority plans to consolidate many of the smaller water treatment plants that serve limited portions of the county with larger treatment facilities. The following table outlines the Authority's water treatment capital facilities plans for the next five years. At completion these projects will provide a system capacity of 23 WSA believes that its source of raw and potable water are currently adequate. In sum, this organization provides a cost effective solution to the County's present and future water and sewerage needs.

Table CF-9
Capital Facility Improvements

Project	Start Year	Estimated Local Cost (2004-2009)
Land and Improvements		
Western tank booster pump station site	2004	\$10,000
Chapel Hill water tank	2004	\$150,000
10' vertical easement, Dog River	2004	\$500,000
Wet lands mitigation	2005	\$115,000
Sweetwater property purchase	2009	\$1,000,000
Easement acquisitions	2006	\$60,000
Water Line Extensions		
Hwy. 166 East	2004	\$3,500,000
Thornton Road	2004	\$600,000
Hwy. 5 Loop	2004	\$750,000
Mann Road	2004	\$340,000
Willoughby Road	2004	\$70,000
Route 61	2004	\$120,000
166 Cross Bridge	2006	\$300,000
166 Carroll County	2008	\$540,000
Water Tanks		
Tank repairs	2004	\$1,500,000
Chapel Hill (new tank)	2006	\$2,000,000
Cut Grady down	2004	\$50,000
Water Plant Improvements		
Bear Creek expansion (to 24 mgd)	2009	\$2,000,000
Emergency Power		
Bear Creek modifications	2004	\$800,000
Dog River intake, generator	2006	\$2,500,000
Reservoir		
Dog River expansion	2005	\$11,000,000

Wastewater Treatment

WSA is also the provider for a countywide sewerage system and wastewater treatment. The system collects sewerage through approximately 257 miles of sanitary sewer collection lines and force mains which lead to four major wastewater treatment plants and three smaller plants. In addition WSA is under contract with Cobb County to provide limited sewerage treatment services to fewer than 50 customers in certain areas of the county.

The combined treatment capacity of the Authority's sewerage treatment plants is 7.49 MGD. As of June 2003, the average total sanitary sewer flow at all plants was 1,633 MG, which is an average of approximately 4.47 MGD, 60% of the design capacity of the plants.

Table CF-10
Wastewater Treatment Capacity

Facility	Capacity (MGD)
Sweetwater Creek	3.00
Northside	0.60
Southside	3.52
Beaver Estates	0.08
Rebel Trails	0.04
St. Andrews	0.02
Total Capacity (MGD)	7.26

The Authority's South Central Urban Water Reuse Facility came on line in August 1999 to serve a new sanitary sewer service area and to meet the needs of a new golf course. This is a 500,000 gallon per day Unitank "Zero Emission System." Public input influenced the need to provide a bio filter for odor control and enclose the facility with architectural treatment to complement houses to be built in the adjacent upscale golf course community.

WSA currently has a 5 capital improvements program, and is drafting a 25-year capital improvement to outline the future of wastewater management within the County. The 5-year plan was prepared in order to estimate future needs and provide general guidance in the development of a countywide wastewater management system.

The Authority installs all major sanitary sewer lines, by contract. These lines will generally be 10" diameter or larger. The Metropolitan North Georgia Water Planning District's Draft Long-Term Wastewater Management calls for the Authority to consolidate all of its wastewater treatment facilities into two major plants by the year 2010. All wastewater will eventually be treated at either the Sweetwater Creek Wastewater Treatment Plant with an ultimate planned capacity of 6.0 mgd, or the South Central Urban Water Reuse Facility with an ultimate planned capacity of 12.0 mgd.

Table CF-11
Wastewater System Performance

	1998	1999	2000	2001	2002
Average Treatment (MGD)					
System Capacity (MGD)	7.26	7.26	7.26	7.26	7.26
Average Unused Capacity	7.26	7.26	7.26	7.26	7.26

Assessment

Sewer expansion is strongly influenced by the topography of the area, and land use policies. WSA has begun to look toward providing wastewater service to enhance economic development opportunities and serve residential development where appropriate. The Future Land Use Plan Map has been designed to concentrate higher densities and non-residential development in areas that already have connections or are planned within the near future.

The following table provides a schedule of capital improvements for the next five years.

Table CF-12
Capital Facility Improvements
 Sewer System

Project	Start Year	Estimated Local Cost (2004-2009)
Sewer Line Extensions		
Douglas Blvd., I-20	2005	\$79,000
Hwy. 92, I-20	2005	\$1,000,000
Sewer Line Replacements	2004	\$310,000
Sewer Plants		
Northside abandonment	2004	\$7,000,000
Sweetwater (to 6 mgd)	2008	\$18,000,000
St. Andrews abandonment	2004	\$4,000,000
Southside abandonment	2008	\$5,000,000
South Central expansion	2004	\$52,000,000

Solid Waste & Landfill Operations

Below is a brief description of the County's Solid Waste Program. A complete and detailed description can be found in the "Douglas County Solid Waste Management Plan" as amended in 2004. The Solid Waste Management Plan meets all requirements of the Georgia Comprehensive Solid Waste Management Act.

The landfill operations, located at 1730 Humane Society Boulevard, oversee operation of the Douglas County Landfill located at Cedar Mountain Road and recycling efforts.

Table CF-13
Solid Waste Generation

	1998	1999	2000	2001	2002
Total Tons					
Population					
Per Capita Rate (tons/year)					

Household waste accounted for the largest share of the waste generated with 45 percent. Commercial uses accounted for 30 percent of the waste produced. Construction debris, yard waste, and sludge accounted for twelve, nine, and four percent respectively. A major goal in the solid waste management plan is to reduce the amount of waste that enters the landfill. Composting and recycling are ways in which the county can achieve this goal. In addition, the county sponsors several educational opportunities for solid waste reduction including, a solid waste educational program in the Douglas County school system and backyard composting demonstrations at the landfill.

Douglas County does not provide any type of solid waste collection service. Collection service in unincorporated Douglas County is provided by approximately twenty-six private haulers. However, private haulers do not serve some areas of unincorporated Douglas County because these areas have been deemed uneconomical. Douglas County and Douglasville participate in a waste reduction program. There is a recyclables drop off center in Fairplay and a recyclables drop off center at the Cedar Mountain Landfill for all residents. The county has programmed the establishment and operation of 3 additional convenience centers in its current STWP.

Natural Gas

Two companies provide natural gas to Douglas County residents. Atlanta Gas Light is the primary supplier with approximately 69,000 customers throughout the county.

Austell Gas Company serves a minor portion of the county providing natural gas to approximately 4480 residents, located east of Highway 92 along Thornton Road.

Electricity

The Buford Dam Plant on the Chattahoochee River provides the raw source of electricity for the Douglas County area. Douglas County has many substations that are fed by this plant through transmission lines. Douglas County substations include the Douglasville Primary, Douglasville #2, Arbor Station, and the Cedar Mountain Substation. Each has a maximum load capacity of approximately six hundred amps. Two new substations may be installed in the future to provide adequate electricity provision for our area; however, the current substations are capable of providing adequate service for the immediate and intermediate future.

■ Parks and Recreation

Providing recreational opportunities for residents to play, exercise, relax, and enjoy the natural environment is necessary for a vibrant community and for attracting and retaining residents and businesses, and vital to the social, psychological, and physical well-being of a community. Additionally, tourism related facilities provide opportunities for residents and visitors to experience leisure-related activities and bring in needed dollars to the local economy in a far more environmentally sensitive manner than would heavy industry.



The county strives to provide a balance of passive opportunities, i.e., bird watching, camping, and hiking and picnicking, and active recreation, athletic fields, gymnasiums, tennis and basketball courts, and community centers in various levels of parks and facilities. Recreation planning must include both kinds, active and passive, when assessing the needs of Douglas County. Although this section deals with both passive and active parks, the Greenspace plan, as defined by DCA will be discussed more fully in the natural resources chapter of this plan.

Recreation standards, as suggested by the National Park & Recreation Association (NRPA), help communities determine their needs by analyzing current facilities and comparing their size, number, type and facilities to population size and density figures. These figures provide a basic measure by which a community can systematically plan to develop facilities and obtain the necessary land for recreational activities. Levels of Service and Planning Standards provide the county with overall programming requirements as their population increases.

NRPA provides overall planning standards for park classification according to acreage, primary use and the geographical area it serves. A good park system will contain a mixture of these types according to the needs of its population:

- **Neighborhood Park:** Parks within walking distance, typically less than 25 acres with facilities for spontaneous recreation including playgrounds, picnicking, multi-purpose courts, athletic fields for unorganized, pickup type games, etc. Generally provided at a level of service of 1 acre per 1,000 residents.
- **Community Park:** Parks within a 2-mile radius or 10 minute drive of the target neighborhood and that are typically 25 acres and larger. These parks accommodate organized sports and large intensively used facilities such as swimming pools, lighted ballfields, tennis courts, gymnasiums, restrooms, etc. Level of service is typically 5 acres per 1,000 residents.
- **Regional Park:** Parks within a one-hour drive that are typically 50 acres or more, perhaps a natural resource location. Special facilities can be accommodated at this type of park such as equestrian facilities, golf courses, amphitheaters, softball complexes, aquatic centers, etc. Typical facilities include hiking trails, picnic areas, restrooms, etc. Generally provided at a level of service of 4 acres per 1,000 residents.

- **Natural Resource Area/Preserve**—protected lands, lands unsuitable for development but offering natural resource potential, individual sites exhibiting natural resources.
- **School Parks**—provide a mechanism of combining resources and provide accessible amenities to the community

Inventory

Douglas County's public parkland totals 352 improved acres with 1,302 additional acres of unimproved area, for a grand total of 1,656 park and recreational acres. This translates into a level of service of 15.5 acres per 1,000 residents. Most facilities function as community parks, although only 1 improved park (Deer Lick) contains the minimum required acreage to be classified as such.



Table CF-14
Park Facilities

	Bill Arp	Deer Lick	Mt. Carmel	Beulah Ruritan	Fairplay	Lithia Springs	Winston
Acre(s)	14	40	14	20	15	8	15
Baseball/Softball Fields (Lighted)	6	3	5	5	5	2	3
Basketball Court (indoor)		1					
Basketball Court (outdoor)	2		2		2		2
Batting Station	2		2	1	1	1	1
Community Building	1	1	1	1	1		1
Concession Building	2	2	2	2	2	1	1
Fishing Area		1				1	
Football Field (Lighted)	2	1	1				
Jogging Trail		1					
Lake/Stream/River		1				1	
Midget/Junior Field (Lighted)							
Picnic Area							
Picnic Shelter	1	3		1	1		
Playground	1	2	1		2	1	1
Practice Field (Unlighted)							
Restroom	2	5	2	2	2	1	1
Soccer/Football Field (Lighted)							
Special Use Facility							
T-Ball Field (Lighted)							
Tennis Courts (Lighted)	2	5				2	2

	Post Road	Woodrow Wilson	Cedar Mtn.	Boundary Waters	Dog River	Clinton Farm	Totals
Acre(s)	15	11	2	500	802	200	1656
Baseball/Softball Fields (Lighted)	2	4					35
Basketball Court (indoor)							1
Basketball Court (outdoor)		1					9
Batting Station		3					11
Community Building	1	1					8
Concession Building	1	1					14
Fishing Area		1		1	1	1	6
Football Field (Lighted)	1						5
Jogging Trail						1	2
Lake/Stream/River		1		1	1	1	6
Midget/Junior Field (Lighted)							0
Picnic Area							0
Picnic Shelter		2	1			3	12
Playground		1				1	10
Practice Field (Unlighted)		1					1
Restroom	1	1				1	18
Soccer/Football Field (Lighted)							0
Special Use Facility	1						1
T-Ball Field (Lighted)							0
Tennis Courts (Lighted)							11

In Douglas County many school facilities are utilized in conjunction with the County parks to provide recreation opportunities.

Table CF-15
School System Facilities

Component Type	Number
Soccer/Football Field	4
Softball Field	3
Baseball Field	3
Multi-Purpose Court	3
Gymnasium	29
Playground	19
Multi-Purpose Field	10
Running Track	4
Activity Building	2

In the following table the current level of service is compared to NRPA guidelines. The current level of service is calculated (including both county parks and school facilities), and the suggested level of service is also shown. In the final column the number of components that would be demanded under the NRPA guidelines is shown. In many categories Douglas County has current levels of service that exceed the suggested guidelines, demonstrating that the County is providing service above the national standard. If Sweetwater Creek State Conservation Park is factored in the level of service for parks acres, the LOS for the county is actually quite high. In several categories, however, the components provided in the county run behind the NRPA guidelines. For example, more soccer fields and tennis courts would be demanded under the NRPA guidelines than are currently available in the county. Facility type levels of service guidelines are very subjective community by community. Whereas ballfields may be very important in one community, running tracks may be more important to another community.



Table CF-16
Parks Level of Service Assessment
 Based on NRPA Guidelines

Component	Current Inventory	Current Level of Service	NRPA Guidelines	Demanded Components
Acres	0	0.00 per 1,000 persons	3 per 1,000 persons	320
Ballfields	9	0.42 per 5,000 persons	1 per 5,000 persons	12
Football Fields	0	0.00 per 75,000 persons	1 per 75,000 persons	1
Soccer Fields	3	0.21 per 7,500 persons	1 per 7,500 persons	11
Tennis Courts	0	0.00 per 5,000 persons	1 per 5,000 persons	21
Basketball Courts	11	1.03 per 10,000 persons	1 per 10,000 persons	
Running Track	2	0.94 per 50,000 persons	1 per 50,000 persons	0
Volleyball Court	11	2.06 per 20,000 persons	1 per 20,000 persons	
Multi-Purpose Trail	1	1.00 system per region	1 system per region	
Pavillions	0	0.00 per 1,000 persons	n/a	
Playgrounds	16	0.15 per 1,000 persons	n/a	
Walking/Jogging Trail	0	0.00 per park	1 per park	10
Gymnasium	8	0.67 per community	1 per community	8

The NRPA guidelines are just one element in parks facility planning. The County also weighs demand for certain facility types, as well as specific needs that may be more regional than national. In the next table the future demand for park acreage and developed components is shown. The LOS used is a locally refined version of the NRPA guidelines, combining suggested standards and local demands.

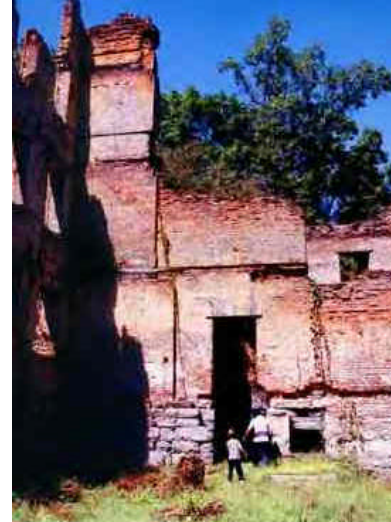
Table CF-17
Parks Level of Service
 Future Demanded Components

Component	Desired Level of Service	Demanded ADDITIONAL Components
Acres	3.00 per 1,000 persons	403
Ballfields	1.00 per 5,000 persons	27
Football Fields	1.00 per 75,000 persons	2
Soccer Fields	0.21 per 7,500 persons	4
Tennis Courts	0.00 per 5,000 persons	0
Basketball Courts	1.00 per 10,000 persons	13
Running Track	1.00 per 50,000 persons	3
Volleyball Court	1.00 per 20,000 persons	7
Multi-Purpose Trail	2.00 system per region	1
Pavillions	0.00 per 1,000 persons	0
Playgrounds	0.15 per 1,000 persons	20
Walking/Jogging Trail	1.00 per park	4
Gymnasium	0.67 per community	4

Sweetwater Creek State Conservation Park

Sweetwater Creek State Park is a 1,986-acre area located in the southeastern section of Douglas County. It offers many cultural and natural activities such as an arts and crafts festival, a five-mile nature trail, educational and naturalist programs, recreational water activities on the George Sparks Reservoir, as well as many other activities. A major attraction is the ruins of the New Manchester Manufacturing Company, a Civil War era textile mill. Other facilities include:

- A group shelter and BBQ pit.
- Playground
- Eleven picnic shelters
- Two fishing docks
- Lake and stream fishing
- Bait shop and boats rentals



■ Douglas County Public School System

The Douglas County public school system has four high schools, six middle schools, and eighteen elementary schools. These facilities and their addresses are shown below.

The Douglas County school system is the 17th largest in the State of Georgia and is part of the Atlanta Metropolitan Regional Educational Service Area. Student enrollment as of 2001-2002 is approximately 18,101. The system operates an alternative school program, pre-kindergarten programs, and evening adult education programs. The Southern Association of Colleges and Schools accredit all Douglas County schools. A number of schools in the system have been named State and National Schools of Excellence.



The Douglas County school system receives community support through many business partners, at least one partner per school. The newly formed Public Education Trust (PET) fund provides a variety of services in support of public education.

The Douglas County Board of Education consists of five (5) elected board members who set policy for the superintendent and staff. Local, State, and Federal funding contribute approximately \$70 million toward the operating budget. The Board of Education establishes the millage rate needed each year to support the school system.

Comprehensive programs at the kindergarten, elementary, middle, and high school levels are complemented by programs adapted to meet the special needs of students. Student support teams offer guidance and assistance to all students. The student support program exceeds all State requirements.

Special education provides opportunities tailored to meet individual student needs. Programs for exceptional students include: learning programs, physical impairments, speech and language disorders, visual and hearing-impaired programs, and other health-related impairments. Program Challenge is a program for gifted students.

Table CF-18
Douglas County Schools

Public Schools	Address
Annette Winn Elementary	3536 Bankhead Highway
Arbor Station Elementary	9999 Parkway South
Beulah Elementary	1150 Burnt Hickory Road
Bill Arp Elementary	4841 Highway 5
Bright Star Elementary	6300 John West Road
Burnett Elementary	8277 Connally Drive
Chapel Hill Elementary	3989 Chapel Hill Road
Dorsett Shoals Elementary	5688 Dorset Shoals Road
Eastside Elementary	8266 Connally Drive
Factory Shoals Elementary	2444 Highway 92
Holly Springs Elementary	4909 W. Chapel Hill Road
Lithia Springs Elementary	6946 Florence Drive
Mirror Lake Elementary	2613 Tyson Road
Mount Carmel Elementary	2356 Fairburn Road
New Manchester Elementary	2242 Old Lower River Road
South Douglas Elementary	8299 Highway 166
Sweetwater Elementary	2505 East County Line Road
Winston Elementary	7465 Highway 78
Chapel Hill Middle School	3989 Chapel Hill Road
Chestnut Log Middle School	2544 Pope Road
Fairplay Middle School	8311 Highway 166
Stewart Middle School	8138 Malone Street
Turner Middle School	7101 Junior High Drive
Yeager Middle School	4000 Kings Highway
Alexander High School	6500 Alexander Parkway
Chapel Hill High School	4899 Chapel Hill Road
Douglas County High School	8705 Campbellton Street
Lithia Springs High School	2520 East County Line Road
Private Schools	
Colonial Hills Christian School	7131 Mt. Vernon Road
Douglasville SDA	2836 Bright Star Road
Harvester Christian Academy	4241 Central Church Road
Heirway Christian Academy	6758 Spring Street
Inner Harbor Hospitals, Ltd.	4685 Dorsett Shoals Road
Kings Way Christian	6456 The Kings Way
Lithia Christian Academy	2548 Vulcan Drive
Montessori School of Douglas County	8014 Durelee Lane

The Douglas County school system has developed a mission statement as part of an overall strategic plan for education. The mission of the Douglas County school system is to provide a quality education for all students in a safe and supportive environment. In order for students to meet the challenges of a changing world, the system will offer opportunities and experiences for them to become responsible individuals, independent thinkers, productive citizens, and life-long learners. Douglas County, through the 2004 Douglas County Comprehensive Plan, shall refer to the strategic plan for goals and action statements related to education as a matter of policy.



Table CF-19
Capacity Assessment

School	Enrollment (2002)	Design Capacity	Over/Under (2002)	Faculty*	Students per Faculty
Annette Winn Elementary	489			34	14.4
Arbor Station Elementary	565			41	13.8
Beulah Elementary	419			31	13.5
Bill Arp Elementary	446			32	13.9
Bright Star Elementary	567			38	14.9
Burnett Elementary	606			52	11.7
Chapel Hill Elementary	555			39	14.2
Dorsett Shoals Elementary	453			34	13.3
Eastside Elementary	601			56	10.7
Factory Shoals Elementary	532			37	14.4
Holly Springs Elementary	561			40	14.0
Lithia Springs Elementary	480			36	13.3
Mirror Lake Elementary	n/a				
Mount Carmel Elementary	523			35	14.9
New Manchester Elementary	n/a				
South Douglas Elementary	514			35	14.7
Sweetwater Elementary	626			44	14.2
Winston Elementary	534			37	14.4
Chapel Hill Middle School	978			55	17.8
Chestnut Log Middle School	935			51	18.3
Fairplay Middle School	805			47	17.1
Stewart Middle School	817			49	16.7
Turner Middle School	795			46	17.3
Yeager Middle School	n/a				
Alexander High School	1,373			78	17.6
Chapel Hill High School	1,158			62	18.7
Douglas County High School	1,351			78	17.3
Lithia Springs High School	1,418			82	17.3

*Includes full and part-time faculty.

Table CF-20
Test Scores (CRTC)

Test	School Year	Percentage of Douglas Co. Students			Percentage of All Georgia Students		
		Did Not Meet Standards	Met Standards	Exceeded Standards	Did Not Meet Standards	Met Standards	Exceeded Standards
Grade 4 English	1999-2000	23%	62%	15%	29%	55%	16%
	2000-2001	20%	62%	19%	26%	58%	16%
	2001-2002	19%	65%	16%	23%	62%	15%
	Three Year Average:	21%	63%	17%	26%	58%	16%
Grade 4 Reading	1999-2000	30%	42%	28%	35%	37%	28%
	2000-2001	19%	41%	40%	26%	42%	32%
	2001-2002	16%	41%	43%	20%	41%	38%
	Three Year Average:	22%	41%	37%	27%	40%	33%
Grade 4 Mathematics	1999-2000	32%	57%	10%	38%	51%	11%
	2000-2001	33%	53%	14%	38%	51%	12%
	2001-2002	29%	57%	14%	34%	53%	13%
	Three Year Average:	31%	56%	13%	37%	52%	12%
Grade 6 English	1999-2000	35%	50%	14%	39%	45%	16%
	2000-2001	34%	50%	17%	36%	47%	17%
	2001-2002	29%	48%	23%	34%	45%	21%
	Three Year Average:	33%	49%	18%	36%	46%	18%
Grade 6 Reading	1999-2000	25%	40%	35%	29%	39%	32%
	2000-2001	21%	40%	39%	24%	42%	35%
	2001-2002	17%	38%	45%	20%	39%	41%
	Three Year Average:	21%	39%	40%	24%	40%	36%
Grade 6 Mathematics	1999-2000	34%	50%	16%	34%	49%	17%
	2000-2001	31%	53%	15%	31%	52%	17%
	2001-2002	32%	49%	20%	31%	48%	21%
	Three Year Average:	32%	51%	17%	32%	50%	18%
Grade 8 English	1999-2000	33%	53%	13%	34%	49%	16%
	2000-2001	28%	51%	21%	32%	47%	21%
	2001-2002	25%	50%	25%	28%	48%	24%
	Three Year Average:	29%	51%	20%	31%	48%	20%
Grade 8 Reading	1999-2000	22%	38%	40%	25%	37%	38%
	2000-2001	14%	31%	55%	18%	32%	50%
	2001-2002	17%	38%	45%	20%	37%	43%
	Three Year Average:	18%	36%	47%	21%	35%	44%
Grade 8 Mathematics	1999-2000	45%	44%	11%	46%	43%	11%
	2000-2001	35%	54%	11%	41%	48%	10%
	2001-2002	35%	52%	14%	34%	50%	15%
	Three Year Average:	38%	50%	12%	40%	47%	12%

Table CF-21
Graduation Test
Percent of 11th Graders Passing Graduation Test on First Administration

Component	School Year	Comparison		State
		Douglas County	Group	
English	1999-2000	93%	95%	94%
	2000-2001	94%	95%	94%
	2001-2002	95%	96%	95%
	Three Year Trend (Change):	1%	0%	0%
Mathematics	1999-2000	90%	92%	90%
	2000-2001	91%	92%	91%
	2001-2002	90%	92%	91%
	Three Year Trend (Change):	0%	0%	1%
Social Studies	1999-2000	80%	86%	83%
	2000-2001	78%	83%	80%
	2001-2002	83%	86%	82%
	Three Year Trend (Change):	0%	-1%	-1%
Science	1999-2000	72%	76%	71%
	2000-2001	69%	72%	68%
	2001-2002	73%	75%	72%
	Three Year Trend (Change):	-1%	-2%	-1%
All Components Above	1999-2000	69%	73%	68%
	2000-2001	66%	69%	65%
	2001-2002	69%	73%	69%
	Three Year Trend (Change):	-1%	-1%	-1%
Writing	1999-2000	88%	92%	90%
	2000-2001	93%	94%	92%
	2001-2002	87%	89%	87%
	Three Year Trend (Change):	1%	0%	0%

CRTC testing provides a measure of the level of proficiency of students in key subject areas in grades 4, 6 and 8. In evaluating the three-year average CRTC test scores it can be seen that Douglas County students scored at or above the state average in the “met standards” and “exceeded standards” categories for all test components except in grade 6 reading (less than the state average for “met standards”) and in grade 6 mathematics (less than the state average for “exceeded standards”). Graduation testing provides a final evaluation of competence in five key categories: English, math, social studies, science, and writing. Looking at the three-year trend, students in Douglas County taking the State graduation test have performed at averages that correspond closely with state averages, but below the averages for the state-identified comparable group. In general, the annual averages for the county students show little variation over the three-year period.

Private Schools

There are eight private schools in Douglas County; in 1999 there was one private secondary school in Douglas County, The King's Way Christian School. There are no un-affiliated secondary schools closer than Atlanta.

Secondary Education Institutions

There are three post secondary institutions offer classes in the Douglas County area:

Carroll Technical Institute

Carroll Technical Institute currently operates out of leased space in Douglas County on Highway 5 and offers technical training. Carroll Tech is expected to build a full-time facility in Douglas County to be completed in the Fall of 1994.

Mercer University

Mercer University-Atlanta offers night classes in Douglas County in its leased space on Thomson Road and Skyview Drive. Mercer offers miscellaneous non-degreed courses at this location.

Georgia State University

Georgia State University offers night classes in Douglas County in various locations including local High Schools. Georgia State offers miscellaneous non-degreed courses at these locations.

Libraries and Other Cultural Opportunities

Douglas County has two facilities or branch libraries containing more than 148,000 volumes. These facilities are both members of the West Georgia Regional Library System, headquartered in Carrollton, Ga. In addition to the Library System, input on library operations is provided by the Douglas County Library Board. The libraries are very popular; between 1990 and 2000 circulation increased by 54%, from 136,840 to 210,149 volumes. Most recently, genealogical studies have been the fastest growing area of interest at the libraries.

Table CF-22

Library Facilities - Current Inventory

Facility	Square Feet	Collection Materials
Douglasville Library	20,827	84,188
Lithia Springs Library	15,000	60,070
	35,827	144,258

Douglasville Branch

Located at 6810 Selman Drive in Douglasville, the Douglasville Branch Library contains more than 86,000 volumes, including reference books. There are more than 300,000 volumes available through the West Georgia Regional Library System. The Douglasville Branch Library offers a wide variety of programs for patrons and area residents including story hours and other programs for children, tutoring and academic and professional training sessions, seminars, club and organizational meetings, voter registration, and arts and crafts shows and fairs. There are nine (9) full-time and seven (7) part-time staff working out of the Douglasville Branch Library.

The Douglasville Branch Library building contains approximately 20,400 square feet including main display area, staff area and offices, meeting rooms, and one conference room. The facility is in need of renovation.

Lithia Springs Branch

In 2001, the Lithia Springs and Douglasville Libraries were combined into one county system, still a part of the West Georgia Regional Library System. The Lithia Springs Branch, located at 7100 Junior High Drive, contains more than 62,000 volumes, including reference books. The Lithia Springs Branch offers a wide variety of programs for patrons and area residents including meetings, story hours and other programs for children, group tours, demonstrations, voter registration, and workshops. There are seven (7) full-time employees and two (2) part-time employees working out of the Lithia Springs Branch.



The Lithia Springs branch building contains 18,000 square feet including all facilities.

Library Level of Service

Library facility level of service is measured in terms of facility space, divided by the population served. For facility space the total square footage of the county libraries is divided by the number of dwelling units the county to yield a level of service of in terms of square feet per dwelling unit. This same procedure is repeated to determine the level of service in terms of collection volumes.

Table CF-23
Level of Service Calculation

Existing Square Feet	Number of Existing Dwelling Units	SF/dwelling unit
35,827	40,839	0.8773

Existing Collection Materials	Number of Existing Dwelling Units	Collection Materials/ dwelling unit
144,258	40,839	3.5324

The current level of service, determined to be adequate to serve the current population, is then used to calculate the future demand for library facility space and collection materials. In order to maintain the current level of service to the planning horizon, over 45,000 square feet of library facility space, and over 183,000 volumes, would be required.

Table CF-24
Future Demand Calculation

SF/dwelling unit	Number of New Dwelling Units (2004-25)	SF Demanded
0.8773	51,893	45,524

Collection Materials/ dwelling unit	Number of New Dwelling Units (2004-25)	Collection Materials Demanded
3.5324	51,893	183,305

These calculations suggest that at least one more major library facility, or several smaller facilities, will be required in order to maintain the library LOS. In terms of future library sites, the lack of any library facility south of I-20 would suggest that the area be the primary focus for future facility location.

When the Douglasville branch of the West Georgia Regional Library System Carroll County was a faster growing, higher population county than Douglas. Over the years this situation has changed, until now Douglas County is experiencing great growth. Over time it may make sense for the Douglas County libraries to become a stand-alone library system

Cultural Arts Center

The Cultural Arts Center of Douglasville/Douglas County is a non-profit organization dedicated to the appreciation of the arts in Douglas County. Located at 8652 Campbellton Road, Douglasville, in the historic Roberts-Mozley House, the Center's 4183 square feet contain five galleries, Museum of the Historical Society, gift shop, offices, conference rooms, kitchen, and restroom facilities. The Center has permanent and revolving exhibits and several focus groups meet at the Center including the Douglas Poets in Focus, the Sweetwater Camera Club, the Douglas County Art Guild, the Douglas County Writer's Group, the Community Alliance of Stage & Theater, and the Douglas County Historical Society. The Douglas County Commission, the City of Douglasville, and the Georgia Council for the Arts support the CAC.

Cherokee Indian Museum

This museum operates the historic Cherokee springs, and contains collections of Cherokee tools, carved arrowheads, bits of pottery, Civil War artifacts 1890's bottles and photographs. The museum provides guided tours, and educational activities related to medicinal waters, and Cherokee Indian history. Galleries feature pottery, civil war artifacts, bottles and photographs.

Satellite Arts Organizations

Several arts organizations are active in Douglas County, providing a wide range of activities for all age groups.

C.A.S.T. (Theatre Group)

Cowboy Poets
 Curators' Club (Arts Center volunteers)
 Douglas County Art Guild
 Douglas County Connection
 Douglas County Cultural Exchange
 Douglas County Writers Group
 Friends for Arts and Music Education (FAME) of Douglas County
 Historical Society of Douglas County
 Sweetwater Camera Club
 Douglas County Children's Theater.
 Douglas County Poetry Writers
 CAC Men's Chorale

■ Social Services

Table CF-25
Social Services Facilities

Facility	Address	Square Feet	Acres
Senior Citizen's Building	6287 Fairburn Road	21,644	0.50
Health Department	6770 Selman Drive	6,887	0.16

Douglas County Family & Children's Services

This department, located at 6218 Hospital Drive, is responsible for rendering required social services to needy county residents. Family & Children's Services has two (2) main units:

Service Unit

Child and adult maltreatment is handled through referrals and investigations. The goal is to reduce risks or remove and place in custody (Foster Care Unit). Adult abuse is targeted toward adults unable to care for themselves.

Eligibility Unit

This unit is responsible for the administration of public assistance, food stamps, AFDC, and employment programs. Family & Children's Services has approximately 65 staffers.

United Way of Douglas County

The United Way of Douglas County, located at 6299 Fairburn Road, funds a number of charitable associations. The following United Way funded agencies have programs and/or services operating in Douglas County: the American Cancer Society, American Red Cross, Big Brothers/Big Sisters, Boy

Scouts of America, Boys & Girls Club, Camp Fire, Council on Battered Women, The Diabetes Association, Douglas County Retardation Association, Douglas Senior Services, Epilepsy Foundation, Families First, Girl Scouts, Metropolitan Atlanta Council on Alcohol & Drugs, The Salvation Army, Sheltering Arms Child Care Services, and the Visiting Nurse Association. The United Way is currently addressing five of the seven critical needs identified by the Douglas County Action Plan including counseling and psychiatric care, parenting issues, substance abuse prevention and treatment, employment training and literacy, and emergency financial assistance. The United Way currently has two full-time staff persons who work with Douglas County, Paulding County, and Fayette County.

Senior Citizens

Douglas Senior Services, a United Way agency, has a facility located at 6287 Fairburn Road. Services are provided to citizens of Douglas County who are 60 years of age and older. The goal of the agency is to enhance the quality of life and promote independence among older County residents. Some of the services provided include nutrition services, home delivered and congregate meals, a senior center which provides opportunities for socialization and leisure activities, case management, and community care information and referral connecting clients and their families with a network of available services. Douglas Senior Services also assists seniors in finding employment. In-home services, which include homemaker services and chore and repair services, are also available. Transportation for seniors to and from key destinations is available through Douglas Senior Services. There is one (1) full-time staff member and 25 part-time staff members who are primarily volunteers.

Health Department

The joint Cobb/Douglas Health Department is responsible for providing out-patient health care to those unable to afford private care. The 6887 square foot Douglas Branch is located at 6770 Selman Drive. The Selman Drive Health Center has twenty-nine full-time employees and five part-time employees. This includes sixteen full time nurses and two part-time nurses in the Health Center and the Primary Care Center. These facilities do not have any full time doctors on staff; however, a primary care physician visits the Health Center four times a week and an OBGYN (obstetrician/gynecologist) visits the Primary Care Center twice a month.

There is a secondary health facility located at 6640-B S. Sweetwater Rd. in Lithia Springs. This facility is also in critical need of expansion. The Lithia Springs facility provides immunizations, maternal health care, child health including physicals, and pre-natal case management. This facility has five (5) full-time and two (2) part-time staff persons.

The Cobb/Douglas Board of Health has identified two (2) primary problems facing Douglas County in the immediate future. These problems are as follows:

1. Access to affordable comprehensive health care for all citizens is lacking.
2. The role of public health will dramatically shift in the current environment of health care reform and the public health community does not currently have the required capacity to adapt to this changing direction.

The Health Department also includes the Department of Environmental Health, located in the County Annex and responsible for providing information on and inspecting septic systems, and the Mental Health Department, located at 8378 James Street in Douglasville, responsible for the assessment of mental health behaviors, evaluation of de-toxification needs, crisis intervention services, out-patient counseling, group therapy, pharmaceutical services, day treatment progress, care

management, and supportive employee management. The facility is operated by one (1) full-time and three (3) part-time staff persons.

Hospitals

Douglas County has two hospitals providing a full range of health care services. The Douglas General Hospital (100 beds), a member of the Northwest Georgia Health System, is located at 8954 Hospital Drive in Douglasville. Parkway Medical Center (322 beds), a Hospital Corporation of America (HCA) facility, is located at 1000 Thornton Road in Lithia Springs.

Assessment

Community facilities in Douglas County have been expanded and increased services have been provided to the county residents and employees in a timely manner. However, the increased rate of growth experienced by the county in the 1990s is forecast to continue into the first decade of the twenty-first century. In order to remain at the current level of service, this additional growth will require continuing expansions of current services. Facilities found to be adequate today—such as the libraries, fire stations, parks, and general government offices—will have to be expanded, or new facilities added to the system, to maintain that same adequate service delivery level. Where the County has determined that a level of service greater than that currently seen should be adopted, an even greater expansion of facilities will be required. In some situations the service in question is wholly or partially provided through facilities or organizations that are not directly controlled by the County. In these instances, maintaining the level of service can be carried out in partnership with those providers, or could be replaced with a public or private provider in the event of a cessation of services. In either scenario, the County must take a proactive role in the continued delivery of services, however provided, once a desired level of service has been identified.

In the area of public safety, the current facilities for fire, sheriff, and EMS are deemed to be adequate for today's population. In order to remain at this level, additional fire stations, heavy vehicles, administrative facilities, and personnel will be required. In terms of parks, specific acreage and developed component needs have been identified that would be required in order to maintain today's level of service. The libraries in Douglas County are currently below the State recommended standards for square footage and collection volumes for communities of this size. To meet those standards, the county will have to invest in certain expansion or new facility projects, as well as purchase new collection volumes. To maintain those standards, future facility space and collection materials will be demanded.

In terms of schools, the public system in Douglas has consistently scored above the average on State-mandated tests. In all areas but the science component of the graduation test, county students have scored better than the average of comparable counties, and at above the level of students statewide. Test scores are affected by many factors, including classroom size. In order to maintain the current classroom sizes in the county, new schools will be demanded as growth continues. However, schools may be the one type of government facility that is not constantly needed once put in place. Unlike a fire station, for example, that will always be needed to cover a certain geographic area; a school serves both a geographic and a demographic element. Changes in demographics—such as smaller average household sizes—will result in a changing level of demand. For this reason, certain flexibility can be expected and designed for with public schools. At a point in the future some schools could be used to meet level of service demands in other service categories, such as parks, cultural centers, libraries, and sheriff's precincts.

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8. Transportation

■ Introduction

Background

Transportation is a critical element of the comprehensive planning process, recognizing that transportation facilities greatly impact growth patterns and that in turn, development can influence traffic congestion and accessibility. To be effective, the planning process must consider all modes of transportation, including vehicles, pedestrian, bicyclists, and transit/ridesharing services.

The Transportation Element addresses mobility needs in unincorporated areas of Douglas County. Envisioned as a data collection and initial planning phase, the study encompasses thoroughfares, public transit, bicycle, and pedestrian needs.

During the past 15 years, the population growth in Douglas County has outpaced that of the state and much of the region. The total county population as of April 2003 was 101,900 (Atlanta Regional Commission). As indicated in the Population and Land Use Elements, the projected growth in population could double over the next 20 years. While growth provides many positive outcomes for citizens, it has promulgated problems ranging from traffic congestion to lost open space.

The average travel time to work in Douglas County has increased to more than 32 minutes according to the 2000 Census journey-to-work survey. Overall, the Atlanta region had one of the highest increases in average commute travel times across the nation from 1990 to 2000.

A successful strategy used by many local governments is to diversify their transportation investments to provide choices for citizens and visitors to travel within the region. This Transportation Element takes an important step toward identifying a diversified multimodal transportation investment program to provide safe, efficient, and effective mobility for all citizens and visitors.

Scope

The Atlanta Regional Commission and the Georgia Department of Transportation (GDOT), in cooperation with the County, currently undertake the majority of Douglas County's transportation planning. With the recent formation of its own DOT, Douglas County has begun taking initiatives to recognize its importance as a link in regional transportation. The tremendous growth patterns over the past 15 years have outpaced the local improvements in roadway capacity and other modal choices. By assessing the existing conditions and future needs, Douglas County will prepare for longer range growth within its boundaries and the region overall.

This Transportation Element primarily addresses mobility needs in unincorporated areas of the County. Some of the data and future improvements are shown on a countywide basis and include Villa Rica and the City of Douglasville. However, the City of Douglasville has addressed its transportation needs through a separate planning process. The inventory and assessment have been conducted in coordination with the ARC, GDOT, DCA, and other local and state agencies. While the planning horizon is generally the year 2025, the element also reflects projects and policies included in *Mobility 2030*, the draft Atlanta Regional Transportation Plan (RTP). The 2030 RTP has been introduced to the public in draft form and is expected to be adopted in December 2004. As part of the new RTP, the regional model has been updated with a draft 2030 scenario that is based on 2000 Census data, providing a more accurate snapshot of conditions than the 2025 model, which is based on 1990 data.

Planning Level Criteria and Thresholds

The minimum local planning standards for the Transportation Element are identified in Chapter 110-12-1-.04, Section 6(h) of the Rules of *Georgia Department of Community Affairs*. As described in previous sections of the Douglas County Comprehensive Plan update, the DCA has established thresholds of standards by population total and/or growth rate. With a population greater than 50,000 and with a growth rate greater than 1.5% over the past decade, Douglas County meets the threshold for Advanced Planning Level. Accordingly, the minimum standards for transportation include specific requirements for the Advanced Planning Level. To better define the new transportation requirements that became effective on January 1, 2004, the ARC prepared *A Practical Guide for Fulfilling the Transportation Element for Cities and Counties in the Atlanta Region*. All 10 counties within the region meet the Advanced Planning Level threshold.

The scope for the Douglas County Transportation Element was prepared and undertaken based on consultation with transportation planning, modeling, and coordinated planning staff at the ARC, as well as assigned review staff with the DCA. The minimum standards and the ARC guidelines offer general advice and data sources. Each transportation element is tailored to address the unique characteristics of its respective local jurisdiction in terms of land use, growth, available data, facilities, and services.

In the case of Douglas County, this Transportation Element comes at a time of great transition. A new DOT has formed and become actively involved in county and regional transportation initiatives. Yet, there is no current transportation plan in place from which to draw the findings and recommendations. Accordingly, data collection and assessment have been conducted with a two-fold purpose: to address the minimum planning standards and to serve as Phase 1 of a Comprehensive Transportation Plan (CTP). With funding from the ARC, Douglas County will continue the CTP process after adoption of the comprehensive plan update. The next phase of the CTP will enable more rigorous analysis of conditions and alternatives, additional public input, longer-range policy decisions, and use of the final 2030 RTP model.

Section I Inventory of Existing Conditions

The intent of the transportation inventory is to establish a baseline understanding of the existing roadway network, transit program and other services, available modes, and safety or capacity needs. From the inventory, determinations of future needs can be made based on the growth projected in the Land Use Element.

The scope for the transportation inventory included the following steps:

- Researching and downloading of files from ARC, GDOT, and the U.S. Bureau of the Census.
- Coordination with Douglas County and Douglasville representatives to discuss transportation and land use issues.
- Telephone interviews with representatives of GDOT other state agencies including the Georgia Emergency Management Agency (GEMA).
- Field reconnaissance throughout unincorporated Douglas County, consisting of a team of transportation professionals who drove along major routes to record locations and/or conditions of sidewalks, signals, signage, parking, and other features. Particular attention was given to conditions at school locations as a major trip generator with unique safety and traffic concerns. In addition, land uses and traffic conditions were observed on arterials just outside county limits to review their influence on the roadway network.
- Downloading and set-up of the ARC's 2030 model, which has been developed in TP+ software for use by local jurisdictions to assist in transportation planning. The model includes existing (2004) conditions for the roadway network and other modes where applicable.
- Review of current and recent transportation studies within the county, including the 1990 transportation plan and ongoing corridor studies.

The inventory results were developed into spreadsheet files and GIS layers, providing a basis for both the assessment of needs in the Transportation Element and more detailed analysis in the next phase of the CTP. For this purpose, some categories of inventory included countywide data; however, the assessment of existing and future needs within the City of Douglasville has been conducted in a separate Transportation Element. The summary of existing conditions follows by subsection.

■ Roadway Classifications and Inventory

A network of streets and highways provides access to/through or circulation within Douglas County. A road's function is an important parameter in planning for improvements to the roadway network. Function translates into appropriate design features such as right-of-way needs and the maximum density for curb cuts or at-grade intersections.

Roads are designated into one of the following four classifications: freeway, arterial, collector or local. These classifications are described in subsequent sections, and a detailed inventory is included as Table TA-1 in the Transportation Appendix (TA). The inventory data include name, functional classification, lanes, and jurisdiction.

Freeways

Freeways are limited access, multi-lane, divided roadways, permitting high speed traffic. Douglas County is served by one freeway, I-20. I-20 spans the entire east-west length of the County, approximately 18 miles, with access at the following seven interchanges.

- Exit 44 — SR 6 (Thornton Road)
- Exit 41 — Lee Road
- Exit 37 — SR 92 (Fairburn Road)
- Exit 36 — Chapel Hill Road / Campbellton Street
- Exit 34 — SR 5 (Bill Arp Road)
- Exit 30 — Post Road
- Exit 26 — Liberty Road

Additional regional access is provided via US 78 (Bankhead Highway), which runs generally parallel to and north of I-20.

Arterials

The principal function of arterial roads is to move traffic through an area, although they also provide access to and from cross streets and private driveways. Most of the County's arterial roads interchange directly or indirectly with I-20.

In evaluating and planning a local transportation system, it is advantageous to split arterial roads into two subgroups: major and minor arterials. Major arterials serve longer distance trips, offer slightly higher average travel speeds and generally accommodate higher volumes of traffic in comparison with minor arterials. Minor arterials typically have cross streets and driveways spaced closer together than their major arterial counterparts. Average travel speeds are lower and they generally carry lower volumes of traffic. In this classification, the facilities provide for through traffic but the function begins to include more collection and distribution to local collector roads.

Major arterials include the following State Routes:

- SR 92/Dallas Highway
- SR 5/Bill Arp Road
- SR 6/C.H. James Parkway
- SR 166

These major routes within Douglas County run in the east-west direction with many connections to major and minor thoroughfares that facilitate movement and provide access throughout the entire region. In addition, major and minor arterials connect collectors and local roads to the state, US, and interstate routes. Among the other arterials are the following:

- Chapel Hill Road
- Central Church Road
- Liberty Road
- Post Road
- Tyree Road

- Big A Road
- Cedar Mountain Road/Chicago Avenue
- Main Road
- Bright Star Road
- Campbellton Street
- Lee Road
- Burnt Hickory Road
- Sweetwater/Mt. Vernon Road
- Pool Road
- Ephesus Church
- S. Flat Rock
- Dorris Road
- Kings Highway

Collectors

The primary purpose of collector streets is to provide access to adjacent properties and circulation within residential, commercial and industrial areas. A collector street system collects traffic from local streets in residential areas, major activity centers, and central business districts (CBD) and carries the traffic to an arterial highway system. Moreover, collector streets provide access to private property and abutting land. Average travel speeds in urban areas are typically in the 25 to 35 miles per hour range. Outside the urbanized portion of the County, average travel speeds may be much higher as the intensity of land use diminishes and intersection conflicts drop.

Outside of the urbanized area, collectors typically are not broken into major and minor facilities. There are a large number of collectors serving the rural areas of the County.

Local Roads

The main purpose of a local road is to provide access to abutting land and connection to collector streets. These streets provide direct access to properties, both residential and commercial/industrial. They are two-lane facilities that may permit parking on one or both sides, and are characterized by frequent driveway cuts and slow speeds. All roads not classified as collectors or arterials are considered to be local streets.

■ Traffic Volumes

The volume of traffic on a given roadway is an important indicator to determine traffic patterns, growth, and the degree to which the facility is accommodating the vehicles. Common methods to consider the volumes are peak hour or an average 24-hour period. For purposes of the Transportation Element, volumes are shown as annual average daily traffic (ADT) on a given roadway segment. While traffic counts by electronic devices or personal recording are useful in a more detailed, micro-scale analysis, the volumes throughout the network are estimated in the ARC model. The draft RTP model provides the ADT estimates for 2004, as shown in the *Existing Model Volumes* figure. The design volume capacity is an indicator of a road's ability to carry traffic and is a combination

laneage, speed limit, and other factors. There are average or “rule of thumb” capacities such as 8,000 vehicles per lane for major arterials. Design volume capacity also is from the RTP model, as listed in Table TA-2 (see figure titled *Existing Model Roadway Capacity and Number of Lanes*). In addition, the GDOT Traffic Count program includes annual ADT estimates based on counts. Table TA-2 includes 2002 ADT volumes for state and federal routes.



■ Programmed Improvements

As one of 10 member counties within the Atlanta Regional Commission, Douglas County participates in the project development process through the ARC’s Transportation Improvement Program (TIP). Updated annually, the currently adopted TIP is for 2003-2005. A January 2004 report from ARC, *Breaking Ground 2003*, provides an update on the status of the 2003-2005 TIP. The status was defined as one of the following categories: a Livable Centers Initiative (LCI) implementation phase or projects underway, delayed, or dropped from the current program. Most of the listed projects in the county are sponsored by the City of Douglasville and are listed here for informational purposes. Within Douglas County, the following projects are identified:

LCI Implementation

- City of Douglasville Pedestrian Enhancement—plan of sidewalk improvements in downtown Douglasville; design and construction currently funded.

Projects Underway (during FY 2003-2004)

- Transportation Center—construction of the County’s new multi-modal Transportation Center and park-and-ride lot.
- Transit Support—funding for the Georgia Department of Human Resources for elderly transit services and for the City of Douglasville for the purchase of alternative fuel vans.
- Chapel Hill Road Bicycle/Pedestrian facility—design and construction for a segment within Douglasville from I-20 to Reservoir Drive.
- Projects Delayed (funds to be reallocated during FY 2004-2005)
- Right-of-way phase—acquisition of right-of-way for GDOT improvements on Liberty Road and SR 166; the extension of Douglas Boulevard and realignment of SR 92.

- Bicycle/Pedestrian projects—design and construction for facilities along Fairburn Road, Malone Street, Rose Avenue, and Douglas Boulevard.

Projects Dropped

- None

The TIP projects are funded by a combination of federal, state, and local commitments.

■ Safety and Maintenance

Accident History

Based on statistics provided by the GDOT Office of Traffic Safety and Design, 12,816 crashes were recorded within Douglas County during the three-year period from January 1, 2000 through December 31, 2002. As a result, two fatalities and 5,228 injuries occurred. The top twenty Douglas County accident locations were ranked by crash frequency. These locations are identified in the *Existing Safety and Maintenance Conditions* figure and listed in Table 8-1. In general, most intersections with higher crash frequencies did not have traffic signals. Locations identified with traffic signals and high crash frequency also were locations where congestion often exists. A direct relationship exists between traffic congestion and crash rates, providing impetus to ongoing efforts to provide adequate funding for transportation projects that minimize traffic congestion.

Table 8-1
Crash Frequency Data
Douglas County

Rank	Route	Mile Post	# of Crashes	Manner of Collision ¹						3-Year Ave
				1	2	3	4	5	6	
1	SR 5	12.82	219	80	3	105	27	1	3	73
2	SR 6	3.01	212	45	6	138	18	0	5	70.7
3	CR 153	0.73	177	62	1	87	23	2	2	59
4	SR 6	2.15	173	55	8	78	22	1	9	57.7
5	I-20 (SR 402)	9.06	167	37	1	106	14	1	8	55.7
6	SR 5	23.53	159	39	7	101	9	1	2	53
7	I-20 (SR 402)	12.36	155	44	2	95	12	0	2	51.7
8	I-20 (SR 402)	9.52	155	25	1	117	8	0	4	51.7
9	SR 92	10.25	134	58	5	55	9	1	6	44.7
10	SR 6	3.3	113	40	1	53	18	0	1	37.7
11	SR 92	9.97	101	37	2	49	9	1	3	33.7
12	SR 92	9.61	92	56	1	25	6	2	2	30.7
13	SR 6	3.84	88	29	1	41	15	0	2	29.3
14	I-20 (SR 402)	18.99	86	8	0	41	25	0	12	28.7
15	I-20 (SR 402)	11.9	85	37	2	35	7	2	2	28.3
16	SR 5	12.66	78	29	0	40	7	0	2	26
17	I-20 (SR 402)	18.6	76	3	1	42	22	0	8	25.3
18	SR 8	8.33	72	28	1	41	0	0	2	24
19	I-20 (SR 402)	12.02	71	11	0	56	1	0	3	23.7
20	SR 92	9.17	70	49	0	13	6	0	2	23.3

¹Manner of Collision: 1 = Angle, 2 = Head On, 3 = Rear End, 4 = Sideswipe Same Direction, 5 = Sideswipe Opposite Direction, 6 = Not With Motor Vehicle

As would be expected, I-20 accounts for a substantial percentage of the top 20 accident locations, due primarily to the much higher total volume and the congested conditions that have occurred on the freeway and its interchanges. Excluding the I-20 segments, all but four of the top 20 crash frequency locations are within the Douglasville city limits and thus would be evaluated separately. The highest crash frequency locations in unincorporated Douglas County are highlighted in gray and described below.

SR 6 (Thornton Road) — Of the four mileposts identified along this route, two of them are approaching I-20 at Exit 44. One milepost is just south of Factory Shoals Road, while the fourth is the intersection with Bankhead Highway. In all four cases, the prevailing manners of collision have been rear end and angle. Rear end accidents are indicative of stop-and-go conditions and sight distance problems at driveways and unsignalized intersections. Similarly, angle collisions typically are indicative of attempted turns into unsignalized intersections and sight-distance problems.

Ranking intersections by crash frequency is one method of identifying high crash locations, yet it is also important to consider crash rates (number of crashes per 100 million entering vehicles) when searching for high crash locations. Such a comparison would likely reduce the apparent severity of I-20 conditions. More rigorous analysis of crash data countywide will be part of the scope in Phase 2 of the CTP. By taking into account the volume of vehicles in the time surveyed, a rate can be calculated. By using rates, new locations can be identified as high crash locations.

Evacuation Routes

Evacuation routes are designated to carry traffic from Douglas County to an incident-specific destination in the event that the entire county or region is evacuated due to severe weather, hazardous materials leak, or other large-scale emergency. Such an event, though not on record as occurring in recent years, would require clear signage and adequate facilities to handle the extremely high volumes of traffic. Evacuation routes and procedures are set by the Georgia Emergency Management Agency (GEMA).

According to GEMA representatives, the primary evacuation route in Douglas County is I-20, which also would serve the same role for other counties. In addition, SR 166, Chapel Hill Road, and Bill Arp Road (SR 5) are designated as evacuation routes (shown on *Existing Safety and Maintenance Conditions*). One route includes leaving Cobb County, traveling into Douglas County to SR 5. From SR 5, one route follows Bankhead Highway (US 78) into Carroll County. The other routes leave Fulton and Douglas by traveling I-20. Exits at Chapel Hill Road or SR 5 will lead to SR 166 and into Carroll County.



Bridge Inventory

Bridges are critical links in the roadway network and in the consideration of safety and capacity. The GDOT Bridge Maintenance Office conducts periodic inspections on structures and prepares a Bridge Conditions Report every two years. The report includes a National Bridge Inspection rating known as the sufficiency rating. On a range of 0 to 100, a bridge is considered deficient and in need of rehabilitation/replacement when its score is 50 or below. Another indicator is the age of a structure. While the age alone does not determine a bridge's condition, most structures are designed for a 50-year life. The bridge inventory was obtained from GDOT for Douglas County, as shown in Table TA-3. The inventory includes location, facility type, size, length, year built, and sufficiency rating.

Table 8-2 summarizes the structures (countywide) that either have a sufficiency rating at 50 or below, those structures approaching or exceeding 50 years in age, and those structures located on a designated evacuation route (for informational purposes regardless of rating).

Three bridges, highlighted in bold text, are considered deficient: Anneewakee Creek Road at Anneewakee Creek, West Tyson Road at Keaton Creek Tributary, and Stockmar Road at Mud Creek (see *Existing Safety and Maintenance Conditions* figure). Post Road at Dog River has a score of 52.4 and is currently 53 years old. Eight additional structures are approaching or exceeding 50 years in age. Three of those eight structures are located on segments SR 5 or SR 166 that are designated evacuation routes.

Table 8-2
Existing Bridges of Concern
Douglas County

Facility Carried	Feature Intersected	Year Built	Sufficiency Rating
Bill Arp Road	Hurricane Creek	1956	98.20
Bill Arp Road	Hurricane Creek Tributary	1956	98.20
Bill Arp Road	Dog River	1998 1964/	96.40
State Route 5	Interstate 20	1974	71.77
State Route 61	Mud Creek	1937	90.62
State Route 166	Dog River	1956	75.67
State Route 166	Bear Creek	1957	66.26
State Route 166	Anneewakee Creek	1957	73.90
State Route 166	Chattahoochee River	1984	82.03
Interstate 20 (East)	Keaton Creek	1974	93.10
Interstate 20 (West)	Keaton Creek	1974	93.10
Interstate 20	Keaton Creek Tributary	1974	88.19
Interstate 20 (East)	Mobley Creek	1974	92.29
Interstate 20 (West)	Mobley Creek	1974	92.29
Interstate 20	Beaver Run Creek	1962 1962/19	85.00
Interstate 20	Sweetwater Creek	79	67.10
Anneewakee Creek Road	Anneewakee Creek	1963	49.57
Bridge Road	Sweetwater Creek Tributary	1958	64.40
Lee Road	Beaver Run Creek	1958	87.52
Chapel Hill Road	Anneewakee Creek	1949	85.49
Chapel Hill Road	Interstate 20 & I-20 Ramp	1995	91.30
Mason Creek Road	Mobley Creek Tributary	1936	65.73
West Tyson Road	Keaton Creek Tributary	1956	6.57
Stockmar Road	Mud Creek	1950	16.04
Post Road	Dog River	1951	52.40

Source: GDOT Bridge Maintenance Office, April 2004.

Local Maintenance Activities

Preservation of the County's existing system of roads and bridges is an integral part of the transportation plan. The current maintenance program includes such activities as: road repairs; signal repairs; sign up-keep and visibility, drainage repair, and even minor improvements for traffic control at intersections. Recently, a traffic calming program was added to the list of transportation services provided by the County under its maintenance program. Douglas County has implemented local maintenance activities and other transportation initiatives through its Special Purpose Local Option Sales Tax (SPLOST) program. The approximate SPLOST budget is \$41,055,000, to be divided among Douglas County, Douglasville, and Villa Rica.

The SPLOST program has enabled the County to make progress on some of the highest maintenance priorities. Overall, the existing pavement conditions have been the primary funding priority, with 86 miles

of resurfacing completed or underway. Remaining funds have been available to undertake seven intersection projects, drainage projects, and a study of short-term (operational) and longer-term (enhancement/capacity) improvements on Chapel Hill and Stewart Mill Roads.

In addition, GDOT maintains an inventory of pavement conditions that classifies state routes according to a trigger value. A “project rating” of 70 or below is the trigger value to indicate a maintenance need. Roads that have a project rating less than 71 are identified as pavement problem areas or poor pavement conditions. The data collection period extends from September of 1986 to October of 2002. After a thorough analysis, five roads were identified with low project ratings for several sections of the road. Below is a list of the five roads:

- Bankhead Highway/Interstate 78
- Bill Arp Road
- Dallas Highway/Willoughby Road
- Dallas Road/Fairburn Road
- SR 166/Campbellton Road
- Thornton Road

Among the five roads, Bill Arp Road has the longest section of pavement that is classified with a project rating of less than 71.

■ **Signalization and Signage**

Signage

Efficient travel can be affected significantly by the adequacy of signs and traffic signals. A physical inventory was conducted in Spring 2004 to determine the types and locations of signs and the locations of traffic signals throughout Douglas County.

The inventory of signage is not intended to serve as an exhaustive list, but rather as a comprehensive review of the types of signs, their typical locations and features, and observed deficiencies. The results of the inventory are shown in Table 8-3.



Table 8-3
Sign Inventory
Douglas County

Route Name	Side Street	Sign Function	Problem Description
SR 5 (Bill Arp Rd)	Bill Arp E.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Dorsett Shoals Rd	Dorsett Shoals E.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Kings Hwy	Yeager M.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Parkway South	Arbor Station E.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Pope Rd	Chestnut Log M.S.	Regulatory & Guide Signs	Limited use of school zone signs
Duralee Ln	Eastside E.S.	Regulatory & Guide Signs	Poor use and visibility of school signs and school zone signs
Connally Dr	Burnett E.S.	Regulatory & Guide Signs	No use of school signs or school zone signs
SR 8 / US 78	Burnt Hickory Rd	Guide Signs	No use of street name signs
Burnt Hickory Rd	Railroad Crossing	Warning Sign	Limited use and visibility of RR crossing signs
Florence Dr	Lithia Springs E.S.	Regulatory & Guide Signs	Poor use and visibility of school signs and school zone signs
Skyview Dr	Maxham Rd	Guide Signs	Limited use and poor visibility of street name signs
Lee Rd	Ride Share Facility	Guide Signs	Limited use and poor visibility of Ride Share Facility signs
Duralee Ln	Crossroads M.S.	Regulatory & Guide Signs	Poor use and visibility of school signs and school zone signs
Old Lower River Rd	New Manchester E.S.	Regulatory & Guide Signs	No use of school zone signs and limited visibility of school signs
Post Rd	Ride Share Facility	Guide Signs	Limited use and poor visibility of Ride Share Facility signs
Thornton Rd	Ride Share Facility Douglas County	Guide Signs	Limited use and poor visibility of Ride Share Facility signs
Dorris Rd	Transportation Center	Guide Signs	Limited use and poor visibility of Transportation Center signs
SR 5 (Bill Arp Rd)	Bill Arp E.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Dorsett Shoals Rd	Dorsett Shoals E.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Kings Hwy	Yeager M.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Parkway South	Arbor Station E.S.	Regulatory & Guide Signs	Limited use and visibility of school zone signs
Pope Rd	Chestnut Log M.S.	Regulatory & Guide Signs	Limited use of school zone signs
Duralee Ln	Eastside E.S.	Regulatory & Guide Signs	Poor use and visibility of school signs and school zone signs
Connally Dr	Burnett E.S.	Guide Signs	No use of school signs or school zone signs
SR 8 / US 78	Burnt Hickory Rd	Guide Signs	No use of street name signs
Burnt Hickory Rd	Railroad Crossing	Warning Sign	Limited use and visibility of RR crossing signs
Florence Dr	Lithia Springs E.S.	Regulatory & Guide Signs	Poor use and visibility of school signs and school zone signs
Skyview Dr	Maxham Rd	Guide Signs	Limited use and poor visibility of street name signs
Lee Rd	Ride Share Facility	Guide Signs	Limited use and poor visibility of Ride Share Facility signs
Duralee Ln	Crossroads M.S.	Regulatory & Guide Signs	Poor use and visibility of school signs and school zone signs
Old Lower River Rd	New Manchester E.S.	Regulatory & Guide Signs	No use of school zone signs and limited visibility of school signs
Post Rd	Ride Share Facility	Guide Signs	Limited use and poor visibility of Ride Share Facility signs
Thornton Rd	Ride Share Facility	Guide Signs	Limited use and poor visibility of Ride Share Facility signs
Dorris Rd	Douglas County Transportation Center	Guide Signs	Limited use and poor visibility of Transportation Center signs

Source: Kimley-Horn and Associates, Inc., 2004.

Overall, the guide signs for I-20 access and major arterials are efficient and highly visible. However, guide signs and street signs on arterials and collectors are in some locations too small, obscured, or missing, limiting a driver's ability to make safe and efficient decisions. Some school zones have inadequate signs, and existing railroad crossing signs have limited visibility.

Signalization

Traffic signals are crucial to maintaining efficiency and safety in an urban road network. The GDOT Traffic Operations and Maintenance Office has responsibility for signals on state routes, including a database of existing signal locations. Countywide database records of state signal locations were obtained and supplemented with a physical inventory of signals throughout unincorporated areas. Douglas County has more than 75 signals, most of which are located within the City of Douglasville limits. The signals are illustrated on the *Signal Locations* figure and listed in Table TA-4.



Intelligent Transportation System (ITS)

Intelligent transportation systems (ITS) are the application of a vast array of technologically advanced systems that impact the existing surface transportation system. Some of the technology used in ITS include communications, sensors, and computers. Ultimately, the goal of ITS is to maximize the performance of the existing transportation infrastructure to facilitate safer, quicker travel and enhanced mobility for the public. Potential benefits of ITS include improved traffic flow, traveler information, air quality, faster delivery of goods, and reduced travel times.

The drive to implement an ITS in Atlanta was motivated by the 1996 Summer Olympics which began planning in 1991 on a statewide Intelligent Transportation System. Today this system is known as the "NAVIGATOR". The NAVIGATOR uses cameras and video detection to detect traffic incidents and report real time data to the traveling public that enables informed choices about transportation options. The NAVIGATOR links to a Transportation Management Center (TMC) in order to properly manage this system. Other such systems include the Highway Emergency Response Operators (HEROs), camera surveillance, information kiosks, demonstration hand-held navigation devices, demonstration of on-board navigation, and automated vehicle locators on transit buses. Currently the key elements of ITS in the Atlanta region (10-county metro area) include: Traffic signal control, Freeway management, major arterial management, Transit management, Incident management, Traveler information, Electronic toll collection and emergency response. Currently, Douglas County does not have any Intelligent Transportation Systems with the exception of fiber optic loops utilized by the school board.

■ Bicycle and Pedestrian Facilities

Currently there are no dedicated on-road or off-road bicycle facilities or multi-use trails in unincorporated Douglas County. Some of the newer subdivisions are including sidewalks as amenities to enhance circulation and community ambiance. While sidewalks are a concern and a transportation goal, local funding has not been available due to the enormous task of addressing the pavement deficiencies throughout the county. In the newly adopted Unified Development Code (UDC), sidewalks are required along any public right-of-way. In addition, non-residential character areas require internal connections and linkages, and emphasize the integration of the development into the overall circulation pattern of the county. Greater emphasis on pedestrian and bicycle circulation is expected in the county in the future.

Existing land-use practices contribute to why sidewalks are not considered to be a legitimate means for trip making purposes. Buildings that house many of the County's service businesses, large employers and shopping centers are set-back a lengthy distance from the street such that individuals are discouraged from walking between places, even when they are located in neighboring parcels. Moreover, there are busy driveways and parking lots that pedestrians frequently navigate through or maneuver around to avoid conflicts with motorists. Both the building set-backs and the degree to which property layouts acquiesce to motor vehicle access present obstacles for pedestrians. This problem also has been addressed within the Land Use Element of this Plan and the new UDC. As mentioned earlier, sidewalks and/or other non-motorized linkages will be required as part any new development within Douglas County. Land use patterns have also been greatly modified to facilitate more compact development in "village" or "center" configurations. In many character areas, public gathering spaces, a "street-side" orientation and parking to the side or rear of a facility are encouraged.

An inventory of sidewalks was conducted at public schools, town and activity centers, and transit stations/stops. Overall, those specific uses have very little in the way of existing sidewalks. In particular, sidewalks are an important component of school transportation, if the facilities are safe and accessible from residential areas in the same school zone. A review of conditions at 32 public schools in Douglas County indicates that 13 of the 32 have sidewalks, ranging in length from 70 feet to half a mile. A common problem is that the sidewalks extend only along the school property for the most part, leaving gaps to reach the nearby students (depending on age/grade) who otherwise could walk. Only Douglas County High School has a bike trail, located along Selman Avenue. The results of the inventory are shown in Table TA-5.

Based on coordination with the Douglas County Parks and Recreation Department, none of the county's parks yet have recreational trails or a defined greenway corridor. Douglas County has created a Greenspace and Trail Alliance to begin planning for corridor locations and passive recreational trails, including the Dog River Park area. The organizational meeting was held in June 2004.

The Georgia Department of Transportation has designated a network of on-street bicycle routes (BIKE GA 2002). Within this network, Route 15 crosses through Douglas County. Named the Central Route Corridor, it extends north-south from Acworth to Florida for a total length of 327 miles. As shown on the *Multi-Modal Improvements* figure, Route 15 includes 10.8 miles through Douglas County. As part of the state's overall bicycle plan, the network provides a reference for cyclists (i.e., share the road) but is not indicative of designated bicycle lanes. In the case of Douglas County, Route 15 consists of segments of the following roads: North Sweetwater Road, Sweetwater Road South, Mt. Vernon Road, and SR 92 / SR 166. While this route is suitable for bicyclists and is near features such as Sweetwater Creek, the existing pavement conditions along portions are not ideal. Some segments need rehabilitation, while rumble strips are evident along shoulders or intersections.

■ **Parking Facilities**

In coordination with the Douglas County DOT, a review of significant parking facilities was conducted. The inventory of spaces at park-and-ride lots is shown in Table 8-4. The lots are located primarily along I-20 and at the new Transportation Center off Hospital Drive.

Table 8-4 Park-and-Ride Lots Douglas County	
Location	Number of Spaces
I-20 & Lee Road	145
I-20 & Thornton Road	116
I-20 & Post Road	79
8800 Dorris Road (Douglas County Transportation Center)	300
Total	640
Source: Obtained from 2003 <i>Georgia Transit Programs Fact Book</i>	

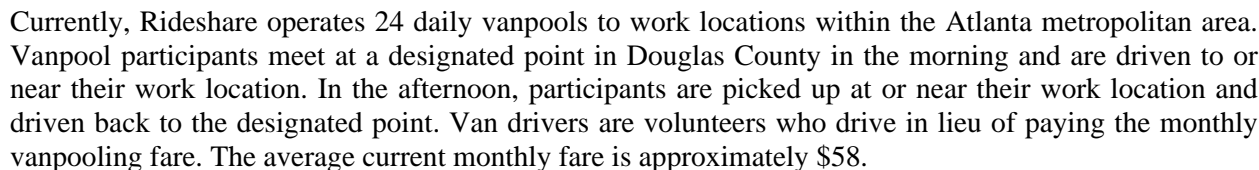
The County has identified three other significant parking facilities, as shown in Table 8-5.

Table 8-5 Significant Parking Facilities Douglas County	
Location	# of Spaces
Arbor Place Mall	6,500
Douglas County Courthouse	585
Douglas County Transportation Center	600
Total	7,685
Source: Douglas County DOT, 2004.	

■ **Public Transportation**

No mass transit system currently exists in Douglas County, as of spring 2004. The existing paratransit services primarily consist of a Rideshare Program established in 1986. The Rideshare program is a commuter based program that consists of vanpools and carpool-matching, using the park-and-ride lots previously described. The vanpool service operates Monday through Friday from 6:00 am to 7:00 am and 3:45 pm to 5:00 pm. A published schedule online indicates 24 routes that cover major employment destinations.

Rideshare is a commute alternative program that facilitates the operation and provision of commuting options to the residents of Douglas County. Specifically, Rideshare provides alternatives to the single-occupant vehicle by operating work-trip vanpools, providing carpool matching assistance, and building and maintaining commuter facilities. Rideshare is a department of the Douglas County Government, and is governed by the Douglas County Board of Commissioners.



There is no regularly scheduled, fixed-route bus service operating in Douglas County. Douglas County is working with the Georgia Regional Transportation Authority (GRTA) to begin an express bus service in the summer of 2004 from Douglasville to Atlanta. According to GRTA's Regional Transit Action Plan, the express bus route (XPRESS) will start July 6, 2004 and will be known as Route 460. The route will run starting from the Park and Ride lot at the Douglas Transportation Center (Multi-Modal Center) to Downtown. GRTA has defined three total stops, two of which are in the downtown Atlanta area. The fourth stop, which is the year 2 extension at Arbor Place Mall, will be the starting point once it is completed. The route schedule will be designated at a later date. Tentatively, the schedule will include a 30

minute gap between buses which will run Monday – Friday from 5:30 am to 9:30 pm. Moreover, GRTA has planned two additional routes for Douglas County. These two routes include Douglasville to Cumberland and Douglasville to the Hartsfield- Jackson Atlanta International Airport

■ **Railroads and Airports**

There is no rail passenger service in Douglas County. Inter-city rail passenger service in the Atlanta area is operated by Amtrak. The Amtrak line passes through the County, but does not stop. Norfolk Southern operates freight service through one corridor in the County, parallel to US 78. This line connects downtown Atlanta to Birmingham, Alabama and serves both freight and passenger movement. There are no stations located within the County for either of the uses. Norfolk Southern's freight service has a major intermodal hub in the Cobb County portion of Austell, which includes a major railroad switching yard and truck terminals for transfers of freight for regional truck deliveries.



The only air facility in Douglas County is a small, private airfield located in the north part of the County. Stockmar Airfield is nominal and accommodates only small aircraft. This airfield is not part of the Georgia Airport System Plan. Fulton County Airport is located approximately 15 – 20 minutes outside of Douglas County, with access from I-20 and Bankhead Highway. From I-20 and I-285, Douglas County also is located within approximately 30 – 40 minutes of Hartsfield-Jackson Atlanta International Airport.

Section II. Assessment of Current and Future Transportation Needs

■ Assessment of the Road Network

Adequacy of Transportation Facilities and Services

In a detailed corridor or sub-area transportation study, a number of factors determine the level-of-service on a particular section of road. These include: accident experience; driver maneuverability; sight distance; pavement condition; and the amount of delay. In the comprehensive plan, however, the evaluation process is simplified. In this study, the County's road system was evaluated to determine if the number of through-lanes on a specific facility is sufficient to accommodate the amount of traffic on the road at an acceptable level-of-service.

Levels-of-service (LOS) were calculated for segments by calculating the ratio of daily traffic volume to the segment's equivalent daily capacity. Levels-of-service are indicated by letter grades, A-F, which are assigned to each link in accordance with its computed volume to capacity ratio.

At one extreme, LOS "A" signifies that motorists travel with little or no delay and have room to maneuver as they approach an intersection at the downstream end of a segment. At the other extreme, LOS "E" denotes that the volume of traffic is approaching the capacity threshold. LOS "E" is characterized by low average speeds, delay at intersections and little room to maneuver. Below LOS "E" is LOS "F". LOS "F" conditions occur when more traffic attempts to pass through an intersection or section of road than the intersection or segment are designed to accommodate. These points or short sections are referred to as bottlenecks. LOS "F" conditions are characterized by long delays between intersections, low average speeds and little room to maneuver.

For purposes this Transportation Element, Douglas County has followed the thresholds used in the draft RTP model, which are calculated as the ratio of volume to capacity (V/C) for a given roadway segment. A roadway is considered saturated when the volumes equals the road's capacity to handle traffic, shown as 1.0 or greater. In the RTP model, the following V/C thresholds apply: .00 to .55 is LOS A/B, .55 to .77 is LOS C, .77 to .93 is LOS D, .93 to 1.0 is LOS E, and 1.0 or greater is LOS F. Proposed improvements are intended to provide LOS D or better conditions in their design year (usually 20 years). During Phase 2 of the CTP, Douglas County will further evaluate levels of service and appropriate thresholds for improvements.

Based on the modeled 2004 conditions from ARC (see figure, *Existing Model Volume/Capacity Ratios*), levels-of-service for major roadway segments in Douglas County are indicated in Table TA-6. Those links with an LOS of E or F are shown in Table 8-6.

Table 8-6
2004 Level of Service – Congested Segments
Douglas County

Roadway Name	From/ To	2004 LOS
Dorris Road	To Cedar Mountain Road	0.97 (E)
GA Highway 5 (Rose Ave.)	From I-20 to Douglas Blvd.	0.99 (E)
US 78 (Bankhead Highway)	From Rose Ave. to Chapel Hill Road	1.03 (F)
GA Highway 92 (Dallas Highway)	From Brown Street to Forrest Ave.	0.97-1.24 (E or F)
GA Highway 92 (Dallas Highway)	From I-20 to Chapel Hill Road	0.97-1.05 (E or F)
Interstate 20	Parallel to Timberland Drive	1.02 (F)
GA Highway 92 and 166 (Fairburn Rd.)	From Cochran Mill to Cascade Palmetto HWY	1.01-1.21 (F)
Sweetwater Road	From I-20 to US Highway 78 or Bankhead Highway	1.02-1.58 (F)
US Highway 78 (Bankhead Highway)	From Cedar Mountain Road to Bearden Road	0.96-1.25 (F)
Mount Vernon Road	From Park Drive to Skyview Drive	1.23 (F)
Skyview Drive	From Crestmark Blvd. To Westford Drive	0.95 (E)
Thornton Road	From Interstate West Parkway to Six Flags Parkway	0.93 (E)
Interstate-20	From GA Highway 92 or 166 (Fairburn Road) to Thornton Road	1.02-1.09 (F)

Source: Kimley-Horn and Associates, Inc., 2004

Modal Split and Vehicle Occupancy

Based on the journey-to-work survey conducted as part of the 2000 Census, 95.9 percent of the 46,176 employees in Douglas County relied on personal vehicles for commuting, with 81.6 percent driving alone. Of the remainder, 14.3 percent carpooled. Less than 2.0 percent used transit, walked, or rode bicycles—an indication of the lack of available facilities. These driving trends have remained fairly constant since the 1990 journey-to-work survey, despite tremendous growth: 96.1 percent of employees drove vehicles, with 81.6 percent driving alone.

While ridesharing has been promoted with several programs and a growing vanpool program in the county, single occupancy vehicles (SOV) continue to dominate the transportation modes. Based on outputs from the draft RTP model, the average occupancy within Douglas County in 2004 is 1.08 persons per vehicle for home-based work trips (commutes) and 1.36 persons per vehicle for home-based non-work trips.

Safety Concerns and Evacuation Routes

As identified through the inventory of existing conditions, accident records have been reviewed over a three-year history. Among the 20 highest frequency accidents within Douglas County, most are located within Douglasville or along I-20. During Phase 2 of the CTP, the accident data will be reviewed more vigorously including a comparison with rates. The priority locations will be assessed, with recommenda-

tions for improvements. Typical safety improvements include intersection geometrics, better signage, removal of obstructions from the driver's view, and correcting problematic curves in the road.

The evacuation routes for Douglas County include aging structures. Of those structures, the SR 166 crossing of Dog Creek is currently being replaced. Two structures (dating to 1956) on SR 5 should be monitored, but both have good sufficiency ratings presently. Improvements are currently programmed or proposed along several critical segments of the evacuation routes, which will increase capacity and efficiency of traffic flow.

■ Public Transportation

With the introduction of GRTA's Regional Express Bus system into Douglas County later this year, local residents will have a crucial new choice for daily commutes. As shown in the *Multi-Modal Improvements* figure, the bus system will extend along I-20 with stops planned for downtown Atlanta, the Arbor Place Mall, Cumberland mall, and Hartsfield-Jackson Atlanta International Airport. This service will prove to be a valuable alternative to commuters into these activity centers, particularly in light of the peak-hour congestion on the interstate system.

A considerable amount of research within the region has focused on the feasibility of commuter rail. With the introduction of the *Mobility 2030 RTP*, the ARC has demonstrated a commitment to long-term transit solutions. During the course of the research for the Douglas County Transportation Element, regional transit alternatives have continued to evolve. As of July 2004, the aspirations scenario (i.e., the regional wish list with no financial constraints) includes both high-capacity and medium-capacity transit through Douglas County. The high-capacity alternative is described as either a bus rapid transit (BRT) or heavy rail system with dedicated right-of-way and fixed transit stations. By contrast, the medium-capacity alternative would be a BRT system using non-dedicated right-of-way and standard bus stops.

Indications are that the financially constrained RTP would need to limit commuter rail funding to the higher priority north-south corridor before extending with east-west service. Commuter rail development often takes decades for full implementation and typically is the most expensive transit option. While commuter rail and a proposed station in Douglasville were under consideration in the aspirations scenario of the plan, a BRT system along the I-20 corridor was determined to be the most feasible approach to expanding regional transit to Douglas County. Other options, including commuter rail, will continue to be discussed in future years in light of changing funding scenarios at the federal level. Douglas County remains encouraged by the regional commitment to transit and will support both the introduction of BRT and the prospect of leveraging the existing rail line through the county for commuter rail. Much planning, inter-jurisdictional cooperation, and financial investment will be necessary over the next 20 years to implement mass transit in the county.

Projected Overall Transportation System Levels of Service and System Needs

The major arterials through the county are experiencing increased congestion, as evidenced by these modeled LOS levels. In the future, continued growth will worsen the degree of congestion unless multi-modal options are implemented along with major capacity improvements. By coordinating assumptions with the Land Use Element, the future growth was added to the transportation model adapted from the RTP 2030 model. The model divides the county (region) into subareas called traffic analysis zones or TAZs. Households, population, and employment by sector are among the primary variables in the regional model used to simulate travel patterns and demand. Those variables were adjusted to match the projections in the Land Use Element, based on the recommended uses in each TAZ. The TAZs are shown in the *Future Land Use within Traffic Analysis Zones* figure and listed with land uses in Table 8-7.



Table 8-7
Land Use Assumptions in Future Transportation Network
Douglas County

TAZ	Acres	Future Land Use
13001	1,599	Urban Residential / Workplace Center
13002	2,048	Commerce Center / Urban Residential
13003	2,521	Commerce Center / Urban Residential
13004	3,890	Commerce Center / Parks / Intensive Industrial
13005	4,684	Suburban Living / Urban Residential
13006	3,757	Urban Residential / Community Village Center
13007	3,060	Incorporated / Urban Residential
13008	2,469	Incorporated / Urban Residential
13009	907	Incorporated
13010	722	Incorporated
13011	727	Incorporated
13012	1,448	Incorporated / Urban Residential
13013	17,798	Suburban Living / Community Village Center / Intensive Industrial
13014	7,048	Rural Places / Parks
13015	15,772	Rural Places / Parks
13016	12,009	Suburban Living / Rural Places / Parks
13017	1,972	Incorporated / Suburban Living
13018	1,816	Incorporated / Suburban Living
13019	8,070	Suburban Living / Rural Places / Public Institutions
13020	6,189	Suburban Living / Rural Places
13021	2,454	Suburban Living / Rural Places
13022	4,563	Suburban Living / Rural / Community Village Center
13023	6,181	Rural Places / Parks / Suburban Living
13024	3,499	Incorporated / Urban Residential / Workplace / Mixed Use
13025	6,892	Suburban Living / Community Village Center / Rural Places
13026	2,274	Suburban Living / Community Village
13027	3,784	Incorporated / Suburban Living / Community Village Center

Source: Ross Associates and Kimley-Horn and Associates, Inc., 2004

The model increased the trips throughout the county based on the new land use assumptions. Growth within Douglasville was adjusted to assumptions available from the Douglasville Comprehensive Plan Update. The modeled results can be considered a worst case scenario for potential traffic growth by the end of the planning horizon, 2025. The primary issues within the transportation network are major loads on north-south corridors. The growth in population and employment will continue to transform Douglas County into a major urban area, with several heavy concentrations of development where little exists today. The projected traffic volumes are shown in the *Future Model Volumes* figure.

As the most appropriate model at the time of this Transportation Element, the draft 2030 aspirations scenario served as a base. Therefore, a separate model scenario for future No Build was not included in the scope of this Transportation Element. Many of the draft assumptions are being updated by the ARC during the second half of 2004. As such, the modeled results for Douglas County assume many transportation improvements in place by 2030. In Phase 2 of the CTP, the approved RTP will be available, along with an updated model scenario. The CTP will include a rigorous comparison of potential improvements to further determine the relative costs and benefits. In summary, the primary system deficiencies in the future from a roadway perspective are congested north-south corridors, and to a lesser extent, east-west corridors to reach other alternatives for north-south flow.

■ Means of Optimizing Existing Facilities

Douglas County has placed a priority on optimizing use of existing facilities. As described previously, the primary emphasis of the current SPLOST program is maintenance and paving of existing streets. On local roads throughout the county, capacity and safety can be enhanced through improved shoulders and intersection geometrics.

Of particular note is the current *Chapel Hill Road and Stewart Mill Road Transportation Corridor Study* (Kimley-Horn and Associates, Inc., 2004). The study focuses on two phases: short-term improvements for operational and safety benefits, and long-term improvements to increase capacity and introduce pedestrian and bicycle facilities. The interim report on short-term improvements has identified a series of priority project to optimize use of the existing roads, totaling approximately \$4.25 million based on preliminary cost estimates. This Transportation Element has included a review of the study's short-term recommendations and likely long-term recommendations for typical sections on both corridors.

From a multi-modal perspective, Douglas County does not yet have adequate facilities to provide a full range of alternatives to the single-occupant vehicle. The increasing demand for park-and-ride lots and the Rideshare program are indications of overall growth and better choices for commuters. With implementation of the proposed sidewalk projects, HOV lanes, ITS strategies, and potential BRT corridor, Douglas County will be able to balance choices for travel and extend the life and level of service for its roadway network.

Transportation Demand Management (TDM)

TDM refers to a wide range of approaches to optimize use of the existing transportation system. Among policies and techniques that have been used in the Atlanta region are staggered work hours, flexible work hours, telecommuting, shuttles, netmeeting, and parking management. Within Douglas County, two approaches have proven effective with increasing demand: the Rideshare Vanpool program and park-and-ride lots.

The Douglas County Vanpool program continues to see growth. Ridership data for the past 3 years, and anticipated numbers for years 2004 and 2005, are shown below in Table 8-8.

Table 8-8
Rideshare Vanpool Ridership and Operational Statistics
Douglas County

Operational Categories	Year				
	2001	2002	2003	2004(Est)	2005(Est)
Vans in Service	18	20	22	28	34
One-way passenger trips	52,907	56,325	57,150	64,000	71,000
Total revenue miles	266,283	269,254	300,228	400,000	500,000
Passenger revenue miles	1,417,530	1,467,007	1,485,900	2,000,000	3,000,000

Source: Douglas County Transportation Center, 2004

The areas with the greatest concentration of Rideshare vanpool service and demand are downtown Atlanta in the Five Points / Peachtree Center area, Midtown Atlanta around Colony Square and Bell South Campanille, and in the Clifton Corridor where Emory University and the VA Medical center are located. The Douglas County Transportation center anticipates growth for their vanpool program around the areas of Perimeter Mall, the Cumberland Mall / Galleria complex in Cobb County, and in the New Manchester mixed use development in the eastern portion of the county.

In areas not serviced by the vanpools, Rideshare offers a carpool matching program. Rideshare maintains a list of commuters who have expressed a desire to carpool and tries to match other individuals who have expressed an interest in carpooling, based on work location and hours. Additionally, Rideshare participates in the 1-87 Ridefind program operated by the Atlanta Regional Council. This program serves as a referral service for carpoolers and vanpoolers.

Douglas County has actively participated in regional measures to optimize the efficiency and capacity of existing roadways. While the existing pavement conditions have necessitated a substantial commitment of funding, other measures offer an opportunity for Douglas County to benefit from regional approaches in new technologies. One of the critical issues is traffic congestion on I-20. As such, the regional initiatives with Intelligent Transportation Systems (ITS) are a priority for the county.

Intelligent Transportation Systems

The Atlanta Regional Commission has compiled the updated 2030 Regional Transportation Plan (RTP), which defines the long-range multimodal and financial plan for addressing mobility and accessibility needs for a designated region. In the Atlanta region, The I-20 West Corridor passes through the Atlanta region in the westbound direction. This corridor is defined as the 31 mile long portion between I-75/85 and the Douglas/Carroll County line. The corridor is located within the City of Atlanta, a small portion of unincorporated Fulton County, a small portion of Cobb County, and Douglas County. The corridor provides access to the following areas (from east to west): Downtown Atlanta, the West End community, the West Lake community, the Hightower Community, Fulton County Airport, numerous areas in the vicinity of Fulton Industrial Boulevard and the Chattahoochee River, Six Flags Over Georgia, the City of Douglasville, the Arbor Place Mall activity center, and the City of Villa Rica. This corridor has been identified by ARC as a high peak hour traffic area and in need for major transportation improvements to accommodate this traffic. Moreover, *Mobility 2030* identifies I-20 as a Smart Corridor in Douglas County. Smart Corridors are proposed to have at least two forms of ITS (e.g., variable message signs, incident management, video surveillance).

Intermodal Terminals and Connections

Douglas County has invested in commuter facilities throughout Douglas County, including the park-and-ride lots described in the inventory section. A major new success in addressing long-range transportation needs is the Multimodal Transportation Center. The initial phase of this facility, which was recently constructed, includes 300 commuter parking spaces, as well as a 6,500-square-foot customer service building for Rideshare, and a compressed natural gas fueling station for Rideshare vans. Two more phases of the Transportation Center are expected to be constructed within the next three to four years. Phase Two, which will be completed in August 2004, will include a loading platform for the new express bus service the offered by the Georgia Regional Transportation Authority (GRTA). Phase Three, which is expected to be completed in 2005, will include another additional 300 parking spaces for commuters.

The cost of Phase One, which includes land acquisition, design, engineering and construction, was \$3 million. The total cost of the Transportation Center is approximately \$5 million. Funding sources for the Transportation Center include the Federal Transit Administration, the Georgia Department of Transportation, and the Douglas County Board of Commissioners.

The Transportation Center will be a hub for the new Regional Express Bus service being introduced into Douglas County. This level of intermodal connectivity has never been provided within Douglas County, and its success will be a vital part of the overall quality of life in sustaining the projected growth. Along with the implementation of the express route and expanded Transportation Center, additional capacity will be needed at the park-and-ride facilities. Some of the existing lots appear to be land-locked, while others have room for expansion. Important measures will include the continued marketing of alternative transportation modes and the available interconnectivity of the Transportation Center.

High Occupancy Vehicle (HOV) Lanes

HOV lanes have become an important priority for the region and for Douglas County. The draft *Mobility 2030 RTP* features a system of HOV lanes that extend the current reach from the I-85/I-75 corridor and add HOV lanes to I-20, SR 400, I-285, and SR 316. Within Douglas County, HOV projects are identified in two phases. The first phase is scheduled to be completed within the 2005-2010 TIP and actually is made up of three connecting HOV projects. Those projects begin outside the boundaries of the county and extend along I-20 West from SR 6/Thornton Road to SR 5/Bill Arp Road. The second phase, with a long-range status, will continue from Bill Arp Road to Liberty Road, which is near the western boundary of the county.

The RTP has listed several improvements to the I-20 West corridor from increased capacity to HOV lanes and interchange upgrades. All of these modifications to the existing highway system will aid in reducing congestion and improving the level of service of this corridor.

To address a potential gap in efficiency, Douglas County has identified the need to upgrade the interchange at the Transportation Center to accommodate HOV lane exit and entrance ramps. This improvement would facilitate not only vehicular traffic using the HOV lanes along the I-20 West corridor, but also the efficient operation and movement of the Regional Express bus service.

Growth Trends and Patterns

In conjunction with the recommended future land uses, Douglas County recognizes the need to establish standards for street design, levels of service, and multi-modal elements. In particular, bicycle and pedestrian facilities need to be constructed in conjunction with future development of the proposed character areas of the Neighborhood Village Center, Community Village Center, and Workplace Center. While transit-oriented design (TOD) elements will have limited applicability in the absence of rail transit, there will be opportunities to accommodate higher density development with enhanced options for mobility.

Given the critical timing of Douglas County's transportation planning efforts, several important policies and standards need to be developed as part of Phase 2 of the CTP. Among the important decisions will be

- Standards and typical sections for local streets
- Sidewalk policies for new development
- Minimum levels of service for new development
- Plans for enhanced signage related to modal choices

It is the County's intent to evaluate and adopt appropriate measures through the CTP process. Adopted policies will be submitted as Minor Amendments to the Comprehensive Plan, as appropriate.

Pedestrian and Bicycle Facilities

Concurrent with other planning initiatives, the ARC has prepared the 2002 Bicycle Transportation and Pedestrian Walkways Plan. For the Douglas County area, ARC has proposed 10 projects related to bike facilities. Table 8-9 shows the list of projects that were proposed in the 2002 Regional Bicycle Transportation and Pedestrian Walkways Plan. This plan is also included in the draft 2030 RTP.

In order for projects to be included in the RTP and the Bicycle and Pedestrian plan, ARC has to first identify deficiencies in a pedestrian facility inventory that is underway as of spring 2004. Upon completion of this inventory, projects can be further evaluated and included for funding in future updates of the Regional Bicycle and Pedestrian Plan. Until that time, a lump sum amount is being recommended for inclusion in the 2030 RTP update, to implement projects resulting from the study. Table 8-9 represents recommendations of projects to be added into the 2030 RTP as a result of the evaluation performed in the 2002 Regional Bicycle and Pedestrian Plan Update.

**Table 8-9
Pedestrian and Bicycle Project Descriptions
Douglas County**

Network Year	Project Name & Type	From	To	Length	Cost in 1,000's	Gap Closure ¹	Priority ⁵	Low Bicycle Suitability Rating ⁶
2010	Skyview Dr Bike Lane	South Sweetwater Road	Douglas County	4.18	993	X	5	
2010	Douglas Blvd Bike Lane Bankhead	Bright Star Road	Chapel Hill Road	2.75	653	X	3	X
2020	Highway Bike Lane Bankhead	Bright Star Road	Carroll County limits	15	3397	X	3	X
2030	Highway Bike Lane	Sweetwater Road	Burnt Hickory Road	15	3397	X	3	X
2030	Georgia Hwy 5 Bike Lane	SR 166	Douglas County limits	6	1425	X		
2030	Pool Road Bike Lane	at Berea		0.5	118	X		
2030	Bright Star Bike Lane	I-20	Central Church	1	237	X		
2030	Rose Avenue Bike Lane Ch James	Broad Street	Plaza Parkway	1	237	X		
2030	Pkway Bike Lane	Douglas County limits	Thornton Rd	1	237	X		
2030	Thornton Rd Bike Lane	Douglas County limits	Factory Shoals Road	2	475	X		

¹ "gap closure"- whether the project closed a gap between two existing or proposed facilities or whether it closed cross jurisdictional gaps.

² "along transit"- whether the project was along a transit bus or rail line.

³ "1 mile of transit station"- whether the project was within 1 mile of a transit station.

⁴ "low suitability rating"- whether the proposed project had a low bicycle suitability rating in the bicycle suitability mapping process.

⁵ "priority"- when written comments were submitted, participants were asked to rate the sense of priority for the project from 1 to 5. Five was the highest priority. In many instances written comment forms were not submitted and therefore, there would be no priority indication.

⁶ "in local plan"- whether the project was added to a local plan since the 1995 ARC Bicycle and Pedestrian Plan adoption.

*None of the projects are within along any transit lines, are within 1 mile of a transit station, and have not been added to the local plan since the 1995 ARC Bicycle and Pedestrian Plan adoption.

Source: Kimley-Horn and Associates, Inc., 2004

In addition to further evaluating these potential pedestrian and bicycle facilities, the CTP will enable a closer look at local gaps and ways to enhance connectivity and safety. The previously identified Route 15 through Douglas County includes several segments of road that are not conducive to heavy bicycle use. However, much of this route also is included in proposed roadway improvements, presenting the opportunity to coordinate design in future years to allow for a bicycle lane or widened shoulder access.

Section III. Community Vision, Goals, and Implementation Program

The Transportation Element has been coordinated closely with the Land Use Element to define transportation goals and objectives that accommodate projected growth. As stated in public meetings and in the Comprehensive Plan, the transportation goal identifies several key words: *multi-modal, safe, convenient, environmentally friendly, and efficient*. To recognize this goal fully, Douglas County must commit to an increased level of transportation investment over the next 20 years and well beyond.

The inventory of existing conditions indicates a lack of modal choices, a roadway network with pavement and maintenance needs, and growing congestion due to rapid growth over the past decade. Continued analysis, public involvement, agency coordination, consensus building, and funding must take place to address the short-term needs and accommodate longer term growth in Douglas County.

■ Preparation of Long-Range Comprehensive Transportation Plan

As emphasized throughout the Transportation Element, many transportation decisions need to be made to prepare for successful growth in Douglas County. While some improvements and regional initiatives are underway in 2004 or programmed in the next five years, others remain to be defined. With new growth and roadway expansions, there will be more requests to provide fixed-route public transit service along with the road improvements. A growing demand will occur for pedestrian and bicycle facilities, prompting the need for a priority funding plan. Prior to endorsing future transportation improvements, more detailed study will be required, particularly within the context of improvements that are already planned or under construction.

The draft *Mobility 2030* RTP is ambitious for both the Atlanta region and Douglas County. Its final approval and adoption will closely follow adoption of the Comprehensive Plan Update. As a result, Douglas County will have access to more definitive data, an updated regional model, and the benefit of seeing regional transit introduced. Through the long-range Comprehensive Transportation Plan, which is included in the Short Term Work Plan (STWP), a wide range of important policies and priorities can be determined. Among the intended scope items are more detailed assessments and recommendations for safety, signage, local road standards, typical sections, pedestrian and bicycle facilities, transit, roadway alternatives, priority funding, and policies to support future land uses.

Programmed and Recommended Projects

A summary of programmed capacity, operational, and transit projects is included in Table 8-10. Combined with the local priorities in the SPLOST program, these projects make up the short-term components of the transportation work plan. Beyond 2010, the County and ARC have identified long-range improvements through the 2025 planning year for this Comprehensive Plan Update and beyond. The long-range recommendations are listed in Table 8-11. Together, the lists represent a transportation investment of more than \$500,000,000 by 2030—approximately 10 percent of the *Mobility 2030* budget.

Table 8-10
Short Range Transportation Improvements
Douglas County

Project ID	ARC ID	Short Title	Total Cost	Completion Date
Roadway /Bridge Capacity				
1	DO-275A-B	Anneewakee Rd at Anneewakee Creek (Split Funded)	\$757,000	2008
2	DO-009	Duralee Ln extension from end of Duralee Ln to Dorris Rd	\$2,100,000	2008
3	DO-AR-057	I-20 West (includes 6-lane collector/distributor) from SR 70/Fulton Industrial Blvd to SR 6/Thornton Rd	\$29,000,000	2021
4	DO-022A	Lee Rd/South Sweetwater Rd, Phase 1 from US 78/SR 5/SR 8-Bankhead Hwy to I-20 West	\$6,659,000	2008
5	DO-220	Lee Rd Phase 2 from I-20 West to SR 92/Fairburn Rd	\$10,335,000	2008
6	DO-225	Lee Rd Bridge at I-20 West	\$2,010,000	2008
7	DO-274	Post Rd Bridge at Dog River	\$1,340,000	2008
8	DO-283	SR 166 Bridge at Dog River	Under Contract	
9	DO-028	SR 92/Fairburn Rd from Lake Monroe Rd to SR 166 (east)	\$9,300,000	2006
10	DO-282A	SR 92 Overpass/Realignment Phase I at US 78/SR 5/SR 8-Bankhead Hwy and Railroad	\$16,700,000	2021
11	DO-282B	SR 92 realignment Phase II from Bankhead Hwy to SR 92 at Hospital Dr	\$26,600,000	2021
12	DO-282C	SR 92 realignment Phase III from SR 92 (Dallas Hwy) to Bankhead Hwy	\$34,500,000	2021
13	DO-029A	US 78/SR 5/SR 8-Bankhead Hwy from SR 92 (Fairburn Rd) to South Sweetwater Rd	\$49,339,000	2021
14	DO-016	US 78/SR 5/SR 8-Bankhead Hwy from Sweetwater Rd to Thornton Rd	\$8,899,000	2008
15	DO-AR-208A-B	Fairburn Rd/SR 92 at I-20 West (Split Funded)	\$6,835,000	2007
16	DO-AR-221	Thornton Rd truck lanes from I-20 West to Chattahoochee River	\$11,810,000	2030
Multimodal				
1	AR-330C	I-20 West HOV, Phase 3 from SR 6/Thornton Rd to SR 5/Bill Arp Rd	\$107,600,000	2008
2	DO-211C	Capital Projects: Park/Ride and Multimodal Terminal: Construction	\$1,406,141	2005
3	DO-AR-BP017	SR 92/Fairburn Rd from US 78/Bankhead Hwy to Hospital Dr - Pedestrian Facility	\$80,000	2006
4	DO-AR-BP053	Malone St from Strickland St to Brown St-Pedestrian Facility	\$69,000	2006
5	DO-AR-BP054	Rose Ave from Selman Dr to Concourse Pkwy-Pedestrian Facility	\$272,000	2007
6	DO-AR-BP061	Douglas Blvd from SR 5/Bill Arp Rd to Bright Star Rd-Pedestrian Facility	\$108,000	2006
7	DO-AR-BP-062	Chapel Hill Rd from I-20 West Reservoir Dr-Pedestrian Facility	\$37,000	2006
8	DO-AR-BP072	Douglasville Sidewalks	\$1,336,690	2009
		Countywide Comprehensive Transportation Plan	\$450,000	2006
Operations Maintenance				
	DO-280	SR-92-Dallas Hwy at Malone Road	\$290,000	2009
	DO-281	Realign Thompson St to Forrest Ave at SR 92	\$315,000	2008
	DO-243	Blairs Bridge Rd. from Monier Boulevard to SR 6-Thornton Road	\$1,800,000	2011
	DO-262	Central Church Rd. at Kings Hwy	\$1,700,000	2007
	DO-266	Chapel Hill Rd at West Chapel Hill Rd	\$590,000	2007
	DO-284	Chapel Hill Rd from I-20 West to SR 166	\$3,400,000	2008
Total			\$323,585,831	

¹ Project ID refers to the project location on their respective figure in the transportation element (Future Road Improvements or Multi-Modal Improvements).

Source: Atlanta Regional Commission, Draft Mobility 2030 Plan, June 2004; Kimley-Horn and Associates, Inc., 2004

Table 8-11
Long Range Transportation Improvements
Douglas County

Project ID	ARC ID	Short Title	Total Cost	Completion E
Roadway /Bridge Capacity				
17	DO-019	Cambellton Rd/SR 166 from Riverside Dr/SR 92 to SR 70	\$14,200,000	2030
18	DO-252A	Chapel Hill Rd from Stewart Mill Rd to Central Church Rd	\$11,266,000	2030
19	DO-252B	Chapel Hill Rd from Central Church Rd to Dorsett Shoals Rd	\$5,000,000	2030
20	DO-253A	Chapel Hill Rd from Dorsett Shoals Rd to SR 166	\$13,000,000	2030
21	DO-031	Douglas Blvd Ext from Prestley Mill Rd to Midway Rd	\$5,500,000	2030
22	DO-032	Douglas Blvd Ext from Midway Rd to North County Line Rd	\$7,330,000	2030
23	DO-030	SR 5/Bill Arp Rd from Kings Hwy to Dorsett Shoals Rd	\$24,135,000	2030
24	DO-230	Mason Creek Rd at Mobley Creek	\$3,600,000	2030
25	DO-247	Ragen Rd at Mud Creek	\$660,000	2020
25	DO-021	Riverside Pkwy from SR 6/Thornton Rd to SR 92/Fairburn Rd	\$22,215,000	2030
Multimodal				
9	AR-330D	I-20 West HOV, Phase 4 from SR 5/Bill Arp Rd to Liberty Rd	\$70,000,000	2023
	DO-236	Mini Bus Routes, Douglasville	\$1,800,000	2020
	DO-237	Transit Studies	\$300,000	2020
	DO-210B	Program, Rideshare Operating Assistance	18000	2020
Operations and Maintenance				
	DO-248	Douglas County ATMS, Phase 1	\$385,000	2030
	DO-242	SR 5/Bill Arp Rd at SR 166	\$130,000	2020
	DO-265	Fairburn Road-SR 92 and US 78/SR 5-Bankhead Hwy	\$798,000	2020
	DO-278	Stewarts Mill Rd at Reynolds Rd and Anneewakee Creek	\$1,025,000	2010
	DO-AR-210	Bus Service, Douglas County	\$10,000,000	2020
Total			\$179,964,000	

¹ Project ID refers to the project location on their respective figure in the transportation element (Future Road Improvements or Multi-Modal Improvements).
Source: Atlanta Regional Commission, Draft Mobility 2030 Plan, June 2004; Kimley-Horn and Associates, Inc., 2004.

Potential Projects for Future Planning Studies

Even with the investment indicated through 2030, capacity and multi-modal needs will remain in Douglas County, particularly to keep pace with the projected growth. Several proposed projects did not remain in the 2030 RTP after financial constraints were considered. While funding availability will affect decisions beyond the STWP, many longer range projects need to be evaluated in context with other improvements that will precede them. Future modeling, environmental studies, and transit trends will shape much of the future in terms of Douglas County transportation beyond the next 20 years.

Douglas County has identified several potential projects to be addressed in detail in Phase 2 of the Comprehensive Transportation Plan. Most of these projects were removed from the draft 2030 RTP due to funding constraints. While cost estimates are not yet available for all of the projects listed in Table 8-12, the total without regional commuter rail is likely to exceed \$50,000,000. With the regional and statewide challenges in funding, pursuing additional roadway projects will require careful planning and decision-making. The CTP will use the updated regional model scenarios to compare the benefits of each potential project and weigh those benefits against the individual project and total costs as well as environmental issues. Examples of these potential projects (shown in green as Future Planning projects in the *Future Road Improvements* figure) are listed in Table 8-12.

Even with the roadway capacity increased through short-range, long-

Table 8-12
Potential Projects for Future Planning Studies
Douglas County

Project ID	Short Title
Roadway/Bridge Capacity	
27	Bomar Connector, from existing Bomar Road to the east on new alignment to the southern terminus of Lee Road
28	Widen North County Line Road Bridge from two to four lanes at I-20
29	Realignment of the Dorsett Shoals Connector
30	Extension of Capps Ferry Road from SR 5 to SR 166
31	Widen Capps Ferry Road from two to four lanes from SR 166 to the Fulton County Line
32	Widen West Douglasville Loop – SR 92 from two to four lanes
33	Improve I-20 interchange at SR 5
34	Douglas Blvd extension from North County Line Road to Lee Road
Multi-Modal	
8	Stewart Mill Road – Enhancements including bicycle/pedestrian facilities
	Regional Transit – Continued Planning and Future Implementation of BRT and/or Commuter Rail System

¹ Project ID refers to the project location on their respective figure in the transportation element.

Source: Atlanta Regional Commission, Draft Mobility 2030 Plan, June 2004; Kimley-Horn and Associates, Inc., 2004

range, and future planning projects, the future network could face pressures from the anticipated growth. The remaining congestion would occur in several areas, primarily with north-south movements for regional access. With the assumed capacity projects, the modeled results are illustrated in the figures *Future Model Roadway Capacity and Number of Lanes* and *Future Model Volume/Capacity Ratios*. Table 8-13 summarizes the roadway segments with LOS E or F with all potential roadway projects assumed in place. A complete listing of future LOS is included in the Transportation Appendix as Table TA-7. As the implementation of BRT or commuter rail is not assumed in the model, mass transit may alleviate more of the traffic by commuters into other parts of the Atlanta region.

Table 8-13
2030 Level of Service—Remaining Areas of Potential Congestion
Douglas County

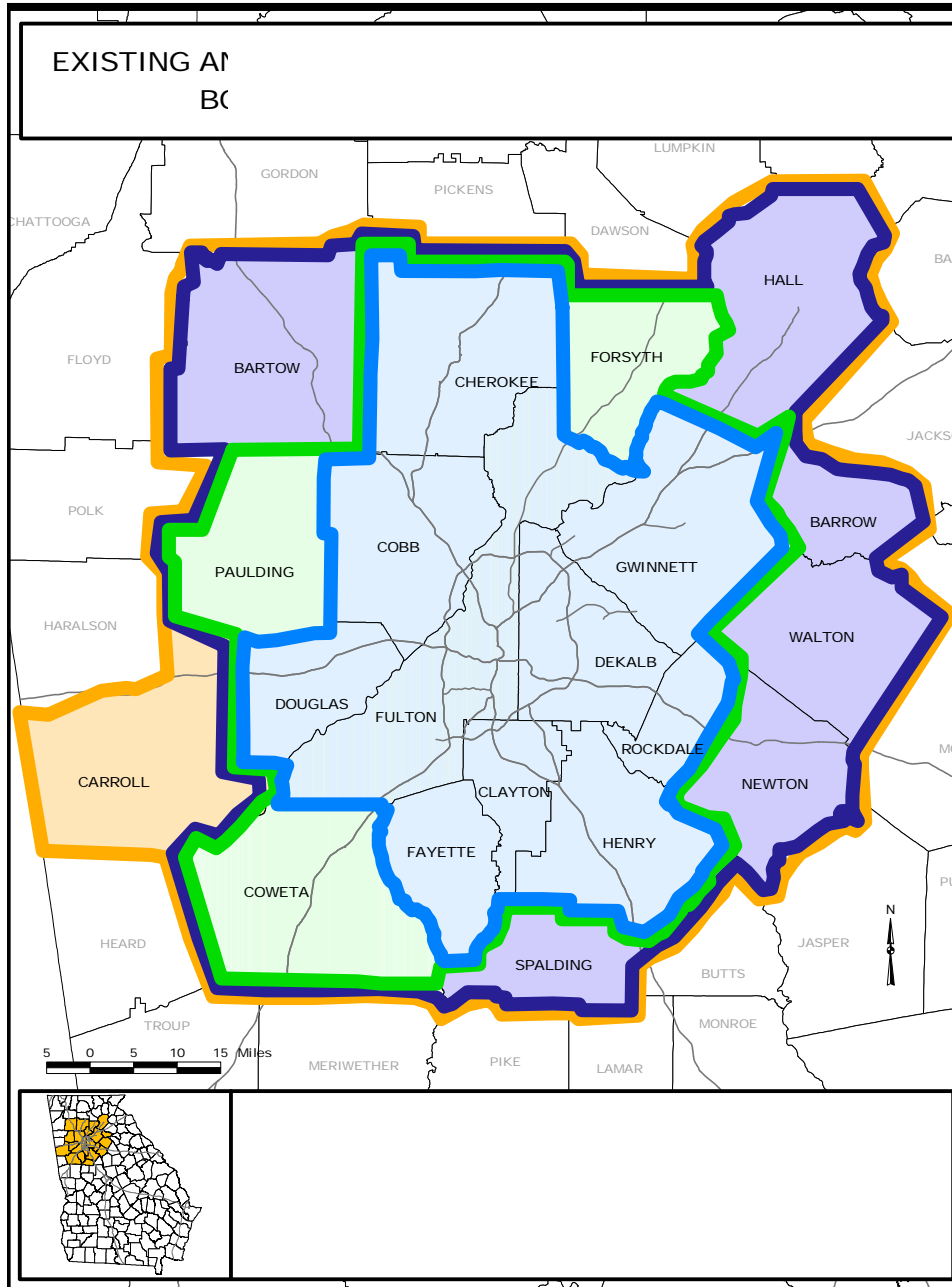
Roadway Name	From/ To	2030 LOS
Interstate-20	From Mirror Lake Blvd. to Tyson Road	E
Post Road	From Pool Road to Payne Road	F
Post Road	From Payne Road to I-20	F
Post Road	From I-20 to Mason Creek Rd.	E
Mason Creek Road	From Mann Rd. to Richardson Rd.	E
Interstate-20	From Mason Creek Rd. to Ward Dr.	F
Dorris Road	From Dorris Rd. to Chicago Ave.	F
Chicago Ave.	From Cedar Mountain Rd. to Powell Lane	F
South Flat Rock Road	From Chicago Ave. to Bankhead Highway	F
King's Highway	From Ridgeway Rd. to Queens Rd.	F
Anneewakee Road	From King's Highway to Chapel Hill Rd.	F
Rose Avenue (GA Highway 5)	From Stewart Parkway to I-20 Ramp	F
Anneewakee Road	From Chapel Hill Rd. to Fairburn Rd.	F
Chapel Hill Road	From Elk Run Rd. to Willow Ridge Rod.	F
Chapel Hill Road	From Golf Ridge Blvd. to Forest Trail	E
Mount Vernon Road	From I-20 to Causey Rd.	F
Mount Vernon Road	From Factory Shoals Rd. to I-20	F
Interstate-20	From Blair's Bridge Rd. to Chapel Hill Rd.	F
Sweetwater Road	From Union Grove Rd. to Monier Av.	F
Thornton Road	From Causey Rd. to Six Flags Rd.	F
Skyview Drive	From Sweetwater Road to Thornton Road	F
Old Alabama Road	From Maxham Rd to Thornton Rd.	E
Bankhead Highway	From Mount Vernon Rd. to Sweetwater Rd.	F
Bankhead Highway	From Sweetwater Rd. to Brownsville Rd.	F
Brownsville Road	From Old Douglas Ave. to Bankhead Hwy.	E
Silver Creek Road South	From Sweetwater Rd. to Mount Vernon Rd.	F
Blairs Bridge Road	From I-20 to Thornton Rd.	F
Douglas Hill Road	From Factory Shoals Rd. to Thornton Rd.	F
Burnt Hickory Road	From Bankhead Hwy. to I-20	F
Huey Road	From Bankhead Hwy. to Malone Rd.	E
Anneewakee Road	From North River Rd. to King's Dr.	E
Campbellton Road	From Hunt Drive to Amber Creek Dr.	E
Fairburn Avenue	From Anneewakee Rd. to Lee Rd.	F
Interstate-20	From Rose Av. to Prestley Mill Rd.	F
GA Highway 5 (Dallas Highway)	From Brown St. to Chapel Hill Rd.	F
Prestley Mill Road	From I-20 to Campbellton St.	F
Stewart's Mill Road	From Reynolds Road to Yancey Road	F
GA Highway 166	From GA Highway 5 to Cantrell Rd.	F
Post Road	From Liberty Ave. to GA Highway 166	E
GA Highway 92 and 166	From Lazy Acres Dr. to Oak Hills Rd.	F

Source: Kimley-Horn and Associates, Inc., 2004

Recognizing the challenges of balancing modal choices with the high demand for increased roadway capacity, Douglas County has proposed an ambitious plan of transportation improvements. New transit, pedestrian, and bicycle options will be introduced in coming years. If the projected growth occurs during the next 20 years, many new commitments will be needed to meet the transportation goals set forth in this Comprehensive Plan Update. The next phase of the CTP will enable to the County to apply adopted land use policies from this Update, an adopted regional transportation plan, and detailed analysis to refine specific goals, policies, and project priorities. Based on the short-range projects (included in the overall STWP), and long-range improvements, Douglas County is confident that it is taking the appropriate steps to address current needs and prepare for future growth. Recent regional initiatives have enabled Douglas County to become a more active voice on transportation issues, a commitment that will continue throughout the planning horizon of this Transportation Element.

■ Transportation Requirements for Non-Attainment Areas

Local governments located within a nationally designated ambient air quality standards non-attainment area must include three elements in their comprehensive plan: a map of the area designated as a non-attainment area for ozone, carbon monoxide, and/or particulate matter, a discussion of the severity of any violations contributed by transportation-related sources that are contributing to air quality non-attainment, and identification of measures, activities, programs, regulations, etc., the local government will implement consistent with the state implementation plan for air quality. The non-attainment area for the region is shown below.



Ozone

The only counties currently designated as non-attainment in Georgia are 13 counties in the Atlanta area, including Douglas County. The non-attainment designation is for the 1-hour ozone National Ambient Air Quality Standard (NAAQS). A new NAAQS for ozone, the 8-hour standard, is pending. The Georgia Environmental Protection Division made recommendations on behalf of the State of Georgia for 8-hour non-attainment counties in the State of Georgia on July 15, 2003. For the Atlanta area, this means that it is likely that the ozone non-attainment area will increase from the current 13 counties to 20 counties. The US Environmental Protection Agency will officially designate the 8-hour ozone non-attainment area in April of 2004; this designation could be different than the State recommendation. Conformity to the new 8-hour standard will be required 1 year from the effective designation by the EPA, at the earliest April 2005. Until EPA releases their effective designation, the only NAAQS in place for ozone is the 1-hour ozone standard which, in Georgia, only affects the Atlanta area (including Douglas County).

PM2.5

The 8-hour standard is not the only new pending NAAQS that will affect the Atlanta region. The other standard is referred to as fine particulate matter or PM2.5. State PM2.5 non-attainment boundary recommendations will be made (again by GA EPD on behalf of the State of Georgia) by February 15, 2004. It is anticipated that counties in Atlanta will be designated non-attainment for PM2.5 but determinations as to what counties are still under way by EPD. The US EPA will issue official PM2.5 non-attainment designations in December 2004; again, these designations could be different from the State recommendation. Conformity to the new PM2.5 NAAQS will be required 1 year from the effective designation by US EPA, at the earliest December 2005.

The Ozone Non-Attainment Boundary Designation Process

Ground-level ozone is a regional problem that requires regional controls on both non-point (mobile) and point (commercial and industrial) sources that contribute to the ozone problem. In addition, ground level ozone (and/or the precursors to ground level ozone) can be transported over a significant geographical area, making non-attainment boundary determinations difficult, especially for a county by county determination. In recognition of the difficulty in designating an area as attainment or non-attainment, the Environmental Protection Agency identified 11 factors that should be considered by States when making recommendations of attainment or non-attainment in the presence of an ozone monitor that records a ground-level ozone presence above or exceeding the NAAQS. These factors are as follows:

- Location of emission sources
 - Large point or industrial sources such as power plants and chemical plants.
 - State Environmental Divisions will have information on the types and amounts of pollutants released by individual firms.
 - Can also consider mobile sources such as high residential density or vehicle ownership.
- Emissions and air quality in adjacent areas, including adjacent cities or metro areas
 - For example, Macon and Athens would take into account the potential transport of ozone from Atlanta.
- Monitoring data representing the ozone concentrations in local areas as well as larger areas
 - State Environmental Divisions do have ozone monitors in various locations throughout the States. However, monitors are expensive to purchase, as well as to maintain, so it is not practical or feasible to have a monitor in every county.

- If a monitor records a violation of an ozone standard, then that county is designated as non-attainment for that standard.
- Traffic and commuting patterns
 - Large commutes into an ozone non-attainment area may be enough to qualify a county as non-attainment (due to the contribution level through increased vehicle emissions).
- Population Density
 - Higher population densities are an indication of a more urbanized area, which would indicate a higher likelihood of producing ground-level ozone.
- Expected growth
 - Forecasted population densities as well as forecasted industrial growth
- Meteorology
 - Wind patterns and proximity to ocean
- Geography and/or Topography
 - Mountain and valley regions
- Level of control existing for emission sources
 - Some States have the ability to implement pollution control measures independent of Federal requirements.
- Regional emission reductions
 - For example: lowering the speed limit (with adequate enforcement), selling low sulfur diesel sooner than required, etc.
 - Ozone modeling indications
- Jurisdictional boundaries
 - Jurisdictional boundaries are an important consideration due to the degree of interaction and cooperation among areas; a regional problem requires a coordinated regional solution. While this alone would not impact whether a county is in attainment or non-attainment based on contributions to the ozone problem, it is at least an important consideration when looking at regional controls and implementation.

The current ozone standard is the 1-hour standard of 0.12 ppm, defined in 1979. A new standard, defined in 1997, is referred to as the 8-hour standard and measures violations over an average of 8-hours, as opposed to 1 hour. This new measure is more stringent (the standard is 0.08 ppm) and is aimed at protecting citizens from high ozone levels throughout the day as opposed to daily high peak levels. EPA revised the standard due to “many new health studies [showing] that healthy effects occur at levels lower than the previous standard [1-hour standard] and that exposure times longer than one hour (reflected in the previous standard) are of concern.” 8-hour non-attainment areas will be designated by the US Environmental Protection Agency by April 15, 2005. The Atlanta 8-hour non-attainment area is expected to comprise of 20 counties: the existing 13-county 1-hour non-attainment area plus, Carroll, Spalding, Newton, Barrow, Walton, and Hall counties.

Although the above discussion is specifically focused on ozone, the guidelines issued by EPA for PM_{2.5} non-attainment boundary determinations are very similar. In short, most of the factors or considerations listed remain the same. The pending fine particulate (PM_{2.5}) standard was promulgated in 1997. The annual standard (annual average) was set at 15 micrograms per cubic meter and the daily standard (24-hour average) was set at 65 micrograms per cubic meter. Currently, California is the only state violating the daily standard. Public health effects for fine particulates are similar to those of ozone. The Georgia

Environmental Protection Division will recommend Atlanta counties for non-attainment of the fine particulate annual average standard by February 15, 2004.

Consistency with State Implementation Plan

The Clean Air Act requires that every state meet health-based National Ambient Air Quality Standards (NAAQS). If one or more of the NAAQS are not met, the State Environmental Protection Division must develop a State Implementation Plan (SIP) that defines a plan to attain the air quality standard by a particular year. The SIP provides measures, activities, programs, and regulations used by a state to reduce air pollution. Local governments in non-attainment areas are required to describe the actions each is taking to promote better air quality such as programs like a clean air campaign, automobile emissions testing or measures used to encourage efficient land use to reduce pollution.