

**WILKES COUNTY
JOINT SOLID WASTE
MANAGEMENT PLAN
(2007-2017)**



PREPARED FOR:
Wilkes County
Including the Cities of Rayle,
Tignall and Washington

PREPARED BY:
CSRA Regional Development Center
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1.0 Introduction

Planning and implementing systems to effectively manage solid waste is a vital responsibility of local government. State government primarily serves a regulatory role in solid waste management, implementing regulations adopted by the Georgia Department of Natural Resource's Environmental Protection Division.

Major shifts have occurred in solid waste policies and regulations in the past 2 decades. A higher level of community involvement has resulted from residents recognizing the impact of solid waste on quality of life issues. Their efforts, combined with state policies, led to more waste reduction education, monitoring of illegal dumping, and expanded curbside recycling services. City and regional planners are also more aware of the effects of solid waste to the overall planning system and have incorporated these issues into the comprehensive planning process.

In the regulatory arena, the state and federal government have implemented more stringent criteria for the siting, design, construction and operation of solid waste facilities, driving regionalization of the solid waste collection and disposal infrastructure. As Georgia communities continue to close municipal solid waste facilities and rely on private sector disposal options, the regulatory role of local governments is expected to increase.

The *Georgia Comprehensive Solid Waste Management Act* of 1990 requires local governments take steps to address solid waste management issues. The development of a solid waste management plan provides local communities with the opportunity to consider pressing issues.

1.1 Background of Solid Waste Management in Georgia

In 1989, the Georgia General Assembly passed SR 103, creating the Joint Solid Waste Management Study Committee to analyze the status of solid waste management statewide and to make recommendations for a comprehensive revision to the 1972 *Solid Waste Management Act*. The findings and recommendations in the study committee report were drafted as legislation and introduced as an administration bill in the 1990 session of the General Assembly as SB 533, the *Georgia Comprehensive Solid Waste Management Act*.

SB 533 (the *Act*) provides a framework to manage solid waste at the local and state level. The first step in implementing the *Act* is the development of the *Georgia Solid Waste Management Plan*. The purpose of the State plan is essentially threefold:

- To present a status report of solid waste management in Georgia;

- To set forth the state strategy for reducing and managing solid waste; and,
- To establish the procedures and criteria for local/regional solid waste plans and other components of local/regional solid waste management strategy.

The *Wilkes County Joint Solid Waste Management Plan* represents the next step in the planning process and includes data in 7 topic areas that are considered critical components of the solid waste management planning process. These include:

- Waste Disposal Stream Analysis
- Waste Reduction Element
- Collection Element
- Disposal Element
- Land Limitation Element
- Education and Public Involvement Element
- Implementation Schedule

1.2 Local Government Roles and Responsibilities

The *Georgia Comprehensive Solid Waste Management Act* requires each local government to develop a solid waste management plan independently or collectively. The *Act* deems it necessary that these plans provide assurance of adequate solid waste disposal capabilities for at least 10 years from the date of completion of the plan; the documentation of adequate collection capabilities for at least 10 years from the date of completion of the plan; enumeration of solid waste handling facilities as to size and type within the plan area; and identification of sites which are not suitable for solid waste handling facilities based on environmental and land use factors.

The *Act* prevents the issuance of permits, grants, or loans for any solid waste facility and/or equipment not consistent with an approved solid waste management plan.

The *Act* also requires annual reporting requirements on:

- The amount of solid waste collected, processed, and disposed of in the plan area;
- The progress, toward the reduction in solid waste generation since the previous reporting;
- The remaining permitted volume capacity of disposal facilities;
- Existing recycling and composting activities;
- Public information and education activities conducted; and,
- Any other pertinent information as required by the state.

The planning requirement is aimed at assessing solid waste management systems statewide and provides an opportunity to review the efficacy of existing laws and regulations. Annual reporting requirements are met by local governments through the completion and submittal of a “Solid Waste Annual Survey and Full-Cost Report” to the Georgia Department of Community Affairs.

1.3 The Planning Process

The content and planning process in this *Plan* conform to *Chapter 110-4-3 Minimum Planning Standards and Procedures for Solid Waste Management* of the Rules of the Georgia Department of Community Affairs. Each of the 5 core planning requirements (waste reduction, collection, disposal, land limitation, education & public involvement) includes sections on inventories, assessments, needs and goals. This *Plan* updates the *Wilkes County Joint Solid Waste Management Plan* that was adopted in 1993 and amended in 1994.

A working committee composed of solid waste experts and officials from Wilkes County and the cities of Rayle, Tignall and Washington was formed to help direct the planning effort. The working committee assisted with required technical data and served as policy liaisons with their respective elected leadership. Furthermore, as required by the solid waste minimum planning standards, 2 public hearings were held in Wilkes County on June 29, 2006 and March 30, 2007 to elicit community input on solid waste needs and goals, and the final draft. Community input was assessed by the working committee and incorporated into the *Plan*. Finally, neighboring local governments and state agencies were sent copies of the plan for review and comment.

1.4 How to Use this Plan

The *Wilkes County Joint Solid Waste Management Plan* is intended to serve as county/city policy and a reference point for potential users. A number of companion planning documents should be used in conjunction with the *Plan*. These include:

- *Wilkes County Comprehensive Plan*
- *Wilkes County Code of Ordinances*
- *Rayle Comprehensive Plan*
- *Rayle Code of Ordinances*
- *Tignall Comprehensive Plan*
- *Tignall Code of Ordinances*
- *Washington Comprehensive Plan*
- *Washington Code of Ordinances*

- DNR Environmental Planning Criteria
- Local, State and Federal Plans, Rules and Regulations

Regulations and plans are frequently amended and updated. It is the user's responsibility to contact the appropriate county/city building, planning, public works or engineering department for the most up-to-date regulatory and planning documents. Please refer to the disclaimer at the beginning of this document concerning the use of data and information.

1.5 Description of the Planning Area

Wilkes County and the Cities of Rayle, Tignall and Washington are located in east-central Georgia, between the cities of Augusta and Athens. Bisected by U.S. 78, the center of Wilkes County lies roughly 43 miles east of Athens and 52 miles northwest of Augusta. The county and municipalities are also members of the Central Savannah River Area Regional Development Center located in Augusta. Although the Wilkes County region is situated close to both the Athens and Augusta metropolitan areas, it is considered by the U.S. Department of Commerce, Bureau of Economic Analysis to be located in the Atlanta Economic Area – suggesting that the health of the county economy is most directly tied to the economic conditions of metropolitan Atlanta.

According to the U.S. Department of Agriculture, Wilkes County lies within the Southern Piedmont Major Land Resource Area (MLRA) of Georgia. The Southern Piedmont MLRA topography consists mostly of broad to narrow, gently sloping ridge tops and moderately steep hillsides adjacent to drainage ways. In most places, the soils are low in silt and mica content. The area is primarily a gently sloping plain dissected by streams in small, shallow valleys.

U.S. Census Bureau information suggests that in 2000, Wilkes County was home to 10,687 persons. This figure has been roughly static for at least the prior 2 decades – with a slight population decrease between 1980 and 1990, and even smaller increase between 1990 and 2000. Population growth rates for the 3 municipalities mirrored that of the county between 1980 and 2000. Annual estimates prepared by the Census Bureau suggest a flat growth rate for the county and municipalities through July, 2005.

Manufacturing jobs continue to account for a large percentage of employment of Wilkes County residents – accounting for roughly 30 percent of civilian jobs. Related to limited population growth, some industry sectors are experiencing noticeable declines in employment – most notably retail sales, and agriculture and forestry. Population growth from Athens, Augusta and adjacent Lincoln County may influence further change of the Wilkes County economy in the near future.

2.0 Introduction

The Waste Disposal Stream analysis provides an inventory of waste stream generators – such as residential, commercial and industrial uses, construction and demolition debris (C&D), etc.; the types of waste they contribute to the waste disposal stream (e.g. paper, plastic, metal, etc.) and an estimate of these various components as a percentage of the total waste stream.

This information will guide local government decision-making regarding current and future solid waste management service and facility needs. In addition, the data will provide the basis for creating, implementing, and sustaining programs to assist the State in achieving a reduction of the amount of municipal solid waste disposed state-wide.

2.1 Waste Stream Generators

Data from the *Georgia Solid Waste Management Plan* illustrates that a steadily increasing tonnage of waste is being disposed of in municipal solid waste (MSW) landfills. Likewise, the state's MSW landfills are also serving as a repository for waste generated out of state.

Table 1: Waste Disposed in Georgia MSW Landfills (1994-2004)

Year	Tons Per Year			Pounds Per Person Per Day		
	Generated in Georgia	Imported	Total	Generated in Georgia	Imported	Total
1994	7,083,345	138,946	7,222,291	5.55	.11	5.66
1995	7,534,790	149,481	7,684,271	5.77	.11	5.88
1996	7,062,499	160,000	7,222,499	5.28	.12	5.40
1997	7,753,072	172,150	7,925,222	5.66	.13	5.79
1998	8,832,259	193,819	9,026,078	6.31	.13	6.44
1999	8,928,747	453,875	9,382,622	6.24	.31	6.55
2000	9,213,264	511,472	9,724,736	6.17	.34	6.51
2001	9,785,329	893,651	10,678,980	6.55	.60	7.15
2002	9,282,913	950,779	10,233,692	6.05	.63	6.68
2003	9,937,787	1,197,686	11,135,473	6.38	.76	7.14
2004	10,282,942	1,633,182	11,916,124	6.38	1.01	7.39

Source: Georgia Department of Community Affairs, Georgia Solid Waste Management Plan (2005)

As illustrated in **Table 1**, the per-capita disposal rate of Georgians increased by almost 15 percent between 1994 and 2004. Since 1999 however, the disposal rate of individual Georgians – excluding imported waste – has fluctuated. Regardless, a comparison of the 2004 tonnage disposal rate with the U.S. Census Bureau's 2004 state population estimates suggests that Georgian's annually dispose of over 1.15 tons of waste per person.

2.2 Waste Characterization

The *Georgia Solid Waste Management Plan* indicates that in 2004, Georgia facilitated the disposal of 11,916,124 tons of waste to municipal solid waste (MSW) landfills (including imported waste). The plan indicates that 1/3 of this amount is actually waste that is not defined as municipal solid waste - almost 4,000,000 tons. While some variations of the definition exist, “municipal solid waste” can be described as: “Solid waste from single-family and multi-family residences (including septic tanks); and from businesses such as retail, offices, restaurants, warehouses, grocery, hotel/motel, and institutions such as schools, universities and government buildings.”¹ Municipal solid waste does not include agricultural waste, sludge/bio-solids, mining waste, or waste generated from silvicultural or industrial/manufacturing activities or processes.

The *Georgia Solid Waste Management Plan* uses data derived from the *Georgia Statewide Waste Characterization Study* to identify the type of waste that is being disposed in municipal solid waste (MSW) landfills throughout the state. Preliminary analysis of waste characterization from the Georgia Department of Community Affairs sampling study shows the percentage of commercial and residential waste disposed of in an MSW landfill by type of material (Table 2).

The information contained in Table 2 suggests that the majority of disposed residential and commercial waste is materials, organics and plastics. Table 2 shows that a large percentage of

Paper		Organics	
Newspaper	6.9%	Yard Waste	3.0%
Corrugated Cardboard	8.5%	Wood (non-C&D)	1.3%
Office	1.9%	Food Waste	14.0%
Magazine/Glossy	2.6%	Textiles	6.1%
Paperboard	5.4%	Diapers	2.8%
Mixed (Other Recyclable)	3.2%	Fines	2.7%
Other (Non-recyclable)	7.0%	Other Organics	1.3%
Total	36.0%	Total	31.2%
Plastic		C&D	
#1 PET Bottles	1.6%	Drywall	0.1%
#2 HDPE Bottles	1.1%	Wood	1.3%
#3-#7 Bottles	0.3%	Inerts	1.0%
Expanded Polystyrene	2.0%	Carpet	0.2%
Film Plastic	8.4%	Other C&D	0.5%
Other Rigid Plastic	4.2%	Total	3.2%
Total	17.6%		
Glass		Inorganics	
Clear	2.2%	Televisions	0.1%
Green	0.8%	Computers	0.1%
Amber	1.6%	Other Electronics	0.8%
Other	0.5%	Tires	0.0%
Total	5.1%	HHW	0.5%
		Other Inorganics	0.7%
		Total	2.1%
Metal		Total	
Steel Cans	1.8%	Total 100%	
Aluminum Cans	0.9%		
Other Ferrous	1.4%		
Other Non-Ferrous	0.8%		
Total	4.9%		

Georgia Statewide Waste Characterization Study (2005)

¹ Georgia Department of Community Affairs, *Non-MSW Survey Report (2002)*



residential and commercial “municipal solid waste” being deposited into MSW landfills is either recyclable or could be diverted to C&D or inert landfills.

2.3 Inventory of Waste Disposed

The Wilkes County Solid Waste Management Department and City of Washington maintain detailed solid waste records. Wilkes County is the provider of all solid waste collection services for the cities of Rayle and Tignall. Because the waste of all 3 communities is mixed during collection, Rayle and Tignall are included in Wilkes County solid waste generation rates. **Table 3** provides total waste tonnage for the county and all 3 municipalities between 2003 and 2006.

Jurisdiction	Total Tonnage	Total Tonnage	Total Tonnage	Total Tonnage	Pounds Per Person Per Day (2006)	2003-2006 Percent % Change
	2003	2004	2005	2006		
Wilkes County (Including Rayle and Tignall)	12068	12843	12218	10619	9.3	-12.0%*
City of Washington	3572	3389	3412	3463	4.5	-1.3%
Washington-Wilkes (Cumulative)	15640	16232	15630	14082	7.4	-10.0%

Source: Wilkes County Solid Waste Department
**See Section 2.4 for explanation in 2005-2006 waste fluctuation.*

All tonnage listed in **Table 3** passes through the Wilkes County Solid Waste Transfer Station and Recycling Center, and is ultimately deposited in the Oak Grove MSW landfill located in Winder, Georgia. The Table does not represent all of the waste that was weighed at the Wilkes County transfer facility over the 4 year period. Varying annual amounts of cardboard and scrap metal are not included in the Table because these items are removed from the waste stream and recycled under contract with private companies (See **Chapter 3**). In addition, recycled materials collected in the city of Washington are not included in **Table 3** because the city hauls these items directly to the Athens-Clarke County Materials Recycling Facility (See **Chapter 3**). Finally, waste generated by Lincoln and Taliaferro Counties, was extracted from transfer facility data to provide a more accurate picture of waste that is actually generated within Wilkes County.

Based on the cumulative data provided by the Wilkes County Solid Waste Department and the City of Washington Sanitation Department, the cumulative per capita disposal rate of Wilkes County residents in 2006 was 9.3 pounds per person, per day. Such numbers exceed the statewide average of 6.5 pounds of waste disposed per person per day. The Wilkes County/Rayle/Tignall numbers are likely skewed due to illegal dumping from non-residents at green box

locations; and, the fact that the transfer facility accepts waste from private citizens and contractors that may or may not have been generated within the county. As a result of back-door pickup service within the municipal limits, the city of Washington’s waste generation rates were consistently lower than the statewide average between 2003 and 2006. Cumulatively in 2006, all 4 Wilkes County jurisdictions disposed of an average of 7.4 pounds per person per day of waste.

2.4 Fluctuations in Quantities Disposed

There have been no fluctuations in quantities disposed in the county or municipalities as a result of seasonal variations in population, public events, shifts in manufacturing or production processes or landfill bans, or other events. Total tonnage of waste being handled through the Wilkes County transfer facility reduced noticeably between 2005 and 2006. No significant decreases in county population occurred during this time that can explain the noticeable drop in tonnage disposed. With neighboring Lincoln County establishing county-wide waste pick-up, it is likely that there has been a decrease in the number of non-residents dumping waste at Wilkes County’s unmanned green box collection sites.

2.5 Anticipated Waste Amounts

The volume of solid waste generated is directly dependent on population size. According to data compiled for the ongoing update of the *Wilkes County Joint Comprehensive Plan*, the cumulative county population is anticipated to increase slightly to 10794 by 2016. **Table 4** presents waste generation rates developed by comparing the disposal rates contained in **Table 3** with county population estimates. County-wide waste generation rates are expected to increase over the 10 year period by 3.1 percent – rising from 14122 to 14482 tons per year.

Table 4: Wilkes County, Rayle, Tignall and Washington Waste Disposal Projections, 2007-2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Population	10550	10603	10656	10710	10724	10738	10752	10766	10780	10794
Total Tons/Day	38.7	38.8	38.9	39.0	39.1	39.2	39.3	39.5	39.6	39.7
Total Tons/Yr	14122	14162	14202	14242	14282	14322	14362	14402	14442	14482

Source: Woods & Poole Economics, Inc. (Some Calculations by CSRA RDC)

WASTE STREAM ANALYSIS

Table 5 presents a composite breakdown of the type of waste generated by Wilkes County that is projected to be landfilled over the next 10 year period based on the waste characterization analysis contained in **Table 2**.

Table 5: Wilkes County, Rayle, Tignall and Washington Waste Disposal Projections by Type, 2007-2016										
Waste Type	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Paper	5465	5481	5496	5512	5527	5543	5558	5574	5589	5605
Organics	3827	3838	3849	3860	3870	3881	3892	3903	3914	3925
Plastic	2231	2238	2244	2250	2257	2263	2269	2276	2282	2288
C&D	847	850	852	855	857	859	862	864	867	869
Glass	523	524	525	527	528	530	531	533	534	536
Inorganics	466	467	469	470	471	473	474	475	477	478
Metal/Other	763	765	767	769	771	773	776	778	780	782
Total Tons/Yr	14122	14162	14202	14242	14282	14322	14362	14402	14442	14482

Note: Calculations by CSRA RDC

3.0 Introduction

This section provides detailed information on Wilkes County’s existing waste reduction programs that target residential, commercial/institutional, industrial, construction and demolition, and inert waste streams.

3.1 Inventory

3.1.1 Waste Reduction and Recycling Programs

Public sector waste reduction activities in Rayle, Tignall, Washington and Wilkes County revolve around recycling programs. The City of Washington offers a back-door recycling service to residents and business owners throughout the city. Via the city’s program, Washington citizens may recycle plastics, aluminum, cardboard, glass and paper products in bags provided by the city. Paper is collected in yellow bags issued by the city – while all other recyclables are collected in blue bags. Recyclables are separated and prepared for transport at the Washington Sanitation Department’s warehouse and hauled monthly to the Athens-Clarke County Materials Recycling Facility. Via this informal arrangement, Athens-Clarke County increases the profitability of its recycling activities and Washington reduces tipping fees for solid waste that would otherwise be transported to the Wilkes County Transfer Station and a MSW landfill. **Table 6** illustrates the amount of recyclable material that Washington has collected over the last 3 years.

Material	Destination	2004 (Tons)	2005 (Tons)	2006 (Tons)	2004-2006 Percent % Change
Solid Waste	Oak Grove MSW Landfill	3389	3412	3463	+2.2%
Recyclable Materials	Athens Clarke County Materials Recycling Facility	30.0	28.6	22.9	-23.6%
Recyclable Materials as a Percentage of Total Waste		0.9%	0.8%	0.7%	-0.2%

Source: City of Washington Sanitation Department & Streets/Buildings/Grounds Department

In 2006, Washington’s recycling program is estimated to account for a reduction of less than 1/4 pound per person per day of waste that would otherwise be deposited into a MSW landfill via the Wilkes County Transfer Facility. **Table 6** illustrates that between 2004 and 2006, the amount of solid waste generated by Washington increased while recycling rates decreased. Decreasing recycling rates may be due a lack of public awareness and education regarding the importance of recycling.

While recycling service offered by Wilkes County directly to residents of the unincorporated portion of the county, Rayle and Tignall is more limited than within Washington, overall County-led recycling efforts actually result in a slightly higher rate of waste reduction. County recycling efforts include the separation of cardboard and metal from waste handled at the transfer facility. While most household waste collected at the Wilkes County Transfer Facility is hauled to a MSW landfill in Winder, Georgia, the county contracts with Jefferson Smurfitt CP to haul cardboard to a facility in Stephens, Alabama for recycling. A contract with Athens Auto Wrecking, Inc. allows for the reuse of separated metal products. Because much of the cardboard and metal is separated only upon arrival at the transfer facility, the waste reduction provided as a result of these 2 contracts affects disposal rates for Wilkes County, Rayle, Tignall, Washington and Taliaferro County. **Table 7** illustrates that the county's recycling contracts have resulted in an annual diversion of between 1.3 and 2.1 percent of the waste handled at the transfer facility from being deposited in a MSW landfill over the last 4 years.

Table 7: Wilkes County Recycling Contracts

	2003		2004		2005		2006	
	Total Tonnage	Percent (%) of Total	Total Tonnage	Percent (%) of Total	Total Tonnage	Percent (%) of Total	Total Tonnage	Percent (%) of Total
Wilkes County Transfer Facility (Total Incoming Waste)	17992	N/A	18564	N/A	17480	N/A	15981	N/A
Jefferson Smurfitt CP (Outgoing Cardboard)	271.8	1.5%	401	2.1%	325.8	1.8%	210.4	1.3%
Athens Auto Wrecking (Outgoing Metal)	0	0.0%	4.4	0.02%	59.9	0.3%	0	0.0%

Source: Wilkes County Public Works Department (Some Calculations by: CSRA RDC)

It is important to note that within **Table 7** the figures for “incoming” waste being handled at the county transfer facility differs from the totals found in **Table 3**. The discrepancy occurs because **Table 7** includes waste handled at the transfer facility from all sources – including other counties and private haulers tipping waste that often originates from outside of Wilkes County.

Wilkes County's cardboard recycling program is popular with commercial customers in both the incorporated and unincorporated portions of the county. Wilkes County will collect commercial cardboard from participating companies on site. This mutually beneficial public/private program reduces the cost of transfer facility tipping fees to participating companies while providing the county with a negotiable source of income via its contracts with recycling

vendors. **Table 8** lists companies that participated in the county's cardboard collection program in 2006. Wilkes County Sanitation Department staff informs new companies of the cardboard recycling option.

Public recycling efforts are augmented by a limited number of private initiatives. Within Washington, the Kiwanis Club

recycles newspapers collected at a drop-off site close to downtown. A private company also collects aluminum cans at its own drop-off location. Because these items are collected at drop-off sites, participation is not limited to residential customers or residents of the city of Washington. In addition, CVS and Tire Warehouse bale their own cardboard.

Interviews with major private employers in the county also reveal a limited degree of recycling initiatives as illustrated in **Table 9**.

Badcock	Home Café
City of Tignall	Maxway
Dollar General	Pliant
Dollar Store	Qwik Stop (Tignall)
Essex	Rayle Electric Membership
Family Dollar	Washington-Wilkes Hospital
Farmer's Furniture	Wilco
Ford	

Source: Wilkes County Public Works Department

Company	Location	Number of Employees	Sector	Type of Waste Reduction
CSRA Private Duty Inc.	Washington	100	Personal Home Care	None
Hollander Home Fashions	Tignall	120	Pillows	Cardboard
K.W. McAvoy & Sons Inc.	Washington	80	Manufacturing	None
Pliant Corporation	Washington	176	Plastics	Onsite scrap buyer; 3 repelitizers; cardboard; recycle cores (3 inch round tubes, center of spools)
Washington-Wilkes Hospital	Washington	160	Hospital	Cardboard

Source: CSRA RDC

No public or private sector entity participated in any other source reduction programs such as reuse programs, financial incentives, waste audits, waste exchanges or industrial process changes.

3.1.2 Yard Trimming Mulching/Composting

Wilkes County, Rayle and Tignall do not conduct compost or mulching operations. Although some residents may utilize backyard composting, no quantities are available.

The City of Washington provides curbside collection of yard waste. Leaves and clippings must be bagged while large limbs can be stacked. While the Washington Sanitation Department is responsible for collecting garbage and recycled materials, the city's Streets, Buildings and Grounds Department collects yard waste. The department then hauls the yard waste to a location on Pumping Station Road in order for the material to be ground by a chipper. The majority of chipped and mulched material is applied to city properties but is also made available to city residents upon request. The City of Washington is not required to procure permits for an inert landfill as long as it operates consistent with recovered materials guidelines, and at least 60 percent of the yard waste material it collects continues to be reused within 90 days and does not remain on-site.

Previously, additional yard waste in Wilkes County was deposited at an inert landfill located at the site of the current transfer facility. The inert landfill closed in 1998 when the MSW landfill reached capacity.

3.1.3 Special Management Issues

For all jurisdictions, items requiring special management procedures such as, electronics, household hazardous waste, lead acid batteries and tires are handled by private haulers. White goods are collected at the Wilkes County Transfer Facility.

3.2 Assessment and Needs

3.2.1 Waste Reduction and Recycling Programs

Waste reduction programs operated by Wilkes County and the City of Washington annually reduce the waste stream from Wilkes County jurisdictions by roughly 2 percent – well below the recommended state waste disposal reduction goal of 25 percent. Although recent revisions to the State of Georgia's solid waste management laws no longer specifically reference the 25 percent waste reduction goal, waste reduction is still an overall goal of state guidelines. Consequently, the original 25 percent goal should still serve as a benchmark for Wilkes County jurisdictions to determine the effectiveness of their waste reduction programs.

Washington's household recycling program is accessible to all residents and business owners within the city. Bags for recycled items are distributed to household and businesses city-wide. Unfortunately, by comparing the actual waste reduction that Washington's programs achieve with the State's waste characterization study, it is apparent that many city residents are not actively participating in the program. To address this issue, the city's recycling efforts should include a greater emphasis on education to determine why participation rates are low, and to encourage more active program participation.

Wilkes County's recycling efforts are limited to only a few commodities: cardboard and metal. These current programs, via contracts with private companies, provide the County with a limited source of revenue to offset solid waste management costs. These programs work primarily because participating clients produce large quantities of both materials that are easy for the county to collect. Participation of companies in the County's current cardboard and metal recycling programs could be increased with periodic recruitment efforts.

With a reliance on an unstaffed green box collection system for the majority of the County's solid waste collection efforts, the collection of additional recyclable items such as glass, plastic, aluminum, mixed paper, etc would be difficult due to costs associated with separation of these items from the waste stream. As a result, any short-term expansion of the County's current recycling programs could focus on a specific commodity. As with cardboard and metal recycling efforts, Wilkes County could contract with a private company that recycles a specific commodity and adjust collection efforts to capture this commodity from the waste stream. Potential adjustments may include the conversion of some green box containers to single commodity recycling bins, or the conversion of a handful of drop-off sites to recycling only. Such an action would also provide the County with the ability to monitor recycling participation. Accessing the State's Regional Recycling Center/Processing Hub grant program will make the expansion the County's recycling efforts feasible.

3.2.2 Yard Trimming Mulching/Composting

The City of Washington does not have plans to convert its yard waste chipping operations into an inert landfill. Wilkes County does not currently have any plans during the planning period to begin mulching or composting that would result in viable collection efforts. Waste reduction for the County will largely continue to center on recycling.

3.2.3 Special Management Issues

There are no accurate records available to document the amount of special management disposal items that may be hauled by private companies or scrap dealers throughout Wilkes County. Without education programs readily available to Wilkes County residents and businesses, it is difficult to determine the true impact of items that can have an impact on ground water and are being disposed of improperly.

3.2.4 Miscellaneous

In developing waste reduction policies, Wilkes County, Rayle, Tignall and Washington should examine the regional context. Currently, CSRA counties are considered too small to generate enough recyclables to result in an economically

feasible waste reduction program. However, collectively the region includes an area of close to 500,000 residents. To address this problem, numerous area local governments have indicated a desire to implement a regional recycling program. Wilkes County has indicated its desire to participate in such a program by taking official action to support the CSRA Regional Development Center's application to the United States Department of Agriculture to receive funding for a regional recycling feasibility study (**Appendix A**).

A regional approach to waste reduction can also encourage businesses to increase participation levels. For many of the businesses surveyed, especially the smaller ones, convenience was a concern. As more businesses participate in recycling, others will be encouraged to do so.

Demand for greater access to waste reduction programs should also come directly from citizens. Efforts should be made to establish an affiliate chapter of Keep Georgia Beautiful in order to assist in the expansion of current waste reduction activities and citizen participation in such programs.

3.3 Goals

All goals are applicable to Wilkes County and the Cities of Rayle, Tignall and Washington unless otherwise noted.

- Encourage local businesses to increase their waste reduction and recycling efforts, and report data.
- Participate in region-wide recycling feasibility study.
- Coordinate waste reduction/recycling efforts with other parts of the Plan.
- Maintain municipal waste reduction and recycling equipment (Washington)
- Expand chipping and mulching of yard waste for citizen and public uses (Washington).
- Continue back-door pick up of recyclables (Washington).
- Expand recycling options throughout the County (Wilkes County, Rayle, Tignall).
- Actively market existing recycling programs.
- Participate in Association of County Commissioners of Georgia and Georgia Municipal Association solid waste training programs.
- Work with the Georgia Department of Community Affairs and the CSRA Regional Development Center to identify viable waste reduction and recycling projects.
- Coordinate with citizens and private organizations to establish an affiliate chapter of Keep Georgia Beautiful.

4.0 Introduction

This section addresses the collection of solid waste, recyclable, and compostable materials for the 10 year planning period. Every aspect of the solid waste management program represents a link in the chain of a well run and environmentally sound system. An inadequate collection program can create complications for other components of the program, such as those associated with illegal dumping, high costs or inefficient disposal practices. Dissatisfaction with collection services may also lead to poor participation rates with new waste reduction programs.

Wilkes County consists of a widely dispersed rural population. To a large degree this is even characteristic of Rayle and Tignall – which contain slightly higher concentrations of people, but retain a low-density development pattern. Only portions of Washington exhibit population concentrations that suggest an urban character. The population trends for Wilkes County and the municipalities do not suggest any significant short-term population gain or loss.

4.1 Inventory

4.1.1 Collection Programs

The current solid waste collection system for Wilkes County is divided into 4 categories – 3 of which are public services (**Table 10**). Virtually all waste generated in the county is collected via a publicly operated municipal or county service.

Washington's waste collection service is 2-tiered in that on-site back-door collection service is offered to all residences and businesses; but, this service is supplemented by the location of 15 drop-off sites throughout the city. The City of Washington operates 2 trucks for weekly residential service Monday through Wednesday (recyclables are picked up on Thursdays and Fridays). Back-door residential collection service in Washington is made possible by the use of 4 scooters that can transport waste from back yards to waiting trucks. Commercial collection, and transport of items left at drop-off sites, typically takes place more than once per week.

Wilkes County's collection services revolve around the use of unstaffed green box drop-off sites scattered throughout the county and within Rayle and Tignall. The County operates 2 trucks that collect waste from the drop-off points on a weekly basis. Residents and businesses are also permitted to drop-off waste directly at the Wilkes County transfer facility. In addition, the County will provide dumpsters for construction activities upon request.

Table 10: Inventory of Collection Programs

Type	Collector	Program Description	Jurisdictions Served	Sectors Served*	Households Served	Contracts
Back-Door Pick-Up	City of Washington	On-site back-door pick-up.	City of Washington	R, C	All city households	Municipal service
Drop-Off Collection	City of Washington	15 drop-off sites to supplement back door pick-up	City of Washington	R, C	Variable	Municipal service
Green Box Drop-Off Collection	Wilkes County	County-wide unstaffed drop-off sites (including transfer facility)	Wilkes County; Cities of Rayle and Tignall	R, C, C&D	Unknown	County service
Private Haulers	National Waste Service, Waste Management	Residential curb-side pickup and commercial dumpsters	Incorporated and unincorporated customers	R, C, C&D	Unknown	Private contracts

Source: City of Washington; Wilkes County
**R=Residential, C=Commercial, C&D=Construction and Demolition*

Private haulers account for very little solid waste collection activities in Wilkes County. National Waste Service provides roll-off containers and trash compactors for a limited number of non-residential customers upon request. Waste Management’s collection services in Wilkes County are likewise limited to no more than a handful of non-residential customers.

4.1.2 Yard Trimmings and Debris

Yard waste service in Wilkes County is limited to pick-up provided by the City of Washington to Washington-based businesses and residents. The City picks up yard waste at the curb. Because the city owns no special equipment to collect yard waste, leaves and grass clippings must be bagged. Larger limbs are manually loaded into trucks.

Public yard waste service is not available in Rayle, Tignall and unincorporated Wilkes County.

4.1.3 Illegal Dumping

Illegal dumping is disposal of waste in an un-permitted area. Illegally dumped wastes are primarily non-hazardous materials that are dumped to avoid either disposal fees or the time and effort required for proper disposal. Sites used for illegal dumping vary, but typically include abandoned residential or commercial buildings; vacant lots and wooded areas; and infrequently used alleys or roadways. Because of their accessibility and poor lighting, areas along rural roads and railways are particularly vulnerable.

With a reliance on unstaffed green boxes for collection, it is likely that a certain percentage of the waste collected at Wilkes County operated sites has been illegally dumped. Wilkes County Sanitation Department staff has indicated that collection sites in close proximity to adjacent counties tend to contain a large amount of waste. Much of the waste at these locations is often construction and demolition debris likely left by contractors attempting to avoid tipping fees charged by the County at the transfer facility.

Washington and Wilkes County have ordinances to address littering and illegal dumping. These ordinances are enforced by local law enforcement. In addition, the Wilkes County Sheriff's Department periodically provides roadside litter pick-up in the County, Rayle and Tignall through the use of jail inmates.

4.2 Assessment and Needs

With a small dispersed population that is not projected to grow significantly through 2017, curbside pickup of waste is not likely to be practical in the unincorporated portions of the County, or within the cities of Rayle and Tignall. Regardless, all 3 jurisdictions should always keep the option open and study the feasibility of county-wide municipal collection if economically feasible at a future time. With little competition from private sector haulers, the cost of public-sector waste collection programs will only vary depending on rising or falling costs directly associated with operating the programs.

The existing back-door collection service in the City of Washington will be adequate through the planning period. Cost reductions could occur if this program were transformed into a curbside pick-up program – eliminating the need for the operation of the city's 4 scooters. While such a converted pick-up service may require the up-front expense of roll carts, long-term savings may be realized by reducing vehicle maintenance and fuel costs.

The collection capacity of Wilkes County is adequate for citizens in Rayle, Tignall and the unincorporated portions of the county. Therefore no major improvements are needed at this time; although, a reduction of collection sites may allow the County to shift funds to the maintenance of remaining equipment.

At this time, Wilkes County's and Washington's existing solid waste ordinance related to disposal are adequate to address illegal dumping. Unfortunately, with a large geographic area to cover, and multiple drop-off collection sites, enforcement of these ordinances can be difficult. With limited resources available to focus on the prevention illegal dumping, Wilkes County, Rayle, Tignall and Washington will continue to be able to address this issue largely on complaint-only basis and through active citizen participation. All 4 jurisdictions should continue to monitor these issues during the planning period to determine additional steps that need to be taken to better enforce existing ordinances. A

Keep Georgia Beautiful affiliate chapter (as suggested in **Chapter 3**) would be an asset in educating residents about the affects of littering and illegal dumping, and creating a less accepting attitude toward violators.

4.3 Contingency Strategy

Natural disasters strike with varying degrees of severity and pose both short- and long-term challenges to public service providers. The most severe natural disasters generate debris in quantities that can overwhelm existing solid waste management facilities or force communities to use disposal options that otherwise would not be acceptable. Debris removal is a major component of every disaster recovery operation. Much of the debris generated from natural disasters is not hazardous. Soil, building material, and green waste, such as trees and shrubs, make up most of the volume of disaster debris. Most of this waste can be recycled into useful commodities.

In the event of a natural disaster or other major event that would disrupt the collection of solid waste within the County, Wilkes County, Rayle, Tignall and Washington would work with the County's current hauler (Republic Services via the Greeson Group) to procure additional resources to collect waste until regular procedures could be re-instituted. As part of such an arrangement, temporary hauling of waste material to another transfer facility would be considered if necessary. With its own current collection capacity, Washington may alternatively choose to directly contract with another private hauler to provide emergency waste removal services.

Because much of the debris that results from a natural disaster would be vegetative, the city chipping operation serve as an initial drop-off point for organic debris from throughout the County prior to transport to an inert landfill facility outside of Wilkes County. Such an activity may be undertaken via an intergovernmental agreement between Washington and Wilkes County, and should be coordinated with the Georgia Environmental Protection Division.

Public notification efforts of the County and Cities regarding debris management and removal, and alternative collection efforts may include any combination of: public service announcements, newspaper articles, posting of flyers, mailings, public meeting announcements, etc. Wilkes County, Rayle, Tignall and Washington estimate that contingency efforts of debris collection and removal, and the collection of accumulated household waste, will take 2 to 4 weeks to become operational following a significant natural disaster.

To date, Wilkes County's (including Rayle and Tignall) and Washington's contingency strategies do not appear to be coordinated. A unified contingency strategy should be prepared through direct coordination between the Wilkes County Solid Waste and Emergency Management Departments, and

Washington's Sanitation and Buildings, Streets and Grounds Departments. As part of this coordination all agencies should maintain a uniform up-to-date list of collection companies and disposal facilities.

4.4 Goals

All goals are applicable to Wilkes County and the Cities of Rayle, Tignall and Washington unless otherwise noted.

- Evaluate collection efforts periodically to determine if changes are needed or if new collection mechanisms are feasible (including the feasibility of franchise fees and other collection options).
- Maintain collection data provided by private haulers and assess on a yearly basis.
- Develop a unified Washington-Wilkes solid waste contingency collection strategy.
- Ensure that solid waste management policies and contingency collection strategies are consistent with local comprehensive plans.
- Maintain city government collection vehicle and equipment replacement.
- Convert back-door pick-up service to curbside collection (Washington).
- Reduce operating expenses by consolidating unstaffed green-box collection sites (Wilkes County).

5.0 Introduction

This section addresses the disposal of solid waste for the 10 year planning period. Disposal has taken on more significance as communities throughout the CSRA have closed municipal landfills and shifted to private disposal. Cost and service coverage areas have become significant issues.

5.1 Inventory

There is 1 public disposal facility located in Wilkes County. The Wilkes County Transfer Facility (PBR-157-02TS) is located just south of Washington at the site of the closed Wilkes County MSW landfill. There are no private disposal facilities that have been confirmed to be operating in Wilkes County.

Georgia Environmental Protection Division (EPD) records indicate that there are 3 inert landfill facilities operating in Wilkes County – 1 operated by the Wilkes County Board of Commissioners and 2 privately operated (Tanner Inert Landfill, Washington-Wilkes International Paper Company facility). Despite EPD records, the County indicates that their facility has been closed since 1998. Wilkes County is currently coordinating with Georgia EPD to remove this facility from the State's list of active inert landfill facilities. In addition, accurate contact information and references regarding the Tanner Inert Landfill could not be obtained. Finally, the City of Washington indicates that the International Paper Company facility has been closed since 1997-98. The City of Washington now owns the property.

The Wilkes County Transfer Facility (PBR-157-02TS) is a consolidation point for residential, commercial, industrial and construction/demolition waste that is then transported to the Oak Grove MSW Landfill operated by Republic Services. Georgia EPD records indicate that the Oak Grove MSW landfill is scheduled to reach capacity within 4 years. Current efforts to receive a permit for landfill expansion at this location are pending. Although Republic Services has furnished an "Assurance of 10 year Disposal Capacity" letter (**Appendix B**), without confirmation that an expansion of the Oak Grove Landfill is permitted, such a document is based on the company's ability to haul waste to a different MSW landfill facility. All County solid waste, as well as that from Rayle, Tignall, Washington and Taliaferro County is tipped at the County transfer facility and then transported to the Republic Services facility. Equipment at the transfer facility is adequate to meet the facility's day-to-day operations.

The Wilkes County MSW landfill closed in 1998 after reaching capacity. There are no plans to seek permits for re-opening and expanding the landfill.

As previously discussed, the waste flow going to the County transfer facility originates from a variety of points within and outside of the County. Industries that generate hazardous waste contract with haulers to ship this waste out of the

County to permitted hazardous waste facilities. Cardboard, white goods and miscellaneous scrap metal is separated from other waste at the transfer facility and stockpiled for collection by Jefferson Smurfit and Athens Auto Wrecking. No other pre-disposal treatment such as shredding or baling is employed at the facility. The County transfer facility does not accept tires – these items are handled by commercial dealers who in turn contract with private haulers.

5.2 Thermal Treatment Technologies

There are no thermal treatment technologies currently in use by Wilkes County or the Cities of Rayle, Tignall and Washington.

5.3 Assessment and Needs

Wilkes County's goal is to ensure that transfer and disposal facilities that handle its waste meet regulatory requirements and can continue to support and facilitate effective solid waste handling programs for the next 10 years.

With a complete reliance on private disposal providers, the County's disposal role is one of regulation. While collection services for Wilkes County, Rayle, Tignall and Washington are handled almost exclusively by the public sector, disposal of this cumulative waste at a single privately operated landfill facility – via the County transfer facility – limits competition during the term of the County's contract with the disposal provider. To ensure the most favorable costs for disposal services, Wilkes County and the City of Washington should coordinate closely when it is time for the County to renegotiate its contract with its disposal provider.

County and City coordination may also be necessary to consider the consolidation and/or expansion of recycling and yard waste disposal programs to reduce the communities' degree of dependency on MSW landfill facilities for disposal. Similar considerations may be made regarding the acceptance of construction/demolition (C&D) debris at the Wilkes County transfer facility. Diversion of C&D debris to other handling and disposal facilities may also limit Wilkes County's future solid waste disposal needs.

With the knowledge that current disposal arrangements with Republic Services may have to be revised due to limited capacity at the Oak Grove MSW Landfill facility, Wilkes County should pro-actively explore alternative disposal options in advance of the expiration of current contracts. The potential that future solid waste handled on behalf of Republic Services by the Greeson Group may have to be hauled a longer distance may significantly increase the County's (and Cities') disposal costs. Advanced exploration of other disposal options may place all 4 jurisdictions in a better position when faced with future contract negotiations. Wilkes County and Washington should also continue to focus on maintenance of collection and disposal equipment.

5.4 Assurance of 10 Year Disposal Capacity

Under the Georgia Comprehensive Solid Waste Management Act of 1990, each local government must provide 10 year disposal capacity assurance whether that local government relies on its own landfill, another local government, regional authority, private entity or any combination thereof for disposal of the solid waste generated within the planning jurisdiction. Required letters of disposal capacity assurance are found in **Appendix B**.

5.5 Contingency Strategy

In the event of a natural disaster or other major event that would disrupt the disposal of solid waste within the County, Wilkes County and Washington would contract with a private hauler to dispose of additional waste until regular procedures could be re-instituted. To ensure coordination of contingency disposal strategies, an intergovernmental agreement on emergency disposal between all 4 jurisdictions would be prudent. In addition, the Wilkes County Solid Waste and Emergency Management Departments, and Washington's Sanitation and Buildings, Streets and Grounds Departments should maintain a uniform up-to-date list of collection companies and disposal facilities.

Based on current capacities and a coordinated emergency disposal strategy, it should take no more than a few weeks to bring the contingency strategy disposal option on-line.

5.6 Goals

All goals are applicable to Wilkes County and the Cities of Rayle, Tignall and Washington unless otherwise noted.

- Evaluate disposal efforts periodically to determine if changes are needed or if new disposal mechanisms are feasible to reduction disposed.
- Maintain disposal data provided by private haulers and assess on a yearly basis.
- Review local comprehensive plans prior to developing future solid waste management policies.
- Develop a unified Washington-Wilkes solid waste contingency disposal strategy.
- Maintain public disposal equipment and vehicles.
- Pro-actively consider alternative future disposal options.

6.0 Introduction

This section deals with the inventory, analysis, and determination of land areas which, due to environmental limitations or land use factors, are considered unsuitable for the development of solid waste handling facilities. Although it may be technically feasible to build solid waste handling facilities in most situations, there are regulatory and financial constraints which render certain locations unavailable. Isolation, distances around airports, bodies of surface water and local regulations represent only a few of the many potential constraints. Other siting considerations may not be specifically prohibited but would result in more extensive engineering, environmental, and hydrogeological requirements. The criteria are established to provide for environmentally sound and financially practical disposal siting.

Specific items to be considered are as follows:

(1) Natural Environmental Limitations:

Water supply watersheds: Georgia Department of Natural Resources (DNR) Rule 391-3-16-.01(7)(c)1 requires that at any location within a small water supply watershed, new solid waste landfills must have synthetic liners and leachate collection systems.

Groundwater recharge areas: DNR Rule 391-3-16-.02(3) (a) requires that in significant groundwater recharge areas, DNR shall not issue permits for new solid waste landfills not having synthetic liners and leachate collection systems.

Wetlands: DNR Rule 391-3-16-.03(3) (e) establishes that solid waste landfills may constitute an unacceptable use of a wetland.

River corridors: DNR Rule 391-3-16-.04(4) (h) prohibits the development of new solid waste landfills within protected river corridors.

Protected mountains: DNR Rule 391-3-16-.05(4) (l) prohibits the development of new solid waste landfills in areas designated as protected mountains.

(2) Criteria for siting: The following items are criteria for siting solid waste facilities under DNR Rules. Local governments preparing plans should consult with DNR for the most current applicable rules.

Zoning: DNR Rule 391-3-4-.05(1) (a) requires that the site must conform to all local zoning/land use ordinances, and that written verification of such be submitted to EPD.

Airport safety: DNR Rule 391-3-4-.05(1) (c) requires that new solid waste landfill units or lateral expansions of existing units shall not be within 10,000 feet of any public use or private use airport runway end used by turbojet aircraft or within 5,000 feet of any public use or private use airport runway end used by only piston type aircraft.

Flood plains: DNR Rule 391-3-4-.05(1) (d) stipulates that any solid waste landfill located in the 100-year flood plain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the flood plain, or result in a washout of solid waste so as to pose a threat to human health or the environment.

Wetlands: DNR Rule 391-3-4-.05(1)(e) prohibits the development of solid waste landfills in wetlands, as defined by the U. S. Army Corps of Engineers, unless evidence is provided by the applicant to EPD that use of such wetlands has been permitted or otherwise authorized under all other applicable state and federal laws and rules.

Fault areas: DNR Rule 391-3-4-.05(1) (f) requires that new landfill units and lateral expansions of existing landfills shall not be located within 200 feet of a fault that has had displacement in the Holocene Epoch unless the owner or operator demonstrates to EPD that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the landfill unit and will be protective of human health and the environment.

Seismic impact zones: DNR Rule 391-3-4-.05(1)(g) prohibits the development of new landfill units and lateral expansions in seismic impact zones unless the owner or operator demonstrates to EPD that all containment structures, including liners, leachate collection systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

Unstable areas: DNR Rule 391-3-4-.05(1)(h) requires owners or operators of new landfill units, existing landfill units, and lateral expansions located in unstable areas to demonstrate that engineering measures have been incorporated in the landfill unit's design to ensure that the integrity of the structural components of the landfill unit will not be disrupted.

Significant groundwater recharge areas: DNR Rule 391-3-4-.05(1)(j) requires new solid waste landfills or expansions of existing facilities within 2 miles of a significant groundwater recharge areas to have liners and leachate collection systems, with the exception of facilities accepting waste generated from outside the county in which the facility is located. In that case, the facility must be totally outside of any area designated as a significant groundwater recharge area.

Any entity requesting a renewal or issuance of a permit for a solid waste handling facility from EPD must demonstrate that the facility or expansion is consistent with the local government's solid waste management plan. Chapter 391-3-4 of the Georgia Department of Natural Resources' Environmental Protection Division relates to Solid Waste Management in Georgia. Chapter 391-3-4.05 deals specifically with the siting criteria associated with solid waste handling facilities.

Solid waste handling facility applicants should always check with DNR and the local planning jurisdiction to verify procedures for siting solid waste handling facilities that include but are not limited to the following:

- DNR Rule 391-3-4-.05(1) (b) requires that whenever any applicant begins a process to select a site for a solid waste disposal facility, documentation demonstrating compliance with O.C.G.A. § 12-8-26(a) be submitted to EPD; further, whenever any applicant takes action resulting in a siting decision for a publicly or privately owned solid waste disposal facility, documentation demonstrating compliance with O.C.G.A. § 12-8-26(b) be submitted to EPD.
- Once a site has been selected, the applicant must conduct a Hydrological Assessment in accordance with the provisions of DNR Rule 391-3-4-.05(1) (k). Preparation of the land limitation element of a solid waste management plan should comply with the Solid Waste Management Act and the Rules of the Department of Natural Resources (DNR) for Solid Waste Management (Chapter 391-3-4) relating to historic sites, airports, jurisdictional boundaries, access, etc. These documents should be consulted for specifics on land limitations and siting of solid waste management facilities.
- If an applicant undertakes the Facilities Issues Negotiation Process pursuant to a facility siting decision, the process will be undertaken in accordance with O.C.G.A. § 12-8-32 and any guidelines issued by the Department pursuant to State law.

6.1 Inventory

The following section includes inventories of existing natural and siting limitations. Protected mountains, fault areas, seismic impact zones or unstable areas were not identified in Wilkes County or the Cities of Rayle, Tignall and Washington.

The base data used for the mapping component were provided by the CSRA Regional Development Center. The siting criteria maps referenced in this chapter are approximate, intended for reference purposes only and do not map all local, state and federal siting criteria referenced herein.

6.1.1 Water Supply Watersheds

There are many different factors that determine the volume of water in a stream or other body of water. These factors include the amount of precipitation, land cover, slope, soil type, and capacity and speed of absorption into the soil. Any water that is not absorbed by the soil, detained on the surface by lakes or ponds, or used by vegetation, runs off of the land as overflow, or surface run-off. Water that is later released by the soil adds to this overflow to produce what is known as total run-off. As run-off flows to areas of lower elevation, it collects in drainage areas, the boundaries of which form watersheds. Run-off from these watersheds flows into streams which serve as outlets for water in the watersheds.

Wilkes County is located within the Savannah River drainage basin. Within this basin, portions of 3 major watersheds can be found in Wilkes County: the Broad River Watershed across the northwestern portion of the County, the Upper Savannah Watershed in the central and eastern portion of the County, and the Little River watershed across the County's southern half. This plan makes note of these geographic and hydrological subdivisions so that a distinction can be made between them and "water supply watersheds" that require additional resource protection to ensure a safe supply of public drinking water.

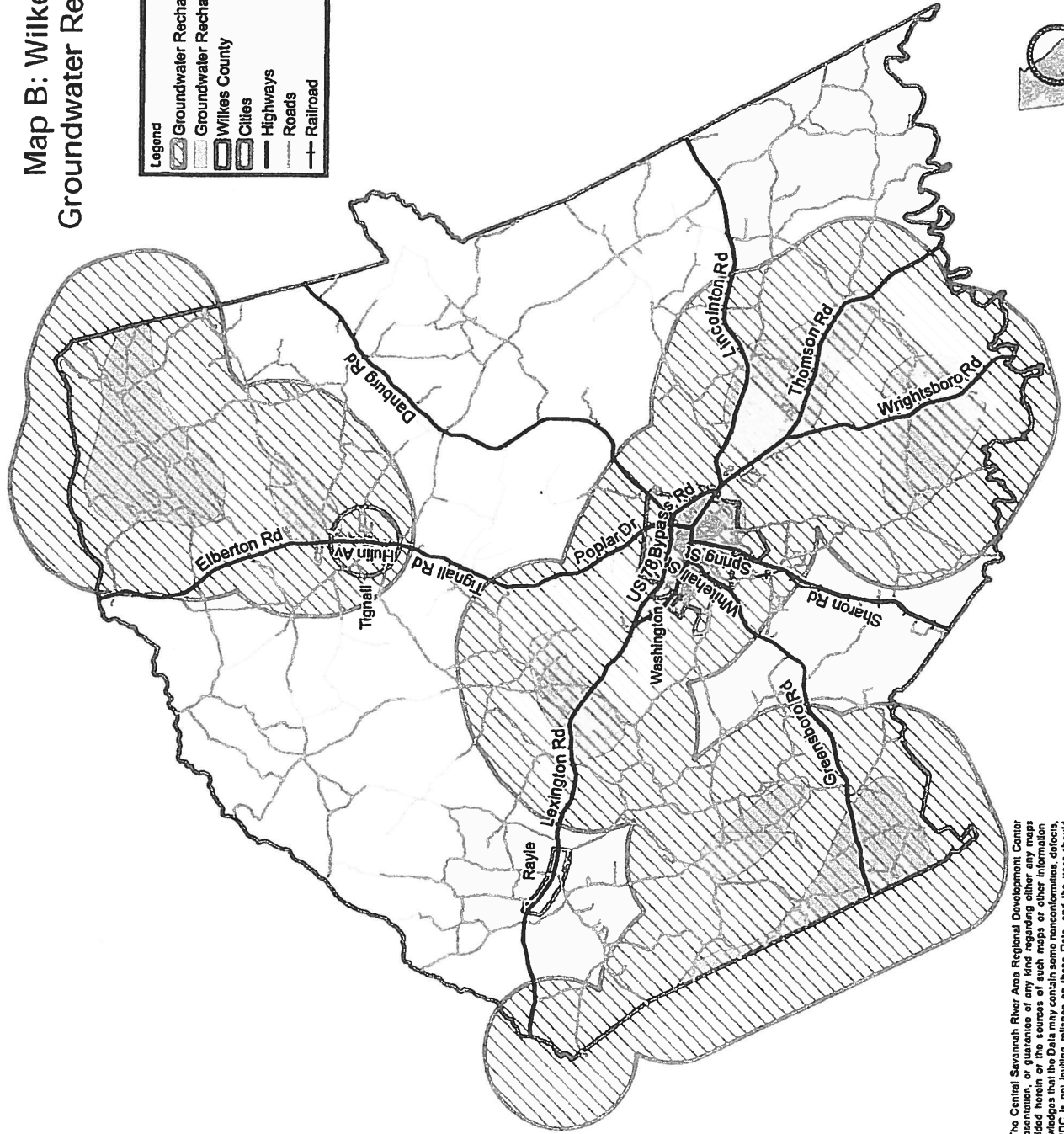
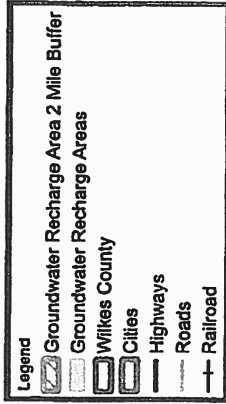
DNR's *Rules for Environmental Planning Criteria* define a water supply watershed as an area of land upstream from a governmentally owned public drinking water intake. Wilkes County lies entirely within the Augusta Canal and Abercorn Creek water supply watersheds. In addition, the smaller Lake Boline (Beaverdam Creek) and Lake Wall (Little Beaverdam Creek) water supply watersheds are located between Rayle and Washington and provide the city of Washington with its public drinking water supply. Wilkes County water supply watersheds can be found on **Map A**. All water supply watersheds in Wilkes County are subject to DNR's *Criteria for Water Supply Watersheds*.

6.1.2 Groundwater Recharge Areas

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

According to data provided by the Georgia Department of Natural Resources on the Ground-Water Pollution Susceptibility Map of Georgia, Hydrologic Atlas 18, Wilkes County contains several significant groundwater recharge areas (See **Map**

Map B: Wilkes County Groundwater Recharge Areas



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B). All recharge areas are located in areas that have been identified as having lower groundwater pollution susceptibility.

Both the state and federal government regulate groundwater recharge areas. DNR's *Rules for Environmental Planning Criteria* include restrictions and regulations on sanitary landfills, land disposal of hazardous wastes, spray irrigation of wastewater and wastewater treatment basins.

6.1.3 Wetlands

Federal law defines freshwater wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Preservation of wetlands is vital because of the many important functions they serve. They are among the world's most biologically productive ecosystems and serve as crucial habitats for wildlife. Wetlands can help maintain water quality or improve degraded water by performing functions similar to a wastewater treatment plant, filtering sediment, toxic substances and nutrients. Wetland vegetation filters and retains sediments which otherwise enter lakes, streams and reservoirs often necessitating costly maintenance dredging activities. Wetlands are also important to flood protection, as they act as water storage areas, significantly reducing peak flows downstream, and the meandering nature of wetlands combined with abundant vegetation reduce flood velocities.







Wilkes County wetland areas are found on **Map C**. In Wilkes County, wetlands are adjacent to Clarks Hill Lake, along the creeks that run throughout the county and in the vicinity of small ponds that dot the county's landscape. Hazardous or toxic waste receiving, treatment or disposal facilities and sanitary landfills are prohibited within wetland areas.

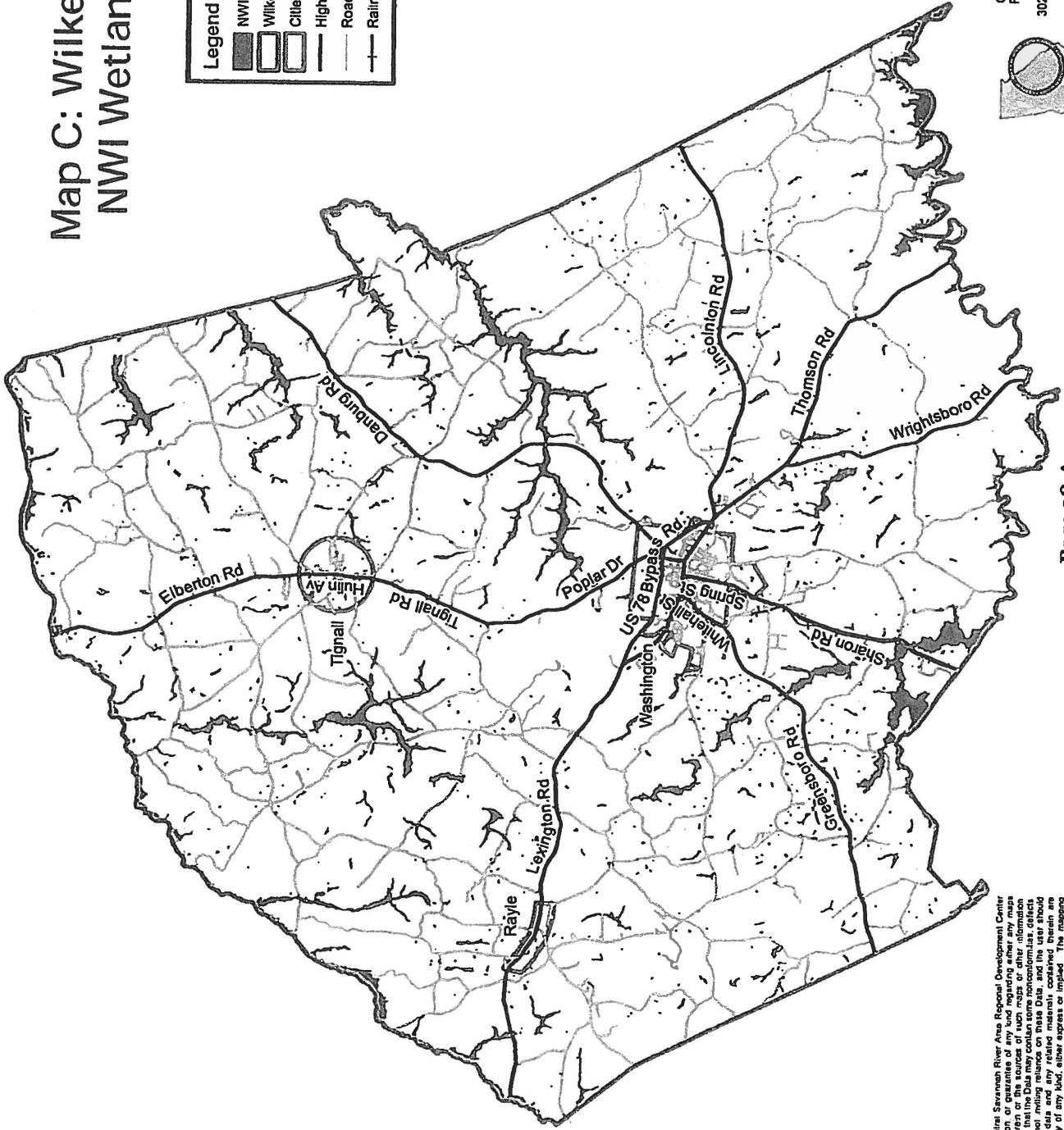
6.1.4 River Corridors

River corridors and their immediate shore land environment (sometimes referred to as the *riparian zone*) are areas of critical environmental significance. They provide a number of benefits including: drinking water, wildlife habitat, recreational opportunities, flood storage capacity, and assimilative capacity for wastewater discharges-the river or stream's ability to dilute wastewater to a point when it is no longer a threat to human health.

Section 305(b) of the federal Clean Water Act requires that all states biennially list navigable waters throughout the state and provide a description of the water quality of such streams and its impact on its designated uses. Consistent with these requirements, DNR has developed minimum planning criteria for its river

Map C: Wilkes County NWI Wetland Areas

Legend	
	NWI Wetlands
	Wilkes County
	Cities
	Highways
	Roads
	Railroad



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corridors in order to protect these vital resources. River corridors within Wilkes County currently on EPA's 303(D)/305(B) list of protected rivers can be found on **Map D**.

6.1.5 Flood Plains

Flood plains are relatively flat lands that border streams and rivers that are normally dry, but are covered with water during floods. The severity of a flood is usually measured in terms of loss to human life or property, which is directly proportional to the amount of development in the flood plain surrounding the stream or river.

Flooding occurs when the volume of water exceeds the ability of a water body (stream, river, or lake) to contain it within its normal banks. Floodplains serve 3 major purposes: Natural water storage and conveyance, water quality maintenance, and groundwater recharge. These 3 purposes are greatly inhibited when floodplains are misused or abused through improper and unsuitable land development. For example, if floodplains are filled in order to construct a building, then valuable water storage areas and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings or other structures. Therefore, floodplain development is usually discouraged with the exception of recreational facilities.

The City of Washington has participated in the Federal Flood Insurance program for a number of years. Flood zones within the city are mapped – including the location of all applicable A, C and X flood zones. In 2002, Wilkes County began participation in the Federal Flood Insurance Program's "Emergency Program." Because a Flood Insurance Rate Map has not been prepared for Wilkes County, property owners in the county are not eligible for the same level of insurance coverage as within the city of Washington. Regardless, the adoption of a Flood Hazard Boundary Map by Wilkes County – illustrating flood prone areas – allows for some coverage. Participation by both communities in the Federal Flood Insurance Program is possible in part by the presence of flood damage prevention ordinances in both communities. Floodplains throughout Washington are illustrated on **Map E**. Flood prone areas in Wilkes County are illustrated on **Map F.2**.

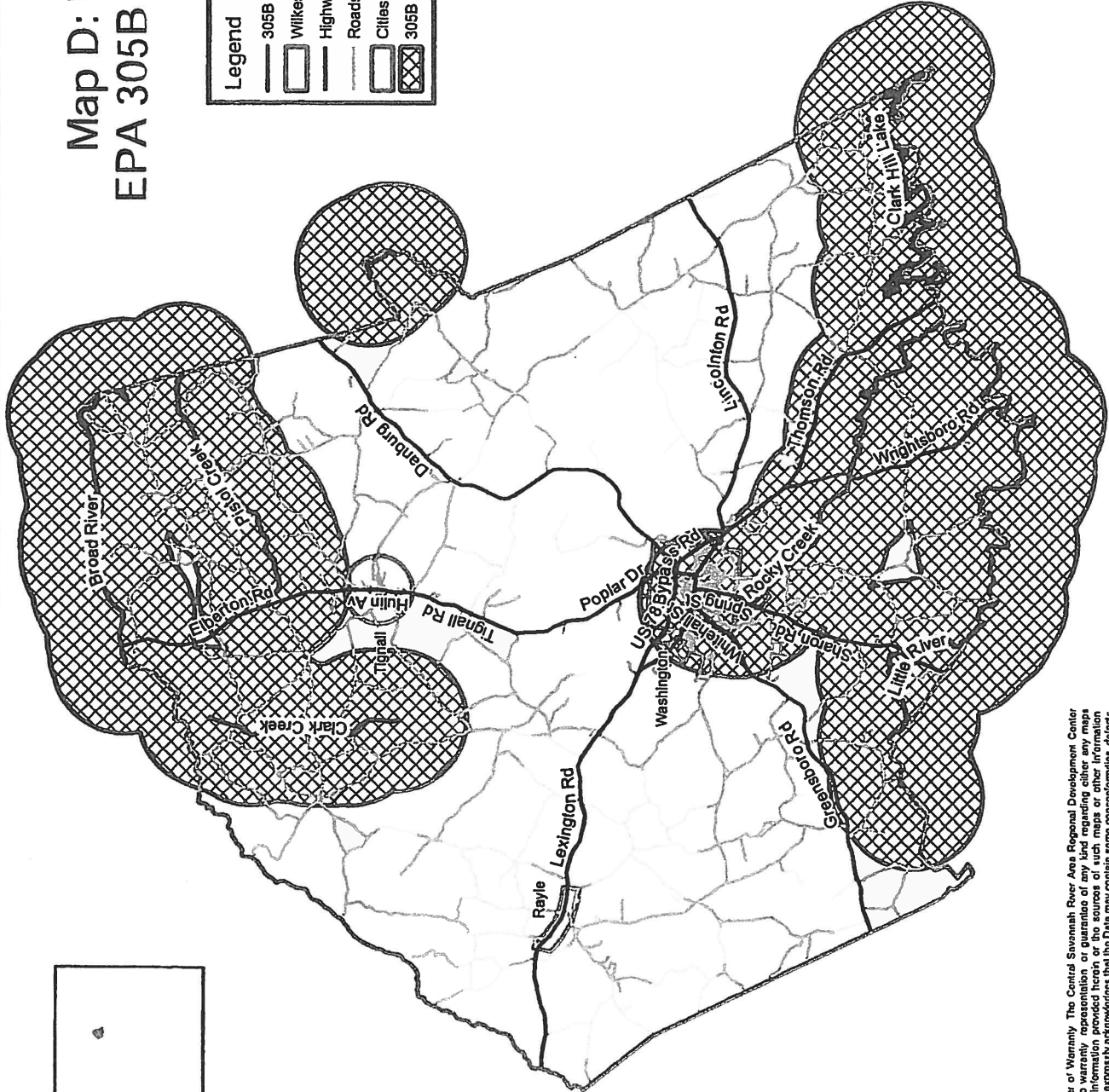
6.1.6 Local Zoning/Land Use

Zoning is an act of city or county authorities by exercise of police powers in regulating, controlling or specifying the type of use to which the property may be put in specific areas.

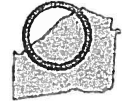
Wilkes County and the City of Washington have ordinances in place that regulate the use of land. Washington has the most detailed code, including several classifications of residential, commercial, and industrial uses. Wilkes County's

Map D: Wilkes County EPA 305B Protected Rivers

Legend	
	305B Protected River Corridors
	Wilkes County
	Highways
	Roads
	Cities
	305B Protected River Corridors 2 Mile Buffer







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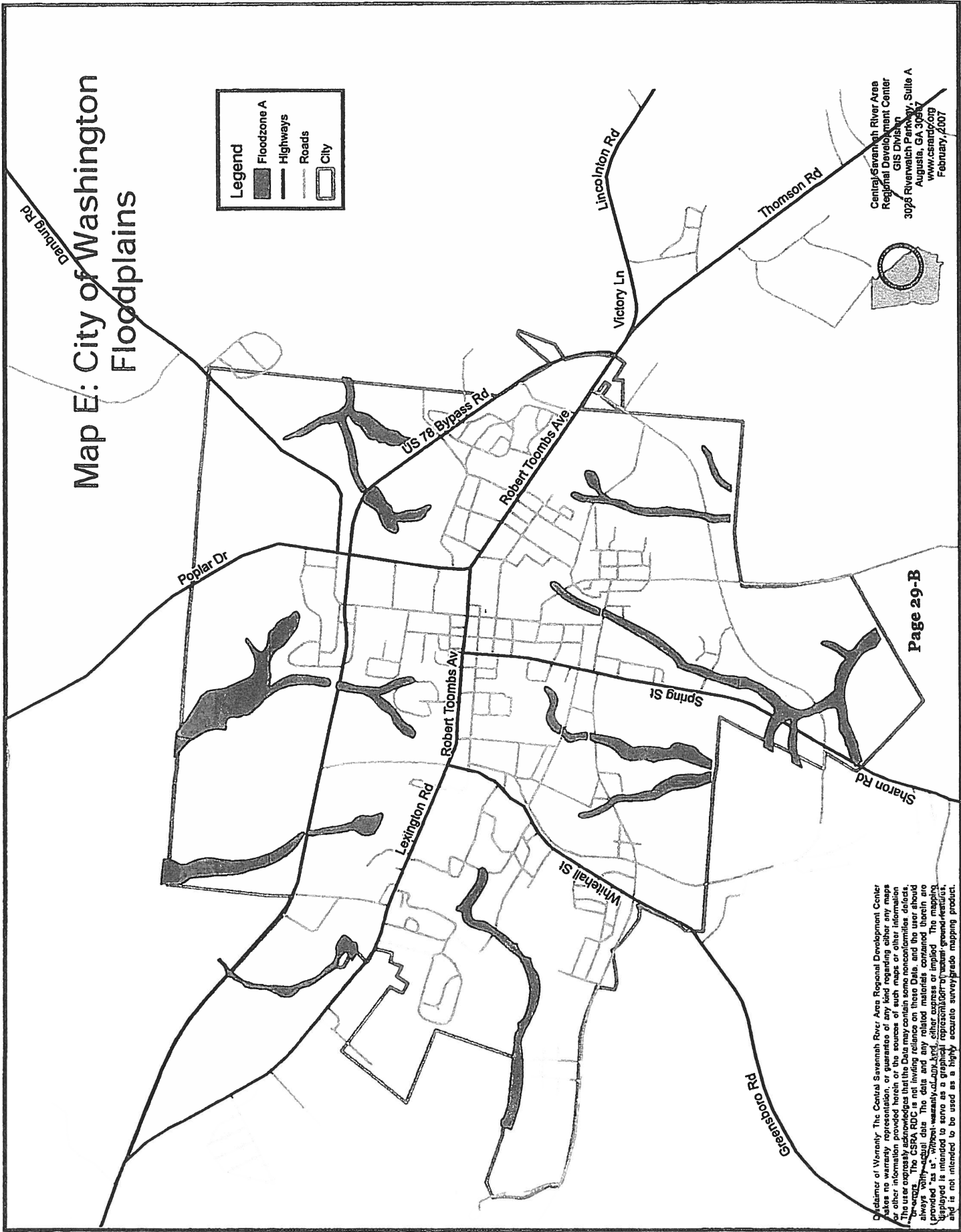


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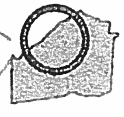
Map E: City of Washington Floodplains

Legend

-  Floodzone A
-  Highways
-  Roads
-  City



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ordinance includes similar districts. Neither jurisdiction allows solid waste handling facilities as permitted uses in any district. Zoning maps for both jurisdictions can be found on **Maps F.1 and F.2**. The Cities of Rayle and Tignall do not have land use ordinances in place.

6.1.7 Historic Resources

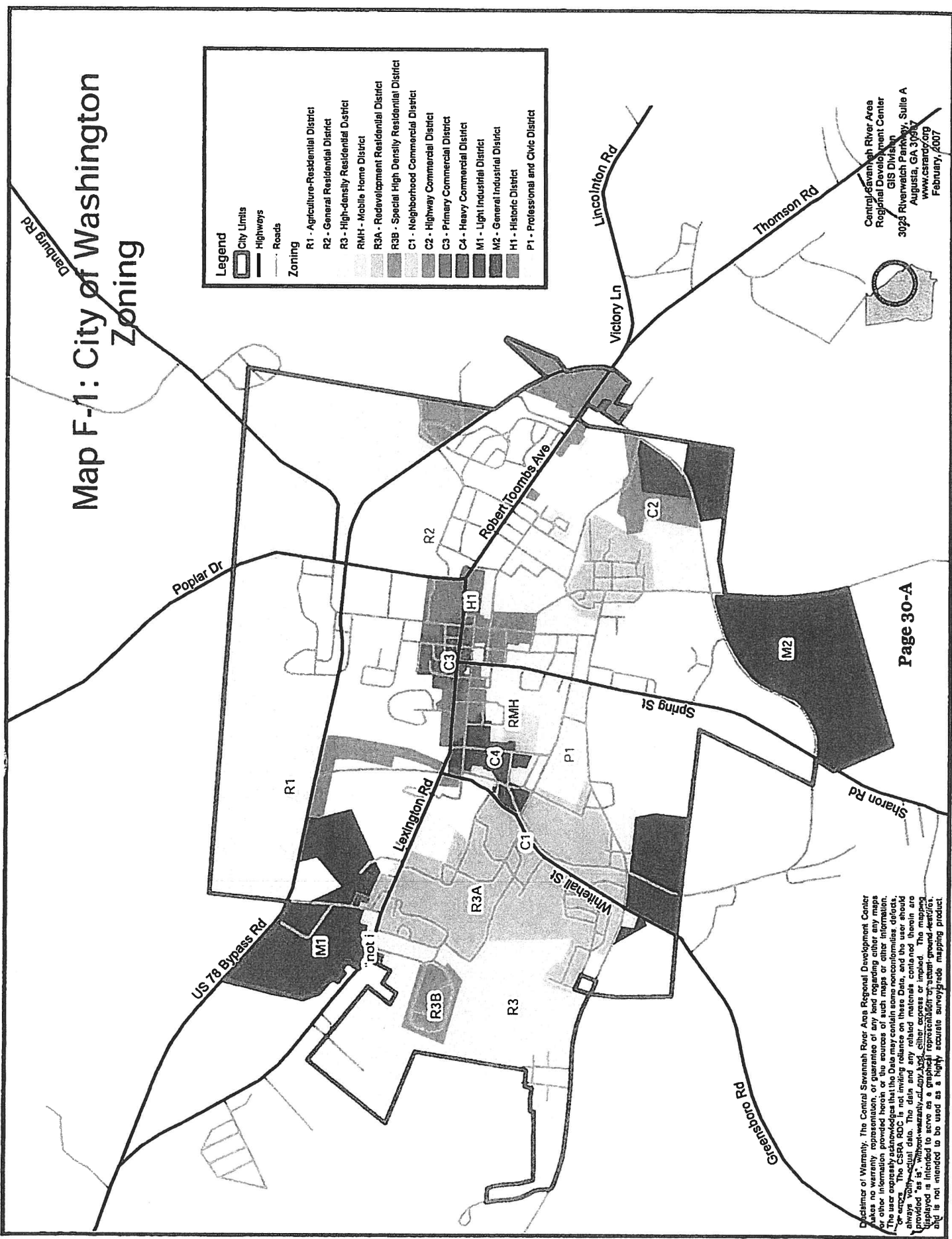
Since the early 1970's Wilkes County, Rayle, Tignall and Washington have continued to expand their inventory of properties located on the National Register of Historic Places. That effort continues to this day with the recent amendment of the Washington Historic District - essentially making it a city-wide district - expanding National Register eligibility to certain property types located anywhere in the municipal limits. The Washington-Wilkes area's National Historic Register properties are listed in **Table 11** and illustrated on **Map G**.

Table 11: Wilkes County National Register Historic Properties			
Individual Property			
Resource Name	Address	City	Listed
Anderson House	GA 44	Danburg	9/29/1976
Arnold-Callaway Plantation	NW of Washington on U.S. 78	Washington	4/11/1972
Campbell-Jordan House	208 Liberty St.	Washington	7/14/1971
Cedars, The	210 Sims St.	Washington	4/11/1972
Daniel, James & Cunningham, House	S of Rayle on Bartram Trace Rd.	Rayle	11/24/1980
Fitzpatrick Hotel	18 W. Public Square	Washington	12/17/1982
Gartrell Family House	854 Boyd Rd.	Tignall	6/14/2002
Gilbert-Alexander House	116 Alexander Dr.	Washington	4/11/1972
Gilmer, Thomas M., House	5 mi. (8 km) W of Washington on U.S. 78	Washington	11/2/1977
Holly Court	301 S. Alexander St.	Washington	4/11/1972
Kettle Creek Battlefield	9 mi. SW of Washington off Tyrone Rd.	Washington	6/26/1975
Mary Willis Library	E. Liberty and S. Jefferson Sts.	Washington	4/11/1972
Old Jail	103 Court St.	Washington	6/5/1974
Peacewood	120 Tignall Rd.	Washington	4/11/1972
Pharr-Callaway-Sethness House	N of Tignall on GA 2193	Tignall	3/26/1976
Poplar Corner	210 W. Liberty St.	Washington	4/11/1972
Smith, Robert Shand, House	902 S. Spring St.	Washington	11/7/2002
Toombs, Robert, House	216 E. Robert Toombs Ave.	Washington	4/11/1972
Tupper-Barnett House	101 W. Robert Toombs Ave.	Washington	4/11/1972
Washington Presbyterian Church	206 E. Robert Toombs Ave.	Washington	4/11/1972
Washington-Wilkes Historical Museum	308 E. Robert Toombs Ave.	Washington	5/13/1970
Wilkes County Courthouse	Court St.	Washington	9/18/1980
Willis-Sale-Stennett House	N of Danburg off GA 79 on SR 1445	Danburg	10/14/1976



Map F-1: City of Washington Zoning

	City Limits
	Highways
	Roads
Zoning	
	R1 - Agriculture-Residential District
	R2 - General Residential District
	R3 - High-density Residential District
	RMH - Mobile Home District
	R3A - Redevelopment Residential District
	R3B - Special High Density Residential District
	C1 - Neighborhood Commercial District
	C2 - Highway Commercial District
	C3 - Primary Commercial District
	C4 - Heavy Commercial District
	M1 - Light Industrial District
	M2 - General Industrial District
	H1 - Historic District
	P1 - Professional and Civic District

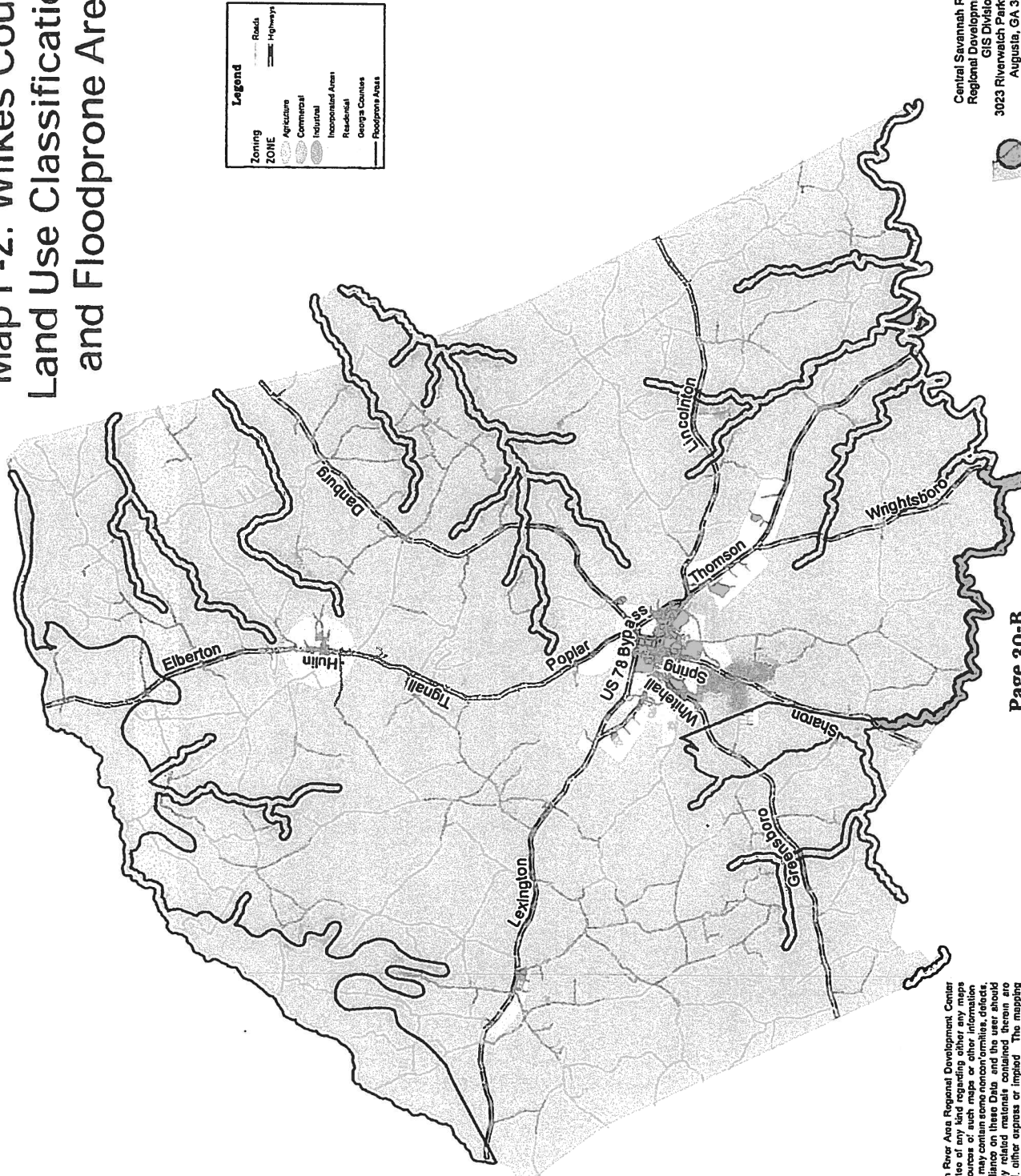


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Page 30-A

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Map F-2: Wilkes County Land Use Classifications and Floodprone Areas



Legend	
Zoning	Roads
ZONE	Highways
Agriculture	
Commercial	
Industrial	
Incorporated Area	
Residential	
Georgia Counties	
Floodprone Areas	

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Table 11: Wilkes County National Register Historic Properties

District			
Resource Name	Address	City	Listed
East Robert Toombs Historic District	East Robert Toombs Ave. between Alexander Ave. and Grove St.	Washington	4/11/1972
North Washington District	Bounded by Jefferson and Court Sts., Poplar Dr., and U.S. 78	Washington	3/7/1973
Washington Commercial Historic District	Roughly bounded by Court St., Jefferson St., Robert Toombs Ave., and Allison St.	Washington	3/6/1986
Washington Historic District	Centered on West Robert Toombs Ave. and N. Alexander St.	Washington	12/6/2004
West Robert Toombs District	W. Robert Toombs Ave. between Allison St. and Rte. 44 and Lexington Ave.	Washington	3/1/1973

Source: National Register of Historic Places

The 4 Washington-Wilkes jurisdictions collectively rely on historic-resource tourism to provide for economic growth. The communities' increasing inventory of historic sites also provides greater improves overall quality of life for area residents. An often overlooked aspect of being able to enjoy these important resources is ensuring that their settings remain unspoiled and retain as much of the original context for which they were listed. Unflattering development in close proximity to these resources can easily detract from their intended uses, reduce marketability, and limit their positive economic impact.

6.1.8 Airport Proximity

The Washington-Wilkes County Airport is located approximately 5 miles northwest of downtown Washington along U.S. Highway 78. This public use airport is capable of accommodating turbojet aircraft. Per DNR criteria, no solid waste handling facility may be located within 10,000 feet from the end of the runway.

6.1.9 Jurisdictional Boundaries

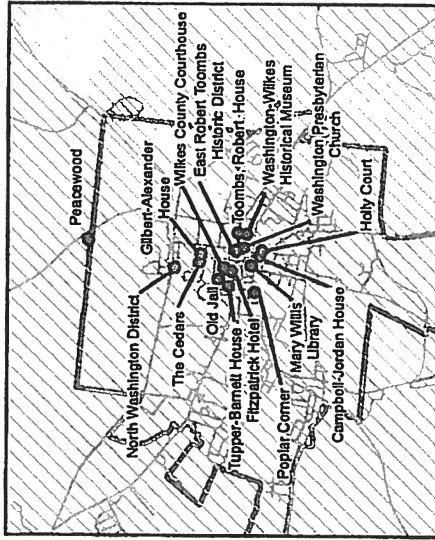
Wilkes County is bordered by Elbert, Lincoln, McDuffie, Oglethorpe, Taliaferro and Warren Counties. Potential siting of solid waste handling facilities within Wilkes County must be consistent with siting criteria in neighboring jurisdictions.

6.1.10 Access

The highway system throughout Wilkes County is fairly well-maintained and provides access to the majority of the community. The consistent availability of paved state and county highways in Wilkes County reduces the siting hurdle for potential solid waste handling facilities.

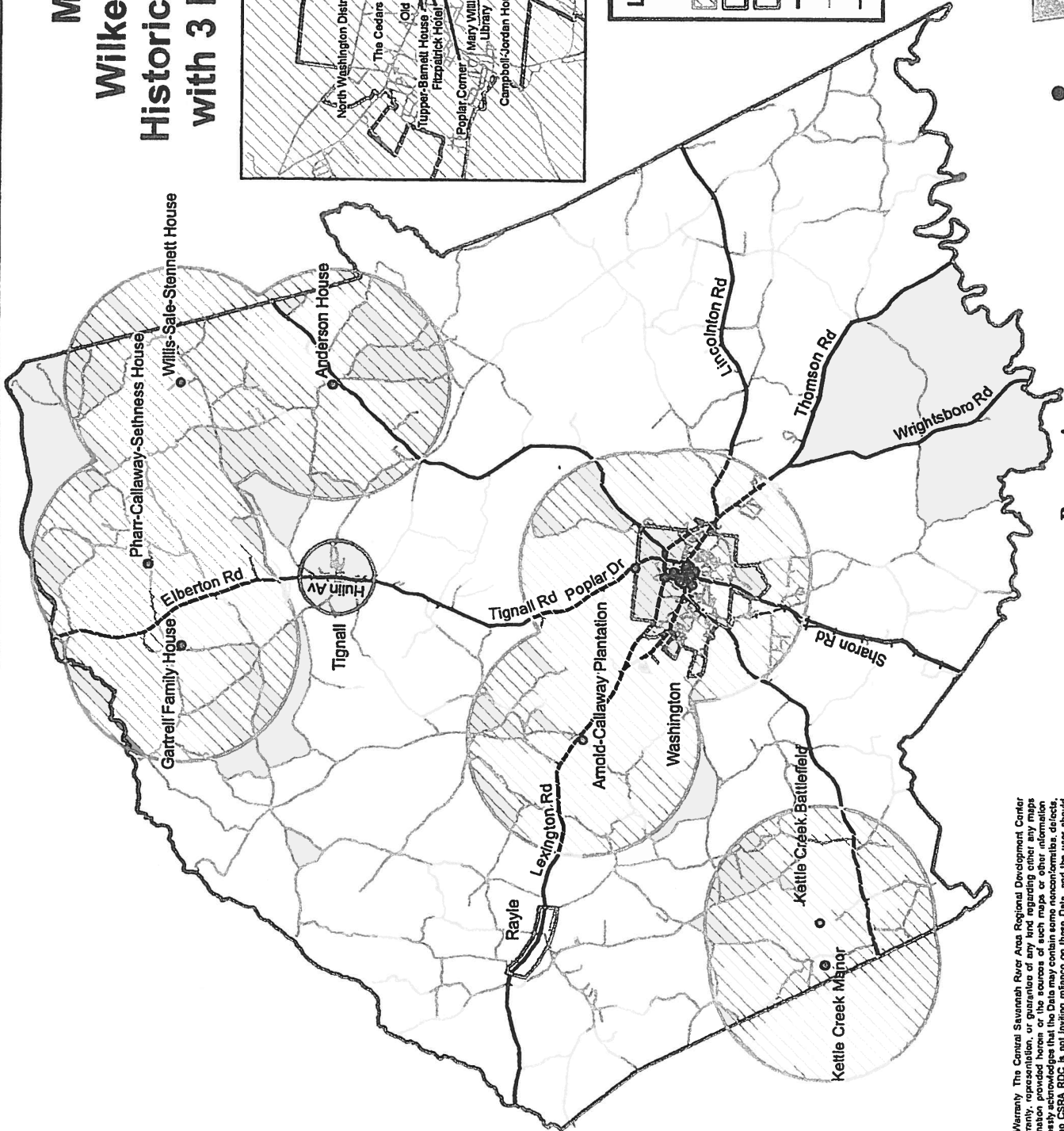


Map G Wilkes County Historic Resources with 3 Mile Buffer

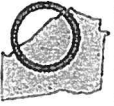


Legend

- Historical_Sites
- Historical_Sites_Buffer1
- Wilkes County
- Cities
- Highways
- Roads
- Railroad



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February 2007

6.2 Assessment and Needs

The goal of the land limitation element is to identify areas of the County which should be avoided when developing solid waste handling facilities. This is an effort towards providing environmentally and socially sound solid waste disposal facilities. As the County considers siting new disposal facilities, local officials need to be cognizant of environmental considerations as well as other special needs. Regulation should not necessarily result in the prohibition of private solid waste disposal facilities but ensure that the development facilities do not conflict with this Plan, local comprehensive planning documents, or other local, state and federal regulations. While the maps contained in this Chapter illustrate some of the land limitations applicable in Wilkes County, it is important to note that additional local, state and federal siting criteria may result in additional properties being deemed inappropriate for the siting of solid waste handling facilities.

6.2.1 Water Supply Watersheds

The City of Washington depends on Lake Boline and Lake Wall for a significant percentage of its public drinking water supply. Both watersheds are extremely small in size, and despite the required consistency of solid waste handling facilities with DNR rules, the potential failure of leachate collection systems and/or synthetic liners would critically impact the well-being of the citizens of Washington. Because of this risk, solid waste handling facilities shall not be located within the Lake Boline and Lake Wall water supply watersheds. Additionally, landfills shall not be located within any water supply watershed in Wilkes County.

6.2.2 Groundwater Recharge Areas

The citizens of Wilkes County and the Cities of Rayle and Tignall rely exclusively on groundwater sources for their drinking water supply. In addition to DNR rules, solid waste handling facilities shall be prohibited from locating within 2 miles of portions of the county that have been identified as groundwater recharge areas. The potential for leachate collection system and/or synthetic liner failure places vital groundwater sources for major portions of the county in jeopardy.

6.2.3 Wetlands

Consistent with DNR rules, solid waste handling facilities shall not be located within identified wetland areas.

6.2.4 River Corridors

Protected rivers illustrated on **Map C** are on the U.S. EPA's list of 303(D)/305 (B) protected rivers due to apparently high levels of particular contaminants.

Because these critical waterways are already impaired by 1 or more pollutants, the siting of solid waste handling facilities within close proximity to these water courses can easily compound existing problems. As a result, solid waste handling facilities shall not be located within 2 miles of a protected river corridor. In addition, other surface waters throughout the county can easily be contaminated by activities associated with mismanaged or failing solid waste handling facilities. As a result, all other navigatable river corridors shall be subject to DNR's minimum planning criteria.

6.2.5 Floodplains

The critical and fragile habitats associated with wetlands are often present in floodplains. In addition, floodplains that may be disrupted or altered by filling activities associated with solid waste handling facilities – potentially creating flooding problems for downstream property owners. Solid waste handling facilities shall be prohibited from being located within floodplain areas.

6.2.6 Local Zoning/Land Use

Wilkes County and the City of Washington have appropriate regulations in place to discourage the location of solid waste facilities in areas identified as unsuitable. The location of any potential solid waste handling facility in these jurisdictions would require zoning amendments. The Cities of Rayle and Tignall do not have local land use regulations; however, the small size and population concentrations within these communities (as well as within Washington) make the location of solid waste handling facilities inappropriate regardless of whether local land use regulations are currently in place.

6.2.7 Historic Resources

Wilkes County, Rayle, Tignall and Washington continue to make significant investments in historic resources and the marketing of their rich history. History-related tourism continues to grow in importance for the community. In order to protect the marketability of these resources, it is in the communities' best interests to prohibit the siting of solid waste handling facilities within close proximity. Such facilities have the potential to negatively impact historic resources due to noise, smell, traffic, viewshed obstruction, etc. Solid waste handling facilities shall not be located within 3 miles of a historic resource.

6.2.8 Airport Proximity

Solid waste handling facilities should be located at least 10,000 from either end of the runway at the Washington-Wilkes County Airport. Because of the future potential for runway expansion or the construction of additional runways, the 10,000 foot buffer should be observed from all sides of the property.

6.2.9 Jurisdictional Boundaries

Until any multi-jurisdictional agreements are made between Wilkes County and its neighboring counties, solid waste handling facilities should be located in such a way as to not be a detriment to these other jurisdictions. The county respects the siting criteria adopted by its neighboring counties. Because of the rural atmosphere of Wilkes County, and the ample supply of open land, these development criteria should not pose a problem for the county so long as any development does not conflict with a neighboring jurisdiction's siting criteria.

6.2.10 Access

Any future solid waste handling facility in Wilkes County would need to be sited on an easily accessible parcel of land with direct paved road access that does not interfere with rail system operations.

6.3 Procedures for Siting Solid Waste Handling Facilities

Any entity requesting a renewal or issuance of a solid waste handling permit from EPD must demonstrate that the facility or facility expansion is consistent with the local government's solid waste management plan. Chapter 391-3-4.05 of the Georgia Department of Natural Resources' Environmental Protection Division Rules deals specifically with the siting criteria associated with siting landfills and/or solid waste transfer facilities. In addition to the criteria set forth under DNR's regulations, the County will also use the following criteria to determine whether the issuance of the requested permit is consistent with the Solid Waste Management Plan:

- Determine whether the proposed facility or facility expansion is sited in an area deemed unsuitable according to development criteria (examples include, but are not limited to: in groundwater recharge areas; located within two miles of a municipal water supply; on soils poorly suited for development; on slopes of greater than 25 percent; in area that do not have easy accessibility to transportation networks; on urban or built up lands; on or around water bodies or wetlands; or on federal, state, or public lands; in compliance with neighboring jurisdiction's siting criteria).
- Determine whether the proposed facility or facility expansion is sited in a location that is consistent with any local zoning ordinances.
- Determine whether the proposed facility or facility expansion negatively impacts other natural or cultural resources of the County.
- Determine whether the proposed facility or facility expansion negatively impacts the current solid waste management infrastructure of the County;

- Determine whether the proposed facility or facility expansion negatively impacts collection capability and disposal capacity identified in the Plan.
- Determine whether the proposed facility or facility expansion negatively impacts the County's ability to contribute to the state-wide solid waste reduction.
- Determine whether the proposed facility or facility expansion negatively impacts the financial viability of the County's solid waste management system.

No proposed facility or facility expansion will be sited without a letter from the Wilkes County Board of Commissioners for the unincorporated area or the City Councils of Rayle, Tignall or Washington for their respective jurisdictions, stating that the facility is consistent with the Solid Waste Management Plan. The Wilkes County Board of Commissioners or the City Councils in Rayle, Tignall or Washington will hold at least 1 public hearing to gather input to make this determination for their respective jurisdictions.

Applicants of proposed facilities or facility expansions shall consult with City and/or County officials in order to identify an appropriate date to schedule a public hearing. The applicant shall advertise the public hearing in the local newspaper and distribute letters of intent to adjacent property owners no less than 15 days prior to the date of the scheduled hearing. Should the Board/Council determine, based on information provided, to disapprove the proposal based on inconsistency with the adopted solid waste management plan, the applicant may appeal and provide additional information at a subsequent Board/Council meeting. Applicants may appeal any additional negative ruling by the Board/Council to circuit court.

6.4 Goals

All goals are applicable to Wilkes County and the Cities of Rayle, Tignall and Washington unless otherwise noted.

- Continue to coordinate solid waste planning with County ordinances and local comprehensive planning documents (Wilkes County).
- Review as needed local ordinances for amendments due to land use changes and waste reduction/recycling programs implementation.
- Adopt any environmental ordinances recommended in the County's comprehensive planning document (Wilkes County).
- Continue use of siting criteria maps contained in the solid waste management plan in review and planning for future solid waste management facilities.
- Enforce jurisdictional ordinances through code enforcement.

7.0 Introduction

The purpose of this element of the Plan is to provide an inventory and assessment of existing educational programs and public involvement alternatives available in Wilkes County and the Cities of Rayle, Tignall and Washington. Local governments throughout Georgia are encouraging residents to become more aware of the true costs of solid waste management and the need for waste reduction, recycling and siting of new facilities.

7.1 Inventory

7.1.1 Local Government Programs

Currently, Wilkes County jurisdictions do not participate in the Keep Georgia Beautiful program. Development of an affiliate chapter of this non-profit organization would allow Wilkes County, Rayle, Tignall and Washington's initiate efforts towards public education on waste reduction. Keep Georgia Beautiful chapters provide information to interested parties as well as presents educational programs at local schools.

Some public education efforts have been undertaken in the development of this solid waste management plan. The Solid Waste Management Act requires local governments conduct 2 public hearings before submitting a solid waste management plan to their Regional Development Center for review. The first public hearing was held on June 29, 2006 at the Wilkes County Courthouse. All interested parties along with the general public were encouraged to attend and become involved in the planning process through public advertisements. The hearing was designed to inform the public on the planning process and to encourage input on solid waste goals, needs, and issues. The second public hearing was held near the conclusion of the planning process on March 30, 2007. A copy of the Plan was prepared and distributed to stakeholders for review and comment.

7.1.2 Solid Waste Committee/Task Force

Solid waste activities within Wilkes County are directly managed by the applicable county commission and city councils for all 4 jurisdictions. Establishment of a specialized committee or task force has not been viewed as a need due to the current – and projected – small scale of solid waste collection and disposal operations in the county.

7.1.3 School System Programs

School system programs and activities related to solid waste and waste reduction is limited to the standardized curriculum mandated in the Georgia Department of

Education's *Science Quality Core Curriculum*. The Wilkes County Board of Education (BOE) does not independently operate any solid waste or waste reduction educational programs. The City of Washington has previously made presentations to some public school classes regarding solid waste collection and disposal; but, a standardized program or schedule of presentations has not been developed in conjunction with the Wilkes County BOE.

7.1.4 Litter Control Programs

Wilkes County and Washington have both adopted ordinances regulating litter and illegal dumping. Enforcement of these ordinances is largely the responsibility of local law enforcement and is conducted predominantly on a complaint basis. Road-side litter pick-up is sometimes conducted by the Wilkes County Sheriff's Department utilizing prison labor.

7.1.5 Regional RDC Programs

The CSRA RDC does not have any regional recycling programs in place. The RDC is currently applying for Solid Waste Management Grant from the United States Department of Agriculture (USDA) for the preparation of a regional recycling feasibility study. Wilkes County and Washington have both endorsed the RDC's efforts in obtaining USDA funding (See **Appendix A**).

7.2 Assessment and Needs

There is currently very little infrastructure in place throughout all 4 Wilkes County jurisdictions to increase public awareness of local solid waste management and waste reduction practices and programs. Without an autonomous solid waste task force or steering committee, or an independent waste reduction advocacy organization such as Keep Georgia Beautiful operating in the county, there is little discourse on the impacts of local decisions affecting the waste stream. One (1) apparent correlation with the lack of public awareness on solid waste management issues is the low level of participation in Wilkes County's and Washington's recycling programs.

While communities of larger size typically have the resources to designate a public sector employee to promote public education, waste reduction and litter control efforts, the limited resources in Wilkes County, Rayle, Tignall and Washington may make such an appointment impractical. As previously suggested in **Chapter 3**, a public/private initiative to establish an affiliate chapter of Keep Georgia Beautiful (or similar organization) may be the communities' best vehicle for increasing public awareness and involvement in local solid waste management issues.

With an acknowledged limit to local resources, establishment of programs within the school system to educate students about solid waste management issues will require the initiative of the Wilkes County BOE, or individual school administrators and teachers. Wilkes County and Washington may encourage the BOE to consider such an augmentation of their science curriculum simply by notifying the school system of the need and the local government's willingness to participate in a structured solid waste education program.

Current litter and illegal dumping ordinances in the county and cities are adequate. The ability to enforce these ordinances is impaired by large geographic coverage areas and lack of manpower. Any educational programs developed in the county regarding solid waste management issues should include a component that will promote public participation in litter control programs and assisting with the enforcement of litter control ordinances.

7.3 Goals

All goals are applicable to Wilkes County and the Cities of Rayle, Tignall and Washington unless otherwise noted.

- Educate residents on the importance of pursuing a reduction in the amount of solid waste received at disposal facilities through participation in recycling programs (Washington).
- Coordinate with citizens and private organizations to establish an affiliate chapter of Keep Georgia Beautiful.
- Coordinate with the Wilkes County BOE to create a solid waste management educational program in local schools.
- Work with the State's Recycling Coordinator to identify viable educational and recycling projects in the county.

8.0 Introduction

The implementation strategy represents a culmination of information gathered in the preceding elements. After all elements have been inventoried and assessed, and needs and goals have been identified, the plan must identify an implementation schedule for relevant current programs and future planned programs for each element.

A “report of accomplishments” for the short-term work program period between 2002 and 2007 can be found in **Appendix C**.

The implementation strategy is presented in the attached work plan. It includes specific actions which address the needs and goals expressed in the planning elements and which will help the State reach the statewide goal of waste disposal reduction. Plans and programs presented in the implementation strategy demonstrate 10 year collection capability and disposal capacity. Finally, the implementation strategy identifies specific administrative responsibilities and budgeting necessary to implement the Plan (See **Appendix C**).

APPENDIX A

Wilkes County Board of Commissioners

23 COURT STREET, ROOM 222
WASHINGTON, GEORGIA 30673

Telephone 706.678.2511

Fax 706.678.3033

Email wilkescoboc@yahoo.com

COMMISSIONERS
SAMUEL J. MOORE, Chairman
DONNA B. HARD
E. JERRY STOVER, JR.
DIVENSKI R. LEE
JOHN E. HOWARD

County Administrator
DAVID L. TYLER

County Attorney
CHARLES LeGETTE

December 19, 2006

Andy Crosson
CSRA Regional Development Center
3023 Riverwatch Parkway, Suite A
Augusta, GA 30907-2016

Dear Mr. Crosson,

The Wilkes County Board of Commissioners is pleased to participate in the Regional Feasibility Recycling Study. Many of the cities and counties in the CSRA RDC's service area find it hard to implement recycling given the relatively small amount of solid waste tonnage generated within the small rural areas of our region. Solid Waste Management Plans in this region have called upon the CSRA RDC to conduct a feasibility assessment to determine if a regional recycling program would prove cost effective in the CSRA.

Wilkes County offers its support for the application to the U.S. Department of Agriculture for a Solid Waste Management Grant for the purpose of conducting a Recycling Feasibility Study for the CSRA region. We have committed to the fund match of \$486.26. The CSRA RDC is authorized by the Board of Commissioners on our behalf with the filing of the USDA Solid Waste Management grant to provide the remainder of the funds for this project.

Sincerely,



Sam Moore
Chairman

APPENDIX A

City of Washington



Post Office Box 9
Washington, Georgia 30673
706-678-3277
Fax: 706-678-3752

December 15, 2006

Willie E. Burns, Mayor
Michael P. Eskew, Administrator
Debbie L. Danner, Clerk
Barry A. Fleming, Attorney

Council Members
G.L. Avery
Nathaniel Cullars, Sr.
Pamela L.G. Eaton
Robert Ray Hardy
Maceo D. Mahoney
D. Anna Norman

F. Stone Workman
USDA Georgia Rural Development Office
355 East Hancock Avenue
Athens, GA 30601-2768

Dear Mr. Workman:

One of the solid waste reduction goals included in the state, region and local Solid Waste Management Plans is that every effort be undertaken to reduce the amount of municipal solid waste being received at disposal facilities. However, many of the cities and counties in the CSRA RDC's service area find it hard to implement recycling given the relatively small amount of solid waste tonnage generated within each jurisdiction's boundaries. This is particularly true in the smaller rural areas. As a result, the RDC is submitting an application to the U.S. Department of Agriculture for a Solid Waste Management Grant for the purpose of conducting a Recycling Feasibility Study and developing recycling education programs for the CSRA region. The outcome of the study would demonstrate how to best implement a regional recycling program throughout the CSRA and build on existing programs.

The City of Washington is located in Wilkes County and offers its support to this grant application. The City of Washington has a successful recycling program. We are always looking for ways to improve our program and provide educational programs. This grant would greatly assist the County and its municipalities in improving our program and increasing the level of recycling education for our region.

Thank you for your consideration of this application. If I can be of any assistance please do not hesitate to call at 706-678-3277.

Sincerely,

A handwritten signature in cursive script that reads "Willie Burns".

Willie Burns
Mayor

APPENDIX C

Wilkes County/Rayle/Tignall/Washington Joint Solid Waste Management Plan Implementation Strategy 2007-2016

	ACTIVITY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Responsible Party	Cost	Funding Source
	Collection Element													
1	Evaluate collection efforts periodically to determine if changes are needed or if new collection mechanisms are feasible (including the feasibility of franchise fees and other collection options).	X		X		X		X		X		Wilkes County/Washington	N/A	N/A
2	Maintain collection data provided by private haulers and assess on a yearly basis.	X	X	X	X	X	X	X	X	X	X	Wilkes County	N/A	N/A
3	Develop a unified Washington-Wilkes solid waste contingency collection strategy.	X										County/Cities	N/A	N/A
4	Ensure that solid waste management policies and contingency collection strategies are consistent with local comprehensive plans.	X										County/Cities	N/A	N/A
5	Maintain city government collection vehicle and equipment replacement.	X	X	X	X	X	X	X	X	X	X	Washington	Variable	SW Operating Budget
6	Convert back-door pick-up service to curbside collection.	X	X	X								Washington	\$10,000	General Fund
7	Reduce operating expenses by consolidating unstaffed green-box collection sites.	X	X	X	X	X						County	Variable	SW Operating Budget
8	City government collection vehicle & equipment replacement:	X	X	X	X	X	X	X	X	X	X	Wilkes County/Washington		
	A. Garbage Truck (Washington)									X		Washington	\$40,000	General Fund
	B. Pickup Truck (Washington)					X						Washington	\$20,000	General Fund
	C. Leaf Vacuum (Washington)									X		Washington	\$20,000	General Fund
	Disposal Element													
1	Evaluate disposal efforts periodically to determine if changes are needed or if new disposal mechanisms are feasible to meet State 25% reduction goal.	X		X		X		X		X		Wilkes County/Washington	N/A	N/A

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Wilkes County/Rayle/Tignall/Washington Joint Solid Waste Management Plan Implementation Strategy 2007-2016

	ACTIVITY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Responsible Party	Cost	Funding Source
2	Maintain disposal data provided by private haulers and assess on a yearly basis.	X	X	X	X	X	X	X	X	X	X	Wilkes County	N/A	N/A
3	Review local comprehensive plans prior to developing future solid waste management policies.	X	X	X	X	X	X	X	X	X	X	County/Cities	N/A	N/A
4	Develop a unified Washington-Wilkes solid waste contingency disposal strategy.	X										County/Cities	N/A	N/A
5	Maintain public disposal equipment and vehicles.	X	X	X	X	X	X	X	X	X	X	Wilkes County/Washington	Variable	SW Operating Budget
6	Pro-actively consider alternative future disposal options.	X	X	X	X	X	X	X	X	X	X	County/Cities	N/A	N/A
	Land Limitation Element													
1	Continue to coordinate solid waste planning with County ordinances and local comprehensive planning documents.	X	X	X	X	X	X	X	X	X	X	Wilkes County	N/A	N/A
2	Review as needed local ordinances for amendments due to land use changes and waste reduction/recycling programs implementation.	X	X	X	X	X	X	X	X	X	X	County/Cities	N/A	N/A
3	Adopt any environmental ordinances recommended in the County's comprehensive planning document.	X	X	X	X	X	X	X	X	X	X	Wilkes County	Variable	General Fund
4	Continue use of siting criteria maps contained in the solid waste management plan in review and planning for future solid waste management facilities.	X	X	X	X	X	X	X	X	X	X	County/Cities	N/A	N/A
5	Enforce jurisdictional ordinances through code enforcement.	X	X	X	X	X	X	X	X	X	X	County/Cities	N/A	N/A

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Wilkes County/Rayle/Tignall/Washington Joint Solid Waste Management Plan Implementation Strategy 2007-2016

ACTIVITY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Responsible Party	Cost	Funding Source
Education and Public Involvement Element													
1 Educate residents on the importance of pursuing a reduction in the amount of solid waste received at disposal facilities through participation in recycling programs.					X	X	X	X	X	X	Washington/ Private Organizations	N/A	N/A
2 Coordinate with citizens and private organizations to establish an affiliate chapter of Keep Georgia Beautiful.	X	X	X								County/Cities/ Private Organizations	N/A	N/A
3 Coordinate with the Wilkes County BOE to create a solid waste management educational program in local schools.					X	X					Wilkes County/ Washington	N/A	N/A
4 Work with the State's Recycling Coordinator to identify viable educational and recycling projects in the county.			X	X							County/Cities/ Private Organizations	N/A	N/A

APPENDIX C

**Wilkes County, Tignall, Rayle and Washington
Transitional Joint Solid Waste Management Plan
Short-Term Work Program (2003-2007) - Report of Accomplishments**

Waste Element	2003	2004	2005	2006	2007	Responsibility	Cost	Funding Source	Status	Comments
Waste Element										
Waste	XXX	XXX	XXX	XXX	XXX	County	N/A	N/A	Ongoing	None
Waste Analysis	XXX	XXX	XXX	XXX	XXX	County	N/A	N/A	Ongoing	Material analysis reports and waste codes constantly being reviewed and refined.
Reduction Strategies	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Incomplete	Participation rates of local waste reduction programs undetermined.
Collection Element										
Utilize Green Boxes	XXX	XXX	XXX	XXX	XXX	County	1,000,000	General Fund	Ongoing	None
Replace Green Boxes as Necessary	XXX	XXX	XXX	XXX	XXX	County	25,000	General Fund	Ongoing	None
Monitor Green Boxes	XXX	XXX	XXX	XXX	XXX	County	N/A	N/A	Ongoing	None
Backdoor Collection	XXX	XXX	XXX	XXX	XXX	Washington	1,875,000	Solid Waste Fund	Ongoing	None
Maintain Equipment	XXX	XXX	XXX	XXX	XXX	City	100,000	Solid Waste Fund	Ongoing	None
Waste Reduction Element										
Transfer recycled materials to Athens	XXX	XXX	XXX	XXX	XXX	County	N/A	N/A	Ongoing	City of Washington ships recycled materials to Athens-Clarke County Material Recovery facility.
White goods collection	XXX	XXX	XXX	XXX	XXX	County	N/A	N/A	Ongoing	None
Yard Waste Collection and Composting	XXX	XXX	XXX	XXX	XXX	Washington	975,000	Solid Waste Fund	Ongoing	None
Pursue regional recycling opportunities	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Incomplete	Awaiting word on funding for regional recycling study.
Backdoor Recycling	XXX	XXX	XXX	XXX	XXX	Washington	100,000	Solid Waste Fund	Ongoing	None
Disposal Element										
Transfer Station	XXX	XXX	XXX	XXX	XXX	County	2,250,000	General Fund	Ongoing	None
Monitor Landfill, wells and streams	XXX	XXX	XXX	XXX	XXX	County	125,000	General Fund	Ongoing	None
Education and Public Element										
Promote Reduction	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Incomplete	None
Provide Educ. Material	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Incomplete	None
Promote Comm. Reduction	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Ongoing	County commercial cardboard collection.
Provide Presentations	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Incomplete	None
Finance Element										
User Fees	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Ongoing	None
Continue Full Cost Accounting	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Ongoing	None
Pursue Grants	XXX	XXX	XXX	XXX	XXX	City/County	N/A	N/A	Ongoing	Supporting CSRA RDC effort for federal funding of a regional recycling study.