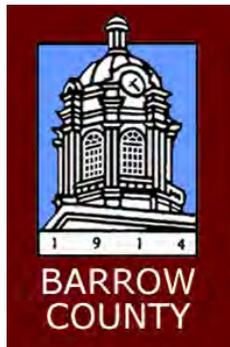


FINAL DRAFT

Barrow County
Comprehensive Plan 2007-2027

***COMMUNITY
ASSESSMENT***



Prepared for:
Barrow County
Winder, Georgia

By:

 **MACTEC**

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Atlanta, Georgia
June 7, 2007

Table of Contents

TABLE OF CONTENTS	1-1
LIST OF TABLES	1-2
LIST OF MAPS	1-3
1 INTRODUCTION	1-1
1.1 Purpose.....	1-1
1.2 Scope.....	1-1
2 UNINCORPORATED BARROW COUNTY	2-1
2.1 Issues and Opportunities.....	2-1
2.2 Existing Development Pattern	2-7
2.3 Quality Community Objectives Analysis	2-14
3 CITY OF AUBURN	3-1
3.1 Issues and Opportunities.....	3-1
3.2 Existing Development Pattern	3-5
3.3 Quality Community Objectives Analysis	3-11
4 TOWN OF BETHLEHEM	4-1
4.1 Issues and Opportunities.....	4-1
4.2 Existing Development Pattern	4-5
4.3 Quality Community Objectives Analysis	4-11
5 TOWN OF CARL	5-1
5.1 Issues and Opportunities.....	5-1
5.2 Existing Development Pattern	5-5
5.3 Quality Community Objectives Analysis	5-11
6 CITY OF STATHAM	6-1
6.1 Issues and Opportunities.....	6-1
6.2 Existing Development Pattern	6-6
6.3 Quality Community Objectives Analysis	6-12
7 CITY OF WINDER	7-1
7.1 Issues and Opportunities.....	7-1
7.2 Existing Development Pattern	7-6
7.3 Quality Community Objectives Analysis	7-14



List of Tables

Table 2-1	Population Projections – Unincorporated Barrow County	2-1
Table 2-2	Existing Land Use Classifications	2-7
Table 2-3	Existing Land Use Unincorporated Barrow County.....	2-8
Table 2-4	Areas Requiring Special Attention – Unincorporated Barrow County.....	2-10
Table 2-5	Recommended Character Area Descriptions – Unincorporated Barrow County	2-11
Table 3-1	Population Projections –Auburn	3-1
Table 3-2	Existing Land Use Classifications	3-5
Table 3-3	Existing Land Use – Auburn	3-6
Table 3-4	Areas Requiring Special Attention – Auburn.....	3-8
Table 3-5	Recommended Character Area Descriptions - Auburn	3-9
Table 4-1	Population Projections – Bethlehem	4-1
Table 4-2	Existing Land Use Classifications	4-5
Table 4-3	Existing Land Use – Bethlehem.....	4-6
Table 4-4	Areas Requiring Special Attention – Bethlehem	4-8
Table 4-5	Recommended Character Area Descriptions - Bethlehem	4-9
Table 5-1	Population Projections – Carl.....	5-1
Table 5-2	Existing Land Use Classifications	5-5
Table 5-3	Existing Land Use – Carl.....	5-6
Table 5-4	Areas Requiring Special Attention – Carl	5-8
Table 5-5	Recommended Character Area Descriptions - Carl.....	5-9
Table 6-1	Population Projections – Satham.....	6-1
Table 6-2	Existing Land Use Classifications	6-6
Table 6-3	Existing Land Use – Satham.....	6-7
Table 6-4	Areas Requiring Special Attention – Satham	6-9
Table 6-5	Recommended Character Area Descriptions - Satham.....	6-10
Table 7-1	Population Projections – Winder	7-1
Table 7-2	Existing Land Use Classifications	7-6
Table 7-3	Existing Land Use – Winder	7-7
Table 7-4	Areas Requiring Special Attention – Winder.....	7-10
Table 7-5	Recommended Character Area Descriptions - Winder.....	7-11



List of Maps

Map 1	Existing Land Use – Unincorporated Barrow County	2-9
Map 2	Recommended Character Areas – Unincorporated Barrow County.....	2-13
Map 3	Existing Land Use – Auburn	3-7
Map 4	Recommended Character Areas – Auburn.....	3-10
Map 5	Existing Land Use – Bethlehem.....	4-7
Map 6	Recommended Character Areas – Bethlehem	4-10
Map 7	Existing Land Use – Carl.....	5-7
Map 8	Recommended Character Areas – Carl	5-10
Map 9	Existing Land Use – Statham.....	6-8
Map 10	Recommended Character Areas – Statham	6-11
Map 11	Existing Land Use – Winder	7-8
Map 12	Existing Land Use – Downtown Winder	7-9
Map 13	Recommended Character Areas – Winder	7-12
Map 14	Recommended Character Areas – Downtown Winder	7-13



1 Introduction

1.1 Purpose

The Community Assessment is the first step in the revision of the *Barrow County Comprehensive Plan 2007-2027*. It provides a factual and conceptual foundation for the remaining work involved in preparing the *Barrow County Comprehensive Plan 2007-2027*. Production of the Community Assessment involved the collection and analysis of community data and information. This report represents the final product of that analysis and provides a concise, informative report that will form the basis for developing the Community Agenda portion of the plan. The Community Agenda represents the community's vision, goals, policies, key issues and opportunities that the community chooses to address, and an action plan highlighting the necessary tools for implementing the plan.

The *Barrow County Comprehensive Plan 2007-2027* updates the *Barrow County Comprehensive Plan 2018* adopted in 1998 by the Barrow County Board of Commissioners and the Auburn, Bethlehem, Statham and Winder city councils. Like the 1998 plan, this update will serve as the Comprehensive Plan for Barrow County and its municipalities.

The Community Assessment will be submitted to the Northeast Georgia Regional Development Center (NEGRDC) and the Georgia Department of Community Affairs' (DCA) for review and approval. The Community Assessment serves the purpose of meeting the intent of the DCA "Standards and Procedures for Local Comprehensive Planning," as established on May 1, 2005. Preparation in accordance with these standards is an essential requirement in maintaining the County's status as a Qualified Local Government.

1.2 Scope

The Community Assessment encompasses unincorporated Barrow County and the cities of Auburn, Bethlehem, Carl, Statham and Winder. The town of Braselton extends into the northwest corner of Barrow County. Based on criteria set by the state, Braselton planning occurs with the published comprehensive plan update schedule for Jackson County, where Braselton's city hall is located.

The Community Assessment includes the following information, as required by the DCA Standards, organized in individual chapters for unincorporated Barrow County and each municipality:

- Listing of issues and opportunities that the community wants to address
- Analysis of existing development patterns
- Analysis of consistency with the Quality Community Objectives (QCO)

The Community Assessment provides an executive summary of community analyses in order to provide an easy reference for stakeholders who will need to refer to the information throughout the planning process. More detailed data and analysis can be found in its entirety in the *Analysis of Supporting Data*.



2 Unincorporated Barrow County

2.1 Issues and Opportunities

The issues and opportunities described below have been identified from a review of the *Analysis of Supporting Data for the Community Assessment*, discussions with County staff, review of recently completed plans, review of plans currently under development, and other initiatives. This analysis included an examination of the QCO. This section organizes the issues and opportunities by the major topics defined in the DCA Local Planning Requirements. The assessment topics include the following areas:

- Population
- Housing
- Economic Development
- Natural and Cultural Resources
- Community Facilities and Services
- Transportation
- Intergovernmental Coordination
- Land Use

Table 2-1 Population Projections – Barrow County

Area	2005	2010	2015	2020	2025	2030
Unincorporated (includes Braselton in Barrow)	36,618	46,824	59,701	72,794	99,204	101,696
Barrow County (Total)	59,954	80,000	102,000	124,370	169,493	173,750

Note: Methodology is presented in the Analysis of Supporting Data

Source: MACTEC, NEGRDC

2.1.1 Population

Issues

- Rapid population and household growth
- High percentage of families with children relative to neighboring counties
- Much of the County’s growth is focused in unincorporated areas
- Projections show continued growth



New home construction in unincorporated Barrow County has fueled much of the growth rate over the last 10 years

2.1.2 Housing

Issues

- Limited choice of housing types
- Jobs/Housing imbalance
- Disproportionate number of County’s new housing units built for first-time homeowners

Opportunities

- Healthy supply of affordable housing
- Encourage Traditional Neighborhood Development (TND)
- Mixed use activity centers could provide opportunities for more housing types in locations suitable for higher density, pedestrian friendly development

2.1.3 Economic Development

Issues

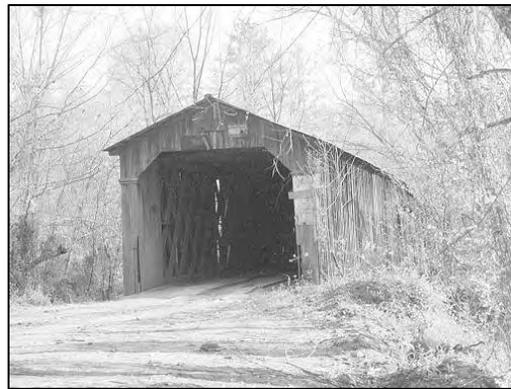
- Lack of sewer and other infrastructure needed to promote gateway areas for development
- Job growth not keeping up with population growth

Opportunities

- Acquisition of land for a County industrial park/research park development
- Encourage bioscience research facilities to locate along the State Route (SR) 316 corridor
- Implementation of strategies outlined by the Barrow Summit report
- Location advantage between Atlanta and Athens as well as the transportation infrastructure railroad, SR 316 and Interstate 85
- Ample supply of large, available undeveloped tracts
- Potential for Commercial Improvement Districts along important corridors
- Unique features and important assets within the County such as Fort Yargo, Winder Barrow Airport, Chateau Elan, the Georgia Club, and the existing farming activities
- Workforce development plan implementation
- Expansion of airport facilities and services provide marketing tool



Barrow County will seek to add more jobs during the planning period to try to balance the number of jobs with the number of housing units



Historic covered bridge in Barrow County

2.1.4 Natural and Cultural Resources

Issues

- Maintaining water and air quality as historically rural areas transition to suburban with new residential development
- Preservation of cultural and historic resources as new development increases pressure on important and historic sites
- No historic districts with development design guidelines exist in unincorporated Barrow County
- Clear cutting of tracts to make way for new development
- Disappearing farmland, farming way of life, and rural character

Opportunities

- Designate agricultural and rural preservation areas and protect with special land development regulations that, for example, limit density to one unit per 10 acres or less
- Protect historic buildings and neighborhoods by adopting historic overlay districts



Barrow County's rural landscape has seen rapid suburban development

- Encourage the use of Conservation Subdivisions to preserve rural character and sensitive natural resources
- Focus new suburban residential development in areas served by sewer to avoid overuse of septic systems
- New floodplain mapping underway will provide updated information that can be used to promote responsible planning and development

2.1.5 Community Facilities and Services

Issues

- Lack of infrastructure in “Gateway” areas designated by the Barrow Summit report as important future economic development sites
- Sewer/wastewater treatment infrastructure development has not yet moved ahead of new development in many parts of the County (especially in the northeast and southeast)
- Additional wastewater capacity needed to meet recommended million gallons per day (MGD) in the 2003 Wastewater Master Plan
- Lack of water resources to meet expected long-range demand caused by growing population
- School overcrowding and playing catch up with residential growth
- Funding for new facilities to meet the service demand of a growing population

Opportunities

- County and municipal government leaders working together to locate long range water resources to support new and exiting population
- Expansion and improvement of sewer and wastewater treatment facilities (*e.g.*, new Statham Wastewater Treatment Plant [WWTP] and other improvements)
- Recent and planned school expansions provide some relief to overcrowded schools
- Special Purpose Local Option Sales Tax (SPLOST) provides local funding
- Sewer Master Plan provides plan for addition of new sewer and wastewater facilities
- Parks Master Plan outlines long-range needs and provides implementation plan to increase the County’s park space and facilities
- Recent additions and improvements, such as Victor Lord Park and the Mullberry River Walking trail, provide improved greenspace options
- Controlling new growth with coordination of land use, transportation, and facilities planning – providing infrastructure to encourage development where the future development map recommends it



Agricultural land in northwest Barrow County



New residential development in Barrow County



Historic buildings in downtown Winder have the potential to house more upper-floor office and residential units above ground-floor retail spaces

- Impact Fee Program study underway for Barrow County focusing on public safety, parks and recreation, and libraries, but also includes all other impact fee-eligible community facilities
- Community Development Block Grant (CDBG) funds for sewer extension
- Upper Oconee Basin Water Authority seeking to increase volume of water that can be treated at the Bear Creek Water Treatment Plant (WTP)

2.1.6 Land Use

Issues

- Strip commercial development along major corridors
- Transitioning of rural and suburban residential corridors (U.S. 29 corridor from Gwinnett County to Winder; SR 211 northwest of Winder as well as other Gateway corridors)
- Limited use of available TND regulations
- Maintaining agricultural land as development pressures increase for conversion to suburban residential land uses
- Maintaining land designated for industry as suburban residential demand increases for properties near the SR 316 corridor
- Sprawling suburban residential development throughout the western half of the County
- Conflicts that arise from new suburban residential land uses locating next to existing agricultural land uses
- Popularity of “Butler buildings” in inappropriate areas
- Development of Regional Impact (DRI) proposals that impact traffic and schools



More development such as the Home Depot shown above is expected to locate near SR 316 in unincorporated Barrow County



Commercial uses located at the intersection of SR 211 and SR 124 in northwest Barrow

Opportunities

- Encourage mixed use development nodes at major intersections along the gateway corridors and other throughway roads in the County to lessen the effects of linear sprawl
- Encourage Traditional Neighborhood Development
- TND Ordinances in place offer opportunities for development of pedestrian-friendly neighborhoods and should be encouraged in designated areas of the cities and unincorporated portions of the County
- Learn from mistakes of adjacent counties that experienced similar bursts of growth in recent years
- Recently adopted SR 211/SR 124 Highway Commercial Overlay district provides development design guidelines that will shape this important gateway
- Barrow County Summit identified “Gateways” and provided the first step in creating a vision and implementation plan for preparing these areas for future development and redevelopment (I-85/SR 211, Patrick Mill/SR 316, SR 81 and SR 11 south of Winder, SR 53/SR 316 and SR 316/Georgia Club)
- Encourage Conservation Subdivisions that cluster development, and protect greenspace and natural resources
- Consider local scenic byways designations (*e.g.*, SR 53 and SR11 north of Winder) to protect the character of rural corridors

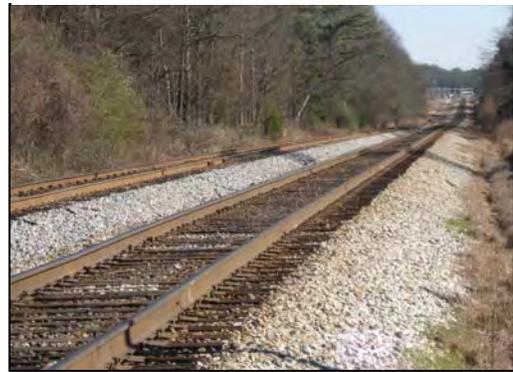
2.1.7 Transportation

Issues

- Large portions of the cities and unincorporated Barrow County that have been developed according to suburban development patterns offer few opportunities for walking and bicycling (*e.g.*, suburban development that is now part of or adjacent to Auburn and Carl generally lacks sidewalks)
- Lack of transportation choices (*i.e.*, lack of public transportation, limited sidewalks and bicycle infrastructure, etc.)
- Limited connectivity between Fort Yargo and surrounding city
- Limited suburban residential connectivity among existing subdivisions in many parts of the County
- The lack of a collector street master plan to ensure connectivity between new subdivisions and connector streets that are designed and built to provide the needed capacity
- Major corridors in Winder, Bethlehem, Auburn, and Carl are unfriendly to pedestrians
- Few railroad overpasses in Winder
- Plans for SR 316 to become limited access freeway remain in the distant future
- Transportation infrastructure at major intersections with SR 316
- Haymon-Morris, Hoyt King, and Carl-Bethlehem roads need design attention to ease traffic woes that will only worsen as the new Home Depot area develops



SR 316 tranasverses the southern portion of Barrow County connecting Interstate 85 in Gwinnette County to Athens.



Commuter rail proposals call for using the railroad corridor shown above that would provide alternative transportation modes to Atlanta and Athens from Barrow County

Opportunities

- Prepare a plan for a countywide bicycle and pedestrian route, leading to increased opportunities to walk and bike
- Planned expansion of facilities and services at the Barrow County Airport
- Commuter rail service planned for the railroad corridor connecting Athens and Atlanta with a stop in downtown Winder
- West Winder Bypass planned to connect SR 211 to SR 316
- Georgia Department of Transportation looking at design for Carl-Bethlehem Road and SR 81
- Planned intersection/interchange upgrade for SR 211/SR 124

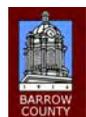
2.1.8 Intergovernmental Coordination

Issues

- Conflicts over municipal annexation
- No unified system for sharing permit information in the cities, which would help schools to estimate future enrollment

Opportunities

- Quarterly meetings held among municipalities and County elected officials
- Coordination among municipalities and the County focused on seeking water sources for the future
- County Planning Department has resources to provide planning technical support and assistance to municipalities; already provides such for Bethlehem
- Consolidation of government services or unified government
- Coordinated joint comprehensive plan update



2.2 Existing Development Pattern

The purpose of this analysis is to understand the development conditions and growth patterns currently occurring on the ground in Barrow County. The analysis allows the further exploration of issues and opportunities related to the physical environment. The following analysis considers three aspects of the existing development patterns: existing land use, areas requiring special attention, and recommended character areas.

2.2.1 Existing Land Use

An existing land-use map displays the development on the ground categorized into groups of similar types of development at a given point in time. For purposes of this analysis, the Existing Land Use Map is based on November 2006 WinGAP tax digest information provided by the Barrow County Tax Assessor Office. Analysis of aerial photography and windshield surveys also provided additional input for the identification of the existing land use of properties. Table 2-2 provides a description of each Existing Land Use Classification.

Table 2-2 Existing Land Use Classifications

Existing Land Use Classification	Description
Agriculture/ Forestry	Properties devoted predominantly to agricultural production, private forest lands, rural residential (residential uses in excess of five acres)
Commercial	Properties dedicated to non-industrial business uses including retail sales, office, services, and entertainment facilities; may be located as a single use in one building or grouped together in a shopping center or office park
Industrial	Land dedicated primarily to industrial land uses that include warehousing, wholesale trade and manufacturing facilities; also includes private landfills
Parks/ Recreation/ Conservation	Properties dedicated to uses that require significant amounts of open space such as public and private parks, golf courses, National Forests, and WMAs.
Public/ Institutional	Properties that include state, federal or local government uses including city halls and government building complexes, police and fire stations, libraries, prisons, schools, etc. Facilities that are publicly owned, but would be classified more accurately in another land-use classification, are not included in this category. For example, publicly owned parks and/or recreation facilities are placed in the Park/Recreation/Conservation category.
Residential - Single- and Two-Family	Single-family and two-family dwellings including site-built, detached and attached single-family homes and duplexes and manufactured homes on single lots with an area of 5 acres or less. Residential uses on lots larger than 5 acres are classified as Agriculture/Forestry
Residential - Multifamily	Apartments, condominiums and attached single-family housing (more than two on lot); includes manufactured homes in manufactured home parks
Transportation/ Communication/ Utilities	Includes such uses as public transit stations, power generation plants, radio towers, telephone switching stations, electric utility substations, airports, and other similar uses.
Vacant/ Undeveloped	Land with no buildings or improvements not used for agricultural purposes that is less than 5 acres
No Data Available	Parcels in this category did not have parcel information available

The subsections that follow describe the existing land use for unincorporated Barrow County. Each description includes a land use classification table, map, and brief narrative that highlight important land use characteristics for each area.

Unincorporated areas make up roughly 82% of the County's 153 square miles. Table 2-3 compares the existing land use for the total County (includes cities) with the unincorporated areas. Map 1 shows existing land use for unincorporated Barrow County.

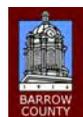


Table 2-3 Existing Land Use Unincorporated Barrow County

Land Use Classification	Total Barrow County		Unincorporated Barrow County	
	Acreage	% of Total	Acreage	% of Total
Agriculture/Forestry	65,263.7	66.7%	60,283.7	74.3%
Commercial	1,225.2	1.3%	565.4	0.7%
Industrial	2,769.5	2.8%	1,886.6	2.3%
Parks/Recreation/Conservation	3,623.7	3.7%	858.4	1.1%
Public/Institutional	2,728.4	2.8%	1,731.8	2.1%
Residential - Multifamily	236.9	0.2%	44.4	0.1%
Residential - Single- and Two-family	18,047.4	18.5%	12,945.3	15.9%
Transportation/Communication/Utilities	88.0	0.1%	66.6	0.1%
Vacant/Undeveloped	3,739.2	3.8%	2,736.6	3.4%
No Data	87.4	0.1%	46.8	0.1%
Total	97,809.4	100.0%	81,165.5	100.0%

Source: WinGAP, Barrow County, MACTEC

Land classified as Agricultural/Forestry makes up the largest portion of both the County as a whole and the unincorporated areas. More than 66% of the total county and 74% of the unincorporated areas of the County are categorized as Agricultural/Forestry areas.

Land classified as Parks, Recreation, and Conservation makes up almost 4% of the County’s total area, but only 1.1% of the unincorporated area since the over 1,700-acre Fort Yargo State Park is within the city limits of Winder. In addition to state parks, this category includes golf courses, public and private ball fields as well as public parks.

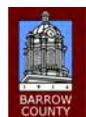
Land classified as Residential – Single- and Two-family makes up the second-largest portion of the total county at nearly 19%. Roughly 16% of the unincorporated area of the County is classified as Residential Single- and Two-family. Residential Multifamily made up 0.1% in both the total County and the unincorporated area. Vacant/Undeveloped property comprised less than 4% of the total County and 3.4% of the unincorporated area.

Properties classified as Industrial and Public/Institutional each accounted for approximately 2.8% of the total county’s parcels and 2.3% and 2.1% respectively in the unincorporated area. Industrial includes light and heavy manufacturing, warehousing, landfills, and quarries. Public/Institutional areas include school and places of worship sites.

Commercial classification properties made up only 1.3% of the total County area. Commercial land uses are primarily within the cities. Commercial properties accounted for 0.7% of the unincorporated area of the County.



Map 1 Existing Land Use – Unincorporated Barrow County



2.2.2 Areas Requiring Special Attention

Growth inevitably impacts the natural and cultural environments as well as community facilities, services, and infrastructure required to service an area. Table 2-4 outlines areas where the real estate market has and continues to produce development that is dominated by single-function land uses, where aging commercial areas are in need of functional and aesthetic revitalization, where growth should be well managed due to the environmentally-sensitive nature of the land, or where historical districts and elements should be maintained as they comprise much of the identity of the County.

Table 2-4 Areas Requiring Special Attention – Unincorporated Barrow County

<i>Area of Special Concern</i>	<i>Description</i>
Gateways	The Barrow County Summit report identified Gateways for the County each with a specific long range vision. In some cases, infrastructure is not currently in place to support the recommended development of these areas and will need to be provided in order to ensure that future development patterns implement the Summit.
River and Creek Corridors	Mulberry, Little Mulberry, and Apalachee rivers; Marbury and Cedar creeks
Groundwater Recharge Areas	Large groundwater recharge areas in west Barrow County: one large area is 4 miles wide between Carl and Winder; another straddles the Gwinnett County line and includes portions of Auburn.
Strip Commercial Corridors	U.S. 29 between Winder and Carl; SR 211 between the historic district of Winder and the town limits of Braselton; SR 316
Historic Areas	All significant or recognized historic areas and structures will likely be threatened by encroaching development or incompatible land uses at some point in time. Proper land use planning and guidelines are needed to protect viable cultural resources. Among the historic areas of concern are individual historic sites throughout the County.
Natural Resources	Natural resources, particularly water resources, are of special concern as the County experiences population growth and associated housing and commercial development. Greenspace planning and preservation will also be important to preserving natural resources and providing recreation sources and transportation alternatives for residents.
Agriculture/Rural Preservation	Many areas of the County that historically were dedicated to agricultural production have seen intense pressure to convert to suburban residential land uses as property values increase due to market demand.
Annexation Islands	Within the Winder, Bethlehem and Auburn city limits are parcels of land that are islands of unincorporated Barrow County within the city limits. To simplify logistics (especially for Winder) for fire, police, and other public services, attention should be focused to correct these islands caused by annexation.
SR 316 Corridor	SR 316 provides a direct, four-lane highway transportation link between Athens and Atlanta. As such, development has moved quickly out from Athens and Atlanta, and eventually the two will meet.
Water and Sewer Infrastructure Development	Areas for water and sewer development have been identified and projects planned. It is important to encourage development in the planned areas or only allow water and sewer to new developments that will provide sufficient infrastructure that can be extended to future developments



2.2.3 Recommended Character Areas

Character area planning focuses on the way an area looks and how it functions. Applying development strategies to character areas in the County can preserve existing areas and help other areas function better and become more attractive. This technique help guide future development through policies and implementation strategies that are tailored to each situation. The character areas recommended for unincorporated Barrow County, as described in Table 2-5, include the following traits:

- Presently have unique or special characteristics that need to be preserved
- Have the potential to evolve into unique areas
- Require special attention because of unique development issues

Table 2-5 Recommended Character Area Descriptions – Unincorporated Barrow County

<i>Character Area</i>	<i>Description</i>
Preserve	Undeveloped, natural lands with significant natural features including steep slopes, floodplains, wetlands, watersheds, wildlife management areas, conservation areas, and other environmentally sensitive areas not suitable for development of any kind; also includes large parkland such as Fort Yargo State Park and recreation and conservation areas.
Rural/Agricultural Reserve Area	Predominantly rural, undeveloped land in open or cultivated state or sparsely settled, including woodlands and farm lands; can include very large-lot (more than 10 acres) residential uses.
Traditional Neighborhood	Residential areas in older parts of the community typically developed prior to World War II; characteristics include high pedestrian orientation, sidewalks, street trees, on-street parking, small, regular lots, shallow yards (relative to suburban counterparts), less space between buildings, and can include small neighborhood businesses.
Scenic Rural Corridor	Sparsely developed or undeveloped land on both sides of a designated high-volume rural arterial with significant natural, scenic or pastoral views that leap frog conventional suburban residential development would be disrupted; similar character as with Rural/Agricultural Reserve Areas, but different since pressure for development is greater along the corridor.
Suburban Neighborhood	Area where typical types of suburban residential subdivision development have occurred; characterized by few sidewalks and other pedestrian infrastructure, wide lots, predominantly residential with scattered civic buildings; usually have varied street pattern that includes curvilinear, lower degree of connectivity, and cul-de-sacs.
Commercial Corridor	Developed land on both sides of a high-volume street or highway that is primarily made up of automobile-oriented, pedestrian-friendly, strip commercial and office development; characterized by single-use, generally one-story buildings that are separated from the street and sidewalk (though they often do not have sidewalks) by parking lots with few shade trees; generally have high degree of congestion.
Transitional Corridor	Areas originally developed for single-family residential that have been impacted by increased traffic volume and associated impacts (e.g., noise, increased trash, street widening, etc) that may no longer be suitable for single-family residential use. These include SR 211, U.S. 29, and SR 8. Zoning changes have started to occur along these corridors one request at a time which has resulted in front yard conversions to parking lots, unsightly home to business building additions and conversions, and signage out of proportion to the structure. Without a coordinated plan to guide the development of the property with a long-range vision in mind, these transitions will continue to occur.
Emerging Suburban and Exurban Area	Areas where pressure for the typical types of suburban residential subdivision development and associated strip commercial development along arterials and major roads is greatest. Without intervention, these areas are likely to evolve with low pedestrian orientation, larger lot sizes, high to moderate degree of building separation, predominantly residential with scattered civic buildings, and varied street patterns (often curvilinear) that include cul-de-sacs.
Rural Crossroads	Commercial activity areas at a highway intersection that is typically automobile-focused; include a mixture of uses to serve highway passers-by in rural and agricultural areas.



<i>Character Area</i>	<i>Description</i>
Industrial	Land used in low and high intensity manufacturing, wholesale trade, distribution, assembly, processing, etc., that may or may not generate excessive noise, particulate matter, vibration, smoke, dust, gas, fumes, odors, radiation, or other nuisance characteristics; zoning typically separates the uses with those characteristics; generally not appropriate for residential uses.
Gateways	Gateway areas outlined by the Barrow Summit Report – Winder Gateways Corridor – SR 11/SR 53; North Barrow Gateway – SR 211/SR 124; Georgia Club Gateway – SR 316/Georgia Club; Winder Bypass Gateway; Gateway SR 53 Corridor



Map 2 Recommended Character Areas – Unincorporated Barrow County



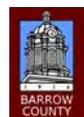
2.3 Quality Community Objectives Analysis

This section is intended to meet the Minimum Standards for Local Comprehensive Planning requirement so that the Community Assessment includes an evaluation of the community’s current policies, activities, and development patterns for consistency with the QCO contained in the State Planning Goals and Objectives. The DCA Office of Planning and Quality Growth created the QCO Local Assessment to assist local governments in evaluating their progress towards sustainable and livable communities. The assessment is meant to give the community an idea of how it is progressing toward reaching these objectives. The following tables function as a guide for assessing the current status of QCO in unincorporated Barrow County.

2.3.1 Traditional Neighborhoods

Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity.

Question	Unincorporated Barrow County	Comments
1. If we have a zoning code, it does not separate commercial, residential and retail uses in every district.	✓	Commercial/residential is separated
2. Our community has ordinances in place that allow neo-traditional development “by right” so that developers do not have to go through a long variance process.	✓	
3. We have a street tree ordinance that requires new development to plant shade-bearing trees appropriate to our climate.	✓	Tree conservation and buffer requirements
4. Our community has an organized tree-planting campaign in public areas that will make walking more comfortable in the summer.		
5. We have a program to keep our public areas (commercial, retail districts, parks) clean and safe.	✓	Keep Barrow Beautiful
6. Our community maintains its sidewalks and vegetation well so that walking is an option some would choose.	✓	
7. In some areas several errands can be made on foot, if so desired.	✓	
8. Some of our children can and do walk to school safely.	✓	
9. Some of our children can and do bike to school safely.	✓	
10. Schools are located in or near neighborhoods in our community.	✓	



2.3.2 Infill Development

Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community.

Question	Unincorporated Barrow County	Comments
1. Our community has an inventory of vacant sites and buildings that are available for redevelopment and/or infill development.	✓	
2. Our community is actively working to promote Brownfield redevelopment.		
3. Our community is actively working to promote greyfield redevelopment.		
4. We have areas of our community that are planned for nodal development (compacted near intersections rather than spread along a major road).	✓	
5. Our community allows small lot development (5,000 square feet or less) for some uses.	✓	

2.3.3 Sense of Place

Traditional downtown areas should be maintained as the focal point of the community or, in newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian-friendly places where people choose to gather for shopping, dining, socializing, and entertainment.

Question	Unincorporated Barrow County	Comments
1. If someone dropped from the sky into our community, he or she would know immediately where he or she was, based on our distinct characteristics.		
2. We have delineated the areas of our community that are important to our history and heritage, and have taken steps to protect those areas.		
3. We have ordinances to regulate the aesthetics of development in our highly visible areas.	✓	
4. We have ordinances to regulate the size and type of signage in our community.	✓	Overlay
5. We offer a development guidebook that illustrates the type of new development we want in our community.	✓	We have development guidelines for proposed projects
6. If applicable, our community has a plan to protect designated farmland.	✓	



2.3.4 Transportation Alternatives

Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities should be made available in each community. Greater use of alternate transportation should be encouraged.

Question	Unincorporated Barrow County	Comments
1. We have public transportation in our community.		
2. We require that new development connects with existing development through a street network, not a single entry/exit.	✓	
3. We have a good network of sidewalks to allow people to walk to a variety of destinations.		
4. We have a sidewalk ordinance in our community that requires all new development to provide user-friendly sidewalks.	✓	
5. We require that newly built sidewalks connect to existing sidewalks wherever possible.	✓	
6. We have a plan for bicycle routes through our community.		
7. We allow commercial and retail development to share parking areas wherever possible.	✓	

2.3.5 Regional Identity

Each region should promote and preserve a regional “identity,” or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.

Question	Unincorporated Barrow County	Comments
1. Our community is characteristic of the region in terms of architectural styles and heritage.	✓	
2. Our community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products.	✓	
3. Our community encourages businesses that create products that draw on our regional heritage (<i>i.e.</i> , mountain, agricultural, metropolitan, coastal).	✓	
4. Our community participates in the Georgia Department of Economic Development’s regional tourism partnership.	✓	
5. Our community promotes tourism opportunities based on the unique characteristics of our region.	✓	



Question	Unincorporated Barrow County	Comments
6. Our community contributes to the region and draws from the region, as a source of local culture, commerce, entertainment, and education.	✓	

2.3.6 Heritage Preservation

The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.

Question	Unincorporated Barrow County	Comments
1. We have designated historic districts in our community.		
2. We have an active historic preservation commission.		
3. We want new development to complement our historic development, and we have ordinances in place to ensure this.	✓	We have ordinances in place to preserve certain character of areas

2.3.7 Open Space Preservation

New development should be designed to minimize the amount of land consumed, and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.

Question	Unincorporated Barrow County	Comments
1. Our community has a greenspace plan.	✓	
2. Our community is actively preserving greenspace, either through direct purchase or by encouraging set-asides in new development.	✓	
3. We have a local land conservation program, or we work with state or national land conservation programs, to preserve environmentally important areas in our community.	✓	
4. We have a conservation subdivision ordinance for residential development that is widely used and protects open space in perpetuity.	✓	

2.3.8 Environmental Protection

Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an area should be preserved.



Question	Unincorporated Barrow County	Comments
1. Our community has a comprehensive natural resources inventory.	✓	
2. We use this resource inventory to steer development away from environmentally sensitive areas.	✓	
3. We have identified our defining natural resources and taken steps to protect them.	✓	
4. Our community has passed the necessary "Part V" environmental ordinances, and we enforce them.	✓	
5. Our community has a tree preservation ordinance which is actively enforced.	✓	
6. Our community has a tree-replanting ordinance for new development.	✓	
7. We are using stormwater best management practices for all new development.	✓	
8. We have land use measures that will protect the natural resources in our community (<i>i.e.</i> , steep slope regulations, floodplain, or marsh protection, etc.).	✓	

2.3.9 Growth Preparedness

Each community should identify and put in place the prerequisites for the type of growth it seeks to achieve. These might include infrastructure (*e.g.*, roads, water, sewer) to support new growth, appropriate training of the workforce, ordinances and regulations to manage growth as desired, or leadership capable of responding to growth opportunities and managing new growth when it occurs.

Question	Unincorporated Barrow County	Comments
1. We have population projections for the next 20 years that we refer to when making infrastructure decisions.	✓	Currently working on projections for the County
2. Our local governments, the local school board, and other decision-making entities use the same population projections.	✓	
3. Our elected officials understand the land development process	✓	
4. We have reviewed our development regulations and/or zoning code recently, and believe that our ordinances will help us achieve our QCO goals.	✓	
5. We have a Capital Improvement Program that supports current and future growth.	✓	



Question	Unincorporated Barrow County	Comments
6. We have designated areas of our community where we would like to see growth, and these areas are based on a natural resources inventory.	✓	
7. We have clearly understandable guidelines for new development.	✓	
8. We have a citizen-education campaign to allow all interested parties to learn about development		
9. We have procedures in place that make it easy for the public to stay informed about land use issues, zoning decisions, and proposed new development.	✓	
10. We have a public-awareness element in our comprehensive planning process.	✓	

2.3.10 Appropriate Business

The businesses and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long-term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher-skill job opportunities.

Question	Unincorporated Barrow County	Comments
1. Our economic development organization has considered our community's strengths, assets and weaknesses, and has created a business development strategy based on them.	✓	
2. Our economic development organization has considered the types of businesses already in our community, and has a plan to recruit businesses and/or industries that will be compatible.	✓	
3. We recruit firms that provide or create sustainable products.	✓	
4. We have a diverse jobs base, so that one employer leaving would not cripple our economy.	✓	



2.3.11 Employment Options

A range of job types should be provided in each community to meet the diverse needs of the local workforce.

Question	Unincorporated Barrow County	Comments
1. Our economic development program has an entrepreneur support program.	✓	
2. Our community has jobs for skilled labor.	✓	
3. Our community has jobs for unskilled labor.	✓	
4. Our community has professional and managerial jobs.	✓	

2.3.12 Housing Choices

A range of housing size, cost, and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.

Question	Unincorporated Barrow County	Comments
1. Our community allows accessory units like garage apartments or mother-in-law units.	✓	Allows "guest houses" but not garage apartments
2. People who work in our community can also afford to live in the community.	✓	Many work in other counties
3. Our community has enough housing for each income level (low, moderate, and above-average).	✓	
4. We encourage new residential development to follow the pattern of our original town, continuing the existing street design and maintaining small setbacks.	✓	
5. We have options available for loft living, downtown living, or "neo-traditional" development.	✓	Few of these; most of these in the cities
6. We have vacant and developable land available for multifamily housing.	✓	
7. We allow multifamily housing to be developed in our community.	✓	
8. We support community development corporations that build housing for lower-income households.	✓	
9. We have housing programs that focus on households with special needs.	✓	



Question	Unincorporated Barrow County	Comments
10. We allow small houses built on small lots (less than 5,000 square feet) in appropriate areas.	✓	

2.3.13 Educational Opportunities

Educational and training opportunities should be readily available in each community – to permit community residents to improve job skills, adapt to technological advances, or to pursue entrepreneurial ambitions.

Question	Unincorporated Barrow County	Comments
1. Our community provides workforce training options for its citizens.	✓	
2. Our workforce training programs provide citizens with skills for jobs that are available in our community.	✓	
3. Our community has higher education opportunities or is close to a community that does.	✓	
4. Our community has job opportunities for college graduates, so that our children may live and work here if they choose.	✓	

2.3.14 Regional Solutions

Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.

Question	Unincorporated Barrow County	Comments
1. We participate in regional economic development organizations.	✓	
2. We participate in regional environmental organizations and initiatives, especially regarding water quality and quantity issues.	✓	
3. We work with other local governments to provide or share appropriate services, such as public transit, libraries, special education, tourism, parks and recreation, EMT, E-911, homeland security, etc.	✓	
4. Our community thinks regionally, especially in terms of issues like land use, transportation, and housing, understanding that these go beyond local govt. borders.	✓	



2.3.15 Regional Cooperation

Regional cooperation should be encouraged in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.

Question	Unincorporated Barrow County	Comments
1. We plan jointly with our cities and county for comprehensive planning purposes.	✓	
2. We are satisfied with our Service Delivery Strategy.		
3. We initiate contact with other local governments and institutions in our region in order to find solutions to common problems, or to craft regionwide strategies.	✓	
4. We meet regularly with neighboring jurisdictions to maintain contact, build connections, and discuss issues of regional concern.	✓	



3 City of Auburn

3.1 Issues and Opportunities

The issues and opportunities described below have been identified from a review of the *Analysis of Supporting Data for the Community Assessment*, discussions with municipal staff, review of recently completed plans, review of plans currently under development, and other initiatives. This analysis included an examination of the QCO. This section organizes the issues and opportunities by the major topics defined in the DCA Local Planning Requirements. The assessment topics include the following areas:

- Population
- Housing
- Economic Development
- Natural and Cultural Resources
- Community Facilities and Services
- Transportation
- Intergovernmental Coordination
- Land Use

Table 3-1 Population Projections - Auburn

2005	2010	2015	2020	2025	2030
7,134	9,979	12,724	15,514	21,143	21,674
<i>Note: Methodology is presented in the Analysis of Supporting Data</i>					

Source: MACTEC, NEGRDC

3.1.1 Population

Issues

- Rapid population and household growth
- High percentage of families with children relative to neighboring counties
- Projections show continued growth

3.1.2 Housing

Issues

- Limited choice of housing types
- Jobs/Housing imbalance
- Disproportionate number of County's new housing units built for first-time homeowners
- Aging housing stock in some city neighborhoods
- Few homes are in close proximity to everyday goods/services

Opportunities

- Healthy supply of affordable housing
- Encourage TND that connects the town center to new neighborhoods
- Mixed use activity centers could provide opportunities for more housing types in locations suitable for higher density, pedestrian friendly development
- Revitalization and retrofit of existing neighborhoods



Multifamily housing provides housing choices near downtown Auburn

3.1.3 Economic Development

Issues

- Need for downtown redevelopment and investment
- Lack of industrial base (and therefore jobs)
- Job growth not keeping up with population growth

Opportunities

- Implementation of strategies outlined by the Barrow Summit report
- Location advantage between Atlanta and Athens as well as the transportation infrastructure railroad, SR 316 and Interstate 85
- Potential for the use of Business/Commercial Improvement Districts in downtowns and important corridors
- New Auburn library in downtown
- New commercial development along U.S. 29



Downtown Auburn businesses

3.1.4 Natural and Cultural Resources

Issues

- Maintaining water and air quality as historically rural areas transition to suburban with new residential development
- Preservation of cultural and historic resources as new development increases pressure on important and historic sites
- No historic districts (with design guidelines) have been designated in Auburn



Shackleford Park in south Auburn

Opportunities

- Protect historic buildings and neighborhoods in order to preserve downtown character and neighborhoods; the adoption of historic overlay districts with design guidelines is a potential tool
- Focus new suburban residential development in areas served by sewer to avoid overuse of septic systems
- New floodplain mapping underway will provide updated information that can be used to promote responsible planning and development

3.1.5 Community Facilities and Services

Issues

- Additional wastewater capacity needed to meet recommended MGD in the 2003 Wastewater Master Plan
- Lack of water resources to meet expected long-range demand caused by growing population
- School overcrowding and playing catch up with residential growth
- Funding for new facilities to meet the service demand of a growing population

Opportunities

- County and municipal government leaders working together to locate long range water resources to support new and exiting population

- Expansion and improvement of sewer and wastewater treatment facilities (e.g., new Statham WWTP and other improvements)
- Recent and planned school expansions provide some relief to overcrowded schools
- SPLOST provides local funding
- Sewer Master Plan provides plan for addition of new sewer and wastewater facilities
- Parks Master Plan outlines long-range needs and provides implementation plan to increase the County's park space and facilities
- Controlling new growth with coordination of land use, transportation, and facilities planning – providing infrastructure to encourage development where recommended by the future development map
- Impact Fee Program study underway for Barrow County focusing on public safety, parks and recreation, and libraries, but also includes all other impact fee-eligible community facilities.
- CDBG funds for sewer extension
- New facilities planned (Auburn library)
- Upper Oconee Basin Water Authority seeking to increase volume of water that can be treated at the Bear Creek WTP



Red caboose located in the downtown Auburn park



Historic home in Auburn



New strip commercial shopping centers under construction on Atlanta Highway in Auburn

3.1.6 Land Use

Issues

- Strip commercial development along U.S. 29
- Transitioning of rural and suburban residential corridors (U.S. 29 corridor from Gwinnett County to Winder)
- No TND regulations
- Maintaining land designated for industry as suburban residential demand increases for properties near the SR 316 corridor
- Sprawling suburban residential development throughout the western half of the County
- Popularity of “Butler buildings” in inappropriate areas

Opportunities

- Encourage mixed use development nodes at major intersections along the gateway corridors and other throughway roads in the County to lessen the effects of linear sprawl
- Encourage Traditional Neighborhood Development
- TND Ordinances offer opportunities for development of pedestrian-friendly neighborhoods
- Learn from mistakes of adjacent counties that experienced similar bursts of growth in recent years
- Encourage Conservation Subdivisions that cluster development, and protect greenspace and natural resources

3.1.7 Transportation

Issues

- Large portions of the City developed according to suburban development patterns offer few opportunities for walking and bicycling (*e.g.*, suburban development that is now part of or adjacent to Auburn and Carl generally lacks sidewalks)
- Lack of transportation choices (*i.e.*, lack of public transportation, limited sidewalks and bicycle infrastructure, etc.)
- Limited suburban residential connectivity among existing subdivisions in many parts of the City, and the lack of a collector street master plan to ensure connectivity between new subdivisions and connector streets that are designed and built to provide the needed capacity
- Major corridors are unfriendly to pedestrians
- Few railroad overpasses



Looking west at highway commercial uses along Atlanta Highway in east Auburn

Opportunities

- Prepare countywide bicycle and pedestrian route plan leading to increased opportunities to walk and bike
- Commuter rail service planned for the railroad corridor connecting Athens and Atlanta with a stop in downtown Winder and a potential stop in Auburn

3.1.8 Intergovernmental Coordination

Issues

- Conflicts over municipal annexation
- No unified system for sharing permit information in the cities, which would help schools estimate future enrollment

Opportunities

- Quarterly meetings held among municipalities and county elected officials
- Coordination among municipalities and the County focused on seeking water sources for the future
- County Planning Department has resources to provide planning technical support and assistance to municipalities; already provides such for Bethlehem
- Consolidation of government services or unified government
- Coordinated Joint Comprehensive Plan update

3.2 Existing Development Pattern

The purpose of this analysis is to understand the development conditions and growth patterns currently occurring on the ground in Barrow County. The analysis allows the further exploration of issues and opportunities related to the physical environment. The following analysis considers three aspects of the existing development patterns: existing land use, areas requiring special attention, and recommended character areas.

3.2.1 Existing Land Use

An existing land use map displays the development on the ground categorized into groups of similar types of development at a given point in time. For purposes of this analysis, the Existing Land Use Map for Auburn is based on November 2006 WinGAP tax digest information provided by the Barrow County Tax Assessor Office. Analysis of aerial photography and windshield surveys also provided additional input for the identification of the existing land use of properties. Table 3-2 provides a description of each Existing Land Use Classification.

Table 3-2 Existing Land Use Classifications

Existing Land Use Classification	Description
Agriculture/ Forestry	Properties devoted predominantly to agricultural production, private forest lands, rural residential (residential uses in excess of five acres)
Commercial	Properties dedicated to non-industrial business uses including retail sales, office, services and entertainment facilities; may be located as a single use in one building or grouped together in a shopping center or office park
Industrial	Land dedicated primarily to industrial land uses that include warehousing, wholesale trade and manufacturing facilities; also includes private landfills
Parks/ Recreation/ Conservation	Properties dedicated to uses that require significant amounts of open space such as public and private parks, golf courses, National Forests, and WMAs.
Public/ Institutional	Properties that include state, federal or local government uses including city halls and government building complexes, police and fire stations, libraries, prisons, schools, etc. Facilities that are publicly owned, but would be classified more accurately in another land use classifications, are not included in this category. For example, publicly owned parks and/or recreation facilities are placed in the Park/Recreation/Conservation category.
Residential – Single- and Two-family	Single- and two-family dwellings including site-built, detached and attached single-family homes and duplexes and manufactured homes on single lots with an area of 5 acres or less. Residential uses on lots larger than 5 acres are classified as Agriculture/Forestry
Residential – Multifamily	Apartments, condominiums and attached single-family housing (more than two on lot); includes manufactured homes in manufactured home parks
Transportation/ Communication/ Utilities	Includes such uses as public transit stations, power generation plants, radio towers, telephone switching stations, electric utility substations, airports and other similar uses.
Vacant/ Undeveloped	Land with no buildings or improvements not used for agricultural purposes that is less than 5 acres
No Data Available	Parcels in this category did not have parcel information available

The subsections that follow describe the existing land use for the City of Auburn. Each description includes a land use classification table, map, and brief narrative that highlight important land use characteristics for each area.

Residential uses make up the largest percentage of the roughly 6-square mile city in west Barrow County along both the north and south sides of U.S. 29. Approximately 44% of the city is devoted to single- and two-family residential land uses. A small concentration of historic homes flank the town center, arranged with a traditional grid street pattern. However, Auburn’s housing stock consists mostly of suburban, large-lot single-family homes in subdivisions scattered about within the city limits. In addition to single-family, limited multifamily options are available in Auburn. Table 3-3 and Map 2 show Bethlehem’s existing land use.



Table 3-3 Existing Land Use – Auburn

<i>Land Use Classification</i>	<i>Acreage</i>	<i>% of Total</i>
Agriculture/Forestry	1,029.99	26.9%
Commercial	100.5	2.6%
Industrial	625.4	16.3%
Parks/Recreation/Conservation	22.0	0.6%
Public/Institutional	57.1	1.5%
Residential - Multifamily	36.7	1.0%
Residential - Single- and Two-Family	1,719.7	44.8%
Transportation/Communication/Utilities	12.9	0.3%
Vacant/Undeveloped	226.9	5.9%
No Data	3.7	0.1%
Total	3,834.8	100.0%

Source: WinGAP, Barrow County, MACTEC

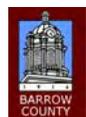
Large agricultural lots make up approximately 27% of the city, leaving ample space for large-scale infill development that could take advantage of existing infrastructure. In addition to the property of this sort within the city limits, due to the shape of the city boundary, multiple islands of unincorporated property sit adjacent to the city’s undeveloped property.

Auburn’s commercial uses, which make up approximately 2.6% of the city, extend along the U.S. 29 corridor in two primary settings. The first, the town’s long-established commercial and government center consists of older, one-story commercial and governmental buildings on 4th Avenue and U.S. 29 between 9th Street and Mount Moriah Church Road. The second concentration of commercial area stretches between the intersection of U.S. 29/SR 324 and Etheridge Road. This stretch contains much of Auburn’s more recent automobile-oriented commercial development.

More than 16% of the city is currently devoted to the industrial land use classification, primarily the Vulcan quarry. The quarry covers a vast expanse of the city’s north side, south of Dee Kennedy and Harmony Grove Church Road.



Map 3 Existing Land Use – Auburn



3.2.2 Areas Requiring Special Attention

Growth inevitably impacts the natural and cultural environments as well as community facilities, services, and infrastructure required to service an area. Table 3-4 outlines areas where the real estate market has and continues to produce development that is dominated by single-function land uses, where aging commercial areas are in need of functional and aesthetic revitalization, where growth should be well managed due to the environmentally-sensitive nature of the land, or where historical districts and elements should be maintained as they comprise much of the identity of the City of Auburn.

Table 3-4 Areas Requiring Special Attention – Auburn

<i>Area of Special Concern</i>	<i>Description</i>
Groundwater Recharge Areas	One groundwater recharge area is in Auburn, which straddles the Gwinnett County line and includes portions of Auburn.
Strip Commercial Corridors	U.S. 29 in Auburn
Historic Areas	All significant or recognized historic areas and structures will likely be threatened by encroaching development or incompatible land uses at some point in time. Proper land use planning and guidelines are needed to protect viable cultural resources. Among the historic areas of concern are residential neighborhoods, historic homes in Auburn, and individual historic sites.
Natural Resources	Natural resources, particularly water resources, are of special concern as the City experiences population growth and associated housing and commercial development. Greenspace planning and preservation will also be important to preserving natural resources and providing recreation sources and transportation alternatives for residents.
Annexation Islands	Within the Auburn city limits are parcels of land that are islands of unincorporated Barrow County within the City limits. To simplify logistics for Fire, Police and other public services, attention should be focused to correct these islands caused by annexation.
Water and Sewer Infrastructure Development	Areas for water and sewer development have been identified and projects planned. It is important to encourage development in the planned areas or only allow water and sewer to new developments that will provide sufficient infrastructure that can be extended to later developments beyond the immediate project.



3.2.3 Recommended Character Areas

Character area planning focuses on the way an area looks and how it functions. Applying development strategies to character areas in County can preserve existing areas and help other areas function better and become more attractive. This technique help guide future development through policies and implementation strategies that are tailored to each situation. The character areas recommended for the City of Auburn, as described in Table 3-5, define areas that have the following traits:

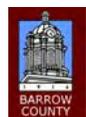
- Presently have unique or special characteristics that need to be preserved
- Have the potential to evolve into unique areas
- Require special attention because of unique development issues

Table 3-5 Recommended Character Area Descriptions - Auburn

<i>Character Area</i>	<i>Description</i>
Preserve	Undeveloped, natural lands with significant natural features including steep slopes, floodplains, wetlands, watersheds, wildlife management areas, conservation areas, and other environmentally sensitive areas not suitable for development of any kind; also includes large parkland.
Rural/Agricultural Reserve Area	Predominantly rural, undeveloped land in open or cultivated state or sparsely settled, including woodlands and farm lands; can include very large-lot (more than 10 acres) residential uses.
Traditional Neighborhood	Residential areas in older parts of the community typically developed prior to World War II; characteristics include high pedestrian orientation, sidewalks, street trees, on-street parking, small, regular lots, shallow yards (relative to suburban counterparts), less space between buildings, and can include small neighborhood businesses.
Suburban Neighborhood	Area where typical types of suburban residential subdivision development have occurred; characterized by few sidewalks and other pedestrian infrastructure, wide lots, predominantly residential with scattered civic buildings; usually have varied street pattern that includes curvilinear, lower degree of connectivity, and cul-de-sacs.
Commercial Corridor	Developed land on both sides of a high-volume street or highway, such as U.S. 29, that is primarily made up of automobile-oriented, pedestrian-friendly, strip commercial and office development; characterized by single-use, generally one-story buildings that are separated from the street and sidewalk (though they often do not have sidewalks) by parking lots with few shade trees; generally have high degree of congestion.
Transitional Corridor	Areas originally developed for single-family residential, such as U.S. 29/SR 9, that have been impacted by increased traffic volume and associated impacts (e.g., noise, increased trash, street widening, etc) that may no longer be suitable for single-family residential use. Zoning changes have started to occur along these corridors one request at a time, which has resulted in front yard conversions to parking lots, unsightly home to business building additions and conversions, and signage out of proportion to the structure. Without a coordinated plan to guide the development of the property with a long-range vision in mind, these transitions will continue to occur.
Town Center	Traditional central business district and immediately surrounding commercial, industrial or mixed use areas (downtown Auburn). Generally urban pedestrian-friendly, a mix of single- and multi-story buildings with on-street parking. Typically include public spaces and government buildings.
Emerging Suburban and Exurban Area	Areas, mostly outside of the City limits, where pressure for the typical types of suburban residential subdivision development and associated strip commercial development along arterials and major roads is greatest. Without intervention, these areas are likely to evolve with low pedestrian orientation, larger lot sizes, high to moderate degree of building separation, predominantly residential with scattered civic buildings and varied street patterns (often curvilinear) that include cul-de-sacs.
Industrial and Quarry Impact	Land used in low and high intensity manufacturing, wholesale trade, distribution, assembly, processing, etc., that may or may not generate excessive noise, particulate matter, vibration, smoke, dust, gas, fumes, odors, radiation, or other nuisance characteristics; zoning typically separates the uses with those characteristics; generally not appropriate for residential uses



Map 4 Recommended Character Areas – Auburn



3.3 Quality Community Objectives Analysis

This section is intended to meet the Minimum Standards for Local Comprehensive Planning requirement so that the Community Assessment includes an evaluation of the community’s current policies, activities, and development patterns for consistency with the QCO contained in the State Planning Goals and Objectives. DCA Office of Planning and Quality Growth created the QCO Local Assessment to assist local governments in evaluating their progress towards sustainable and livable communities. The assessment is meant to give the community an idea of how it is progressing toward reaching these objectives. The following tables function as a guide for assessing the current status of QCO in the City of Auburn.

3.3.1 Traditional Neighborhoods

Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity

Question	City of Auburn	Comments
1. If we have a zoning code, it does not separate commercial, residential and retail uses in every district.	✓	Planned Unit Developments (PUD) allow some mixture of uses
2. Our community has ordinances in place that allow neo-traditional development “by right” so that developers do not have to go through a long variance process.		PUD only
3. We have a street tree ordinance that requires new development to plant shade-bearing trees appropriate to our climate.	✓	Tree ordinance in place
4. Our community has an organized tree-planting campaign in public areas that will make walking more comfortable in the summer.		
5. We have a program to keep our public areas (commercial, retail districts, parks) clean and safe.	✓	Code enforcement officer responsible for this
6. Our community maintains its sidewalks and vegetation well so that walking is an option some would choose.		Few sidewalks
7. In some areas several errands can be made on foot, if so desired.	✓	Downtown Auburn
8. Some of our children can and do walk to school safely.	✓	Limited, but some children can walk to school
9. Some of our children can and do bike to school safely.	✓	
10. Schools are located in or near neighborhoods in our community.	✓	Auburn Elementary School



3.3.2 Infill Development

Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community.

Question	City of Auburn	Comments
1. Our community has an inventory of vacant sites and buildings that are available for redevelopment and/or infill development.		Inventory currently in progress
2. Our community is actively working to promote Brownfield redevelopment.		No sites
3. Our community is actively working to promote greyfield redevelopment.		No sites
4. We have areas of our community that are planned for nodal development (compacted near intersections rather than spread along a major road).	✓	City's plan
5. Our community allows small lot development (5,000 square feet or less) for some uses.	✓	3,000 square-foot lot possible

3.3.3 Sense of Place

Traditional downtown areas should be maintained as the focal point of the community or, in newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian-friendly places where people choose to gather for shopping, dining, socializing, and entertainment.

Question	City of Auburn	Comments
1. If someone dropped from the sky into our community, he or she would know immediately where he or she was, based on our distinct characteristics.	✓	
2. We have delineated the areas of our community that are important to our history and heritage, and have taken steps to protect those areas.	✓	Downtown Auburn
3. We have ordinances to regulate the aesthetics of development in our highly visible areas.		Zoning conditions
4. We have ordinances to regulate the size and type of signage in our community.	✓	Sign regulations in place
5. We offer a development guidebook that illustrates the type of new development we want in our community.		None
6. If applicable, our community has a plan to protect designated farmland.		Not applicable



3.3.4 Transportation Alternatives

Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities should be made available in each community. Greater use of alternate transportation should be encouraged.

Question	City of Auburn	Comments
1. We have public transportation in our community.		No
2. We require that new development connects with existing development through a street network, not a single entry/exit.		In progress
3. We have a good network of sidewalks to allow people to walk to a variety of destinations.		Not yet available
4. We have a sidewalk ordinance in our community that requires all new development to provide user-friendly sidewalks.		In progress
5. We require that newly built sidewalks connect to existing sidewalks wherever possible.		In progress
6. We have a plan for bicycle routes through our community.		No
7. We allow commercial and retail development to share parking areas wherever possible.	✓	Possible, not codified

3.3.5 Regional Identity

Each region should promote and preserve a regional “identity,” or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.

Question	City of Auburn	Comments
1. Our community is characteristic of the region in terms of architectural styles and heritage.	✓	Railroad
2. Our community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products.		No
3. Our community encourages businesses that create products that draw on our regional heritage (e.g., mountain, agricultural, metropolitan, coastal, etc.).		No
4. Our community participates in the Georgia Department of Economic Development’s regional tourism partnership.		No, but with Gwinnett Chamber
5. Our community promotes tourism opportunities based on the unique characteristics of our region.		



Question	City of Auburn	Comments
6. Our community contributes to the region, and draws from the region, as a source of local culture, commerce, entertainment and education.		

3.3.6 Heritage Preservation

The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.

Question	City of Auburn	Comments
1. We have designated historic districts in our community.		Not official
2. We have an active historic preservation commission.		No
3. We want new development to complement our historic development, and we have ordinances in place to ensure this.		In progress

3.3.7 Open Space Preservation

New development should be designed to minimize the amount of land consumed, and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.

Question	City of Auburn	Comments
1. Our community has a greenspace plan.		In progress
2. Our community is actively preserving greenspace, either through direct purchase or by encouraging set-asides in new development.	✓	Zoning conditions
3. We have a local land conservation program, or we work with state or national land conservation programs, to preserve environmentally important areas in our community.		No
4. We have a conservation subdivision ordinance for residential development that is widely used and protects open space in perpetuity.		In progress



3.3.8 Environmental Protection

Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an area should be preserved.

Question	City of Auburn	Comments
1. Our community has a comprehensive natural resources inventory.		No
2. We use this resource inventory to steer development away from environmentally sensitive areas.		Not applicable
3. We have identified our defining natural resources and taken steps to protect them.	✓	75-foot stream buffers
4. Our community has passed the necessary "Part V" environmental ordinances, and we enforce them.	✓	
5. Our community has a tree preservation ordinance which is actively enforced.	✓	
6. Our community has a tree-replanting ordinance for new development.	✓	
7. We are using stormwater best management practices for all new development.	✓	
8. We have land use measures that will protect the natural resources in our community (steep slope regulations, floodplain or marsh protection, etc.).	✓	Buffers

3.3.9 Growth Preparedness

Each community should identify and put in place the prerequisites for the type of growth it seeks to achieve. These might include infrastructure (e.g., roads, water, sewer) to support new growth, appropriate training of the workforce, ordinances and regulations to manage growth as desired, or leadership capable of responding to growth opportunities and managing new growth when it occurs.

Question	City of Auburn	Comments
1. We have population projections for the next 20 years that we refer to when making infrastructure decisions.	✓	
2. Our local governments, the local school board, and other decision-making entities use the same population projections.		
3. Our elected officials understand the land-development process		In progress
4. We have reviewed our development regulations and/or zoning code recently, and believe that our ordinances will help us achieve our QCO goals.		In progress
5. We have a CIP that supports current and future growth.		No, yearly budget



Question	City of Auburn	Comments
6. We have designated areas of our community where we would like to see growth, and these areas are based on a natural resources inventory.	✓	Comprehensive Plan Future Land Use Map
7. We have clearly understandable guidelines for new development.		In progress
8. We have a citizen-education campaign to allow all interested parties to learn about development		In progress
9. We have procedures in place that make it easy for the public to stay informed about land use issues, zoning decisions, and proposed new development.	✓	Planning Commission
10. We have a public-awareness element in our comprehensive planning process.	✓	

3.3.10 Appropriate Business

The businesses and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long-term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher-skill job opportunities.

Question	City of Auburn	Comments
1. Our economic development organization has considered our community's strengths, assets and weaknesses, and has created a business development strategy based on them.	✓	Chamber
2. Our economic development organization has considered the types of businesses already in our community, and has a plan to recruit businesses and/or industries that will be compatible.	✓	Chamber
3. We recruit firms that provide or create sustainable products.		
4. We have a diverse jobs base, so that one employer leaving would not cripple our economy.		Somewhat; Auburn is heavily residential with growing commercial and one major industry (quarry)



3.3.11 Employment Options

A range of job types should be provided in each community to meet the diverse needs of the local workforce.

Question	City of Auburn	Comments
1. Our economic development program has an entrepreneur support program.	✓	Chamber
2. Our community has jobs for skilled labor.		Somewhat limited
3. Our community has jobs for unskilled labor.	✓	
4. Our community has professional and managerial jobs.		Few

3.3.12 Housing Choices

A range of housing size, cost, and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.

Question	City of Auburn	Comments
1. Our community allows accessory units like garage apartments or mother-in-law units.	✓	No
2. People who work in our community can also afford to live in the community.	✓	
3. Our community has enough housing for each income level (low, moderate and above-average).	✓	
4. We encourage new residential development to follow the pattern of our original town, continuing the existing street design and maintaining small setbacks.		In progress
5. We have options available for loft living, downtown living, or "neo-traditional" development.		Not in place yet
6. We have vacant and developable land available for multifamily housing.	✓	
7. We allow multifamily housing to be developed in our community.	✓	
8. We support community development corporations that build housing for lower-income households.		None are active
9. We have housing programs that focus on households with special needs.		County Housing Authority
10. We allow small houses built on small lots (less than 5,000 square feet) in appropriate areas.	✓	Minimum house size is 2,250 square feet



3.3.13 Educational Opportunities

Educational and training opportunities should be readily available in each community – to permit community residents to improve job skills, adapt to technological advances, or to pursue entrepreneurial ambitions.

Question	City of Auburn	Comments
1. Our community provides workforce training options for its citizens.		Not in the City
2. Our workforce training programs provide citizens with skills for jobs that are available in our community.		Not applicable
3. Our community has higher education opportunities or is close to a community that does.		Not in City, but near University of Georgia and Georgia Gwinnett College
4. Our community has job opportunities for college graduates, so that our children may live and work here if they choose.		Minimal

3.3.14 Regional Solutions

Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.

Question	City of Auburn	Comments
1. We participate in regional economic development organizations.		Chamber
2. We participate in regional environmental organizations and initiatives, especially regarding water quality and quantity issues.		NMWRPD
3. We work with other local governments to provide or share appropriate services, such as public transit, libraries, special education, tourism, parks and recreation, EMT, E-911, homeland security, etc.		No
4. Our community thinks regionally, especially in terms of issues like land use, transportation and housing, understanding that these go beyond local govt. borders.	✓	Joint planning



3.3.15 Regional Cooperation

Regional cooperation should be encouraged in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.

Question	City of Auburn	Comments
1. We plan jointly with our cities and county for comprehensive planning purposes.	✓	
2. We are satisfied with our Service Delivery Strategy.		Committee reviewing currently
3. We initiate contact with other local governments and institutions in our region in order to find solutions to common problems, or to craft regionwide strategies.	✓	
4. We meet regularly with neighboring jurisdictions to maintain contact, build connections, and discuss issues of regional concern.	✓	Gwinnett and Barrow counties



4 Town of Bethlehem

4.1 Issues and Opportunities

The issues and opportunities described below have been identified from a review of the *Analysis of Supporting Data for the Community Assessment*, discussions with municipal staff, review of recently completed plans, review of plans currently under development, and other initiatives. This analysis included an examination of the QCO. The *Analysis of Supporting Data* can be found as an addendum to this report. This section organizes the issues and opportunities by the major topics defined in the DCA Local Planning Requirements. The assessment topics include the following areas:

- Population
- Housing
- Economic Development
- Natural and Cultural Resources
- Community Facilities and Services
- Transportation
- Intergovernmental Coordination
- Land Use

Table 4-1 Population Projections - Bethlehem

2005	2010	2015	2020	2025	2030
938	1,143	1,458	1,777	2,422	2,483

Note: Methodology is presented in the Analysis of Supporting Data

Source: MACTEC, NEGRDC

4.1.1 Population

Issues

- Rapid population and household growth
- High percentage of families with children relative to neighboring counties
- Projections show continued growth
- Growth occurring at the edge of City boundaries

4.1.2 Housing

Issues

- Limited choice of housing types
- Jobs/Housing imbalance
- Disproportionate number of County's new housing units built for first-time homeowners
- Historic housing stock

Opportunities

- Healthy supply of affordable housing
- Encourage TND that connects to the existing grid
- Mixed use activity centers could provide opportunities for more housing types in locations suitable for higher density, pedestrian friendly development blend
- Revitalization and retrofit of existing neighborhoods



Historic housing such as the one shown above defines the residential character of Bethlehem

4.1.3 Economic Development

Issues

- Lack of sewer and other infrastructure needed to promote gateway areas for development
- Need for redevelopment and investment in Bethlehem
- Need new development in the town center
- Lack of industrial base (and therefore jobs)
- Job growth not keeping up with population growth

Opportunities

- Encourage bioscience research facilities to locate along the SR 316 corridor
- Implementation of strategies outlined by the Barrow Summit report
- Location advantage between Atlanta and Athens, as well as the transportation infrastructure railroad, SR 316, and Interstate 85
- Potential for the use of Business/Commercial Improvement Districts in the town center and the SR 11 corridor



Bethlehem currently has few job opportunities, such as that shown above, however, the proximity to SR 316 could entice others to follow

4.1.4 Natural and Cultural Resources

Issues

- Maintaining water and air quality as historically rural areas transition to suburban with new residential development
- Preservation of cultural and historic resources as new development increases pressure on important and historic sites
- No historic districts (with design guidelines) have been designated in Bethlehem
- Disappearing farmland, farming way of life, and rural character



Public buildings in downtown Bethlehem

Opportunities

- Protect historic buildings and neighborhoods in order to preserve downtown character and neighborhoods; the adoption of historic overlay districts and design guidelines is a potential tool
- Focus new suburban residential development in areas served by sewer to avoid overuse of septic systems
- New floodplain mapping underway will provide updated information that can be used to promote responsible planning and development

4.1.5 Community Facilities and Services

Issues

- Lack of infrastructure in “Gateway” areas designated by the Barrow Summit report as important future economic development sites (SR 11/ SR 316)
- Sewer/wastewater treatment infrastructure development has not yet moved ahead of new development

- Additional wastewater capacity needed to meet recommended MGD in the 2003 Wastewater Master Plan
- Lack of water resources to meet expected long-range demand caused by growing population
- School overcrowding and playing catch up with residential growth
- Funding for new facilities to meet the service demand of a growing population

Opportunities

- County and municipal government leaders working together to locate long range water resources to support new and exiting population
- Recent and planned school expansions provide some relief to overcrowded schools
- SPLOST provides local funding
- Sewer Master Plan provides plan for addition of new sewer and wastewater facilities
- Parks Master Plan outlines long-range needs and provides implementation plan to add park space and facilities
- Controlling new growth with coordination of land use, transportation, and facilities planning – providing infrastructure to encourage development where recommended by the future development map
- Impact Fee Program study underway for Barrow County focusing on public safety, parks and recreation, and libraries, but also includes all other impact fee-eligible community facilities.
- CDBG funds for sewer extension
- Upper Oconee Basin Water Authority seeking to increase volume of water that can be treated at the Bear Creek WTP

4.1.6 Land Use

Issues

- Potential for strip commercial development along SR 11
- Transitioning of SR 11 corridor
- No TND regulations
- Maintaining agricultural land as development pressures increase for conversion to suburban residential land uses
- Conflicts that arise from new suburban residential land uses locating next to existing agricultural land uses
- Popularity of “Butler buildings” in inappropriate areas



Commercial land uses in Bethlehem

Opportunities

- Encourage mixed use development nodes at major intersections along SR 11 to lessen the effects of linear sprawl
- Encourage TND
- TND Ordinances offer opportunities for development of pedestrian-friendly neighborhoods and should be encouraged in designated areas of the City
- Learn from mistakes of adjacent counties that experienced similar bursts of growth in recent years
- Barrow County Summit identified “Gateways” and provided first step in creating a vision and implementation plan for preparing these areas for future development and redevelopment (SR 81 and SR 11)
- Encourage Conservation Subdivisions that cluster development and protect greenspace and natural resources
- Consider local scenic byways designations (*e.g.*, SR 11) to protect rural character

4.1.7 Transportation

Issues

- Large portions of the cities and unincorporated County that have been developed according to suburban development patterns offer few opportunities for walking and bicycling
- Lack of transportation choices (*e.g.*, lack of public transportation, limited sidewalks and bicycle infrastructure, etc.)
- Limited suburban residential connectivity among existing subdivisions in many parts of the City and the lack of a collector street master plan to ensure connectivity between new subdivisions and connector streets that are designed and built to provide the needed capacity
- Major corridors are unfriendly to pedestrians
- Plans for SR 316 to become limited access freeway remain in the distant future
- Transportation infrastructure at major intersections with SR 316

Opportunities

- Prepare a plan for a countywide bicycle and pedestrian route, leading to increased opportunities to walk and bike

4.1.8 Intergovernmental Coordination

Issues

- No unified system for sharing permit information in the cities, which would help schools estimate future enrollment

Opportunities

- Quarterly meetings held among municipalities and County elected officials
- Coordination among municipalities and the County focused on seeking water sources for the future
- County Planning Department has resources to provide planning technical support and assistance to municipalities; already provides such for Bethlehem
- Consolidation of government services or unified government
- Coordinated joint comprehensive plan update



4.2 Existing Development Pattern

The purpose of this analysis is to understand the development conditions and growth patterns currently occurring on the ground in Barrow County. The analysis allows the further exploration of issues and opportunities related to the physical environment. The following analysis considers three aspects of the existing development patterns: existing land use, areas requiring special attention, and recommended character areas.

4.2.1 Existing Land Use

An existing land use map displays the development on the ground categorized into groups of similar types of development at a given point in time. For purposes of this analysis, the Existing Land Use Map for Bethlehem is based on November 2006 WinGAP tax digest information provided by the Barrow County Tax Assessor Office. Analysis of aerial photography and windshield surveys also provided additional input for the identification of the existing land use of properties. Table 4-2 provides a description of each Existing Land Use Classification.

Table 4-2 Existing Land Use Classifications

Existing Land Use Classification	Description
Agriculture/ Forestry	Properties devoted predominantly to agricultural production, private forest lands, rural residential (residential uses in excess of five acres)
Commercial	Properties dedicated to non-industrial business uses including retail sales, office, services and entertainment facilities; may be located as a single use in one building or grouped together in a shopping center or office park
Industrial	Land dedicated primarily to industrial land uses that include warehousing, wholesale trade and manufacturing facilities; also includes private landfills
Parks/ Recreation/ Conservation	Properties dedicated to uses that require significant amounts of open space such as public and private parks, golf courses, National Forests, and WMAs
Public/ Institutional	Properties that include state, federal or local government uses including city halls and government building complexes, police and fire stations, libraries, prisons, schools, etc. Facilities that are publicly owned, but would be classified more accurately in another land use classification, are not included in this category. For example, publicly owned parks and/or recreation facilities are placed in the Park/Recreation/Conservation category.
Residential – Single- and Two-family	Single-family and two-family dwellings including site-built, detached and attached single-family homes and duplexes and manufactured homes on single lots with an area of 5 acres or less. Residential uses on lots larger than 5 acres are classified as Agriculture/Forestry
Residential – Multifamily	Apartments, condominiums and attached single-family housing (more than two on lot); includes manufactured homes in manufactured home parks
Transportation/ Communication/ Utilities	Includes such uses as public transit stations, power generation plants, radio towers, telephone switching stations, electric utility substations, airports and other similar uses.
Vacant/ Undeveloped	Land with no buildings or improvements not used for agricultural purposes that is less than 5 acres
No Data Available	Parcels in this category did not have parcel information available

The subsections that follow describe the existing land use for the Town of Bethlehem. Each description includes a land use classification table, map and brief narrative that highlight important land use characteristics for each area.

Large lot agricultural lots make up approximately 76% of the property within this town of roughly 2.1 square miles centered on the intersection of SR 11 and Star Avenue/Carl-Bethlehem Road. This leaves ample space for large-scale infill development that could take advantage of existing infrastructure. Table 3-4 and Map 3 show Bethlehem’s existing land use.



Table 4-3 Existing Land Use – Bethlehem

<i>Land Use Classification</i>	<i>Acreage</i>	<i>% of Total</i>
Agriculture/Forestry	1,030.9	76.4%
Commercial	6.1	0.5%
Industrial	25.9	1.9%
Parks/Recreation/Conservation	3.5	0.3%
Public/Institutional	46.2	3.4%
Residential - Multifamily	-	0.0%
Residential - Single- and Two-Family	199.6	14.8%
Transportation/Communication/Utilities	-	0.0%
Vacant/Undeveloped	37.3	2.8%
No Data	-	0.0%
Total	1,349.6	100.0%

Source: WinGAP, Barrow County, MACTEC

Residential uses make up the second largest percentage of Bethlehem with roughly 15% of the town devoted to single- and two-family residential land uses. The town’s established commercial and government center, bordered by SR 11, Angel Street, David Avenue, and Joseph Street, contains the town’s historic housing stock. In addition to these uses, the town limits also contain newer suburban residential subdivisions on the north and west side of the town center.

Bethlehem’s commercial land uses are along U.S. 29 in the town center between Angel Street and Joseph Street, as well as at the intersection of U.S. 29 and SR 316. Roughly 6 acres are devoted to commercial uses (approximately 0.5% of the town).

Industrial uses at David Avenue and Smith Mill Road on the town’s southeastern corner make up about 2% of the town. Roughly 25 acres of industrial property sits at this intersection.



Map 5 Existing Land Use – Bethlehem



4.2.2 Areas Requiring Special Attention

Growth inevitably impacts the natural and cultural environments as well as community facilities, services, and infrastructure required to service an area. Table 4-4 outlines areas where the real estate market has and continues to produce development that is dominated by single-function land uses, where aging commercial areas are in need of functional and aesthetic revitalization, where growth should be well managed due to the environmentally-sensitive nature of the land, or where historical districts, and elements should be maintained as they comprise much of the identity of the Town of Bethlehem.

Table 4-4 Areas Requiring Special Attention – Bethlehem

<i>Area of Special Concern</i>	<i>Description</i>
Gateways	The Barrow County Summit report identified Gateways for the County (including SR 11 corridor), each with a specific long range vision. In some cases, infrastructure is not currently in place to support the recommended development of these areas and will need to be provided in order to ensure that future development patterns implement the Summit.
Historic Areas	All significant or recognized historic areas and structures will likely be threatened by encroaching development or incompatible land uses at some point in time. Proper land use planning and guidelines are needed to protect viable cultural resources. Among the historic areas of concern are residential neighborhoods, historic homes Bethlehem, and individual historic sites.
Natural Resources	Natural resources, particularly water resources, are of special concern as the County experiences population growth and associated housing and commercial development. Greenspace planning and preservation will also be important to preserving natural resources and providing recreation sources and transportation alternatives for residents.
Agriculture/Rural Preservation	Many areas of the County that historically were dedicated to agricultural production have seen intense pressure to convert to suburban residential land uses as property values increase due to market demand.
Annexation Islands	Within the Bethlehem city limits are parcels of land that are islands of unincorporated Barrow County within the City limits. To simplify logistics for fire, police, and other public services, attention should be focused to correct these islands caused by annexation.
SR 316 Corridor	SR 316 provides a direct, four-lane highway transportation link between Athens and Atlanta. As such, development has moved quickly out from Athens and Atlanta, and eventually the two will meet.
Water and Sewer Infrastructure Development	Areas for water and sewer development have been identified and projects planned. It is important to encourage development in the planned areas or only allow water and sewer to new developments that will provide sufficient infrastructure that can be extended to later developments beyond the immediate project.



4.2.3 Recommended Character Area

Character area planning focuses on the way an area looks and how it functions. Applying development strategies to character areas in the County can preserve existing areas and help other areas function better and become more attractive. This technique helps guide future development through policies and implementation strategies that are tailored to each situation. The character areas recommended for the Town of Bethlehem, described in Table 4-5, define areas that have the following traits:

- Presently have unique or special characteristics that need to be preserved
- Have the potential to evolve into unique areas
- Require special attention because of unique development issues

Table 4-5 Recommended Character Area Descriptions - Bethlehem

Character Area	Description
Preserve	Undeveloped, natural lands with significant natural features including steep slopes, floodplains, wetlands, watersheds, wildlife management areas, conservation areas, and other environmentally sensitive areas not suitable for development of any kind; also includes large parkland.
Traditional Neighborhood	Residential areas in older parts of the community typically developed prior to World War II; characteristics include high pedestrian orientation, sidewalks, street trees, on-street parking, small, regular lots, shallow yards (relative to suburban counterparts), less space between buildings, and can include small neighborhood businesses.
Suburban Neighborhood	Area where typical types of suburban residential subdivision development have occurred; characterized by few sidewalks and other pedestrian infrastructure, wide lots, predominantly residential with scattered civic buildings; usually have varied street pattern that includes curvilinear, lower degree of connectivity, and cul-de-sacs.
Commercial Corridor	Developed land on both sides of a high-volume street or highway, such as SR 11 and SR 316, that is primarily made up of automobile-oriented, pedestrian-friendly, strip commercial, and office development; characterized by single-use, generally one-story buildings that are separated from the street and sidewalk (though they often do not have sidewalks) by parking lots with few shade trees; generally have high degree of congestion.
Transitional Corridor	Areas originally developed for single-family residential, such as SR 11, that have been impacted by increased traffic volume and associated impacts (e.g., noise, increased trash, street widening, etc) that may no longer be suitable for single-family residential use. Zoning changes have started to occur along these corridors one request at a time, which has resulted in front yard conversions to parking lots, unsightly home-to-business building additions and conversions, and signage out of proportion to the structure. Without a coordinated plan to guide the development of the property with a long-range vision in mind, these transitions will continue to occur.
Town Center	Traditional central business district and immediately surrounding commercial, industrial or mixed use areas (downtown Bethlehem). Generally, urban pedestrian-friendly, a mix of single- and multi-story buildings with on-street parking. Typically include public spaces and government buildings.
Emerging Suburban and Exurban Area	Areas where pressure for the typical types of suburban residential subdivision development and associated strip commercial development along arterials and major roads is greatest. Without intervention, these areas are likely to evolve with low pedestrian orientation, larger lot sizes, high to moderate degree of building separation, predominantly residential with scattered civic buildings and varied street patterns (often curvilinear) that include cul-de-sacs.
Industrial and Employment	Land used in low and high intensity manufacturing, wholesale trade, distribution, assembly, processing, etc., that may or may not generate excessive noise, particulate matter, vibration, smoke, dust, gas, fumes, odors, radiation, or other nuisance characteristics; zoning typically separates the uses with those characteristics; generally not appropriate for residential uses (SR 316/SR 11).



Map 6 Recommended Character Areas – Bethlehem



4.3 Quality Community Objectives Analysis

This section is intended to meet the Minimum Standards for Local Comprehensive Planning requirement so that the Community Assessment includes an evaluation of the community’s current policies, activities, and development patterns for consistency with the QCO contained in the State Planning Goals and Objectives. The DCA Office of Planning and Quality Growth created the QCO Local Assessment to assist local governments in evaluating their progress towards sustainable and livable communities. The assessment is meant to give the community an idea of how it is progressing toward reaching these objectives. The following tables function as a guide for assessing the current status of QCO in the Town of Bethlehem.

4.3.1 Traditional Neighborhoods

Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity

Question	Town of Bethlehem	Comments
1. If we have a zoning code, it does not separate commercial, residential and retail uses in every district.		
2. Our community has ordinances in place that allow neo-traditional development "by right" so that developers do not have to go through a long variance process.	✓	
3. We have a street tree ordinance that requires new development to plant shade-bearing trees appropriate to our climate.	✓	
4. Our community has an organized tree-planting campaign in public areas that will make walking more comfortable in the summer.	✓	
5. We have a program to keep our public areas (commercial, retail districts, parks) clean and safe.		
6. Our community maintains its sidewalks and vegetation well so that walking is an option some would choose.		
7. In some areas several errands can be made on foot, if so desired.		
8. Some of our children can and do walk to school safely.		
9. Some of our children can and do bike to school safely.		
10. Schools are located in or near neighborhoods in our community.		



4.3.2 Infill Development

Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community.

Question	Town of Bethlehem	Comments
1. Our community has an inventory of vacant sites and buildings that are available for redevelopment and/or infill development.	✓	
2. Our community is actively working to promote Brownfield redevelopment.		
3. Our community is actively working to promote greyfield redevelopment.		
4. We have areas of our community that are planned for nodal development (compacted near intersections rather than spread along a major road).	✓	
5. Our community allows small lot development (5,000 square feet or less) for some uses.		

4.3.3 Sense of Place

Traditional downtown areas should be maintained as the focal point of the community or, in newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian-friendly places where people choose to gather for shopping, dining, socializing, and entertainment.

Question	Town of Bethlehem	Comments
1. If someone dropped from the sky into our community, he or she would know immediately where he or she was, based on our distinct characteristics.		
2. We have delineated the areas of our community that are important to our history and heritage, and have taken steps to protect those areas.		
3. We have ordinances to regulate the aesthetics of development in our highly visible areas.	✓	
4. We have ordinances to regulate the size and type of signage in our community.	✓	
5. We offer a development guidebook that illustrates the type of new development we want in our community.		
6. If applicable, our community has a plan to protect designated farmland.		



4.3.4 Transportation Alternatives

Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities should be made available in each community. Greater use of alternate transportation should be encouraged.

Question	Town of Bethlehem	Comments
1. We have public transportation in our community.		None available
2. We require that new development connects with existing development through a street network, not a single entry/exit.		
3. We have a good network of sidewalks to allow people to walk to a variety of destinations.		Few sidewalks
4. We have a sidewalk ordinance in our community that requires all new development to provide user-friendly sidewalks.		
5. We require that newly built sidewalks connect to existing sidewalks wherever possible.		
6. We have a plan for bicycle routes through our community.		
7. We allow commercial and retail development to share parking areas wherever possible.	✓	

4.3.5 Regional Identity

Each region should promote and preserve a regional “identity,” or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.

Question	Town of Bethlehem	Comments
1. Our community is characteristic of the region in terms of architectural styles and heritage.	✓	
2. Our community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products.	✓	
3. Our community encourages businesses that create products that draw on our regional heritage (mountain, agricultural, metropolitan, coastal, etc.).		
4. Our community participates in the Georgia Department of Economic Development’s regional tourism partnership.		
5. Our community promotes tourism opportunities based on the unique characteristics of our region.		



Question	Town of Bethlehem	Comments
6. Our community contributes to the region and draws from the region, as a source of local culture, commerce, entertainment, and education.		

4.3.6 Heritage Preservation

The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.

Question	Town of Bethlehem	Comments
1. We have designated historic districts in our community.		No designated historic districts
2. We have an active historic preservation commission.		No commission in place
3. We want new development to complement our historic development, and we have ordinances in place to ensure this.		

4.3.7 Open Space Preservation

New development should be designed to minimize the amount of land consumed, and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.

Question	Bethlehem	Comments
1. Our community has a greenspace plan.		
2. Our community is actively preserving greenspace, either through direct purchase or by encouraging set-asides in new development.		
3. We have a local land conservation program, or we work with state or national land conservation programs, to preserve environmentally important areas in our community.		
4. We have a conservation subdivision ordinance for residential development that is widely used and protects open space in perpetuity.	✓	



4.3.8 Environmental Protection

Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an area should be preserved.

Question	Town of Bethlehem	Comments
1. Our community has a comprehensive natural resources inventory.		
2. We use this resource inventory to steer development away from environmentally sensitive areas.		
3. We have identified our defining natural resources and taken steps to protect them.		
4. Our community has passed the necessary "Part V" environmental ordinances, and we enforce them.	✓	
5. Our community has a tree preservation ordinance which is actively enforced.	✓	
6. Our community has a tree-replanting ordinance for new development.	✓	
7. We are using stormwater best management practices for all new development.	✓	
8. We have land use measures that will protect the natural resources in our community (e.g., steep slope regulations, floodplain, or marsh protection, etc.).	✓	

4.3.9 Growth Preparedness

Each community should identify and put in place the prerequisites for the type of growth it seeks to achieve. These might include infrastructure (e.g., roads, water, sewer) to support new growth, appropriate training of the workforce, ordinances and regulations to manage growth as desired, or leadership capable of responding to growth opportunities and managing new growth when it occurs.

Question	Town of Bethlehem	Comments
1. We have population projections for the next 20 years that we refer to when making infrastructure decisions.		
2. Our local governments, the local school board, and other decision-making entities use the same population projections.		
3. Our elected officials understand the land development process		
4. We have reviewed our development regulations and/or zoning code recently, and believe that our ordinances will help us achieve our QCO goals.	✓	



Question	Town of Bethlehem	Comments
5. We have a CIP that supports current and future growth.		
6. We have designated areas of our community where we would like to see growth, and these areas are based on a natural resources inventory.	✓	
7. We have clearly understandable guidelines for new development.	✓	
8. We have a citizen-education campaign to allow all interested parties to learn about development	✓	
9. We have procedures in place that make it easy for the public to stay informed about land use issues, zoning decisions, and proposed new development.	✓	
10. We have a public-awareness element in our comprehensive planning process.	✓	

4.3.10 Appropriate Business

The businesses and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long-term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher-skill job opportunities.

Question	Town of Bethlehem	Comments
1. Our economic development organization has considered our community's strengths, assets, and weaknesses, and has created a business development strategy based on them.		No local economic development organization
2. Our economic development organization has considered the types of businesses already in our community, and has a plan to recruit businesses and/or industries that will be compatible.		Not applicable
3. We recruit firms that provide or create sustainable products.		
4. We have a diverse jobs base, so that one employer leaving would not cripple our economy.		



4.3.11 Employment Options

A range of job types should be provided in each community to meet the diverse needs of the local workforce.

Question	Town of Bethlehem	Comments
1. Our economic development program has an entrepreneur support program.		
2. Our community has jobs for skilled labor.		Few jobs in town
3. Our community has jobs for unskilled labor.	✓	
4. Our community has professional and managerial jobs.		Few jobs

4.3.12 Housing Choices

A range of housing size, cost, and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.

Question	Town of Bethlehem	Comments
1. Our community allows accessory units like garage apartments or mother-in-law units.		
2. People who work in our community can also afford to live in the community.	✓	
3. Our community has enough housing for each income level (low, moderate and above-average).		
4. We encourage new residential development to follow the pattern of our original town, continuing the existing street design, and maintaining small setbacks.		Most new development isn't patterned after historic town
5. We have options available for loft living, downtown living, or "neo-traditional" development.		
6. We have vacant and developable land available for multifamily housing.		
7. We allow multifamily housing to be developed in our community.		
8. We support community development corporations that build housing for lower-income households.		
9. We have housing programs that focus on households with special needs.		
10. We allow small houses built on small lots (less than 5,000 square feet) in appropriate areas.		



4.3.13 Educational Opportunities

Educational and training opportunities should be readily available in each community – to permit community residents to improve job skills, adapt to technological advances, or to pursue entrepreneurial ambitions.

Question	Town of Bethlehem	Comments
1. Our community provides workforce training options for its citizens.		
2. Our workforce training programs provide citizens with skills for jobs that are available in our community.		
3. Our community has higher education opportunities or is close to a community that does.	✓	
4. Our community has job opportunities for college graduates, so that our children may live and work here if they choose.		

4.3.14 Regional Solutions

Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.

Question	Town of Bethlehem	Comments
1. We participate in regional economic development organizations.		
2. We participate in regional environmental organizations and initiatives, especially regarding water quality and quantity issues.		
3. We work with other local governments to provide or share appropriate services, such as public transit, libraries, special education, tourism, parks and recreation, EMT, E-911, homeland security, etc.	✓	
4. Our community thinks regionally, especially in terms of issues like land use, transportation, and housing, understanding that these go beyond local govt. borders.		



4.3.15 Regional Cooperation

Regional cooperation should be encouraged in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.

Question	Town of Bethlehem	Comments
1. We plan jointly with our cities and County for comprehensive planning purposes.	✓	
2. We are satisfied with our Service Delivery Strategy.		
3. We initiate contact with other local governments and institutions in our region in order to find solutions to common problems, or to craft regionwide strategies.		
4. We meet regularly with neighboring jurisdictions to maintain contact, build connections, and discuss issues of regional concern.	✓	



5 Town of Carl

5.1 Issues and Opportunities

The issues and opportunities described below have been identified from a review of the *Analysis of Supporting Data for the Community Assessment*, discussions with municipal staff, review of recently completed plans, review of plans currently under development, and other initiatives. This analysis included an examination of the QCO. The *Analysis of Supporting Data* can be found as an addendum to this report. This section organizes the issues and opportunities by the major topics defined in the DCA Local Planning Requirements. The assessment topics include the following areas:

- Population
- Housing
- Economic Development
- Natural and Cultural Resources
- Community Facilities and Services
- Transportation
- Intergovernmental Coordination
- Land Use

Table 5-1 Population Projections - Carl

2005	2010	2015	2020	2025	2030
258	469	598	729	994	1,019

Note: Methodology is presented in the Analysis of Supporting Data

Source: MACTEC, NEGRDC

5.1.1 Population

Issues

- High percentage of families with children relative to neighboring counties
- Growth focused in unincorporated areas
- Projections show continued growth

5.1.2 Housing

Issues

- Limited choice of housing types
- Few homes are in close proximity to everyday goods/services
- Jobs/Housing imbalance
- Disproportionate number of County's new housing units built for first-time homeowners
- Aging housing stock in some city neighborhoods

Opportunities

- Healthy supply of affordable housing
- Encourage TND that connects the town center to neighborhoods
- Mixed use activity centers could provide opportunities for more housing types in locations suitable for higher density, pedestrian friendly development, such as the town center
- Revitalization of existing neighborhoods



Single family homes in a Carl subdivision



Commercial uses in the Carl business district

5.1.3 Economic Development

Issues

- Need for redevelopment in the town center
- Lack of industrial base (and therefore jobs)

Opportunities

- Implementation of strategies outlined by the Barrow Summit report
- Potential for the use of Business/Commercial Improvement Districts in the town center and important corridors



Commercial uses on Atlanta Highway in Carl

5.1.4 Natural and Cultural Resources

Issues

- Maintaining water and air quality as historically rural areas transition to suburban with new residential development
- Preservation of cultural and historic resources as new development increases pressure on important and historic sites
- No historic districts (with design guidelines) have been designated in Carl

Opportunities

- Protect historic buildings and neighborhoods in order to preserve downtown character and neighborhoods
- Focus new suburban residential development in areas served by sewer to avoid overuse of septic systems
- New floodplain mapping underway will provide updated information that can be used to promote responsible planning and development

5.1.5 Community Facilities and Services

Issues

- Additional wastewater capacity needed to meet recommended MGD in the 2003 Wastewater Master Plan
- Lack of water resources to meet expected long-range demand caused by growing population
- School overcrowding and playing catch up with residential growth
- Funding for new facilities to meet the service demand of a growing population

Opportunities

- County and municipal government leaders working together to locate long range water resources to support new and exiting population
- Recent and planned school expansions provide some relief to overcrowded schools
- SPLOST provides local funding
- Sewer Master Plan provides plan for addition of new sewer and wastewater facilities
- Parks Master Plan outlines long-range needs and provides implementation plan to increase the County's park space and facilities
- Controlling new growth with coordination of land use, transportation, and facilities planning – providing infrastructure to encourage development where the future development map recommends it

- Impact Fee Program study underway for Barrow County focusing on public safety, parks and recreation, and libraries, but also includes all other impact fee-eligible community facilities.
- CDBG funds for sewer extension
- Upper Oconee Basin Water Authority seeking to increase volume of water that can be treated at the Bear Creek WTP

5.1.6 Land Use

Issues

- Strip commercial development along U.S. 29
- Transitioning of rural and suburban residential corridors (U.S. 29 corridor from Gwinnett County to Winder)
- No TND regulations
- Popularity of “Butler buildings” in inappropriate areas

Opportunities

- Encourage mixed use development nodes at major intersections along U.S. 29 and the town center to lessen the effects of linear sprawl
- Encourage TND
- TND Ordinances offer opportunities for development of pedestrian-friendly neighborhoods and should be encouraged in designated areas of the City
- Learn from mistakes of adjacent counties that experienced similar bursts of growth in recent years
- Redevelopment of vacant and underused shopping centers and commercial buildings in Carl into mixed use activity centers

5.1.7 Transportation

Issues

- Large portions of the cities and unincorporated Barrow County that have been developed according to suburban development patterns offer few opportunities for walking and bicycling (*e.g.*, suburban development that is now part of or adjacent to Auburn and Carl generally lacks sidewalks)
- Lack of transportation choices (*e.g.*, lack of public transportation, limited sidewalks and bicycle infrastructure, etc.)
- Limited suburban residential connectivity among existing subdivisions in many parts of the City and the lack of a collector street master plan to ensure connectivity between new subdivisions and connector streets that are designed and built to provide the needed capacity
- Major corridors are unfriendly to pedestrians
- Few railroad overpasses

Opportunities

- Prepare countywide bicycle and pedestrian route plan leading to increased opportunities to walk and bike
- West Winder Bypass planned to connect SR 211 to SR 316 will bring improved access to SR 316 and I-85
- Statham Transportation Enhancement (TE) grant

5.1.8 Intergovernmental Coordination

Issues

- Conflicts over municipal annexation



- No unified system for sharing permit information in the cities, which would help schools estimate future enrollment

Opportunities

- Quarterly meetings held among municipalities and County elected officials
- Coordination among municipalities and the County focused on seeking water sources for the future
- County Planning Department has resources to provide planning technical support and assistance to municipalities
- Consolidation of government services or unified government
- Coordinated joint comprehensive plan update



5.2 Existing Development Pattern

The purpose of this analysis is to understand the development conditions and growth patterns currently occurring on the ground in Barrow County. The analysis allows the further exploration of issues and opportunities related to the physical environment. The following analysis considers three aspects of the existing development patterns: existing land use, areas requiring special attention, and recommended character areas.

5.2.1 Existing Land Use

An existing land use map displays the development on the ground categorized into groups of similar types of development at a given point in time. For purposes of this analysis, the Existing Land Use Map for Carl is based on November 2006 WinGAP tax digest information provided by the Barrow County Tax Assessor Office. Analysis of aerial photography and windshield surveys also provided additional input for the identification of the existing land use of properties. Table 5-2 provides a description of each Existing Land Use Classification.

Table 5-2 Existing Land Use Classifications

Existing Land Use Classification	Description
Agriculture/ Forestry	Properties devoted predominantly to agricultural production, private forest lands, rural residential (residential uses in excess of five acres)
Commercial	Properties dedicated to non-industrial business uses including retail sales, office, services and entertainment facilities; may be located as a single use in one building or grouped together in a shopping center or office park
Industrial	Land dedicated primarily to industrial land uses that include warehousing, wholesale trade and manufacturing facilities; also includes private landfills
Parks/ Recreation/ Conservation	Properties dedicated to uses that require significant amounts of open space such as public and private parks, golf courses, National Forests, and WMAs.
Public/ Institutional	Properties that include state, federal or local government uses including city halls and government building complexes, police and fire stations, libraries, prisons, schools, etc. Facilities that are publicly owned, but would be classified more accurately in another land use classification, are not included in this category. For example, publicly owned parks and/or recreation facilities are placed in the Park/Recreation/Conservation category.
Residential – Single- and Two-family	Single-family and two-family dwellings including site-built, detached and attached single-family homes and duplexes and manufactured homes on single lots with an area of 5 acres or less. Residential uses on lots larger than 5 acres are classified as Agriculture/Forestry
Residential – Multifamily	Apartments, condominiums and attached single-family housing (more than two on lot); includes manufactured homes in manufactured home parks
Transportation/ Communication/ Utilities	Includes such uses as public transit stations, power generation plants, radio towers, telephone switching stations, electric utility substations, airports and other similar uses.
Vacant/ Undeveloped	Land with no buildings or improvements not used for agricultural purposes that is less than 5 acres
No Data Available	Parcels in this category did not have parcel information available

The subsections that follow describe the existing land use for the Town of Carl. Each description includes a land use classification table, map, and brief narrative that highlight important land use characteristics for each area.

Large agricultural lots make up approximately 69% of the property within the town of roughly 0.9 square mile centered on the intersection of U.S. 29, Carl-Bethlehem Road, and Carl-Midway Church Road. The agricultural lots include recently annexed property adjacent to Auburn on the town’s southwest side. This leaves ample space for large-scale infill development that could take advantage of existing infrastructure. Table 5-3 and Map 5 show Carl’s existing land use.



Table 5-3 Existing Land Use – Carl

<i>Land Use Classification</i>	<i>Acreage</i>	<i>% of Total</i>
Agriculture/Forestry	413.1	68.9%
Commercial	17.9	3.0%
Industrial	9.3	1.5%
Parks/Recreation/Conservation	4.4	0.7%
Public/Institutional	11.9	2.0%
Residential - Multifamily	-	0.0%
Residential - Single- and Two-family	112.9	18.8%
Transportation/Communication/Utilities	4.2	0.7%
Vacant/Undeveloped	26.4	4.4%
No Data	-	0.0%
Total	600.0	100.0%

Source: WinGAP, Barrow County, MACTEC

Residential uses make up the second largest percentage of Carl with roughly 19% of the town devoted to single and two-family residential land uses. With the exception of one small cul-de-sac development just off of Carl-Midway Church Road north of U.S. 29, Carl’s residential land uses are primarily along the county roads that cross through the town, with little of a city street pattern to speak of.

Carl’s commercial core is anchored by the intersection of U.S. 29, Carl-Bethlehem Road, and Carl-Midway Church Road. In addition to commercial uses, this town center area also includes town government buildings, churches, park space, and residential uses. Commercial parcels make up 3% of the town.



Map 7 Existing Land Use – Carl



5.2.2 Areas Requiring Special Attention

Growth inevitably impacts the natural and cultural environments as well as community facilities, services, and infrastructure required to service an area. Table 5-4 outlines areas where the real estate market has and continues to produce development that is dominated by single-function land uses, where aging commercial areas are in need of functional and aesthetic revitalization, where growth should be well managed due to the environmentally-sensitive nature of the land, or where historical districts and elements should be maintained as they comprise much of the identity of the Town of Carl.

Table 5-4 Areas Requiring Special Attention – Carl

<i>Area of Special Concern</i>	<i>Description</i>
River and Creek Corridors	Marbury Creek, Cedar Creek
Groundwater Recharge Areas	Large groundwater recharge areas between Carl and Winder; another straddles the Gwinnett County line and includes portions of Auburn.
Strip Commercial Corridors	U.S. 29 in Carl
Historic Areas	All significant or recognized historic areas and structures will likely be threatened by encroaching development or incompatible land uses at some point in time. Proper land use planning and guidelines are needed to protect viable cultural resources. Among the historic areas of concern are neighborhoods, historic homes in Carl, and individual historic sites.
Natural Resources	Natural resources, particularly water resources, are of special concern as the County experiences population growth and associated housing and commercial development. Greenspace planning and preservation will also be important to preserving natural resources and providing recreation sources and transportation alternatives for residents.
Water and Sewer Infrastructure Development	Areas for water and sewer development have been identified and projects planned. It is important to encourage development in the planned areas or only allow water and sewer to new developments that will provide sufficient infrastructure that can be extended to later developments beyond the immediate project.



5.2.3 Recommended Character Areas

Character area planning focuses on the way an area looks and how it functions. Applying development strategies to character areas in County can preserve existing areas and help other areas function better and become more attractive. They help guide future development through policies and implementation strategies that are tailored to each situation. The character areas recommended for the Town of Carl, described in Table 5-5, define areas that have the following traits:

- Presently have unique or special characteristics that need to be preserved.
- Have the potential to evolve into unique areas.
- Require special attention because of unique development issues.

Table 5-5 Recommended Character Area Descriptions - Carl

<i>Character Area</i>	<i>Description</i>
Preserve	Undeveloped, natural lands with significant natural features including steep slopes, floodplains, wetlands, watersheds, wildlife management areas, conservation areas, and other environmentally sensitive areas not suitable for development of any kind; also includes large parkland.
Rural/Agricultural Reserve Area	Predominantly rural, undeveloped land in open or cultivated state or sparsely settled, including woodlands and farm lands; can include very large-lot (more than 10 acres) residential uses.
Traditional Neighborhood	Residential area in older part of the community typically developed prior to World War II; characteristics include high pedestrian orientation, sidewalks, street trees, on-street parking, small, regular lots, shallow yards (relative to suburban counterparts), less space between buildings, can include small neighborhood businesses.
Suburban Neighborhood	Area where typical types of suburban residential subdivision development have occurred; characterized by few sidewalks and other pedestrian infrastructure, wide lots, predominantly residential with scattered civic buildings; usually have varied street pattern that includes curvilinear, lower degree of connectivity, and cul-de-sacs.
Commercial Corridor	Developed land on both sides of a high-volume street or highway that is primarily made up of automobile-oriented, pedestrian-friendly, strip commercial and office development; characterized by single-use, generally one-story buildings that are separated from the street and sidewalk (though they often do not have sidewalks) by parking lots with few shade trees; generally have high degree of congestion.
Transitional Corridor	Areas originally developed for single-family residential that have been impacted by increased traffic volume and associated impacts (e.g., noise, increased trash, street widening, etc) that may no longer be suitable for single-family residential use. Zoning changes have started to occur along these corridors one request at a time which has resulted in front yard conversions to parking lots, unsightly home to business building additions and conversions, and signage out of proportion to the structure. Without a coordinated plan to guide the development of the property with a long-range vision in mind, these transitions will continue to occur.
Town Center	Traditional central business district and immediately surrounding commercial, industrial or mixed use areas. Generally urban pedestrian-friendly, a mix of single and possibly multi-story buildings with on-street parking. Typically include public spaces and government buildings.
Emerging Suburban and Exurban Area	Areas where pressure for the typical types of suburban residential subdivision development and associated strip commercial development along arterials and major roads is greatest. Without intervention, these areas are likely to evolve with low pedestrian orientation, larger lot sizes, high to moderate degree of building separation, predominantly residential with scattered civic buildings and varied street patterns (often curvilinear) that include cul-de-sacs.



Map 8 Recommended Character Areas – Carl



5.3 Quality Community Objectives Analysis

This section is intended to meet the Minimum Standards for Local Comprehensive Planning requirement so that the Community Assessment includes an evaluation of the community’s current policies, activities, and development patterns for consistency with the QCO contained in the State Planning Goals and Objectives. The DCA’ Office of Planning and Quality Growth created the QCO Local Assessment to assist local governments in evaluating their progress towards sustainable and livable communities. The assessment is meant to give the community an idea of how it is progressing toward reaching these objectives. The following tables function as a guide for assessing the current status of QCO in the Town of Carl.

5.3.1 Traditional Neighborhoods

Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity

Question	Town of Carl	Comments
1. If we have a zoning code, it does not separate commercial, residential and retail uses in every district.		
2. Our community has ordinances in place that allow neo-traditional development "by right" so that developers do not have to go through a long variance process.	✓	
3. We have a street tree ordinance that requires new development to plant shade-bearing trees appropriate to our climate.	✓	
4. Our community has an organized tree-planting campaign in public areas that will make walking more comfortable in the summer.	✓	
5. We have a program to keep our public areas (commercial, retail districts, parks) clean and safe.		
6. Our community maintains its sidewalks and vegetation well so that walking is an option some would choose.		
7. In some areas several errands can be made on foot, if so desired.		
8. Some of our children can and do walk to school safely.		
9. Some of our children can and do bike to school safely.		
10. Schools are located in or near neighborhoods in our community.		



5.3.2 Infill Development

Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community.

Question	Town of Carl	Comments
1. Our community has an inventory of vacant sites and buildings that are available for redevelopment and/or infill development.	✓	
2. Our community is actively working to promote Brownfield redevelopment.		No sites
3. Our community is actively working to promote greyfield redevelopment.		Not applicable
4. We have areas of our community that are planned for nodal development (compacted near intersections rather than spread along a major road).	✓	
5. Our community allows small lot development (5,000 square feet or less) for some uses.		

5.3.3 Sense of Place

Traditional downtown areas should be maintained as the focal point of the community or, in newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian-friendly places where people choose to gather for shopping, dining, socializing, and entertainment.

Question	Town of Carl	Comments
1. If someone dropped from the sky into our community, he or she would know immediately where he or she was, based on our distinct characteristics.		
2. We have delineated the areas of our community that are important to our history and heritage, and have taken steps to protect those areas.		No historic districts designated
3. We have ordinances to regulate the aesthetics of development in our highly visible areas.	✓	
4. We have ordinances to regulate the size and type of signage in our community.	✓	
5. We offer a development guidebook that illustrates the type of new development we want in our community.		
6. If applicable, our community has a plan to protect designated farmland.		



5.3.4 Transportation Alternatives

Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities should be made available in each community. Greater use of alternate transportation should be encouraged.

Question	Town of Carl	Comments
1. We have public transportation in our community.		
2. We require that new development connects with existing development through a street network, not a single entry/exit.		No sidewalk requirements
3. We have a good network of sidewalks to allow people to walk to a variety of destinations.		Few sidewalks provided
4. We have a sidewalk ordinance in our community that requires all new development to provide user-friendly sidewalks.		No sidewalk requirement
5. We require that newly built sidewalks connect to existing sidewalks wherever possible.		
6. We have a plan for bicycle routes through our community.		
7. We allow commercial and retail development to share parking areas wherever possible.	✓	

5.3.5 Regional Identity

Each region should promote and preserve a regional “identity,” or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.

Question	Town of Carl	Comments
1. Our community is characteristic of the region in terms of architectural styles and heritage.	✓	
2. Our community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products.	✓	
3. Our community encourages businesses that create products that draw on our regional heritage (mountain, agricultural, metropolitan, coastal, etc.).		
4. Our community participates in the Georgia Department of Economic Development’s regional tourism partnership.		
5. Our community promotes tourism opportunities based on the unique characteristics of our region.		
6. Our community contributes to the region, and draws from the region, as a source of local culture, commerce, entertainment and education.		



5.3.6 Heritage Preservation

The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.

Question	Town of Carl	Comments
1. We have designated historic districts in our community.		No designated historic districts
2. We have an active historic preservation commission.		
3. We want new development to complement our historic development, and we have ordinances in place to ensure this.		

5.3.7 Open Space Preservation

New development should be designed to minimize the amount of land consumed, and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.

Question	Town of Carl	Comments
1. Our community has a greenspace plan.		
2. Our community is actively preserving greenspace, either through direct purchase or by encouraging set-asides in new development.		
3. We have a local land conservation program, or we work with state or national land conservation programs, to preserve environmentally important areas in our community.		
4. We have a conservation subdivision ordinance for residential development that is widely used and protects open space in perpetuity.	✓	



5.3.8 Environmental Protection

Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an area should be preserved.

Question	Town of Carl	Comments
1. Our community has a comprehensive natural resources inventory.		
2. We use this resource inventory to steer development away from environmentally sensitive areas.		
3. We have identified our defining natural resources and taken steps to protect them.		
4. Our community has passed the necessary "Part V" environmental ordinances, and we enforce them.	✓	
5. Our community has a tree preservation ordinance which is actively enforced.	✓	
6. Our community has a tree-replanting ordinance for new development.	✓	
7. We are using stormwater best management practices for all new development.	✓	
8. We have land use measures that will protect the natural resources in our community (steep slope regulations, floodplain or marsh protection, etc.).	✓	

5.3.9 Growth Preparedness

Each community should identify and put in place the prerequisites for the type of growth it seeks to achieve. These might include infrastructure (e.g., roads, water, sewer) to support new growth, appropriate training of the workforce, ordinances and regulations to manage growth as desired, or leadership capable of responding to growth opportunities and managing new growth when it occurs.

Question	Town of Carl	Comments
1. We have population projections for the next 20 years that we refer to when making infrastructure decisions.		
2. Our local governments, the local school board, and other decision-making entities use the same population projections.		
3. Our elected officials understand the land-development process		
4. We have reviewed our development regulations and/or zoning code recently, and believe that our ordinances will help us achieve our QCO goals.	✓	
5. We have a CIP that supports current and future growth.		



Question	Town of Carl	Comments
6. We have designated areas of our community where we would like to see growth, and these areas are based on a natural resources inventory.	✓	
7. We have clearly understandable guidelines for new development.	✓	
8. We have a citizen-education campaign to allow all interested parties to learn about development	✓	
9. We have procedures in place that make it easy for the public to stay informed about land use issues, zoning decisions, and proposed new development.	✓	
10. We have a public-awareness element in our comprehensive planning process.	✓	

5.3.10 Appropriate Business

The businesses and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long-term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher-skill job opportunities.

Question	Town of Carl	Comments
1. Our economic development organization has considered our community's strengths, assets and weaknesses, and has created a business development strategy based on them.		
2. Our economic development organization has considered the types of businesses already in our community, and has a plan to recruit businesses and/or industries that will be compatible.		
3. We recruit firms that provide or create sustainable products.		
4. We have a diverse jobs base, so that one employer leaving would not cripple our economy.		



5.3.11 Employment Options

A range of job types should be provided in each community to meet the diverse needs of the local workforce.

Question	Town of Carl	Comments
1. Our economic development program has an entrepreneur support program.		
2. Our community has jobs for skilled labor.		
3. Our community has jobs for unskilled labor.	✓	
4. Our community has professional and managerial jobs.		

5.3.12 Housing Choices

A range of housing size, cost, and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.

Question	Town of Carl	Comments
1. Our community allows accessory units like garage apartments or mother-in-law units.		
2. People who work in our community can also afford to live in the community.	✓	
3. Our community has enough housing for each income level (low, moderate and above-average).		
4. We encourage new residential development to follow the pattern of our original town, continuing the existing street design and maintaining small setbacks.		
5. We have options available for loft living, downtown living, or "neo-traditional" development.		
6. We have vacant and developable land available for multifamily housing.		
7. We allow multifamily housing to be developed in our community.		
8. We support community development corporations that build housing for lower-income households.		
9. We have housing programs that focus on households with special needs.		
10. We allow small houses built on small lots (less than 5,000 square feet) in appropriate areas.		



5.3.13 Educational Opportunities

Educational and training opportunities should be readily available in each community – to permit community residents to improve job skills, adapt to technological advances, or to pursue entrepreneurial ambitions.

Question	Town of Carl	Comments
1. Our community provides workforce training options for its citizens.		
2. Our workforce training programs provide citizens with skills for jobs that are available in our community.		
3. Our community has higher education opportunities or is close to a community that does.	✓	
4. Our community has job opportunities for college graduates, so that our children may live and work here if they choose.		

5.3.14 Regional Solutions

Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.

Question	Town of Carl	Comments
1. We participate in regional economic development organizations.		
2. We participate in regional environmental organizations and initiatives, especially regarding water quality and quantity issues.		
3. We work with other local governments to provide or share appropriate services, such as public transit, libraries, special education, tourism, parks and recreation, EMT, E-911, homeland security, etc.	✓	
4. Our community thinks regionally, especially in terms of issues like land use, transportation and housing, understanding that these go beyond local govt. borders.		



5.3.15 Regional Cooperation

Regional cooperation should be encouraged in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.

Question	Town of Carl	Comments
1. We plan jointly with our cities and county for comprehensive planning purposes.	✓	
2. We are satisfied with our Service Delivery Strategy.		
3. We initiate contact with other local governments and institutions in our region in order to find solutions to common problems, or to craft regionwide strategies.		
4. We meet regularly with neighboring jurisdictions to maintain contact, build connections, and discuss issues of regional concern.		



6 City of Statham

6.1 Issues and Opportunities

The issues and opportunities described below have been identified from a review of the *Analysis of Supporting Data for the Community Assessment*, discussions with municipal staff, review of recently completed plans, review of plans currently under development, and other initiatives. This analysis included an examination of the QCO. The *Analysis of Supporting Data* can be found as an addendum to this report. This section organizes the issues and opportunities by the major topics defined in the DCA Local Planning Requirements. The assessment topics include the following areas:

- Population
- Housing
- Economic Development
- Natural and Cultural Resources
- Community Facilities and Services
- Transportation
- Intergovernmental Coordination
- Land Use

Table 6-1 Population Projections - Statham

2005	2010	2015	2020	2025	2030
2,555	3,536	4,508	5,408	5,497	7,679

Note: Methodology is presented in the Analysis of Supporting Data

Source: MACTEC, NEGRDC

6.1.1 Population

Issues

- Rapid population and household growth
- High percentage of families with children relative to neighboring counties
- Growth focused in unincorporated areas on the edge of the City boundary
- Projections show continued growth

6.1.2 Housing

Issues

- Limited choice of housing types
- Jobs/Housing imbalance
- Aging housing stock in some city neighborhoods and lack of resources to protect them

Opportunities

- Healthy supply of affordable housing
- Encourage TND to fill in undeveloped areas
- Mixed use activity centers could provide opportunities for more housing types in locations suitable for higher density, interconnected, pedestrian-friendly development
- Revitalization of existing neighborhoods



Historic downtown buildings in downtown Statham

6.1.3 Economic Development

Issues

- Lack of sewer and other infrastructure needed to promote gateway areas for development
- Need for downtown redevelopment
- Lack of industrial base (and therefore jobs)
- Job growth not keeping up with population growth

Opportunities

- Acquisition of land for county industrial park/research park development
- Encourage bioscience research facilities to locate along the SR 316 corridor
- Implementation of strategies outlined by the Barrow Summit report
- Location advantage between Atlanta and Athens as well as the transportation infrastructure railroad, SR 316 and Interstate 85
- Ample supply of large, available undeveloped tracts
- Potential for the use of Business/Commercial Improvement Districts in downtown and important corridors
- Unique features and important assets within the County, such as the Georgia Club and the existing farming activities
- New investment from public (new library) and private (new drug store) in Statham improve vitality of downtown Statham

6.1.4 Natural and Cultural Resources

Issues

- Maintaining water and air quality as historically rural areas transition to suburban with new residential development
- Preservation of cultural and historic resources as new development increases pressure on important and historic sites
- No historic districts (with design guidelines) have been designated in Statham
- Clear cutting of tracts to make way for new development
- Disappearing farmland, farming way of life, and rural character

Opportunities

- Designate agricultural and rural preservation areas and protect with special land development regulations that, for example, limit density to one unit per 10 acres or less
- Protect historic buildings and neighborhoods in order to preserve downtown character and neighborhoods; the adoption of a historic overlay district is a potential tool
- Encourage the use of Conservation Subdivisions to preserve rural character and sensitive natural resources
- Focus new suburban residential development in areas served by sewer to avoid overuse of septic systems
- New floodplain mapping underway will provide updated information that can be used to promote responsible planning and development



6.1.5 Community Facilities and Services

Issues

- Lack of infrastructure in “Gateway” areas designated by the Barrow Summit report as important future economic development sites (Georgia Club)
- Sewer/wastewater treatment infrastructure development has not yet moved ahead of new development in many parts of the County (especially in the northeast and southeast)
- Additional wastewater capacity needed to meet recommended MGD in the 2003 Wastewater Master Plan
- Lack of water resources to meet expected long-range demand caused by growing population
- School overcrowding and playing catch up with residential growth
- Funding for new facilities to meet the service demand of a growing population

Opportunities

- County and municipal government leaders working together to locate long range water resources to support new and exiting population
- Expansion and improvement of sewer and wastewater treatment facilities (*e.g.*, new Statham WWTP and other improvements)
- Recent and planned school expansions provide some relief to overcrowded schools
- SPLOST provides local funding
- Sewer Master Plan provides plan for addition of new sewer and wastewater facilities
- Parks Master Plan outlines long-range needs and provides implementation plan to increase the County’s park space and facilities
- Controlling new growth with coordination of land use, transportation, and facilities planning – providing infrastructure to encourage development where the future development map recommends it
- Impact Fee Program study underway for Barrow County focusing on public safety, parks and recreation, and libraries, but also includes all other impact fee-eligible community facilities.
- CDBG funds for sewer extension
- New facilities planned (courthouse, jail, Auburn and Statham libraries)
- Upper Oconee Basin Water Authority seeking to increase volume of water that can be treated at the Bear Creek WTP



Downtown Statham includes a mixture of land uses, including restaurants, as shown above

6.1.6 Land Use

Issues

- Transitioning of rural and suburban residential corridors
- Limited use of available TND regulations
- Maintaining land designated for industry as suburban residential demand increases for properties near the SR 316 corridor
- Sprawling suburban residential development throughout areas adjacent to the City

Opportunities

- Encourage mixed use development nodes at major intersections along the gateway corridors and other throughway roads in the County to lessen the effects of linear sprawl
- Encourage TND

- TND Ordinances in place offer opportunities for development of pedestrian-friendly neighborhoods and should be encouraged in designated areas of the cities and unincorporated portions of the County
- Learn from mistakes of adjacent counties that experienced similar bursts of growth in recent years
- Redevelopment of vacant and underused shopping centers and commercial buildings in Winder into mixed use activity centers
- Barrow County Summit identified “Gateways” and provided first step in creating a vision and implementation plan for preparing these areas for future development and redevelopment (SR 316/Georgia Club)
- Encourage Conservation Subdivisions that cluster development and protect greenspace and natural resources
- Consider local scenic byways designations (e.g., SR 211) to protect the character of rural corridors

6.1.7 Transportation

Issues

- Portions of the City that has been developed according to suburban development patterns offer few opportunities for walking and bicycling
- Lack of transportation choices (e.g., lack of public transportation, limited sidewalks and bicycle infrastructure, etc.)
- Limited suburban residential connectivity among existing subdivisions in many parts of the County (and in cities) and the lack of a collector street master plan to ensure connectivity between new subdivisions and connector streets that are designed and built to provide the needed capacity
- Major corridors, including portions of SR 211, are unfriendly to pedestrians
- Few railroad overpasses
- Plans for SR 316 to become limited access freeway remain in the distant future
- Transportation infrastructure at major intersections with SR 316



Bike lanes on SR 211 in Statham provide opportunity for alternative transportation modes

Opportunities

- Prepare a plan for a countywide bicycle and pedestrian route, leading to increased opportunities to walk and bike
- Planned expansion of facilities and services at the Barrow County Airport
- The railroad corridor connecting Athens and Atlanta with a stop in downtown Winder could stop in Statham
- Statham TE grant

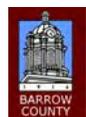
6.1.8 Intergovernmental Coordination

Issues

- Conflicts over municipal annexation
- No unified system for sharing permit information in the cities, which would help schools estimate future enrollment

Opportunities

- Quarterly meetings held among municipalities and County elected officials
- Coordination among municipalities and the County focused on seeking water sources for the future
- County Planning Department has resources to provide planning technical support and assistance to municipalities; already provides such for Bethlehem
- Consolidation of government services or unified government
- Coordinated joint comprehensive plan update



6.2 Existing Development Pattern

The purpose of this analysis is to understand the development conditions and growth patterns currently occurring on the ground in Statham. The analysis allows the further exploration of issues and opportunities related to the physical environment. The following analysis considers three aspects of the existing development patterns: existing land use, areas requiring special attention, and recommended character areas.

6.2.1 Existing Land Use

An existing land use map displays the development on the ground categorized into groups of similar types of development at a given point in time. For purposes of this analysis, the Statham Existing Land Use Map is based on November 2006 WinGAP tax digest information provided by the Barrow County Tax Assessor Office. Analysis of aerial photography and windshield surveys also provided additional input for the identification of the existing land use of properties. Table 6-2 provides a description of each Existing Land Use Classification.

Table 6-2 Existing Land Use Classifications

Existing Land Use Classification	Description
Agriculture/ Forestry	Properties devoted predominantly to agricultural production, private forest lands, rural residential (residential uses in excess of five acres)
Commercial	Properties dedicated to non-industrial business uses including retail sales, office, services and entertainment facilities; may be located as a single use in one building or grouped together in a shopping center or office park
Industrial	Land dedicated primarily to industrial land uses that include warehousing, wholesale trade and manufacturing facilities; also includes private landfills
Parks/ Recreation/ Conservation	Properties dedicated to uses that require significant amounts of open space such as public and private parks, golf courses, National Forests, and WMAs.
Public/ Institutional	Properties that include state, federal or local government uses including city halls and government building complexes, police and fire stations, libraries, prisons, schools, etc. Facilities that are publicly owned, but would be classified more accurately in another land-use classifications, are not included in this category. For example, publicly owned parks and/or recreation facilities are placed in the Park/Recreation/Conservation category.
Residential - Single- and Two-family	Single-family and two-family dwellings including site-built, detached and attached single-family homes and duplexes and manufactured homes on single lots with an area of 5 acres or less. Residential uses on lots larger than 5 acres are classified as Agriculture/Forestry
Residential - Multifamily	Apartments, condominiums and attached single-family housing (more than two on lot); includes manufactured homes in manufactured home parks
Transportation/ Communication/ Utilities	Includes such uses as public transit stations, power generation plants, radio towers, telephone switching stations, electric utility substations, airports and other similar uses.
Vacant/ Undeveloped	Land with no buildings or improvements not used for agricultural purposes that is less than 5 acres
No Data Available	Parcels in this category did not have parcel information available

The subsections that follow describe the existing land use for the City of Statham. Each description includes a land use classification table, map, and brief narrative that highlight important land use characteristics for each area.

Large agricultural lots make up the largest portion of the roughly 3.3-square-mile city along SR 211 in eastern Barrow County. Approximately 52% of the city falls within the agricultural category (with another 5% in vacant/undeveloped), leaving ample space for large-scale infill development that could take advantage of existing infrastructure. Table 6-3 and Map 6 show Statham’s existing land use.



Table 6-3 Existing Land Use – Statham

Land Use Classification	Acreage	% of Total
Agriculture/Forestry	1,044.1	52.4%
Commercial	49.3	2.5%
Industrial	67.1	3.4%
Parks/Recreation/Conservation	51.2	2.6%
Public/Institutional	61.0	3.1%
Residential - Multifamily	20.9	1.1%
Residential - Single- and Two-family	589.7	29.6%
Transportation/Communication/Utilities	3.1	0.2%
Vacant/Undeveloped	104.3	5.2%
No Data	0.7	0.0%
Total	1,991.5	100.0%

Source: WinGAP, Barrow County, MACTEC

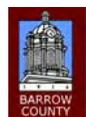
Residential uses make up the second largest percentage of Statham with roughly 30% of the city devoted to single- and two-family residential land uses. A substantial portion of the city’s residential land uses are in the historic portion of the town, which is built on a grid with tree-lined streets and sidewalks (e.g., Lucile Street). Statham also includes some suburban, large-lot single-family homes built in subdivisions that are scattered around the periphery of the City. Many others subdivisions have been built just outside the City limits.

The City of Statham’s commercial uses, which make up approximately 2.5% of the city’s area, are concentrated in the historic downtown along Railroad Street between 1st Street and 6th Street. The historic downtown also includes government buildings and park space.

New industrial development has occurred adjacent to SR 316 just off of SR 211 on the city’s south side on Statham Drive. As a result, approximately 3% of the city is now devoted to Industrial uses.



Map 9 Existing Land Use – Statham



6.2.2 Areas Requiring Special Attention

Growth inevitably impacts the natural and cultural environments as well as community facilities, services, and infrastructure required to service an area. Table 6-4 outlines areas where the real estate market has and continues to produce development that is dominated by single-function land uses, where aging commercial areas are in need of functional and aesthetic revitalization, where growth should be well managed due to the environmentally-sensitive nature of the land, or where historical districts and elements should be maintained as they comprise much of the identity of the City of Statham

Table 6-4 Areas Requiring Special Attention – Statham

<i>Area of Special Concern</i>	<i>Description</i>
Gateways	The Barrow County Summit report identified Gateways for the County (including the Georgia Club) each with a specific long range vision. In some cases, infrastructure is not currently in place to support the recommended development of these areas and will need to be provided in order to ensure that future development patterns implement the Summit
River and Creek Corridors	Barber, Marbury, and Cedar creeks
Historic Areas	All significant or recognized historic areas and structures will likely be threatened by encroaching development or incompatible land uses at some point in time. Proper land use planning and guidelines are needed to protect viable cultural resources. Among the historic areas of concern are downtown Statham and surrounding residential neighborhoods, as well as individual historic sites.
Natural Resources	Natural resources, particularly water resources, are of special concern as the County experiences population growth and associated housing and commercial development. Greenspace planning and preservation will also be important to preserving natural resources and providing recreation sources and transportation alternatives for residents.
Agriculture/Rural Preservation	Many areas of the County that historically were dedicated to agricultural production have seen intense pressure to convert to suburban residential land uses as property values increase due to market demand.
SR 316 Corridor	SR 316 provides a direct, four-lane highway transportation link between Athens and Atlanta. As such, development has moved quickly out from Athens and Atlanta, and eventually the two will meet.
Water and Sewer Infrastructure Development	Areas for water and sewer development have been identified and projects planned. It is important to encourage development in the planned areas or only allow water and sewer to new developments that will provide sufficient infrastructure that can be extended to later developments beyond the immediate project.



6.2.3 Recommended Character Areas

Character area planning focuses on the way an area looks and how it functions. Applying development strategies to character areas in County can preserve existing areas and help other areas function better and become more attractive. They help guide future development through policies and implementation strategies that are tailored to each situation. The character areas recommended for the City of Statham, described in Table 6-5, define areas that have the following traits:

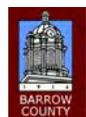
- Presently have unique or special characteristics that need to be preserved
- Have the potential to evolve into unique areas
- Require special attention because of unique development issues

Table 6-5 Recommended Character Area Descriptions - Statham

<i>Character Area</i>	<i>Description</i>
Preserve	Undeveloped, natural lands with significant natural features including steep slopes, floodplains, wetlands, watersheds, wildlife management areas, conservation areas, and other environmentally sensitive areas not suitable for development of any kind; also includes large parkland.
Rural/Agricultural Reserve Area	Predominantly rural, undeveloped land in open or cultivated state or sparsely settled, including woodlands and farm lands; can include very large-lot (more than 10 acres) residential uses.
Traditional Neighborhood	Residential area in older part of the community typically developed prior to World War II; characteristics include high pedestrian orientation, sidewalks, street trees, on-street parking, small, regular lots, shallow yards (relative to suburban counterparts), less space between buildings, can include small neighborhood businesses.
Suburban Neighborhood	Area where typical types of suburban residential subdivision development have occurred; characterized by few sidewalks and other pedestrian infrastructure, wide lots, predominantly residential with scattered civic buildings; usually have varied street pattern that includes curvilinear, lower degree of connectivity, and cul-de-sacs.
Commercial Corridor	Developed land on both sides of a high-volume street or highway that is primarily made up of automobile-oriented, pedestrian-friendly, strip commercial and office development; characterized by single-use, generally one-story buildings that are separated from the street and sidewalk (though they often do not have sidewalks) by parking lots with few shade trees; generally have high degree of congestion.
Downtown	Traditional central business district and immediately surrounding commercial, industrial or mixed use areas. Generally urban pedestrian-friendly, a mix of single- and multi-story buildings with on-street parking. Typically include public spaces and government buildings.
Emerging Suburban and Exurban Area	Areas where pressure for the typical types of suburban residential subdivision development and associated strip commercial development along arterials and major roads is greatest. Without intervention, these areas are likely to evolve with low pedestrian orientation, larger lot sizes, high to moderate degree of building separation; predominantly residential with scattered civic buildings and varied street patterns (often curvilinear) that include cul-de-sacs.
Industrial	Land, mostly along SR 316, that is used in low and high intensity manufacturing, wholesale trade, distribution, assembly, processing, etc., that may or may not generate excessive noise, particulate matter, vibration, smoke, dust, gas, fumes, odors, radiation, or other nuisance characteristics; zoning typically separates the uses with those characteristics; generally not appropriate for residential uses.



Map 10 Recommended Character Areas – Statham



6.3 Quality Community Objectives Analysis

This section is intended to meet the Minimum Standards for Local Comprehensive Planning requirement so that the Community Assessment includes an evaluation of the community’s current policies, activities, and development patterns for consistency with the QCO contained in the State Planning Goals and Objectives. The DCA Office of Planning and Quality Growth created the QCO Local Assessment to assist local governments in evaluating their progress towards sustainable and livable communities. The assessment is meant to give the community an idea of how it is progressing toward reaching these objectives. The following tables function as a guide for assessing the current status of QCO in the City of Statham.

6.3.1 Traditional Neighborhoods

Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity.

Question	City of Statham	Comments
1. If we have a zoning code, it does not separate commercial, residential and retail uses in every district.	✓	
2. Our community has ordinances in place that allow neo-traditional development “by right” so that developers do not have to go through a long variance process.	✓	
3. We have a street tree ordinance that requires new development to plant shade-bearing trees appropriate to our climate.	✓	
4. Our community has an organized tree-planting campaign in public areas that will make walking more comfortable in the summer.	✓	
5. We have a program to keep our public areas (commercial, retail districts, parks) clean and safe.	✓	
6. Our community maintains its sidewalks and vegetation well so that walking is an option some would choose.	✓	
7. In some areas several errands can be made on foot, if so desired.	✓	
8. Some of our children can and do walk to school safely.	✓	
9. Some of our children can and do bike to school safely.	✓	
10. Schools are located in or near neighborhoods in our community.	✓	



6.3.2 Infill Development

Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community.

Question	City of Statham	Comments
1. Our community has an inventory of vacant sites and buildings that are available for redevelopment and/or infill development.	✓	
2. Our community is actively working to promote Brownfield redevelopment.		
3. Our community is actively working to promote greyfield redevelopment.		
4. We have areas of our community that are planned for nodal development (compacted near intersections rather than spread along a major road).		
5. Our community allows small lot development (5,000 square feet or less) for some uses.	✓	

6.3.3 Sense of Place

Traditional downtown areas should be maintained as the focal point of the community or, in newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian-friendly places where people choose to gather for shopping, dining, socializing, and entertainment.

Question	City of Statham	Comments
1. If someone dropped from the sky into our community, he or she would know immediately where he or she was, based on our distinct characteristics.		
2. We have delineated the areas of our community that are important to our history and heritage, and have taken steps to protect those areas.	✓	
3. We have ordinances to regulate the aesthetics of development in our highly visible areas.	✓	
4. We have ordinances to regulate the size and type of signage in our community.	✓	
5. We offer a development guidebook that illustrates the type of new development we want in our community.		
6. If applicable, our community has a plan to protect designated farmland.		



6.3.4 Transportation Alternatives

Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities should be made available in each community. Greater use of alternate transportation should be encouraged.

Question	City of Statham	Comments
1. We have public transportation in our community.		
2. We require that new development connects with existing development through a street network, not a single entry/exit.	✓	
3. We have a good network of sidewalks to allow people to walk to a variety of destinations.	✓	
4. We have a sidewalk ordinance in our community that requires all new development to provide user-friendly sidewalks.	✓	
5. We require that newly built sidewalks connect to existing sidewalks wherever possible.	✓	
6. We have a plan for bicycle routes through our community.	✓	
7. We allow commercial and retail development to share parking areas wherever possible.	?	

6.3.5 Regional Identity

Each region should promote and preserve a regional “identity,” or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.

Question	City of Statham	Comments
1. Our community is characteristic of the region in terms of architectural styles and heritage.		
2. Our community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products.		
3. Our community encourages businesses that create products that draw on our regional heritage (e.g., mountain, agricultural, metropolitan, coastal, etc.).		
4. Our community participates in the Georgia Department of Economic Development’s regional tourism partnership.		
5. Our community promotes tourism opportunities based on the unique characteristics of our region.		



Question	City of Statham	Comments
6. Our community contributes to the region, and draws from the region, as a source of local culture, commerce, entertainment and education.		

6.3.6 Heritage Preservation

The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.

Question	City of Statham	Comments
1. We have designated historic districts in our community.	✓	
2. We have an active historic preservation commission.		
3. We want new development to complement our historic development, and we have ordinances in place to ensure this.	✓	

6.3.7 Open Space Preservation

New development should be designed to minimize the amount of land consumed, and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.

Question	City of Statham	Comments
1. Our community has a greenspace plan.		
2. Our community is actively preserving greenspace, either through direct purchase or by encouraging set-asides in new development.	✓	
3. We have a local land conservation program, or we work with state or national land conservation programs, to preserve environmentally important areas in our community.	✓	
4. We have a conservation subdivision ordinance for residential development that is widely used and protects open space in perpetuity.	✓	

6.3.8 Environmental Protection

Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an area should be preserved.



Question	City of Statham	Comments
1. Our community has a comprehensive natural resources inventory.		
2. We use this resource inventory to steer development away from environmentally sensitive areas.		
3. We have identified our defining natural resources and taken steps to protect them.		
4. Our community has passed the necessary "Part V" environmental ordinances, and we enforce them.		
5. Our community has a tree preservation ordinance which is actively enforced.		
6. Our community has a tree-replanting ordinance for new development.		
7. We are using stormwater best management practices for all new development.	✓	
8. We have land use measures that will protect the natural resources in our community (steep slope regulations, floodplain or marsh protection, etc.).		

6.3.9 Growth Preparedness

Each community should identify and put in place the prerequisites for the type of growth it seeks to achieve. These might include infrastructure (e.g., roads, water, sewer) to support new growth, appropriate training of the workforce, ordinances and regulations to manage growth as desired, or leadership capable of responding to growth opportunities and managing new growth when it occurs.

Question	City of Statham	Comments
1. We have population projections for the next 20 years that we refer to when making infrastructure decisions.		
2. Our local governments, the local school board, and other decision-making entities use the same population projections.		
3. Our elected officials understand the land-development process	✓	
4. We have reviewed our development regulations and/or zoning code recently, and believe that our ordinances will help us achieve our QCO goals.	✓	
5. We have a CIP that supports current and future growth.		
6. We have designated areas of our community where we would like to see growth, and these areas are based on a natural resources inventory.	✓	
7. We have clearly understandable guidelines for new development.	✓	



Question	City of Statham	Comments
8. We have a citizen-education campaign to allow all interested parties to learn about development		
9. We have procedures in place that make it easy for the public to stay informed about land use issues, zoning decisions, and proposed new development.		
10. We have a public-awareness element in our comprehensive planning process.		

6.3.10 Appropriate Business

The businesses and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long-term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher-skill job opportunities.

Question	City of Statham	Comments
1. Our economic development organization has considered our community's strengths, assets and weaknesses, and has created a business development strategy based on them.		
2. Our economic development organization has considered the types of businesses already in our community, and has a plan to recruit businesses and/or industries that will be compatible.		
3. We recruit firms that provide or create sustainable products.		
4. We have a diverse jobs base, so that one employer leaving would not cripple our economy.		

6.3.11 Employment Options

A range of job types should be provided in each community to meet the diverse needs of the local workforce.

Question	City of Statham	Comments
1. Our economic development program has an entrepreneur support program.		
2. Our community has jobs for skilled labor.		
3. Our community has jobs for unskilled labor.		
4. Our community has professional and managerial jobs.		



6.3.12 Housing Choices

A range of housing size, cost, and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.

Question	City of Statham	Comments
1. Our community allows accessory units like garage apartments or mother-in-law units.		
2. People who work in our community can also afford to live in the community.	✓	
3. Our community has enough housing for each income level (low, moderate and above-average).	✓	
4. We encourage new residential development to follow the pattern of our original town, continuing the existing street design and maintaining small setbacks.	✓	
5. We have options available for loft living, downtown living, or "neo-traditional" development.	✓	
6. We have vacant and developable land available for multifamily housing.		
7. We allow multifamily housing to be developed in our community.	✓	
8. We support community development corporations that build housing for lower-income households.		
9. We have housing programs that focus on households with special needs.		
10. We allow small houses built on small lots (less than 5,000 square feet) in appropriate areas.		

6.3.13 Educational Opportunities

Educational and training opportunities should be readily available in each community – to permit community residents to improve job skills, adapt to technological advances, or to pursue entrepreneurial ambitions.

Question	City of Statham	Comments
1. Our community provides workforce training options for its citizens.		
2. Our workforce training programs provide citizens with skills for jobs that are available in our community.		
3. Our community has higher education opportunities or is close to a community that does.		
4. Our community has job opportunities for college graduates, so that our children may live and work here if they choose.		



6.3.14 Regional Solutions

Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.

Question	City of Statham	Comments
1. We participate in regional economic development organizations.		
2. We participate in regional environmental organizations and initiatives, especially regarding water quality and quantity issues.		
3. We work with other local governments to provide or share appropriate services, such as public transit, libraries, special education, tourism, parks and recreation, EMT, E-911, homeland security, etc.	✓	
4. Our community thinks regionally, especially in terms of issues like land use, transportation and housing, understanding that these go beyond local govt. borders.		

6.3.15 Regional Cooperation

Regional cooperation should be encouraged in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.

Question	City of Statham	Comments
1. We plan jointly with our cities and county for comprehensive planning purposes.	✓	
2. We are satisfied with our Service Delivery Strategy.	✓	
3. We initiate contact with other local governments and institutions in our region in order to find solutions to common problems, or to craft regionwide strategies.	✓	
4. We meet regularly with neighboring jurisdictions to maintain contact, build connections, and discuss issues of regional concern.	✓	



7 City of Winder

7.1 Issues and Opportunities

The issues and opportunities described below have been identified from a review of the *Analysis of Supporting Data for the Community Assessment*, discussions with municipal staff, review of recently completed plans, review of plans currently under development, and other initiatives. This analysis included an examination of the QCO. The *Analysis of Supporting Data* can be found as an addendum to this report. This section organizes the issues and opportunities by the major topics defined in the DCA Local Planning Requirements. The assessment topics include the following areas:

- Population
- Housing
- Economic Development
- Natural and Cultural Resources
- Community Facilities and Services
- Transportation
- Intergovernmental Coordination
- Land Use

7.1.1 Population

Issues

- Rapid population and household growth
- High percentage of families with children relative to neighboring counties
- Growth focused in unincorporated areas surrounding the City limits
- Projections show continued growth

7.1.2 Housing

Issues

- Limited choice of housing types, with few multifamily dwellings
- Jobs/Housing imbalance
- Disproportionate number of County's new housing units built for first-time homeowners
- Aging housing stock in some city neighborhoods

Opportunities

- Healthy supply of affordable housing
- Encourage TND that reinforces the existing grid pattern
- Mixed use activity centers (including redeveloped shopping centers) could provide opportunities for

Table 7-1 Population Projections

2005	2010	2015	2020	2025	2030
12,451	18,048	23,012	28,059	38,239	39,199

Note: Methodology is presented in the Analysis of Supporting Data

Source: MACTEC, NEGRDC



Attached housing off of Turtle Creek Drive in Winder offers new housing choices



Suburban residential growth in northwest Winder

more housing types in locations suitable for higher density, pedestrian-friendly development in close proximity to commuter rail

- Revitalization of existing neighborhoods

7.1.3 Economic Development

Issues

- Lack of sewer and other infrastructure needed to promote gateway areas for development
- Job growth not keeping up with population growth

Opportunities

- Encourage bioscience research facilities to locate along the SR 316 corridor
- Implementation of strategies outlined by the Barrow Summit report
- Location advantage between Atlanta and Athens as well as the transportation infrastructure railroad, SR 316 and Interstate 85
- Ample supply of large, available undeveloped tracts
- Potential for the use of Business/Commercial Improvement Districts in downtowns and important corridors
- Unique features and important assets within the County such as Fort Yargo
- Downtown Winder streetscape and transportation projects make downtown attractive for new business investment



Historic homes on Broad Street help define Winder's architectural character

7.1.4 Natural and Cultural Resources

Issues

- Maintaining water and air quality as historically rural areas transition to suburban with new residential development
- Preservation of cultural and historic resources as new development increases pressure on important and historic sites, especially along corridors in the City
- Only one locally designated historic district with design guidelines exists



Winder City Hall located downtown

Opportunities

- Protect historic buildings and neighborhoods in order to preserve the character of neighborhoods; the adoption of historic overlay districts is a potential tool
- Encourage the use of Conservation Subdivisions to preserve rural character and important natural resources along the edges of the City and near sensitive environmental areas
- Focus new suburban residential development in areas served by sewer to avoid overuse of septic systems
- New floodplain mapping underway will provide updated information that can be used to promote responsible planning and development

7.1.5 Community Facilities and Services

Issues

- Lack of infrastructure in “Gateway” areas designated by the Barrow Summit report as important future economic development sites (SR 11/53/82)
- Additional wastewater capacity needed to meet recommended MGD in the 2003 Wastewater Master Plan
- Lack of water resources to meet expected long-range demand caused by growing population
- School overcrowding and playing catch up with residential growth
- Funding for new facilities to meet the service demand of a growing population

Opportunities

- County and municipal government leaders working together to locate long range water resources to support new and exiting population
- Expansion and improvement of sewer and wastewater treatment facilities (e.g., new Statham WWTP and other improvements)
- Recent and planned school expansions provide some relief to overcrowded schools
- SPLOST provides local funding
- Sewer Master Plan provides plan for addition of new sewer and wastewater facilities
- Parks Master Plan outlines long-range needs and provides implementation plan to increase the County’s park space and facilities
- Recent additions and improvements, such as Victor Lord Park, provide improved greenspace options
- Controlling new growth with coordination of land use, transportation, and facilities planning – providing infrastructure to encourage development where the future development map recommends it
- Impact Fee Program study underway for Barrow County focusing on public safety, parks and recreation, and libraries, but also includes all other impact fee-eligible community facilities.
- CDBG funds for sewer extension
- New facilities planned (courthouse, jail, Auburn, and Statham libraries)
- Upper Oconee Basin Water Authority seeking to increase volume of water that can be treated at the Bear Creek WTP



SR 316 connects south Barrow County to Athens and Interstate 85 and may in future be improved to limited access.

7.1.6 Land Use

Issues

- Strip commercial development along major corridors (U.S. 29, Broad Street, SR 11 and SR 53)
- Vacant and underused shopping centers and commercial buildings
- Transitioning of rural and suburban residential corridors (SR 211 northwest of Winder as well as other Gateway corridors)
- Limited use of available TND regulations
- Popularity of “Butler buildings” in inappropriate areas

Opportunities

- Encourage mixed use development nodes at major intersections along the gateway corridors and other throughway roads in the County to lessen the effects of linear sprawl
- Encourage TND
- TND Ordinances in place offer opportunities for development of pedestrian-friendly neighborhoods and should be encouraged in designated areas of the cities and unincorporated portions of the County
- Learn from mistakes of adjacent counties that experienced similar bursts of growth in recent years
- Redevelopment of vacant and underused shopping centers and commercial buildings in Winder into mixed use activity centers
- Barrow County Summit identified “Gateways” and provided first step in creating a vision and implementation plan for preparing these areas for future development and redevelopment (SR 316 and SR 316/Georgia Club)
- Encourage Conservation Subdivisions that cluster development and protect greenspace and natural resources
- Consider local scenic byways designations (*e.g.*, SR 53 and SR 11 north of Winder) to protect the character of rural corridors



New sidewalks shown above provide improved pedestrian infrastructure in Winder

7.1.7 Transportation

Issues

- Large portions of the cities and unincorporated Barrow County that have been developed according to suburban development patterns offer few opportunities for walking and bicycling (*e.g.*, suburban development that is now part of or adjacent to Auburn and Carl generally lacks sidewalks)
- Lack of transportation choices (*e.g.*, lack of public transportation, limited sidewalks and bicycle infrastructure, etc.)
- Limited connectivity between Fort Yargo and surrounding city
- Limited suburban residential connectivity among existing subdivisions in many parts of the County (and in cities) and the lack of a collector street master plan to ensure connectivity between new subdivisions and connector streets that are designed and built to provide the needed capacity
- Major corridors in Winder are unfriendly to pedestrians
- Heavy truck traffic as well as general traffic congestion in downtown Winder
- Few railroad overpasses
- Plans for SR 316 to become limited access freeway remain in the distant future
- Transportation infrastructure at major intersections with SR 316



Congestion in downtown Winder on Broad Street near May Street and Atlanta Highway

Opportunities

- Prepare countywide bicycle and pedestrian route plan leading to increased opportunities to walk and bike
- Planned expansion of facilities and services at the Barrow County Airport

- Commuter rail service planned for the railroad corridor connecting Athens and Atlanta with a stop in downtown Winder
- Downtown Winder Thoroughfare System Improvements Study underway and searching for solutions to congestion problems
- West Winder Bypass planned to connect SR 211 to SR 316
- Winder Streetscape improvements planned that will make walking a more attractive transportation choice in downtown

7.1.8 Intergovernmental Coordination

Issues

- Conflicts over municipal annexation
- No unified system for sharing permit information in the cities, which would help schools estimate future enrollment

Opportunities

- Quarterly meetings held among municipalities and County elected officials
- Coordination among municipalities and the County focused on seeking water sources for the future
- Consolidation of government services or unified government
- Coordinated joint comprehensive plan update



7.2 Existing Development Pattern

The purpose of this analysis is to understand the development conditions and growth patterns currently occurring on the ground in Winder. The analysis allows the further exploration of issues and opportunities related to the physical environment. The following analysis considers three aspects of the existing development patterns: existing land use, areas requiring special attention, and recommended character areas.

7.2.1 Existing Land Use

An existing land use map displays the development on the ground categorized into groups of similar types of development at a given point in time. For purposes of this analysis, the Existing Land Use Maps for Winder (citywide – Map 11) and Downtown (Map 12) are based on November 2006 WinGAP tax digest information provided by the Barrow County Tax Assessor Office. Analysis of aerial photography and windshield surveys also provided additional input for the identification of the existing land use of properties. Table 7-2 provides a description of each Existing Land Use Classification.

Table 7-2 Existing Land Use Classifications

Existing Land Use Classification	Description
Agriculture/ Forestry	Properties devoted predominantly to agricultural production, private forest lands, rural residential (residential uses in excess of five acres)
Commercial	Properties dedicated to non-industrial business uses including retail sales, office, services and entertainment facilities; may be located as a single use in one building or grouped together in a shopping center or office park
Industrial	Land dedicated primarily to industrial land uses that include warehousing, wholesale trade and manufacturing facilities; also includes private landfills
Parks/ Recreation/ Conservation	Properties dedicated to uses that require significant amounts of open space such as public and private parks, golf courses, National Forests, and WMAs.
Public/ Institutional	Properties that include state, federal or local government uses including city halls and government building complexes, police and fire stations, libraries, prisons, schools, etc. Facilities that are publicly owned, but would be classified more accurately in another land use classification, are not included in this category. For example, publicly owned parks and/or recreation facilities are placed in the Park/Recreation/Conservation category.
Residential – Single- and Two-family	Single-family and two-family dwellings including site-built, detached and attached single-family homes and duplexes and manufactured homes on single lots with an area of 5 acres or less. Residential uses on lots larger than 5 acres are classified as Agriculture/Forestry
Residential – Multifamily	Apartments, condominiums and attached single-family housing (more than two on lot); includes manufactured homes in manufactured home parks
Transportation/ Communication/ Utilities	Includes such uses as public transit stations, power generation plants, radio towers, telephone switching stations, electric utility substations, airports, and other similar uses.
Vacant/ Undeveloped	Land with no buildings or improvements not used for agricultural purposes that is less than 5 acres
No Data Available	Parcels in this category did not have parcel information available

The subsections that follow describe the existing land use for the Barrow County, the unincorporated area of Barrow County and each municipality. Each description includes a land use classification table, map, and brief narrative that highlight important land use characteristics for each area.

Residential uses make up the largest percentage of the city of approximately six square miles. Roughly 30% of the city is devoted to single and two-family residential land uses. Multifamily uses make up an additional 1.8%. Table 7-3 and Map 7 show Winder’s existing land use.



Table 7-3 Existing Land Use – Winder

Land Use Classification	Acreage	% of Total
Agriculture/Forestry	1,248.7	16.6%
Commercial	372.0	5.0%
Industrial	27.5	0.4%
Parks/Recreation/Conservation	2,249.3	29.9%
Public/Institutional	807.6	10.7%
Residential - Multifamily	134.9	1.8%
Residential - Single- and Two-family	2,275.5	30.3%
Transportation/Communication/Utilities	1.3	0.0%
Vacant/Undeveloped	392.3	5.2%
No Data	5.2	0.1%
Total	7,514.3	100.0%

Source: WinGAP, Barrow County, MACTEC

Winder’s housing stock includes historic single-family neighborhoods, conventional suburban residential subdivisions, multifamily apartments, mobile home parks, and public housing. The historic neighborhoods that ring Downtown Winder have experienced market pressure to convert to commercial uses. These pressures have also been present along segments of the major roads that cross the city that have historically been lined with single-family homes.

Parks/Recreation/Open Space makes up the second largest percentage of Winder, due to the 1,700-acre Fort Yargo State Park. Approximately 30% of the city is classified as in this category that also includes other public and private open space in the city.

The next largest category is Agriculture/Forestry. Large agricultural lots make up approximately 17% of the city. Adding Agriculture/Forestry areas of the city with the approximate 5% of the city classified as vacant/undeveloped reveals a substantial portion of the city that is available for infill development that could take advantage of existing infrastructure.

Commercial uses account for approximately 5% of the city’s area, by far the largest proportion of all of the cities in Barrow County. Commercial uses are concentrated along the full length of the U.S. 29 corridor that crosses the city paralleling the railroad. The corridor consists primarily of strip commercial, automobile oriented development. Broad Street (convergence of SR 11, 81, 53, and 211) and Athens Street are two other corridors with character similar to U.S. 29, with the exception of the portions of these two corridors that pass through downtown Winder. Downtown Winder includes a significant concentration of commercial, government and institutional other institutional uses. The historic urban form and grid street pattern have been preserved

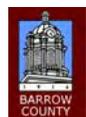
Industrial uses account for less than 0.5% of the total area of the City. Many of the industries associated with Winder are actually west of the city limits in unincorporated Barrow County. Only 27.5 acres of property in Winder are currently used for industrial purposes.



Map 11 Existing Land Use – Winder



Map 12 Existing Land Use – Downtown Winder



7.2.2 Areas Requiring Special Attention

Growth inevitably impacts the natural and cultural environments as well as community facilities, services, and infrastructure required to service an area. Table 7-4 outlines areas where the real estate market has and continues to produce development that is dominated by single-function land uses, where aging commercial areas are in need of functional and aesthetic revitalization, where growth should be well managed due to the environmentally-sensitive nature of the land, or where historical districts and elements should be maintained as they comprise much of the identity of the City of Winder.

Table 7-4 Areas Requiring Special Attention – Winder

<i>Area of Special Concern</i>	<i>Description</i>
Gateways	The Barrow County Summit report identified Gateways for the County (including SR 53, SR 11/53, and the West Winder Bypass) each with a specific long range vision. In some cases, infrastructure is not currently in place to support the recommended development of these areas and will need to be provided in order to ensure that future development patterns implement the Summit
River and Creek Corridors	Marbury and Cedar creeks
Groundwater Recharge Areas	Large groundwater recharge areas in west Barrow County. One large area is 4 miles wide between Carl and Winder.
Strip Commercial Corridors	U.S. 29 in Winder; SR 211 between the historic district of Winder and the town limits of Braselton; Broad Street north of the historic district of Winder
Historic Areas	All significant or recognized historic areas and structures will likely be threatened by encroaching development or incompatible land uses at some point in time. Proper land use planning and guidelines are needed to protect viable cultural resources. Among the historic areas of concern are neighborhoods in Winder that not currently included in the city's local historic district, and individual historic sites.
Natural Resources	Natural resources, particularly water resources, are of special concern as the County experiences population growth and associated housing and commercial development. Greenspace planning and preservation will also be important to preserving natural resources and providing recreation sources and transportation alternatives for residents.
Annexation Islands	Within the Winder city limits are parcels of land that are islands of unincorporated Barrow County within the City limits. To simplify logistics (especially for Winder) for fire, police and other public services, attention should be focused to correct these islands caused by annexation.
Water and Sewer Infrastructure Development	Areas for water and sewer development have been identified and projects planned. It is important to encourage development in the planned areas or only allow water and sewer to new developments that will provide sufficient infrastructure that can be extended to later developments beyond the immediate project.



7.2.3 Recommended Character Areas

Character area planning focuses on the way an area looks and how it functions. Applying development strategies to character areas in County can preserve existing areas and help other areas function better and become more attractive. They help guide future development through policies and implementation strategies that are tailored to each situation. The character areas recommended for the City of Winder, described in Table 7-5, define areas that have the following traits:

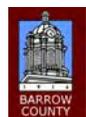
- Presently have unique or special characteristics that need to be preserved
- Have the potential to evolve into unique areas
- Require special attention because of unique development issues

Table 7-5 Recommended Character Area Descriptions - Winder

Character Area	Description
Preserve	Undeveloped, natural lands with significant natural features including steep slopes, floodplains, wetlands, watersheds, wildlife management areas, conservation areas, and other environmentally sensitive areas not suitable for development of any kind; also includes large parkland such as Fort Yargo State Park
Traditional Neighborhood	Residential area in older part of the community typically developed prior to World War II; characteristics include high pedestrian orientation, sidewalks, street trees, on-street parking, small, regular lots, shallow yards (relative to suburban counterparts), less space between buildings, can include small neighborhood businesses
Suburban Neighborhood	Area where typical types of suburban residential subdivision development have occurred; characterized by few sidewalks and other pedestrian infrastructure, wide lots, predominantly residential with scattered civic buildings; usually have varied street pattern that includes curvilinear, lower degree of connectivity and cul-de-sacs
Commercial Corridor	Developed land on both sides of a high-volume street or highway that is primarily made up of automobile-oriented, pedestrian-friendly, strip commercial and office development; characterized by single-use, generally one-story buildings that are separated from the street and sidewalk (though they often do not have sidewalks) by parking lots with few shade trees; generally have high degree of congestion
Transitional Corridor	Areas originally developed for single-family residential that have been impacted by increased traffic volume and associated impacts (e.g., noise, increased trash, street widening, etc) that may no longer be suitable for single-family residential use. Zoning changes have started to occur along these corridors one request at a time which has resulted in front yard conversions to parking lots, unsightly home to business building additions and conversions, and signage out of proportion to the structure. Without a coordinated plan to guide the development of the property with a long-range vision in mind, these transitions will continue to occur.
Downtown	Traditional central business district and immediately surrounding commercial, industrial or mixed use areas. Generally urban pedestrian-friendly, a mix of single and possibly multi-story buildings with on-street parking. Typically include public spaces and government buildings.
Emerging Suburban and Exurban Area	Areas where pressure for the typical types of suburban residential subdivision development and associated strip commercial development along arterials and major roads is greatest. Without intervention, these areas are likely to evolve with low pedestrian orientation, larger lot sizes, high to moderate degree of building separation, predominantly residential with scattered civic buildings and varied street patterns (often curvilinear) that include cul-de-sacs.
Industrial	Land used in low and high intensity manufacturing, wholesale trade, distribution, assembly, processing, etc., that may or may not generate excessive noise, particulate matter, vibration, smoke, dust, gas, fumes, odors, radiation, or other nuisance characteristics; zoning typically separates the uses with those characteristics; generally not appropriate for residential uses.



Map 13 Recommended Character Areas – Winder



Map 14 Recommended Character Areas – Downtown Winder



7.3 Quality Community Objectives Analysis

This section is intended to meet the Minimum Standards for Local Comprehensive Planning requirement so that the Community Assessment includes an evaluation of the community’s current policies, activities, and development patterns for consistency with the QCO contained in the State Planning Goals and Objectives. The DCA Office of Planning and Quality Growth created the QCO Local Assessment to assist local governments in evaluating their progress towards sustainable and livable communities. The assessment is meant to give the community an idea of how it is progressing toward reaching these objectives. The following tables function as a guide for assessing the current status of QCO in the City of Winder.

7.3.1 Traditional Neighborhoods

Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity

Question	City of Winder	Comments
1. If we have a zoning code, it does not separate commercial, residential and retail uses in every district.	✓	
2. Our community has ordinances in place that allow neo-traditional development “by right” so that developers do not have to go through a long variance process.		
3. We have a street tree ordinance that requires new development to plant shade-bearing trees appropriate to our climate.	✓	
4. Our community has an organized tree-planting campaign in public areas that will make walking more comfortable in the summer.		
5. We have a program to keep our public areas (commercial, retail districts, parks) clean and safe.	✓	
6. Our community maintains its sidewalks and vegetation well so that walking is an option some would choose.	✓	
7. In some areas several errands can be made on foot, if so desired.	✓	
8. Some of our children can and do walk to school safely.	✓	
9. Some of our children can and do bike to school safely.	✓	
10. Schools are located in or near neighborhoods in our community.	✓	



7.3.2 Infill Development

Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community.

Question	City of Winder	Comments
1. Our community has an inventory of vacant sites and buildings that are available for redevelopment and/or infill development.		
2. Our community is actively working to promote Brownfield redevelopment.		
3. Our community is actively working to promote greyfield redevelopment.		
4. We have areas of our community that are planned for nodal development (compacted near intersections rather than spread along a major road).		
5. Our community allows small lot development (5,000 square feet or less) for some uses.		

7.3.3 Sense of Place

Traditional downtown areas should be maintained as the focal point of the community or, in newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian-friendly places where people choose to gather for shopping, dining, socializing, and entertainment.

Question	City of Winder	Comments
1. If someone dropped from the sky into our community, he or she would know immediately where he or she was, based on our distinct characteristics.		
2. We have delineated the areas of our community that are important to our history and heritage, and have taken steps to protect those areas.	✓	
3. We have ordinances to regulate the aesthetics of development in our highly visible areas.	✓	
4. We have ordinances to regulate the size and type of signage in our community.	✓	
5. We offer a development guidebook that illustrates the type of new development we want in our community.	✓	
6. If applicable, our community has a plan to protect designated farmland.		



7.3.4 Transportation Alternatives

Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities should be made available in each community. Greater use of alternate transportation should be encouraged.

Question	City of Winder	Comments
1. We have public transportation in our community.		
2. We require that new development connects with existing development through a street network, not a single entry/exit.	✓	
3. We have a good network of sidewalks to allow people to walk to a variety of destinations.	✓	
4. We have a sidewalk ordinance in our community that requires all new development to provide user-friendly sidewalks.	✓	
5. We require that newly built sidewalks connect to existing sidewalks wherever possible.	✓	
6. We have a plan for bicycle routes through our community.		
7. We allow commercial and retail development to share parking areas wherever possible.	✓	

7.3.5 Regional Identity

Each region should promote and preserve a regional “identity,” or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.

Question	City of Winder	Comments
1. Our community is characteristic of the region in terms of architectural styles and heritage.	✓	
2. Our community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products.		
3. Our community encourages businesses that create products that draw on our regional heritage (mountain, agricultural, metropolitan, coastal, etc.).		
4. Our community participates in the Georgia Department of Economic Development’s regional tourism partnership.		
5. Our community promotes tourism opportunities based on the unique characteristics of our region.		



Question	City of Winder	Comments
6. Our community contributes to the region, and draws from the region, as a source of local culture, commerce, entertainment and education.	✓	

7.3.6 Heritage Preservation

The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.

Question	City of Winder	Comments
1. We have designated historic districts in our community.	✓	
2. We have an active historic preservation commission.	✓	
3. We want new development to complement our historic development, and we have ordinances in place to ensure this.	✓	

7.3.7 Open Space Preservation

New development should be designed to minimize the amount of land consumed, and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.

Question	City of Winder	Comments
1. Our community has a greenspace plan.		
2. Our community is actively preserving greenspace, either through direct purchase or by encouraging set-asides in new development.	✓	
3. We have a local land conservation program, or we work with state or national land conservation programs, to preserve environmentally important areas in our community.		
4. We have a conservation subdivision ordinance for residential development that is widely used and protects open space in perpetuity.		



7.3.8 Environmental Protection

Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an area should be preserved.

Question	City of Winder	Comments
1. Our community has a comprehensive natural resources inventory.		
2. We use this resource inventory to steer development away from environmentally sensitive areas.		
3. We have identified our defining natural resources and taken steps to protect them.	✓	
4. Our community has passed the necessary "Part V" environmental ordinances, and we enforce them.	✓	
5. Our community has a tree preservation ordinance which is actively enforced.		
6. Our community has a tree-replanting ordinance for new development.		
7. We are using stormwater best management practices for all new development.	✓	
8. We have land use measures that will protect the natural resources in our community (e.g., steep slope regulations, floodplain or marsh protection, etc.).	✓	

7.3.9 Growth Preparedness

Each community should identify and put in place the prerequisites for the type of growth it seeks to achieve. These might include infrastructure (e.g., roads, water, sewer) to support new growth, appropriate training of the workforce, ordinances and regulations to manage growth as desired, or leadership capable of responding to growth opportunities and managing new growth when it occurs.

Question	City of Winder	Comments
1. We have population projections for the next 20 years that we refer to when making infrastructure decisions.		
2. Our local governments, the local school board, and other decision-making entities use the same population projections.		
3. Our elected officials understand the land-development process	✓	
4. We have reviewed our development regulations and/or zoning code recently, and believe that our ordinances will help us achieve our QCO goals.	✓	
5. We have a CIP that supports current and future growth.	✓	



Question	City of Winder	Comments
6. We have designated areas of our community where we would like to see growth, and these areas are based on a natural resources inventory.		
7. We have clearly understandable guidelines for new development.	✓	
8. We have a citizen-education campaign to allow all interested parties to learn about development		
9. We have procedures in place that make it easy for the public to stay informed about land use issues, zoning decisions, and proposed new development.	✓	
10. We have a public-awareness element in our comprehensive planning process.	✓	

7.3.10 Appropriate Business

The businesses and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long-term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher-skill job opportunities.

Question	City of Winder	Comments
1. Our economic development organization has considered our community's strengths, assets and weaknesses, and has created a business development strategy based on them.		
2. Our economic development organization has considered the types of businesses already in our community, and has a plan to recruit businesses and/or industries that will be compatible.		
3. We recruit firms that provide or create sustainable products.		
4. We have a diverse jobs base, so that one employer leaving would not cripple our economy.	✓	



7.3.11 Employment Options

A range of job types should be provided in each community to meet the diverse needs of the local workforce.

Question	City of Winder	Comments
1. Our economic development program has an entrepreneur support program.		
2. Our community has jobs for skilled labor.	✓	
3. Our community has jobs for unskilled labor.	✓	
4. Our community has professional and managerial jobs.	✓	

7.3.12 Housing Choices

A range of housing size, cost, and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.

Question	City of Winder	Comments
1. Our community allows accessory units like garage apartments or mother-in-law units.		
2. People who work in our community can also afford to live in the community.	✓	
3. Our community has enough housing for each income level (low, moderate and above-average).	✓	
4. We encourage new residential development to follow the pattern of our original town, continuing the existing street design and maintaining small setbacks.	✓	
5. We have options available for loft living, downtown living, or "neo-traditional" development.	✓	
6. We have vacant and developable land available for multifamily housing.	✓	
7. We allow multifamily housing to be developed in our community.	✓	
8. We support community development corporations that build housing for lower-income households.		
9. We have housing programs that focus on households with special needs.	✓	
10. We allow small houses built on small lots (less than 5,000 square feet) in appropriate areas.		



7.3.13 Educational Opportunities

Educational and training opportunities should be readily available in each community – to permit community residents to improve job skills, adapt to technological advances, or to pursue entrepreneurial ambitions.

Question	City of Winder	Comments
1. Our community provides workforce training options for its citizens.	✓	
2. Our workforce training programs provide citizens with skills for jobs that are available in our community.	✓	
3. Our community has higher education opportunities or is close to a community that does.	✓	
4. Our community has job opportunities for college graduates, so that our children may live and work here if they choose.	✓	

7.3.14 Regional Solutions

Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.

Question	City of Winder	Comments
1. We participate in regional economic development organizations.	✓	
2. We participate in regional environmental organizations and initiatives, especially regarding water quality and quantity issues.	✓	
3. We work with other local governments to provide or share appropriate services, such as public transit, libraries, special education, tourism, parks and recreation, EMT, E-911, homeland security, etc.	✓	
4. Our community thinks regionally, especially in terms of issues like land use, transportation and housing, understanding that these go beyond local govt. borders.	✓	



7.3.15 Regional Cooperation

Regional cooperation should be encouraged in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.

Question	City of Winder	Comments
1. We plan jointly with our cities and county for comprehensive planning purposes.	✓	
2. We are satisfied with our Service Delivery Strategy.	✓	
3. We initiate contact with other local governments and institutions in our region in order to find solutions to common problems, or to craft regionwide strategies.	✓	
4. We meet regularly with neighboring jurisdictions to maintain contact, build connections, and discuss issues of regional concern.	✓	

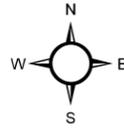
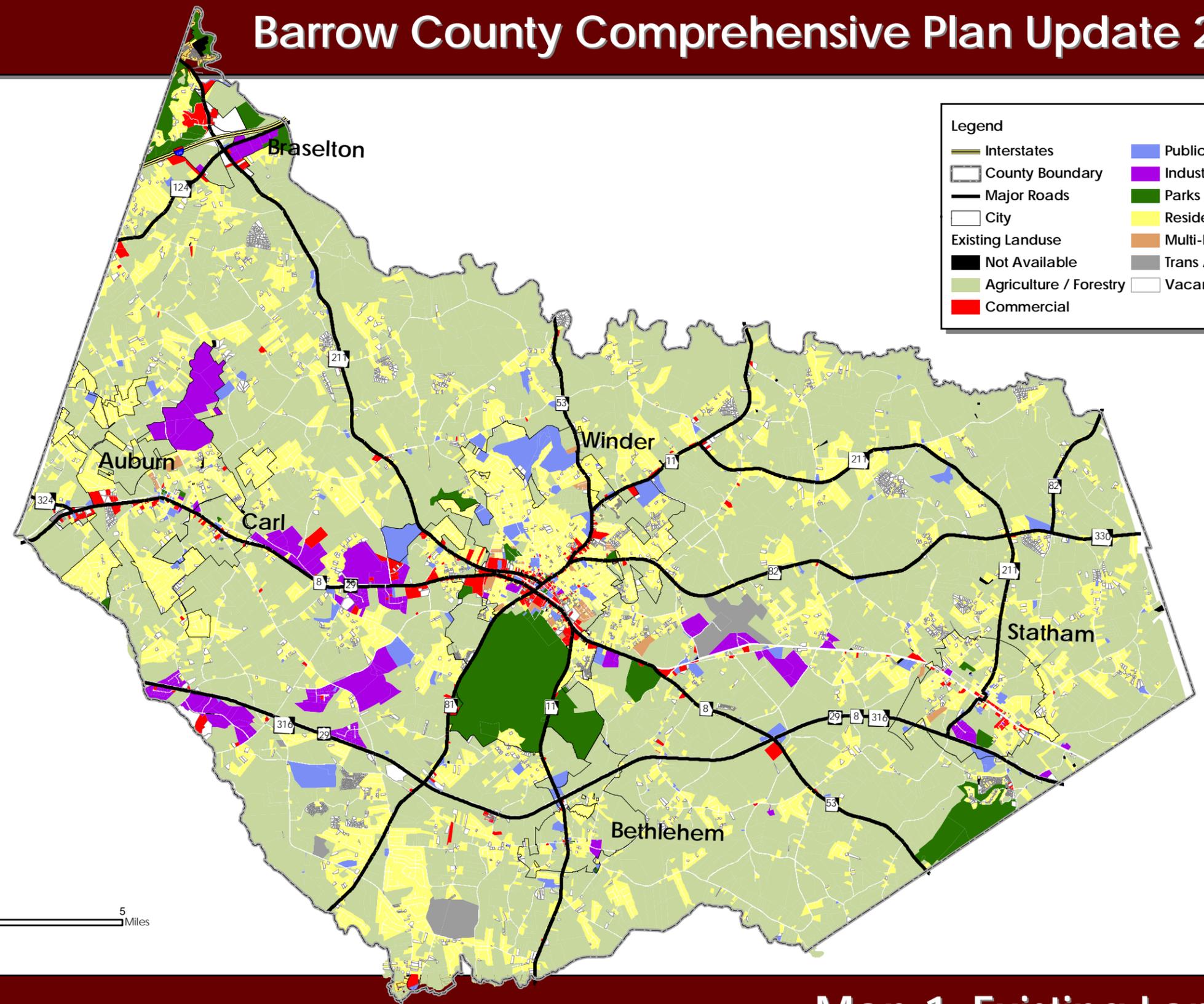


Barrow County Comprehensive Plan Update 2007-2027



Legend

Interstates	Public / Institutional
County Boundary	Industrial
Major Roads	Parks / Rec / Cons
City	Residential (1 & 2 Family)
Existing Landuse	Multi-Family
Not Available	Trans / Comm / Utilities
Agriculture / Forestry	Vacant / Undeveloped
Commercial	



Note: For existing land use for cities, see individual city existing land use maps

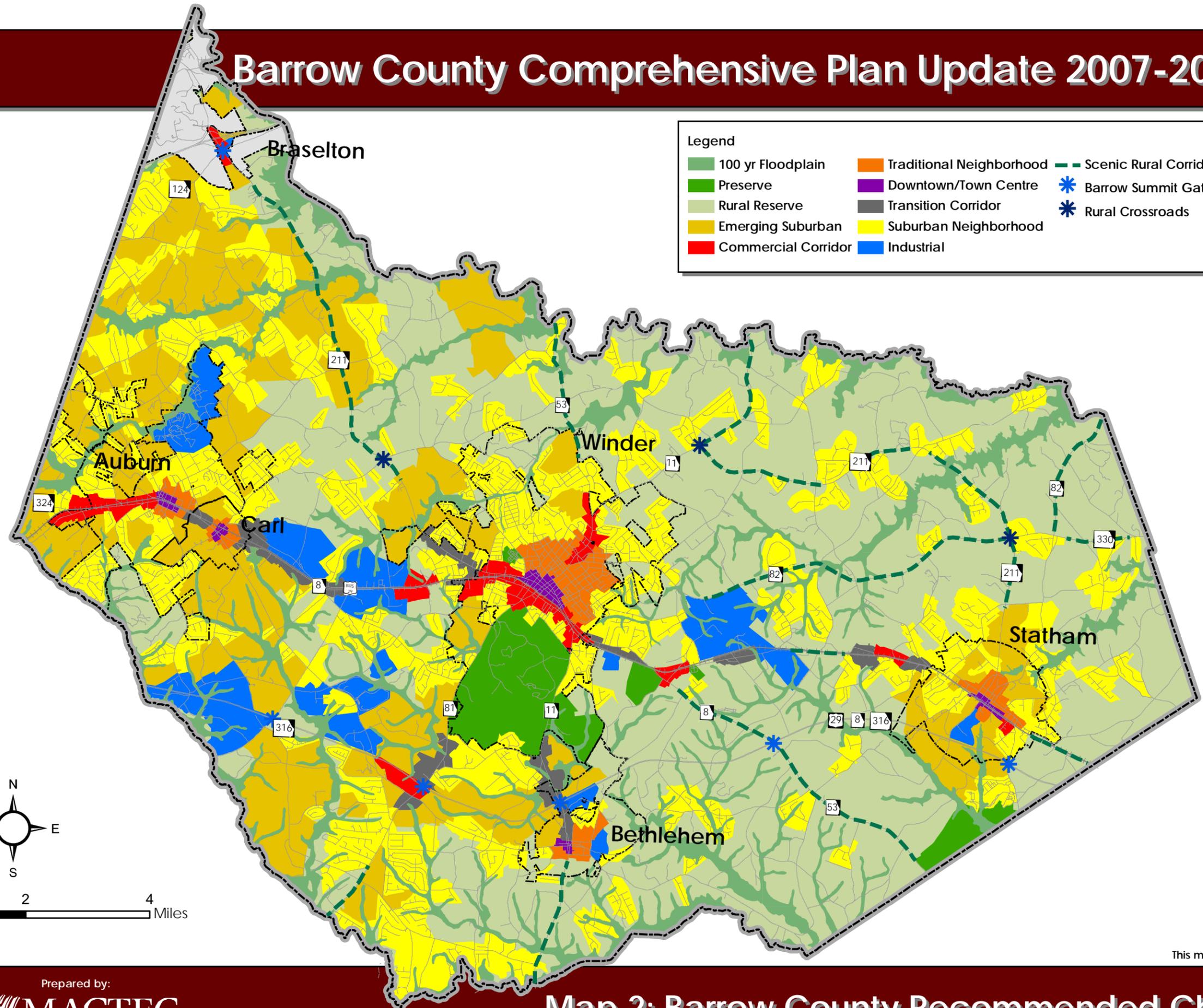
Source: Barrow County
This map is intended for planning purposes only.

Barrow County Comprehensive Plan Update 2007-2027



Legend

100 yr Floodplain	Traditional Neighborhood	Scenic Rural Corridor
Preserve	Downtown/Town Centre	Barrow Summit Gateways
Rural Reserve	Transition Corridor	Rural Crossroads
Emerging Suburban	Suburban Neighborhood	
Commercial Corridor	Industrial	



Source: Barrow County
This map is intended for planning purposes only.

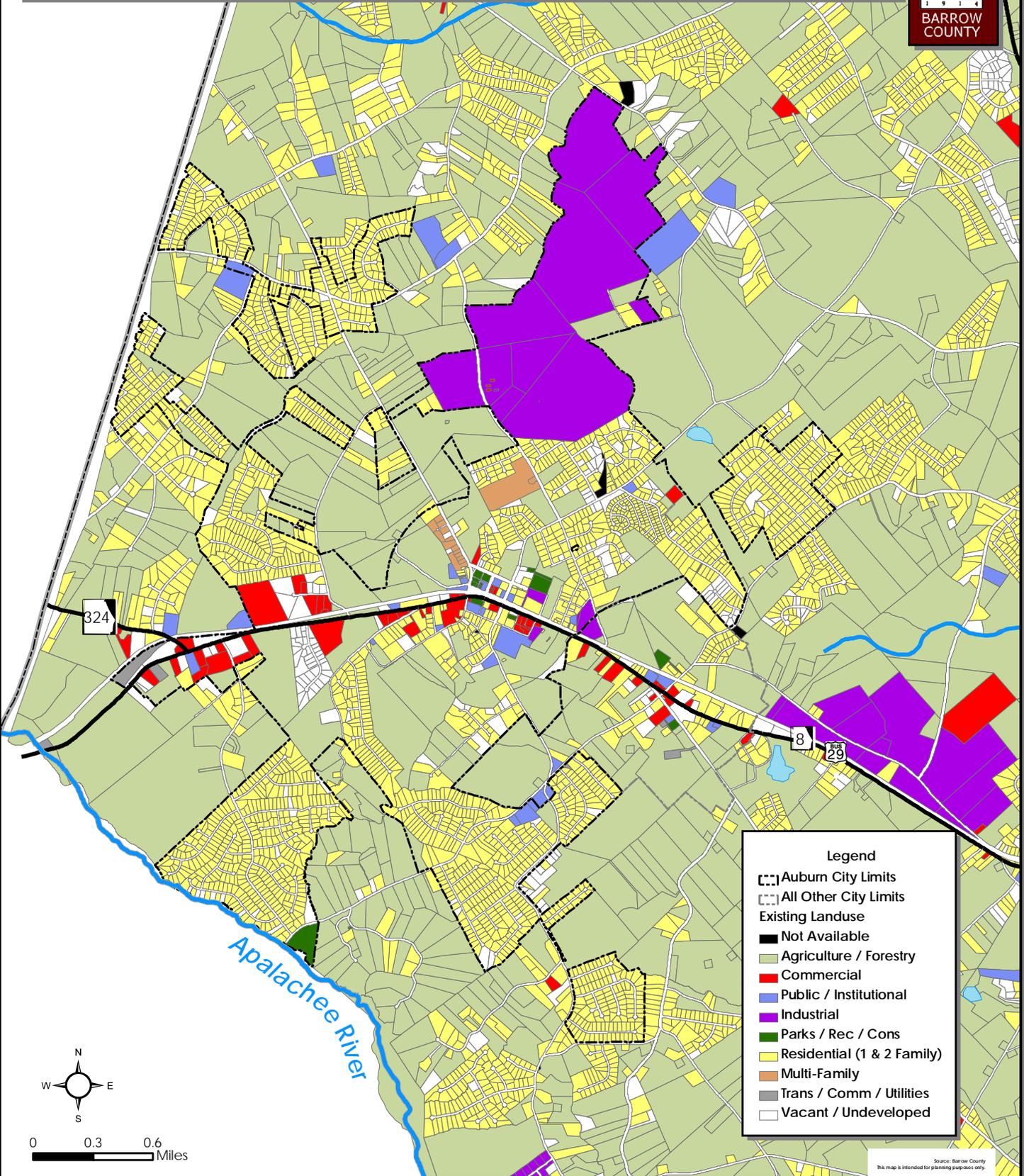
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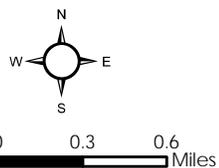
Map 2: Barrow County Recommended Character Areas

Barrow County Comprehensive Plan Update 2007-2027



Legend

- Auburn City Limits
- All Other City Limits
- Existing Land Use**
- Not Available
- Agriculture / Forestry
- Commercial
- Public / Institutional
- Industrial
- Parks / Rec / Cons
- Residential (1 & 2 Family)
- Multi-Family
- Trans / Comm / Utilities
- Vacant / Undeveloped

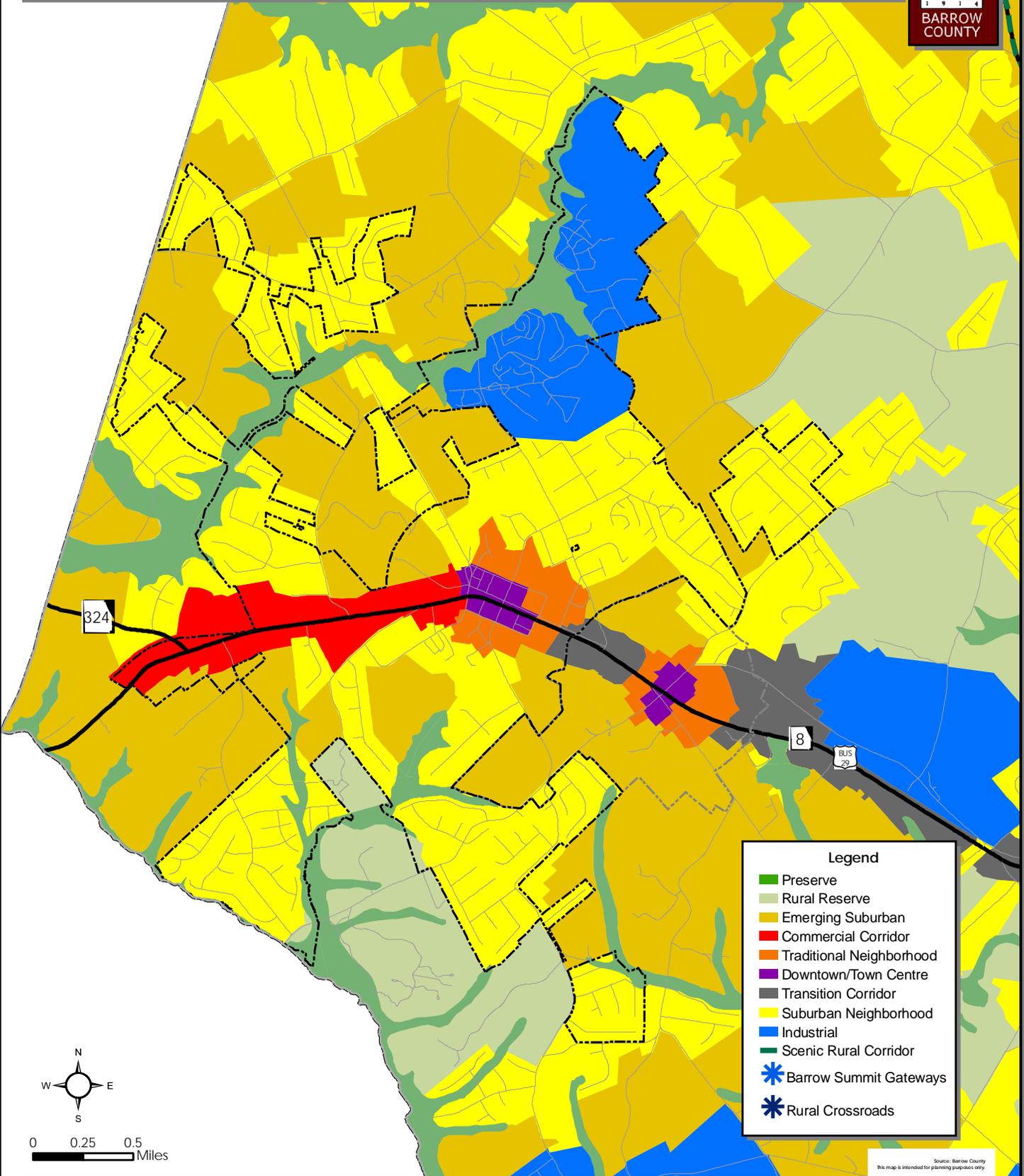


Source: Barrow County
This map is intended for planning purposes only.

Barrow County Comprehensive Plan Update 2007-2027



Prepared By:
Checked By:



Legend

- Preserve
- Rural Reserve
- Emerging Suburban
- Commercial Corridor
- Traditional Neighborhood
- Downtown/Town Centre
- Transition Corridor
- Suburban Neighborhood
- Industrial
- Scenic Rural Corridor
- Barrow Summit Gateways
- Rural Crossroads

0 0.25 0.5 Miles

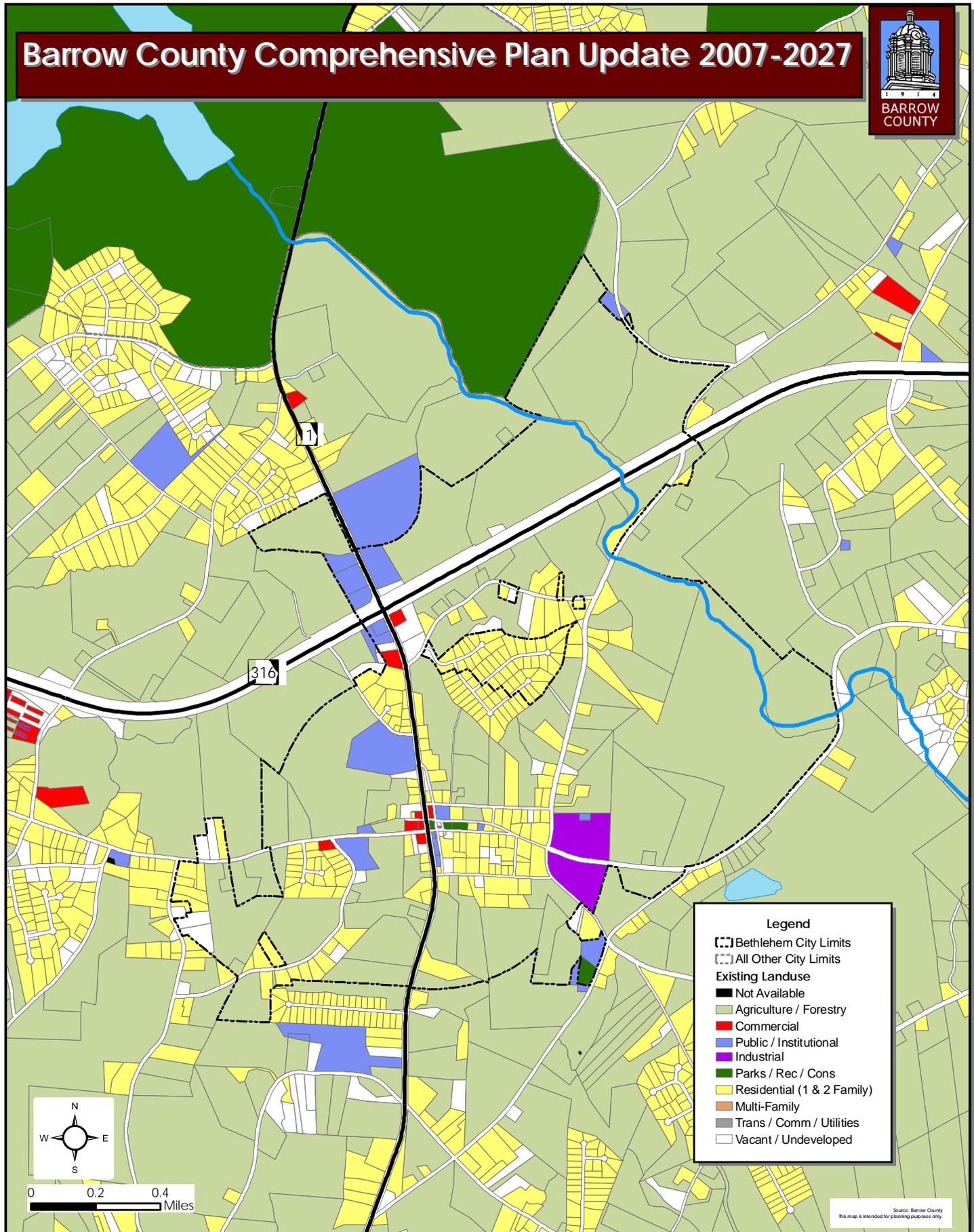
Source: Barrow County
This map is intended for planning purposes only.

Prepared by:
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Map 4: Auburn Recommended Character Areas

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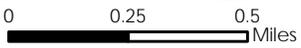
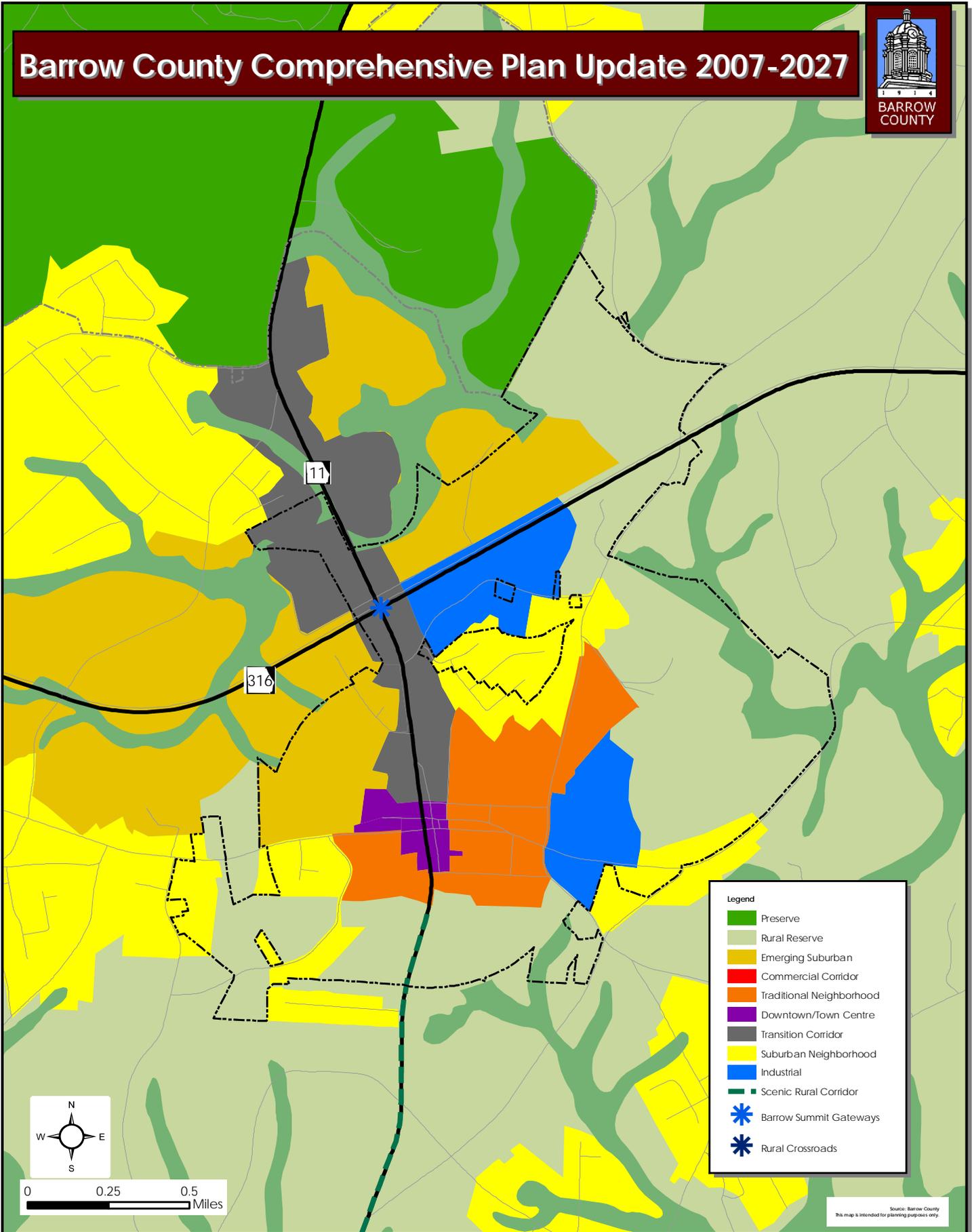
- Bethlehem City Limits
- All Other City Limits
- Existing Landuse**
- Not Available
- Agriculture / Forestry
- Commercial
- Public / Institutional
- Industrial
- Parks / Rec / Cons
- Residential (1 & 2 Family)
- Multi-Family
- Trans / Comm / Utilities
- Vacant / Undeveloped

Source: Barrow County
This map is intended for planning purposes only.

Prepared by:
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Map 5: Bethlehem Existing Land Use

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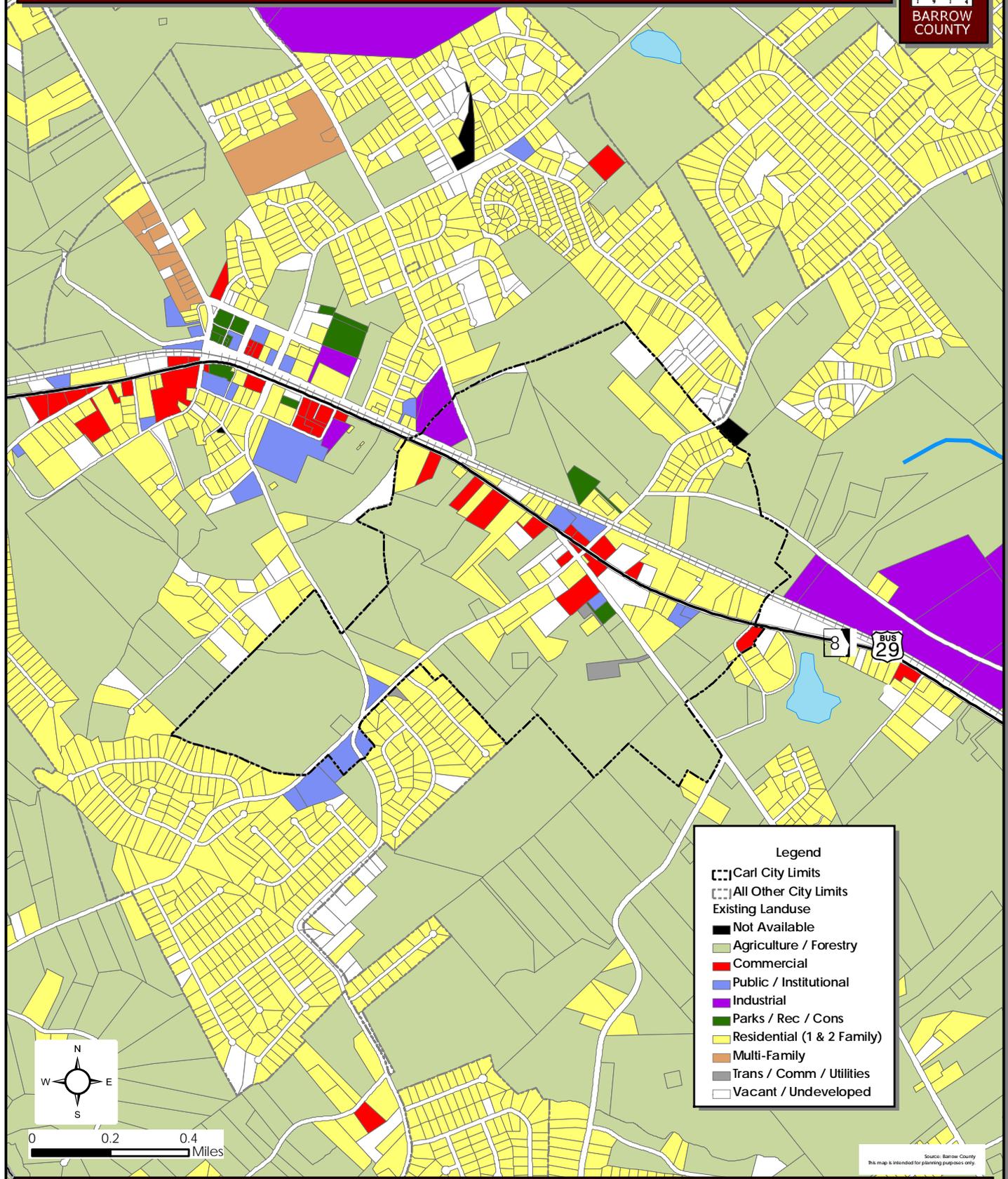


Legend

- Preserve
- Rural Reserve
- Emerging Suburban
- Commercial Corridor
- Traditional Neighborhood
- Downtown/Town Centre
- Transition Corridor
- Suburban Neighborhood
- Industrial
- Scenic Rural Corridor
- Barrow Summit Gateways
- Rural Crossroads

Source: Barrow County
This map is intended for planning purposes only.

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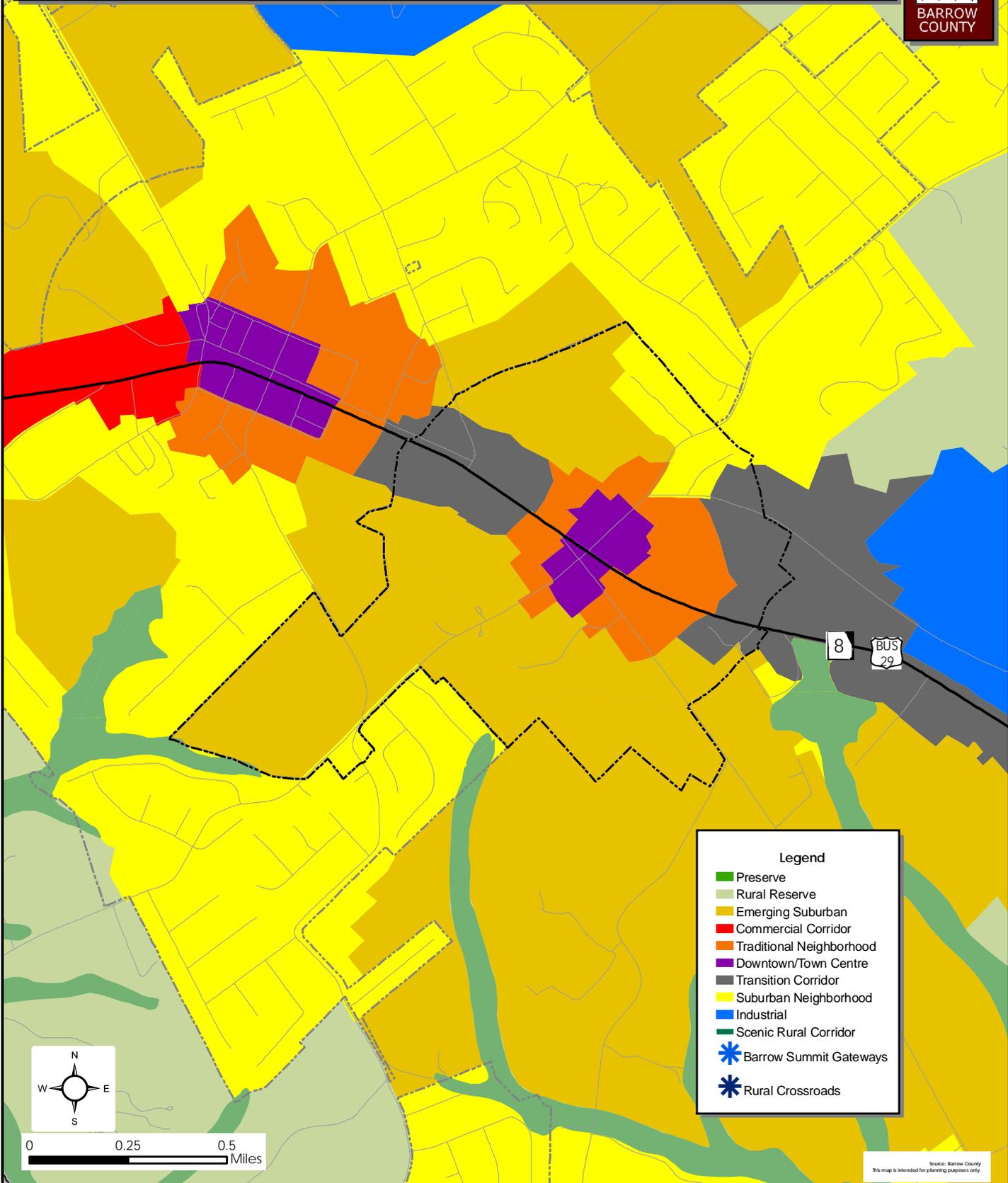


Legend

- Carl City Limits
- All Other City Limits
- Existing Landuse
 - Not Available
 - Agriculture / Forestry
 - Commercial
 - Public / Institutional
 - Industrial
 - Parks / Rec / Cons
 - Residential (1 & 2 Family)
 - Multi-Family
 - Trans / Comm / Utilities
 - Vacant / Undeveloped

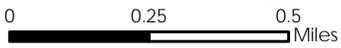
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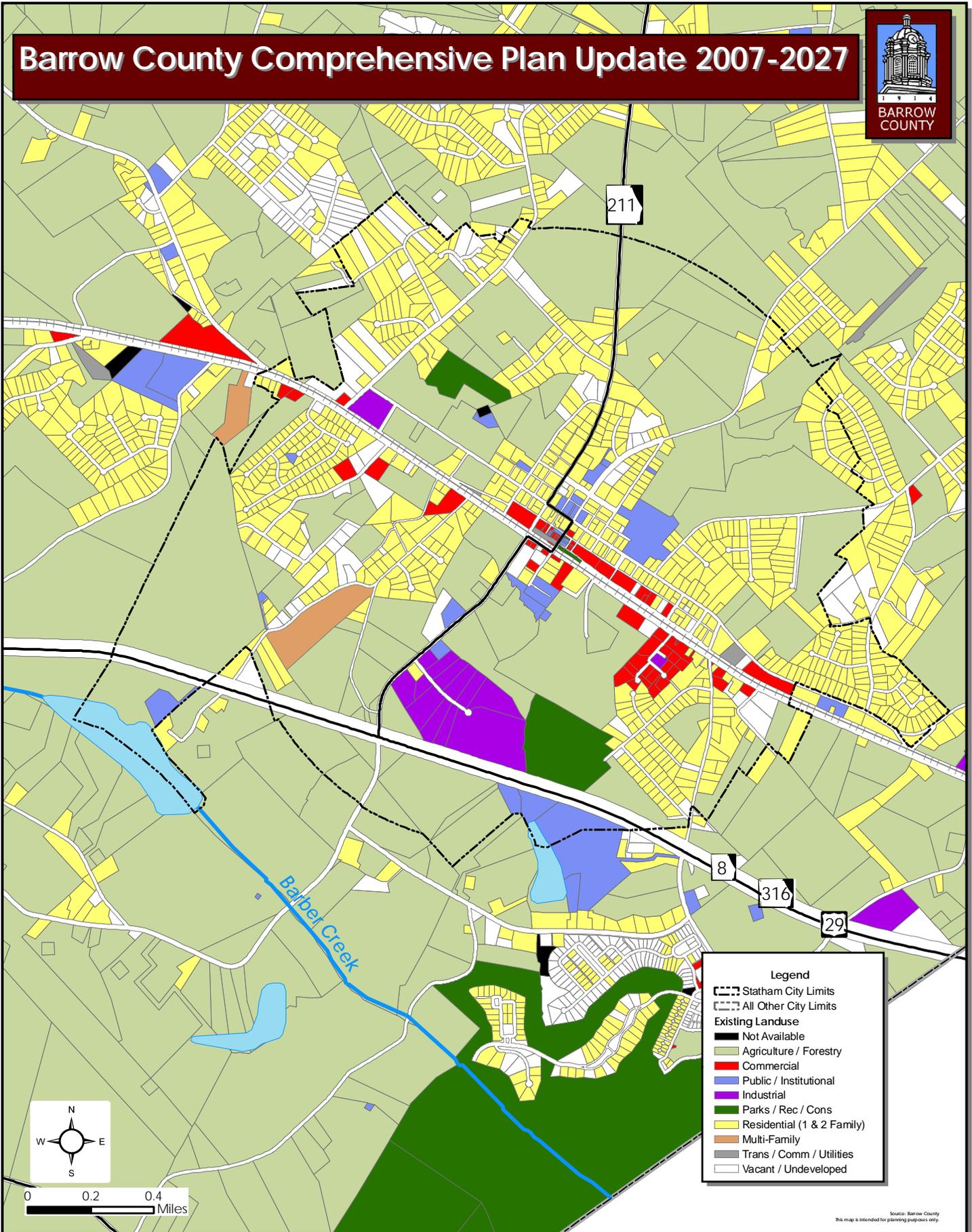
Legend

- Preserve
- Rural Reserve
- Emerging Suburban
- Commercial Corridor
- Traditional Neighborhood
- Downtown/Town Centre
- Transition Corridor
- Suburban Neighborhood
- Industrial
- Scenic Rural Corridor
- ✳ Barrow Summit Gateways
- ✳ Rural Crossroads



Source: Barrow County
This map is intended for planning purposes only.

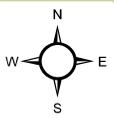
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Legend

- Statham City Limits
- All Other City Limits
- Existing Landuse**
- Not Available
- Agriculture / Forestry
- Commercial
- Public / Institutional
- Industrial
- Parks / Rec / Cons
- Residential (1 & 2 Family)
- Multi-Family
- Trans / Comm / Utilities
- Vacant / Undeveloped

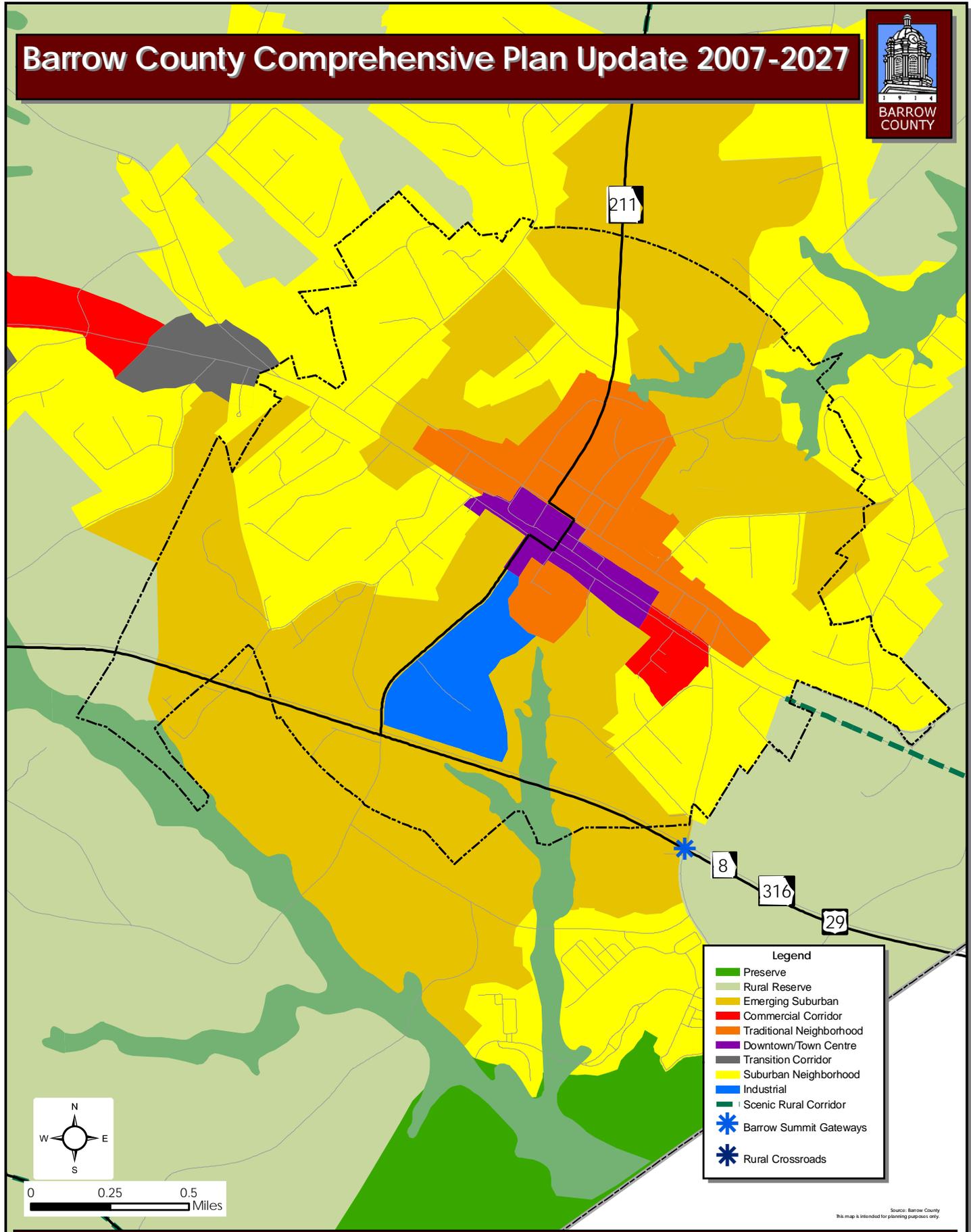
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Map 9: Statham Existing Land Use

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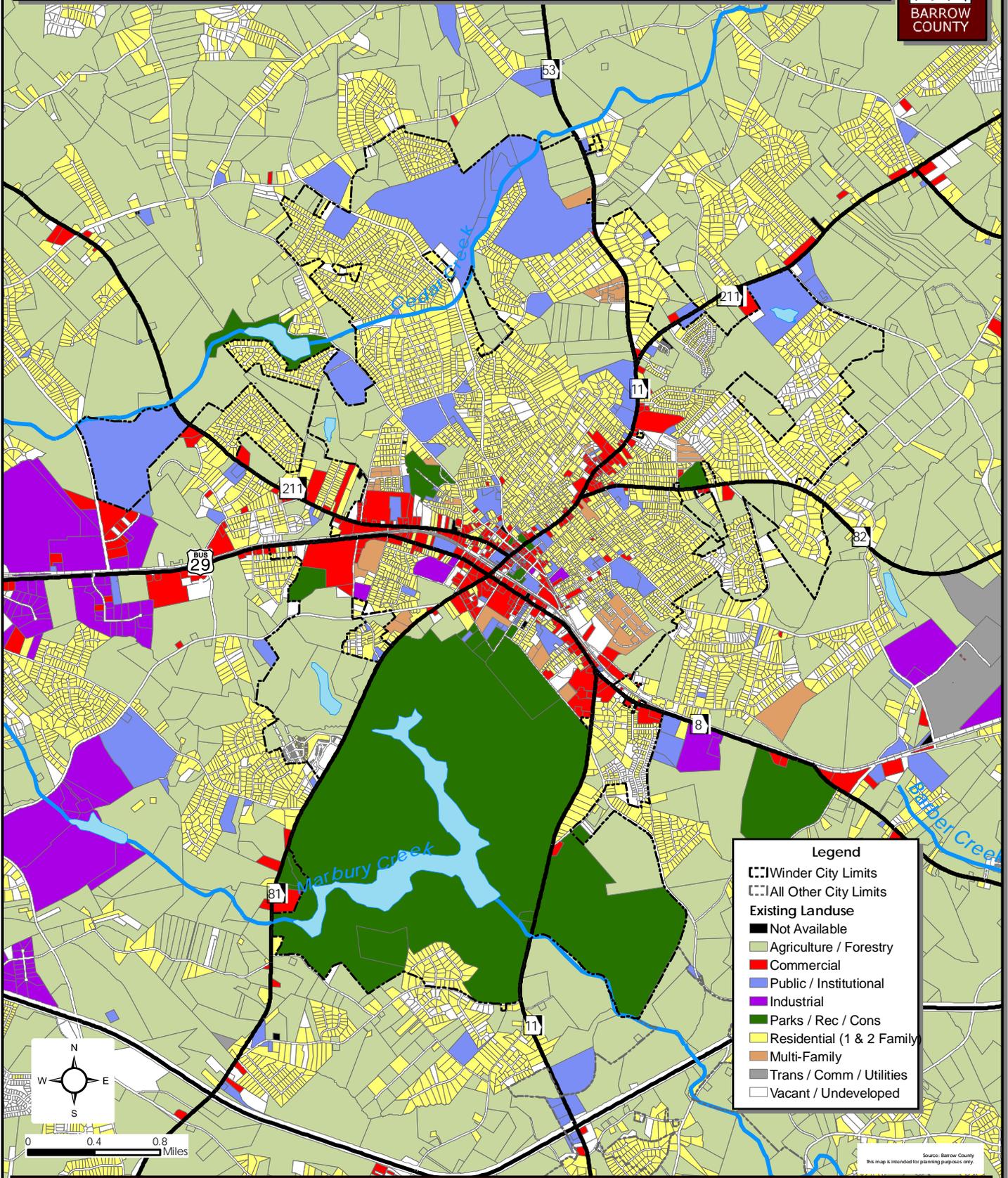
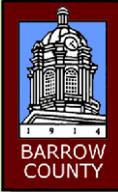


Legend

- Preserve
- Rural Reserve
- Emerging Suburban
- Commercial Corridor
- Traditional Neighborhood
- Downtown/Town Centre
- Transition Corridor
- Suburban Neighborhood
- Industrial
- - - Scenic Rural Corridor
- ★ Barrow Summit Gateways
- ★ Rural Crossroads

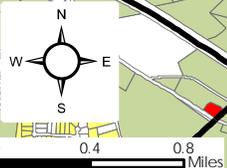
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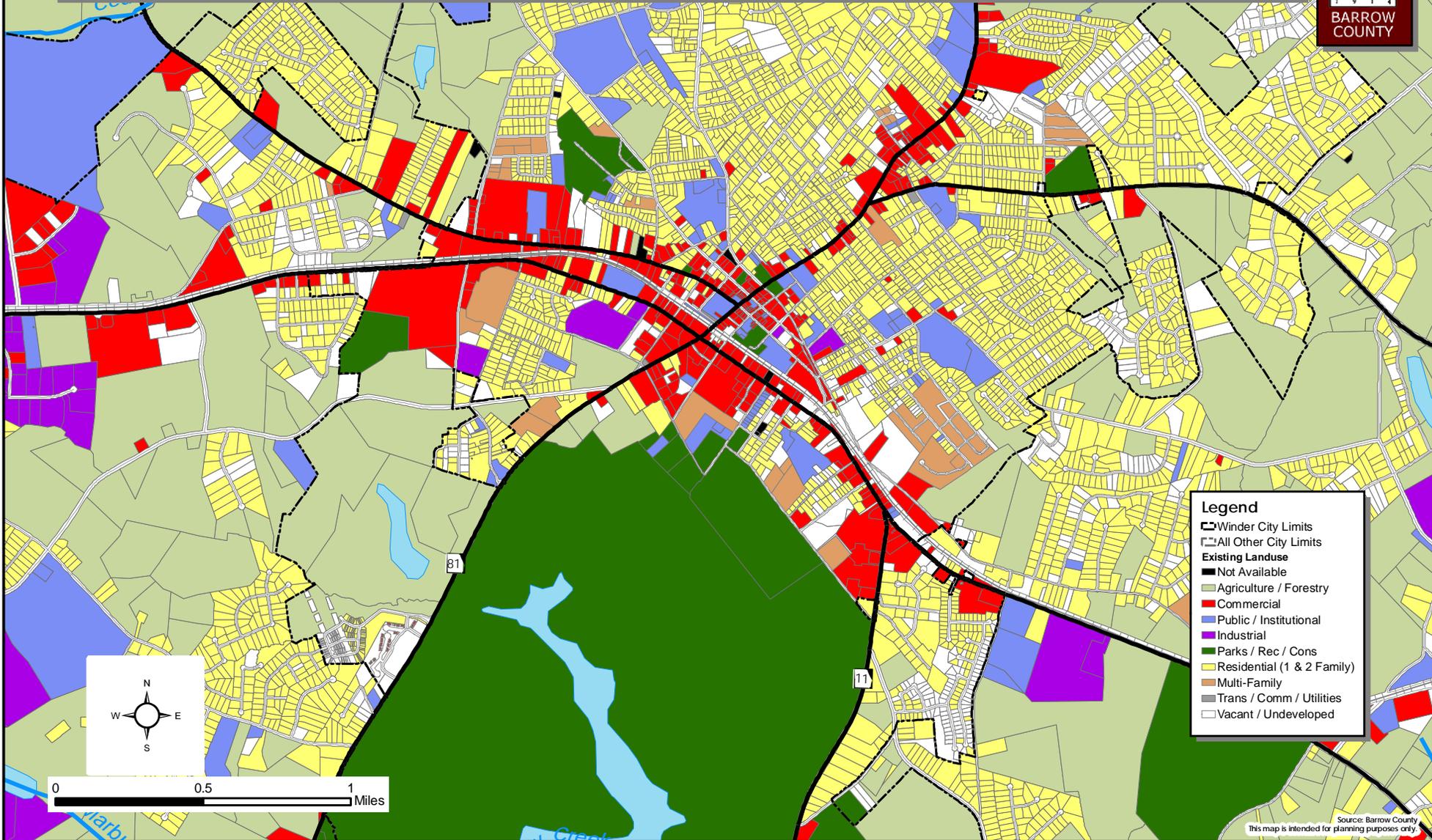
Legend

- Winder City Limits
- All Other City Limits
- Existing Landuse**
- Not Available
- Agriculture / Forestry
- Commercial
- Public / Institutional
- Industrial
- Parks / Rec / Cons
- Residential (1 & 2 Family)
- Multi-Family
- Trans / Comm / Utilities
- Vacant / Undeveloped



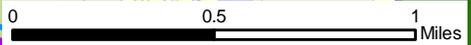
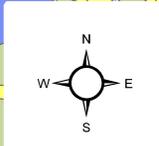
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Legend

- Winder City Limits
- All Other City Limits
- Existing Landuse**
- Not Available
- Agriculture / Forestry
- Commercial
- Public / Institutional
- Industrial
- Parks / Rec / Cons
- Residential (1 & 2 Family)
- Multi-Family
- Trans / Comm / Utilities
- Vacant / Undeveloped

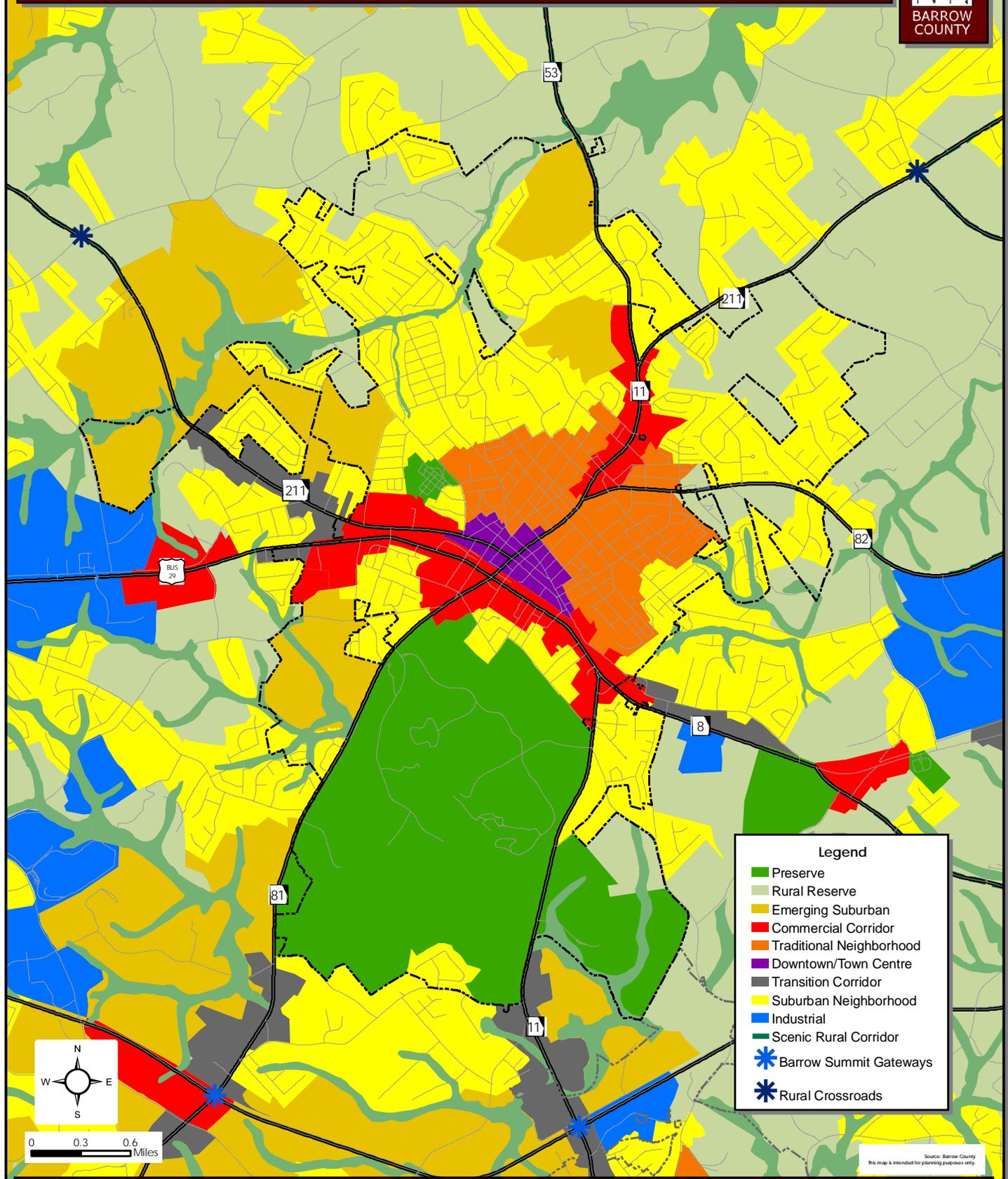


Source: Barrow County
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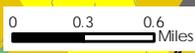
Map 12: Downtown Winder Existing Land Use

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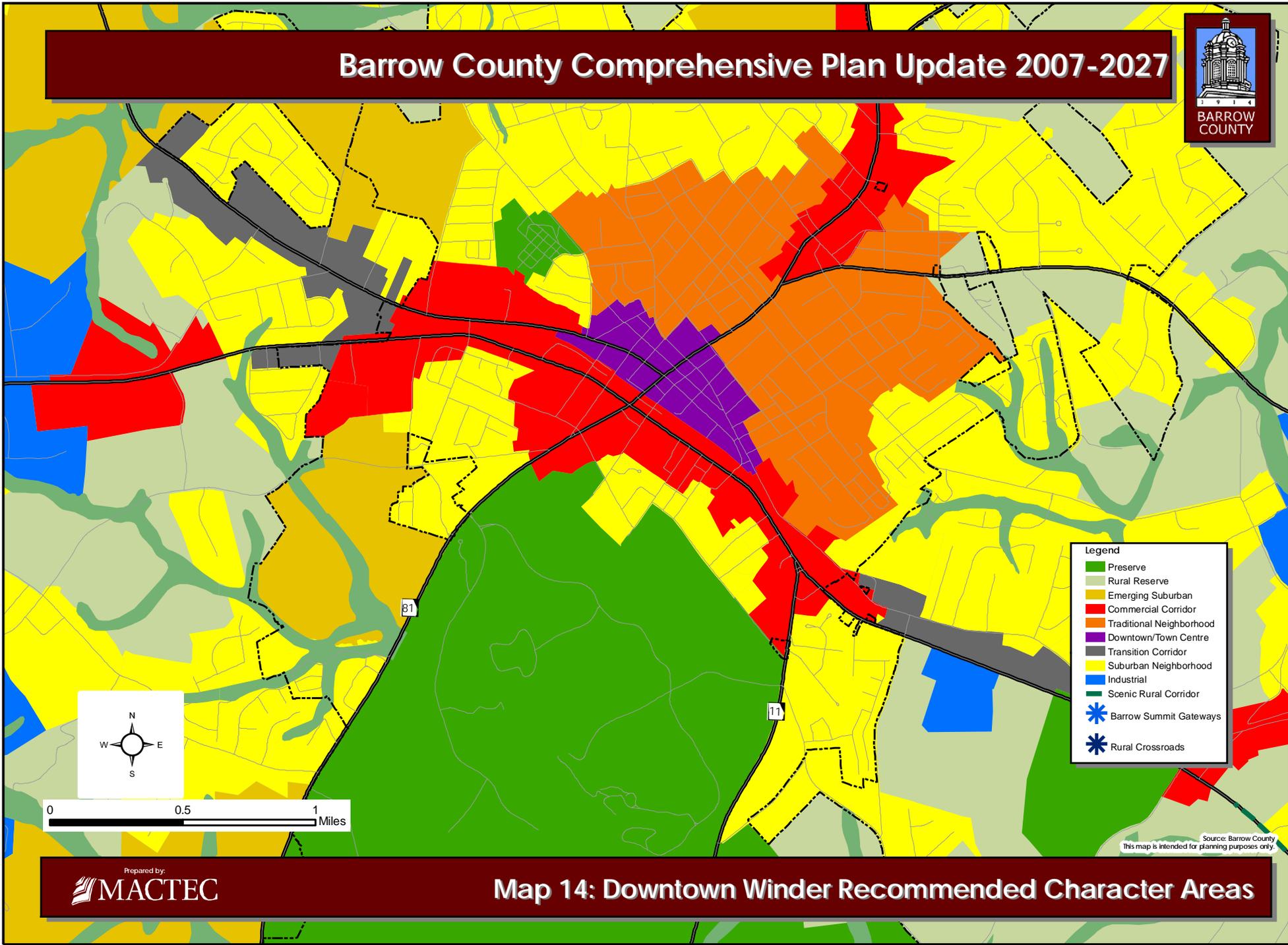
Legend

- Preserve
- Rural Reserve
- Emerging Suburban
- Commercial Corridor
- Traditional Neighborhood
- Downtown/Town Centre
- Transition Corridor
- Suburban Neighborhood
- Industrial
- Scenic Rural Corridor
- Barrow Summit Gateways
- Rural Crossroads

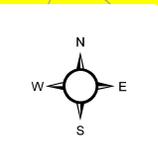


Source: Barrow County
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- Legend**
- Preserve
 - Rural Reserve
 - Emerging Suburban
 - Commercial Corridor
 - Traditional Neighborhood
 - Downtown/Town Centre
 - Transition Corridor
 - Suburban Neighborhood
 - Industrial
 - Scenic Rural Corridor
 - Barrow Summit Gateways
 - Rural Crossroads



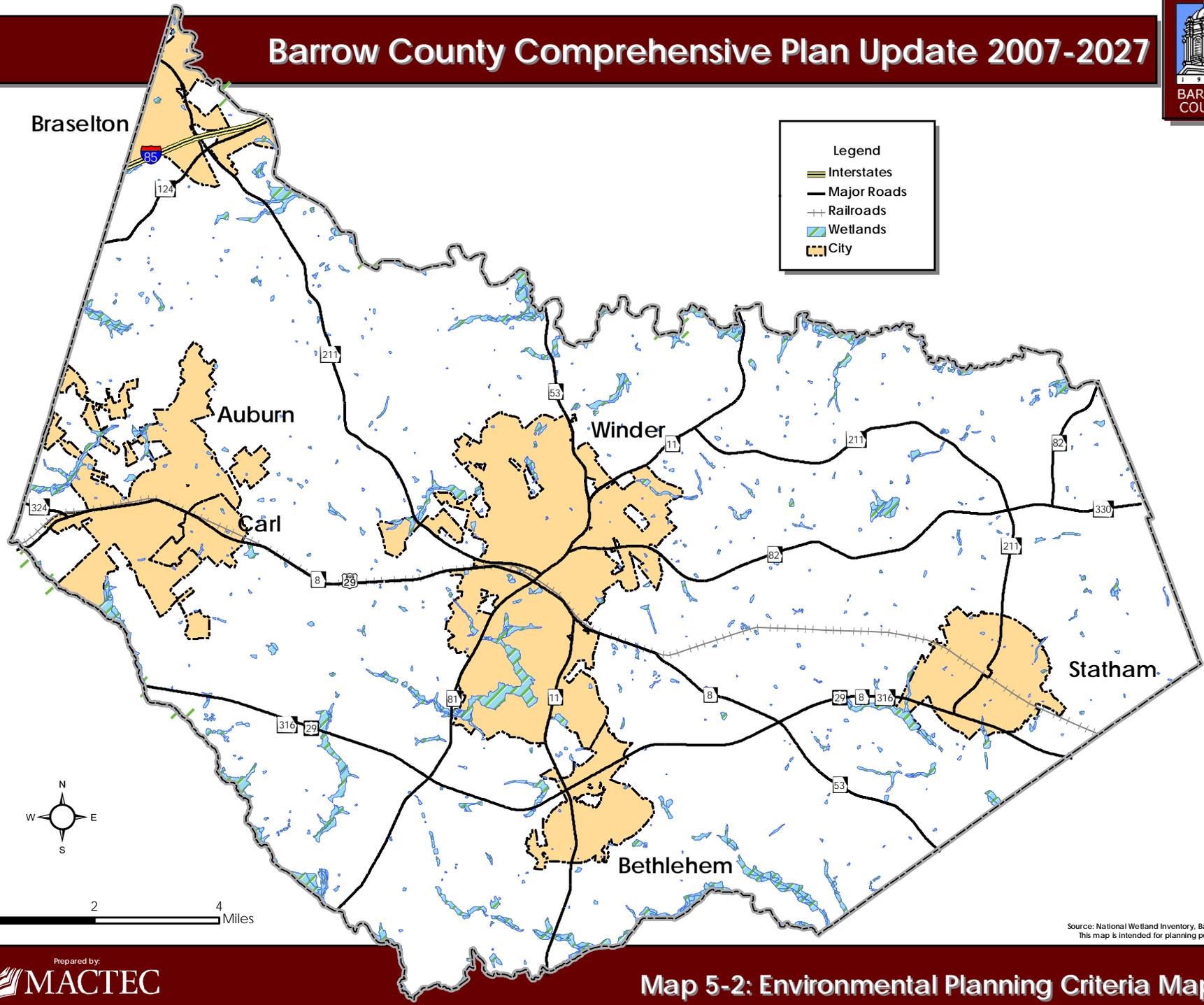
Source: Barrow County
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Barrow County Comprehensive Plan Update 2007-2027



Legend

- Interstates
- Major Roads
- Railroads
- Wetlands
- City

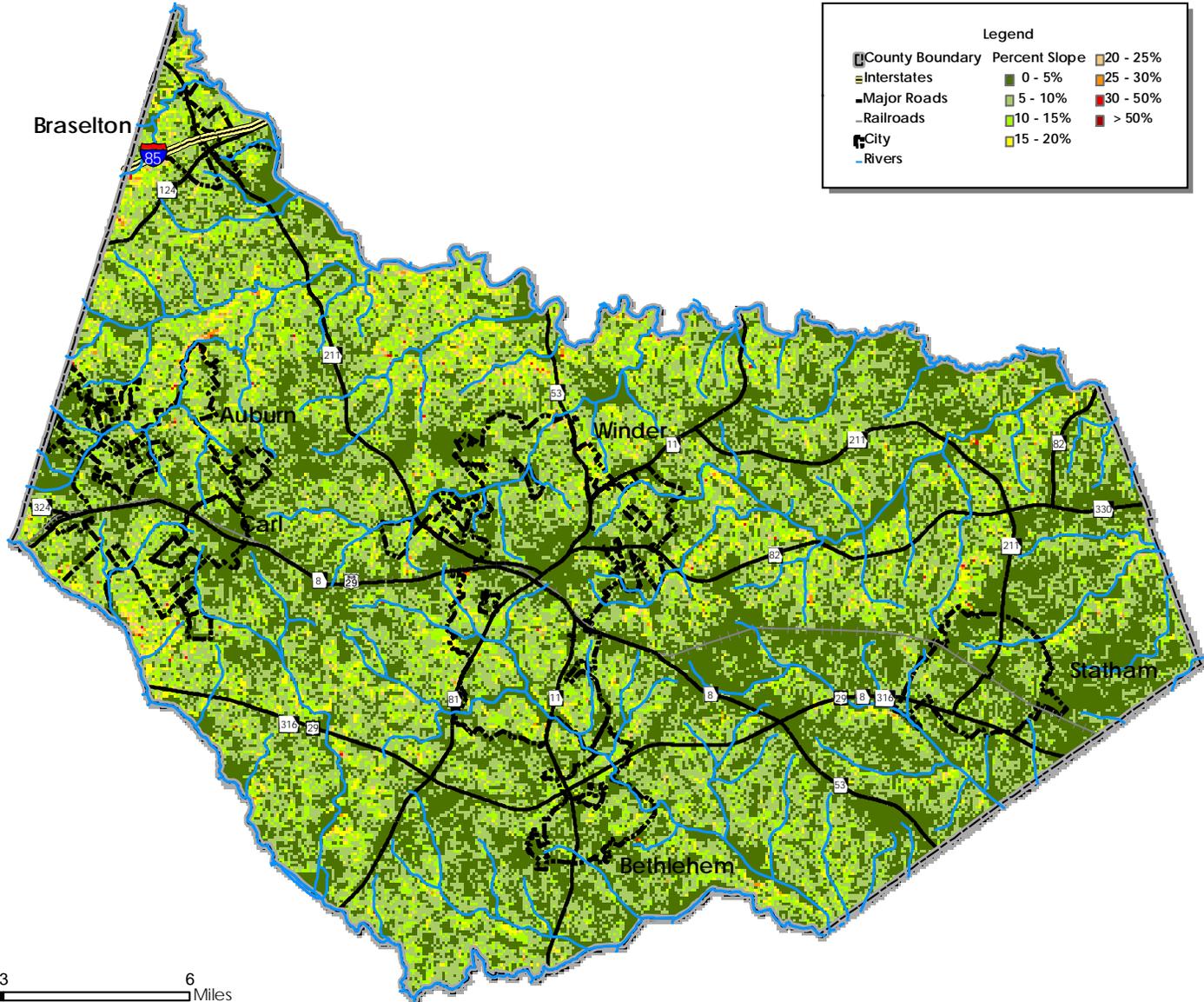


Source: National Wetland Inventory, Barrow County
This map is intended for planning purposes only.

Prepared by:
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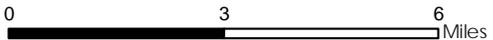
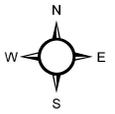
Map 5-2: Environmental Planning Criteria Map II

Barrow County Comprehensive Plan Update 2007-2027



Legend

County Boundary	Percent Slope	20 - 25%
Interstates	0 - 5%	25 - 30%
Major Roads	5 - 10%	30 - 50%
Railroads	10 - 15%	> 50%
Cities	15 - 20%	
Rivers		



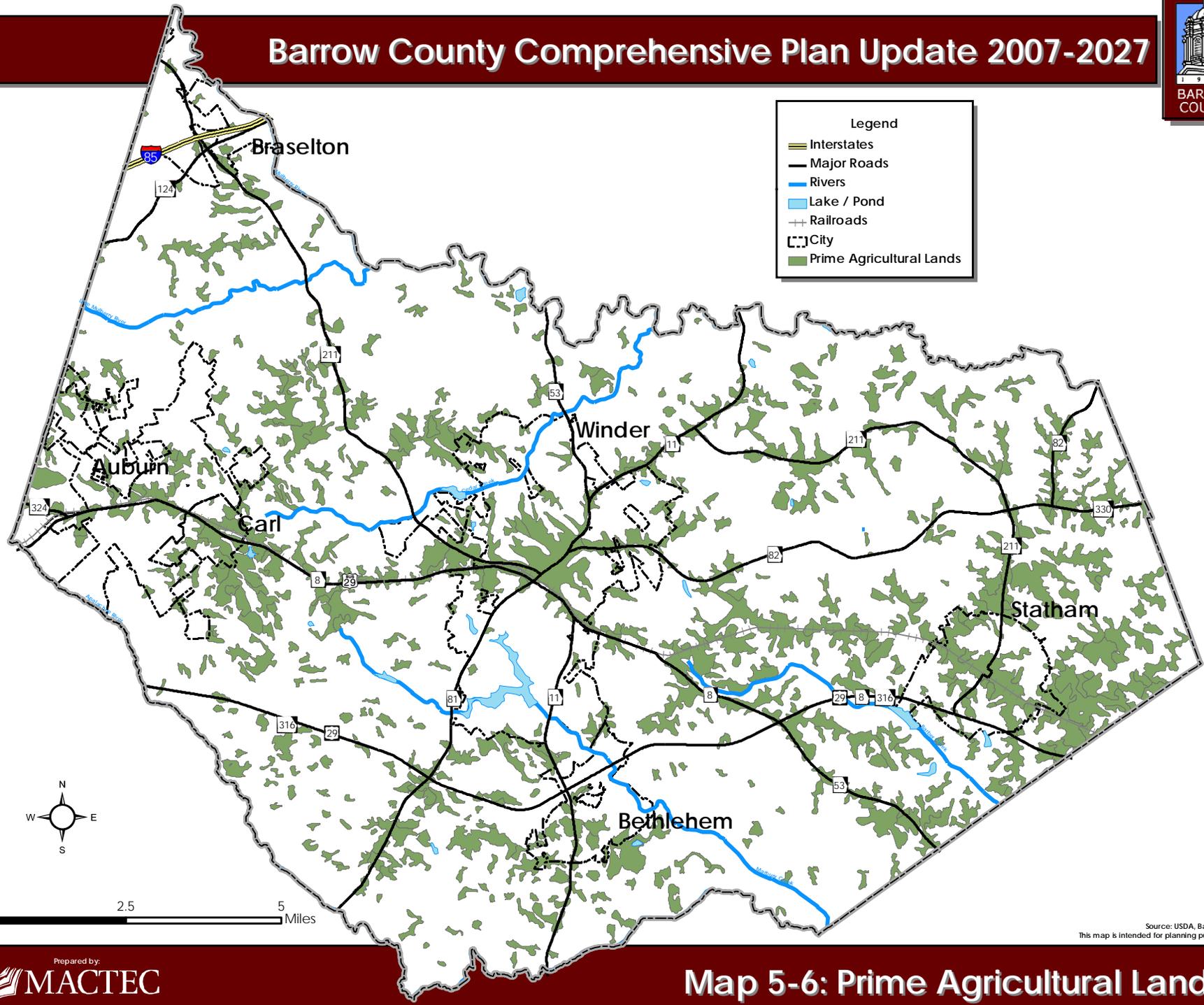
Source: USGS NED DEM
This map is intended for planning purposes only.

Barrow County Comprehensive Plan Update 2007-2027



Legend

- Interstates
- Major Roads
- Rivers
- Lake / Pond
- Railroads
- City
- Prime Agricultural Lands



Source: USDA, Barrow County
This map is intended for planning purposes only.

Prepared by:
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Map 5-6: Prime Agricultural Lands

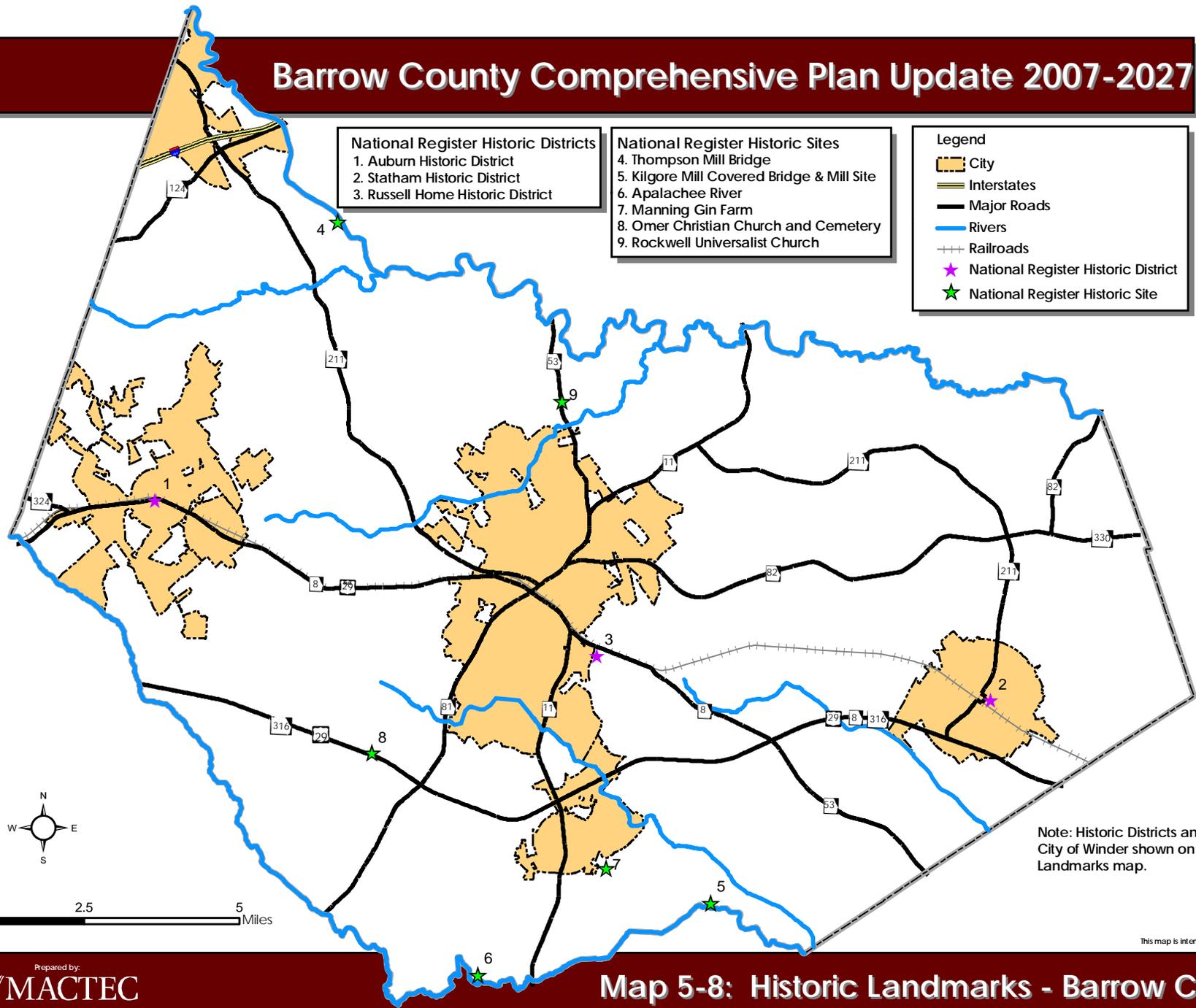


Barrow County Comprehensive Plan Update 2007-2027

- National Register Historic Districts**
1. Auburn Historic District
 2. Statham Historic District
 3. Russell Home Historic District

- National Register Historic Sites**
4. Thompson Mill Bridge
 5. Kilgore Mill Covered Bridge & Mill Site
 6. Apalachee River
 7. Manning Gin Farm
 8. Omer Christian Church and Cemetery
 9. Rockwell Universalist Church

- Legend**
- City
 - Interstates
 - Major Roads
 - Rivers
 - Railroads
 - National Register Historic District
 - National Register Historic Site



Note: Historic Districts and Sites for the City of Winder shown on Winder Historical Landmarks map.

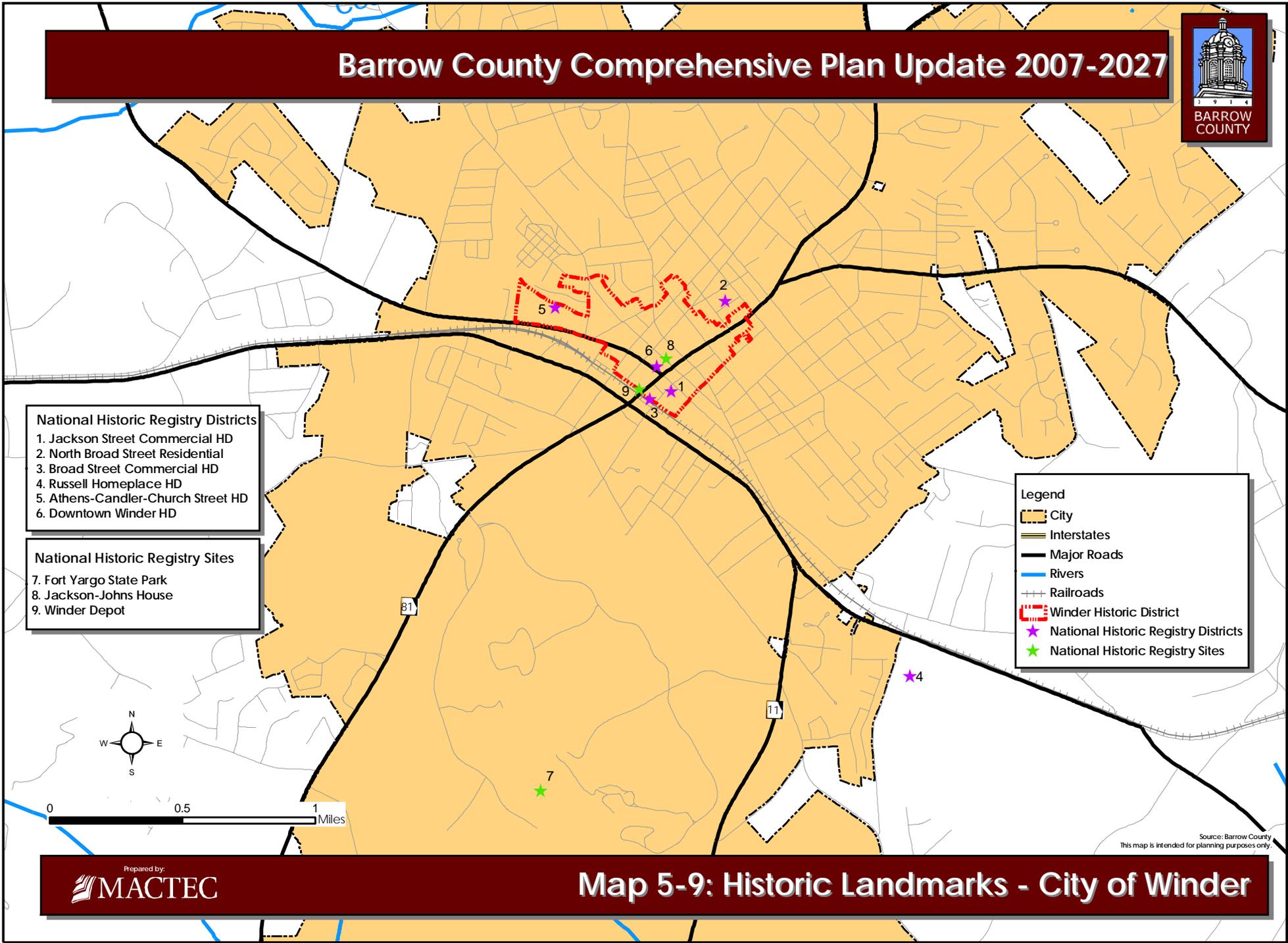
Source: Barrow County
This map is intended for planning purposes only.

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Map 5-8: Historic Landmarks - Barrow County



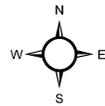
Barrow County Comprehensive Plan Update 2007-2027



- National Historic Registry Districts**
- 1. Jackson Street Commercial HD
 - 2. North Broad Street Residential
 - 3. Broad Street Commercial HD
 - 4. Russell Homeplace HD
 - 5. Athens-Candler-Church Street HD
 - 6. Downtown Winder HD

- National Historic Registry Sites**
- 7. Fort Yargo State Park
 - 8. Jackson-Johns House
 - 9. Winder Depot

- Legend**
- City
 - Interstates
 - Major Roads
 - Rivers
 - Railroads
 - Winder Historic District
 - National Historic Registry Districts
 - National Historic Registry Sites



0 0.5 1 Miles

Source: Barrow County
This map is intended for planning purposes only.

Prepared by
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Map 5-9: Historic Landmarks - City of Winder

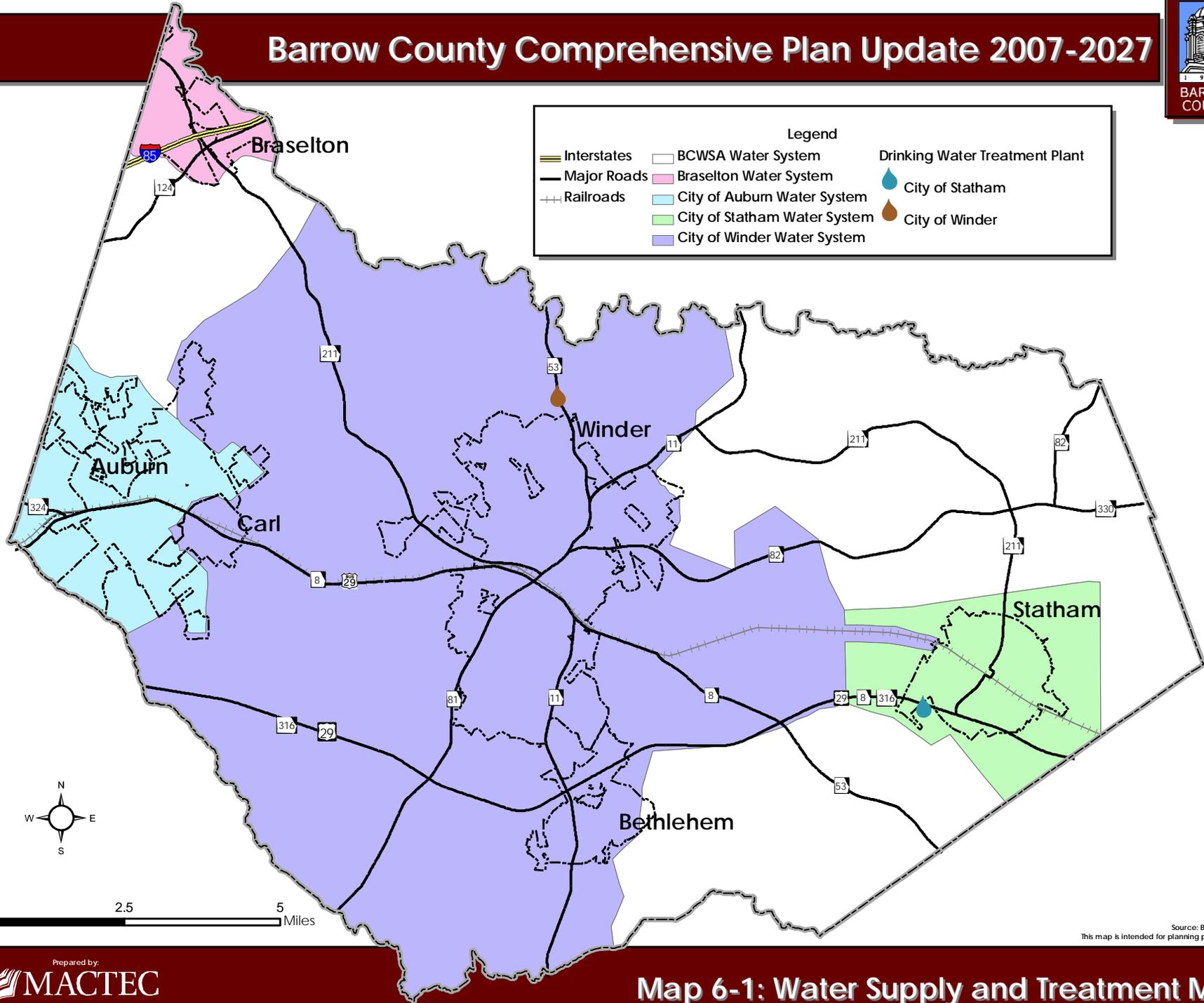
Prepared By: _____
Checked By: _____

Barrow County Comprehensive Plan Update 2007-2027



Legend

Interstates	BCWSA Water System	Drinking Water Treatment Plant
Major Roads	Braselton Water System	City of Statham
Railroads	City of Auburn Water System	City of Winder
	City of Statham Water System	
	City of Winder Water System	



Source: Barrow County
This map is intended for planning purposes only.

Prepared by:
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Map 6-1: Water Supply and Treatment Map

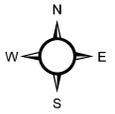
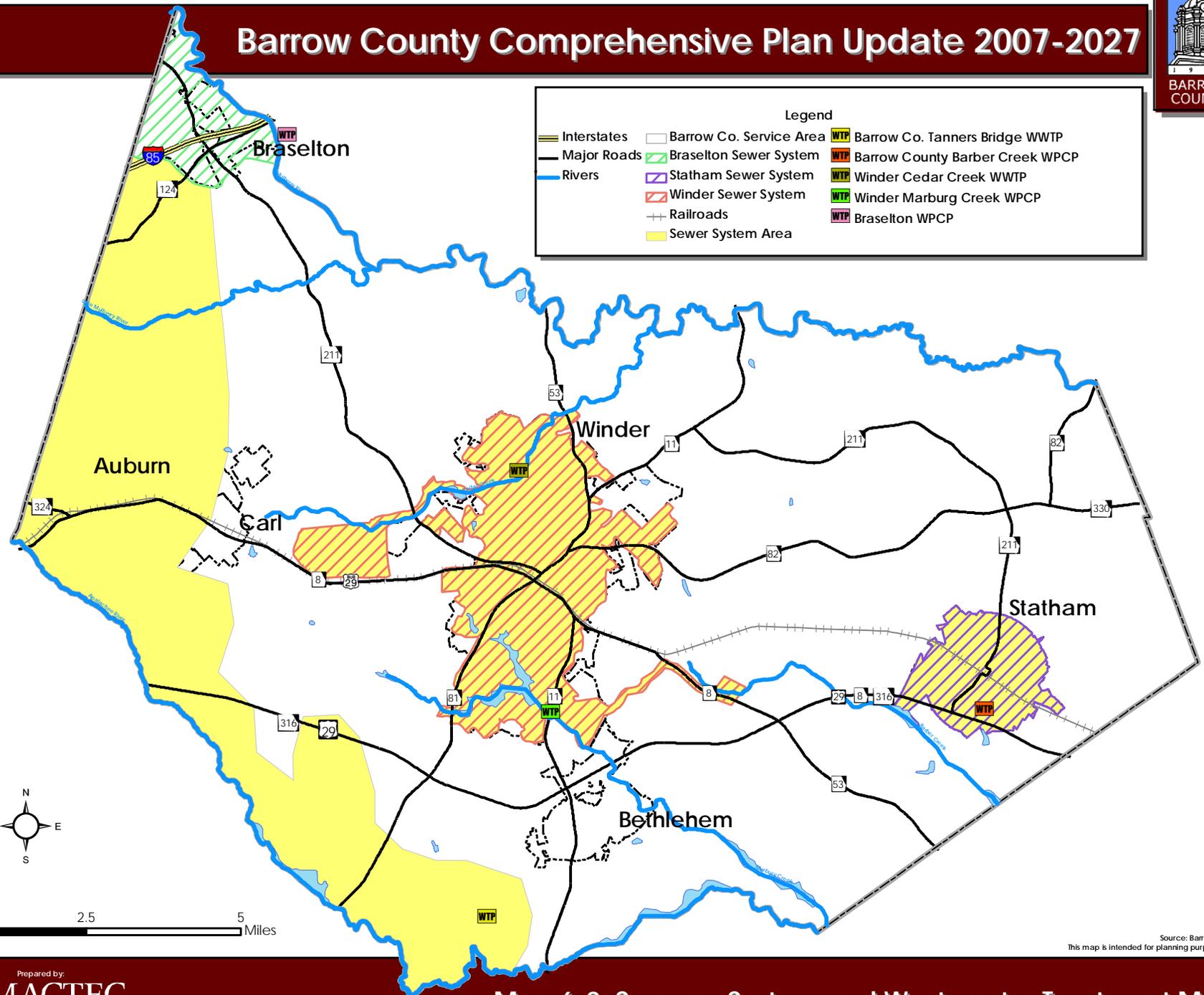
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Barrow County Comprehensive Plan Update 2007-2027

Legend

Interstates	Barrow Co. Service Area	Barrow Co. Tanners Bridge WWTP
Major Roads	Braselton Sewer System	Barrow County Barber Creek WPCP
Rivers	Statham Sewer System	Winder Cedar Creek WWTP
Railroads	Winder Sewer System	Winder Marburg Creek WPCP
Sewer System Area	Braselton WPCP	



0 2.5 5 Miles

Source: Barrow County
This map is intended for planning purposes only.

Prepared by:
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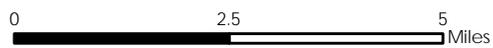
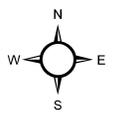
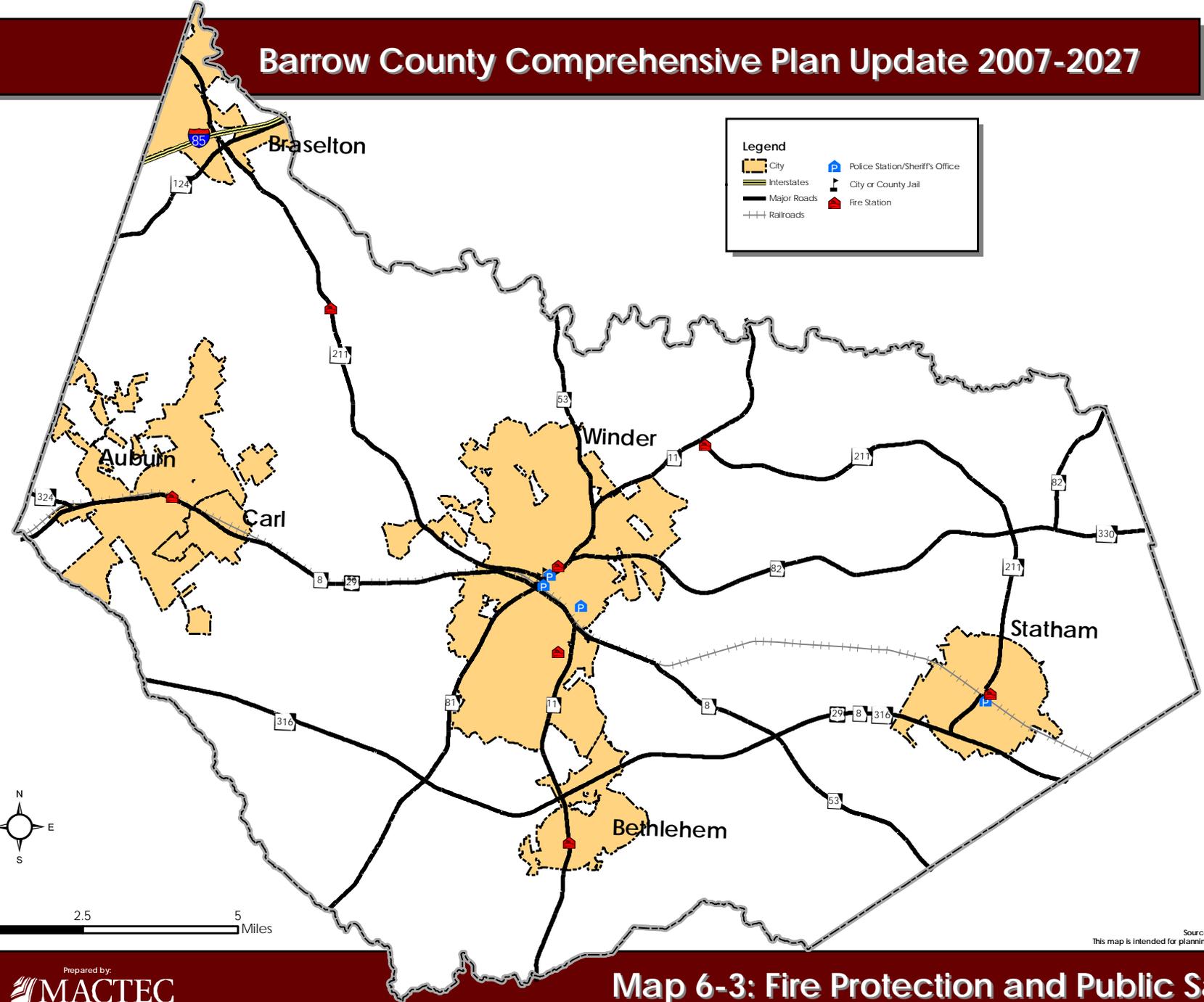
Map 6-2: Sewage System and Wastewater Treatment Map

Barrow County Comprehensive Plan Update 2007-2027



Legend

- City
- Interstates
- Major Roads
- Railroads
- Police Station/Sheriff's Office
- City or County Jail
- Fire Station

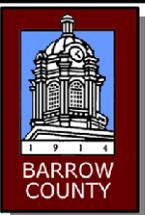


Source: Barrow County
This map is intended for planning purposes only.



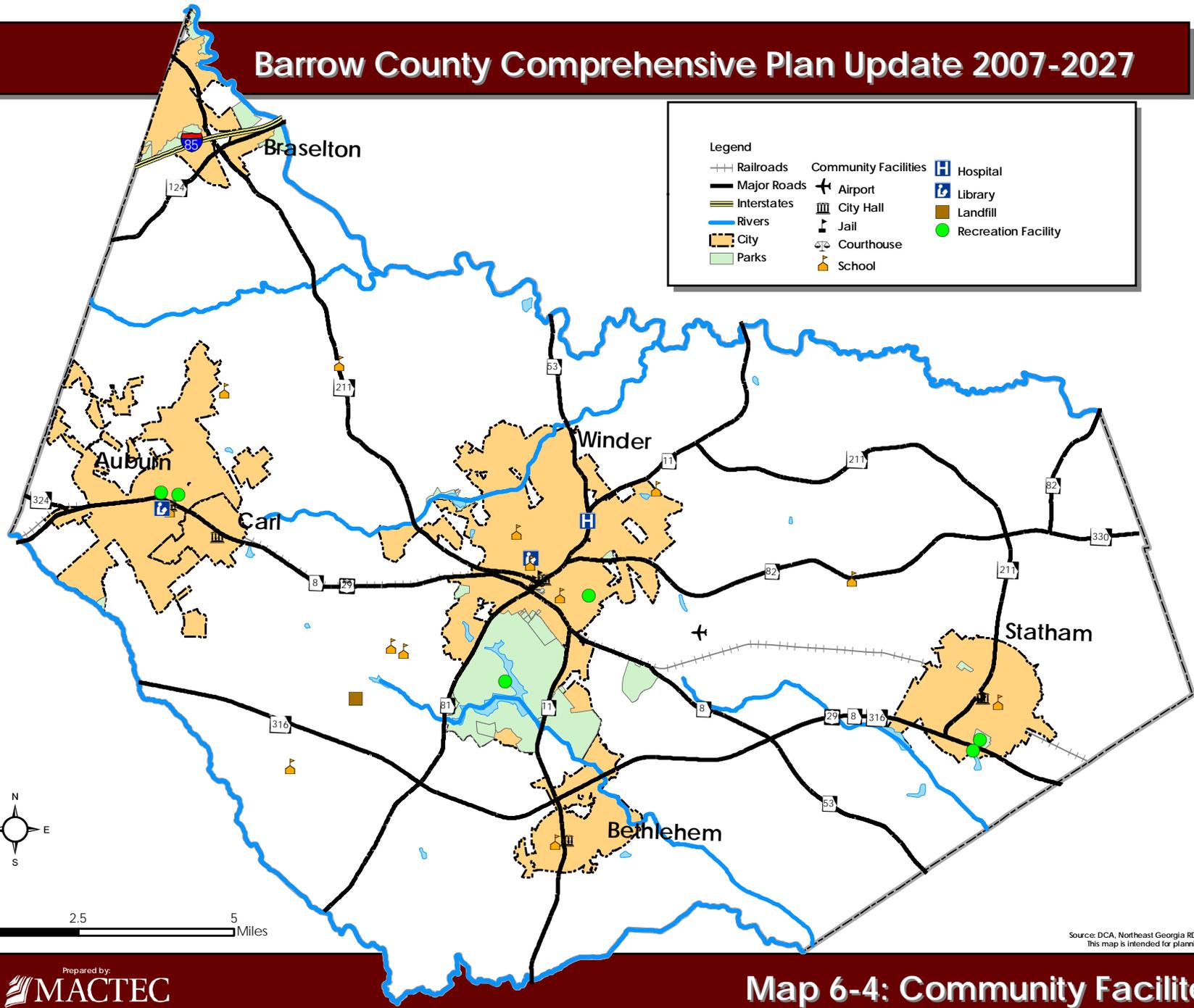
Map 6-3: Fire Protection and Public Safety

Barrow County Comprehensive Plan Update 2007-2027



Legend

++ Railroads	Community Facilities	H Hospital
— Major Roads	✈ Airport	L Library
— Interstates	City Hall	Landfill
— Rivers	Jail	● Recreation Facility
City	Courthouse	
Parks	School	



Source: DCA, Northeast Georgia RDC, Barrow County
This map is intended for planning purposes only.

Prepared by:
MACTEC

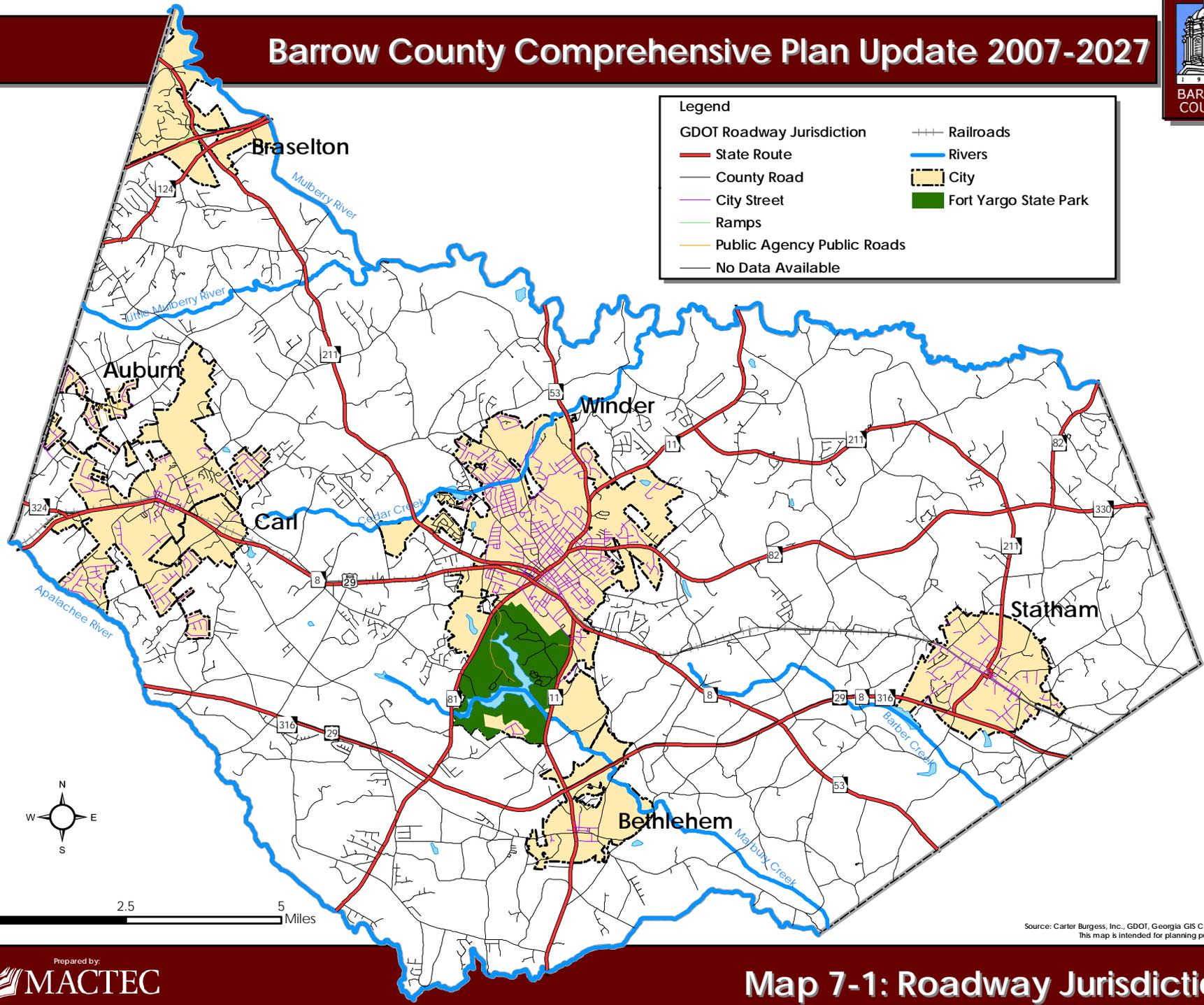
Map 6-4: Community Facilities



Barrow County Comprehensive Plan Update 2007-2027

Legend

GDOT Roadway Jurisdiction	Railroads
State Route	Rivers
County Road	City
City Street	Fort Yargo State Park
Ramps	
Public Agency Public Roads	
No Data Available	



Source: Carter Burgess, Inc., GDOT, Georgia GIS Clearinghouse
This map is intended for planning purposes only.

Prepared by:
MACTEC

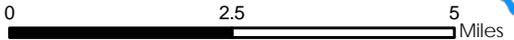
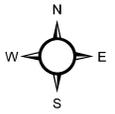
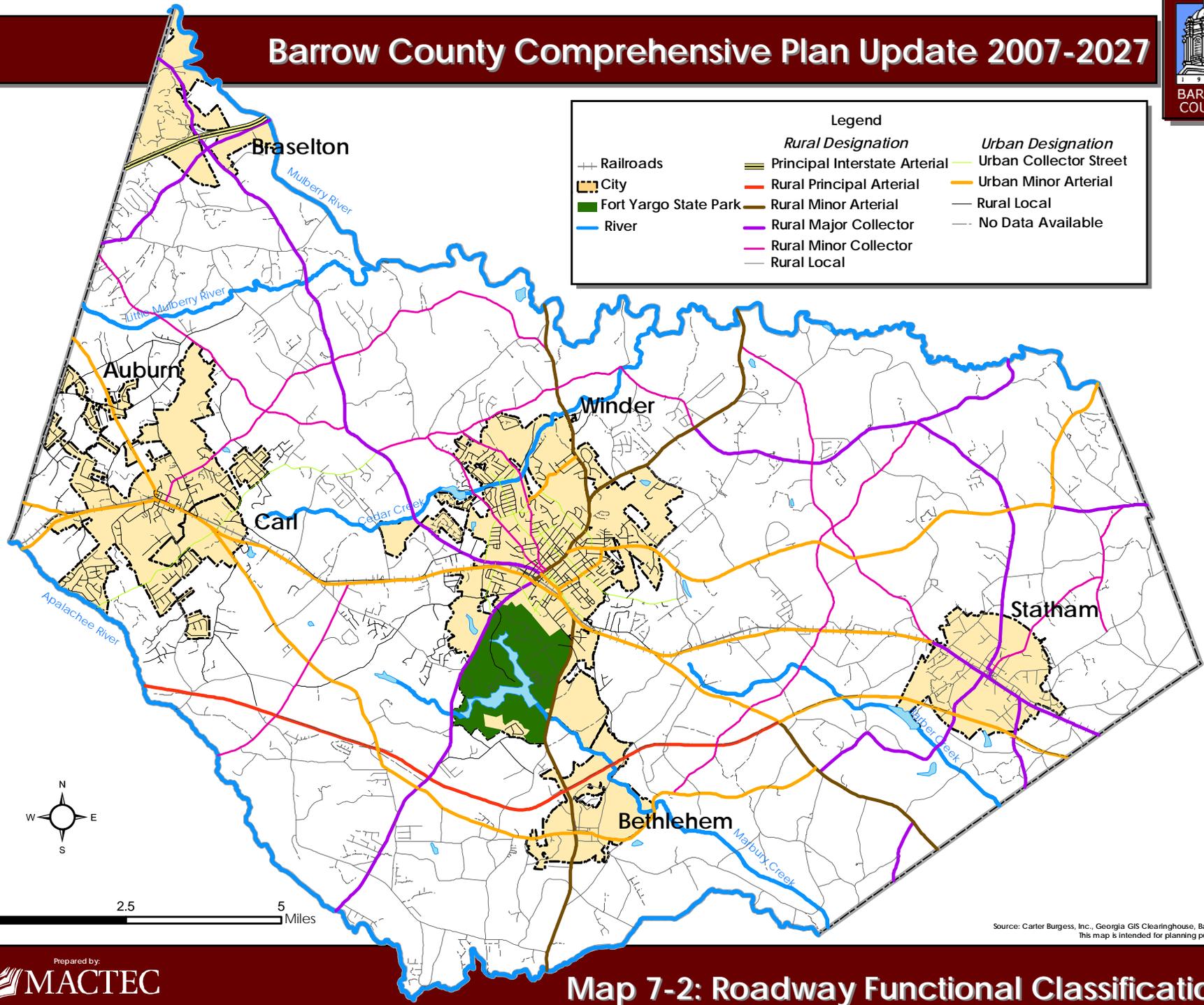
Map 7-1: Roadway Jurisdiction



Barrow County Comprehensive Plan Update 2007-2027

Legend

++ Railroads	Rural Designation Principal Interstate Arterial	Urban Designation Urban Collector Street
City	Rural Principal Arterial	Urban Minor Arterial
Fort Yargo State Park	Rural Minor Arterial	Rural Local
River	Rural Major Collector	No Data Available
	Rural Minor Collector	
	Rural Local	



Source: Carter Burgess, Inc., Georgia GIS Clearinghouse, Barrow County
This map is intended for planning purposes only.



Map 7-2: Roadway Functional Classification

Barrow County Comprehensive Plan Update 2007-2027



Legend

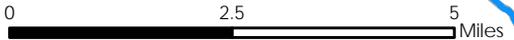
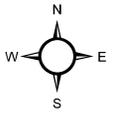
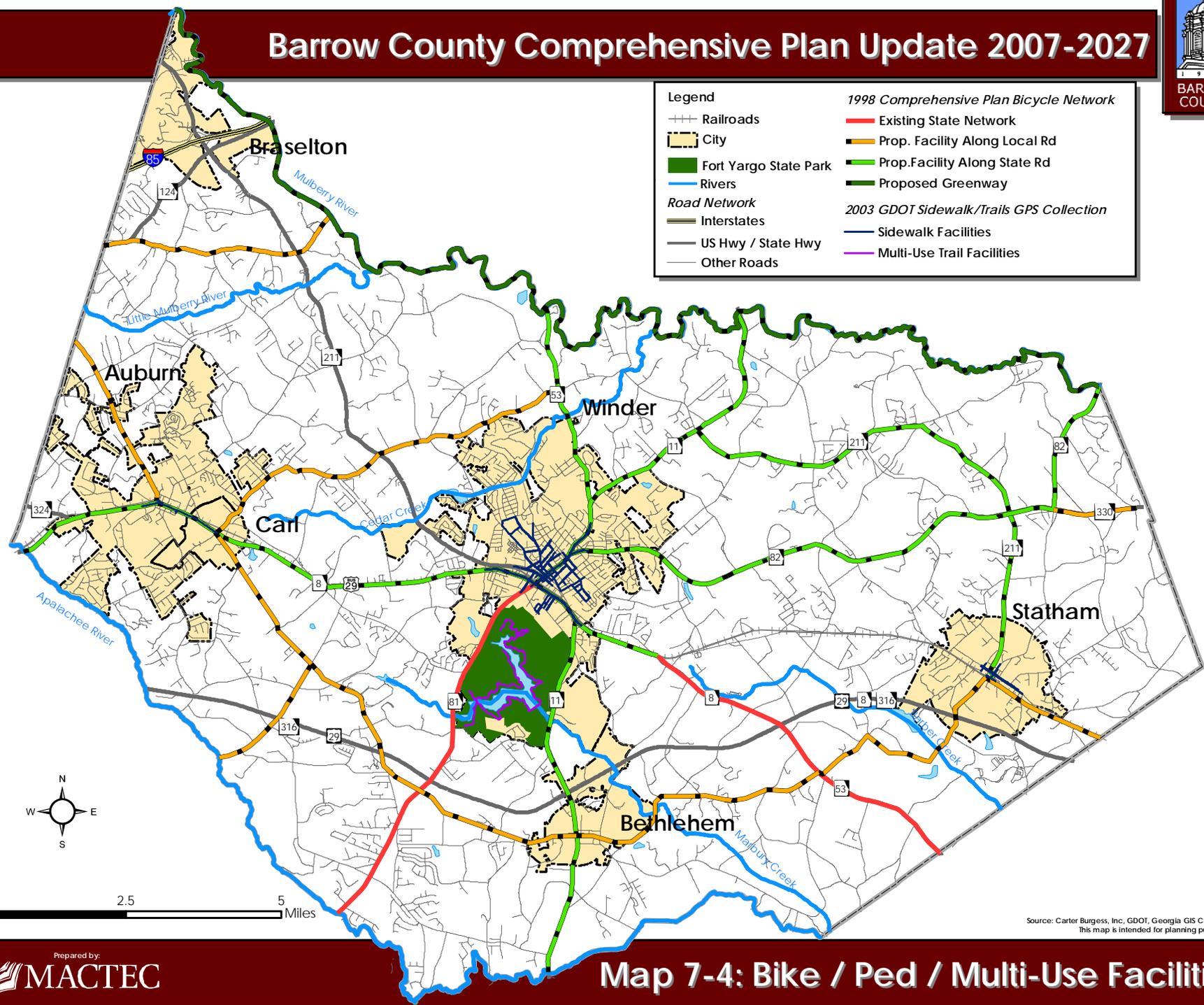
- Railroads
- City
- Fort Yargo State Park
- Rivers
- Road Network
 - Interstates
 - US Hwy / State Hwy
 - Other Roads

1998 Comprehensive Plan Bicycle Network

- Existing State Network
- Prop. Facility Along Local Rd
- Prop. Facility Along State Rd
- Proposed Greenway

2003 GDOT Sidewalk/Trails GPS Collection

- Sidewalk Facilities
- Multi-Use Trail Facilities



Source: Carter Burgess, Inc., GDOT, Georgia GIS Clearinghouse
This map is intended for planning purposes only.

Prepared by:
MACTEC

Map 7-4: Bike / Ped / Multi-Use Facilities

Barrow County Comprehensive Plan Update 2007-2027

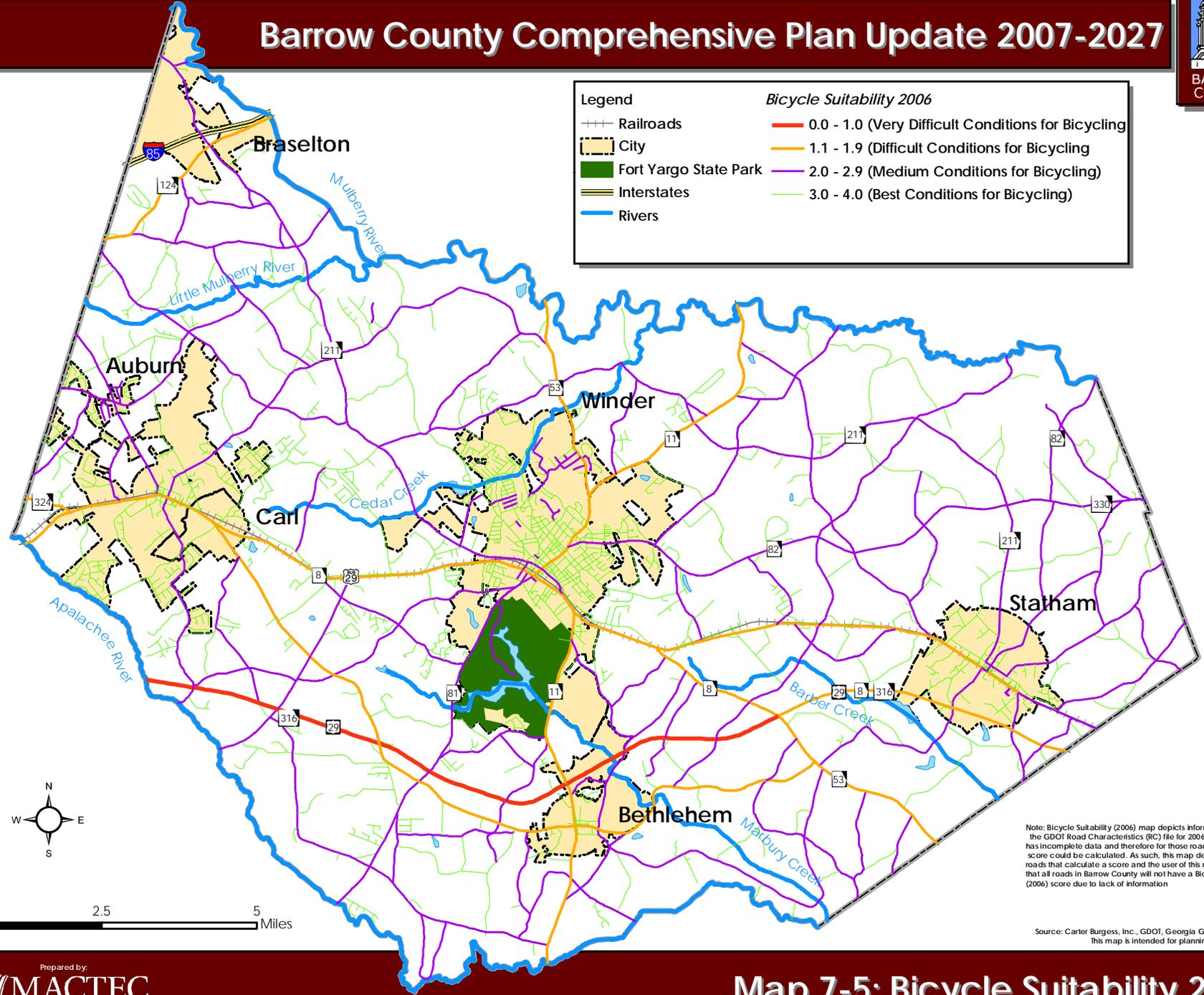


Legend

- Railroads
- City
- Fort Yargo State Park
- == Interstates
- Rivers

Bicycle Suitability 2006

- 0.0 - 1.0 (Very Difficult Conditions for Bicycling)
- 1.1 - 1.9 (Difficult Conditions for Bicycling)
- 2.0 - 2.9 (Medium Conditions for Bicycling)
- 3.0 - 4.0 (Best Conditions for Bicycling)



Note: Bicycle Suitability (2006) map depicts information derived from the GDOT Road Characteristics (RC) file for 2006. The 2006 file has incomplete data and therefore for those roads without data, no score could be calculated. As such, this map depicts only those roads that calculate a score and the user of this map must assume that all roads in Barrow County will not have a Bicycle Suitability (2006) score due to lack of information.

Source: Carter Burgess, Inc., GDOT, Georgia GIS Clearinghouse
This map is intended for planning purposes only.

Prepared by:
MACTEC

Map 7-5: Bicycle Suitability 2006

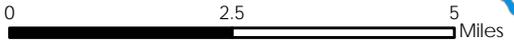
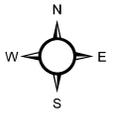
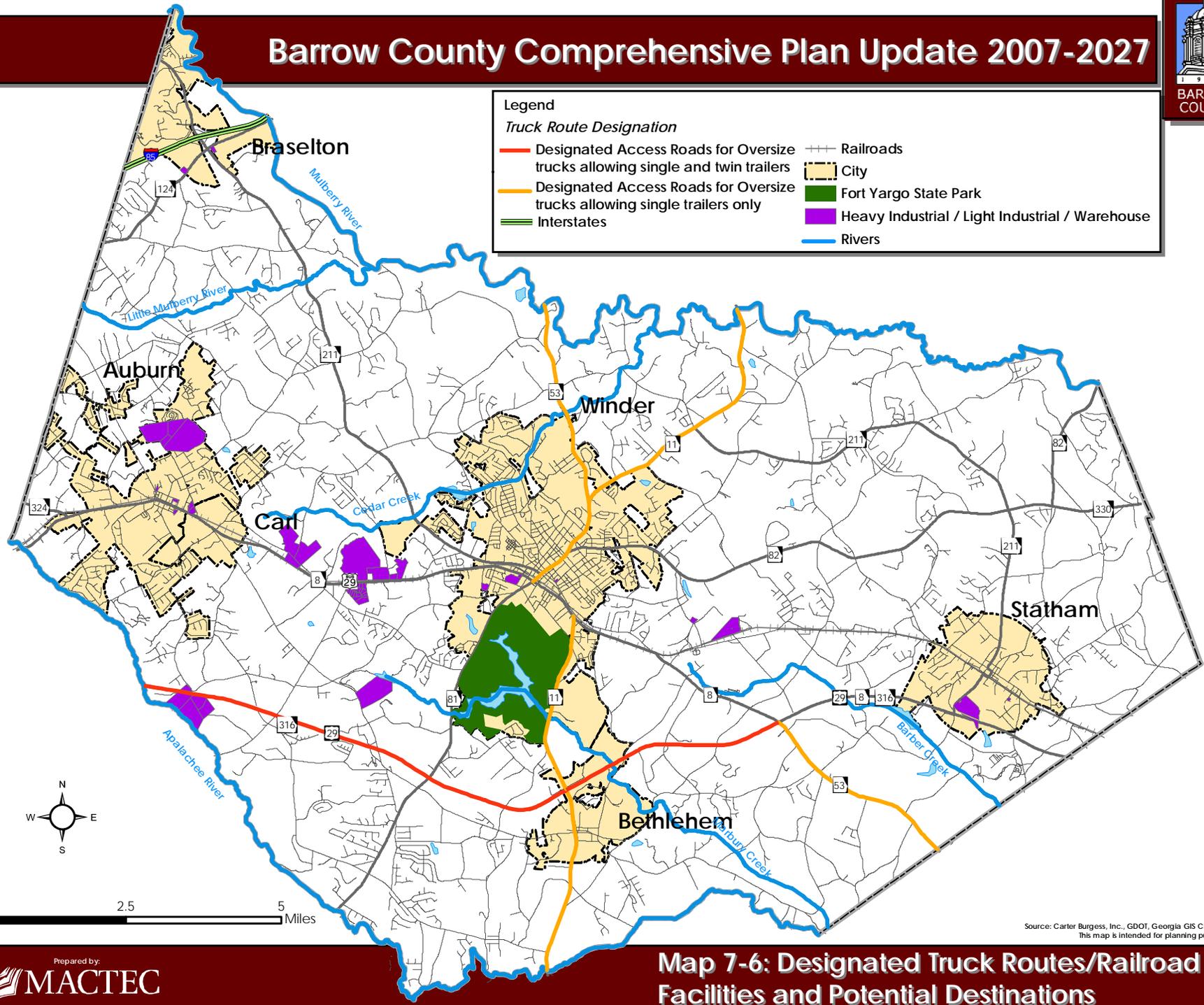
Barrow County Comprehensive Plan Update 2007-2027



Legend

Truck Route Designation

- Designated Access Roads for Oversize trucks allowing single and twin trailers
- Designated Access Roads for Oversize trucks allowing single trailers only
- Interstates
- Railroads
- City
- Fort Yargo State Park
- Heavy Industrial / Light Industrial / Warehouse
- Rivers



Source: Carter Burgess, Inc., GDOT, Georgia GIS Clearinghouse
This map is intended for planning purposes only.

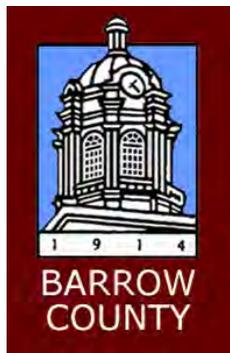
Prepared by:
MACTEC

Map 7-6: Designated Truck Routes/Railroad Facilities and Potential Destinations

FINAL DRAFT

Barrow County
Comprehensive Plan 2007-2027

***ANALYSIS OF
SUPPORTING DATA***



Prepared for:
Barrow County
Winder, Georgia

By:



MACTEC Engineering and Consulting, Inc.
Atlanta, Georgia

July 12, 2007

Table of Contents

TABLE OF CONTENTS	I
LIST OF TABLES	III
LIST OF ACRONYMS AND ABBREVIATIONS	V
1 INTRODUCTION	1-1
2 POPULATION	2-1
2.1 Total Population	2-1
2.2 Age Distribution	2-7
2.3 Race and Ethnicity	2-9
2.4 Income	2-11
2.5 Education	2-18
3 ECONOMIC DEVELOPMENT	3-1
3.1 Economic Base	3-1
3.2 Labor Force	3-5
3.3 Economic Resources	3-11
3.4 Economic Trends	3-13
4 HOUSING	4-1
4.1 Housing Types and Trends	4-1
4.2 Housing Unit Projections	4-4
4.3 Condition and Occupancy	4-5
4.4 Housing Costs	4-8
4.5 Cost-Burdened Households	4-10
4.6 Special Housing Needs	4-11
4.7 Job-Housing Balance	4-12
5 NATURAL AND CULTURAL RESOURCES	5-1
5.1 Environmental Planning Criteria	5-1
5.2 Other Environmentally Sensitive Areas	5-3
5.3 Significant Natural Resources	5-7
5.4 Significant Cultural Resources	5-8
6 COMMUNITY FACILITIES AND SERVICES	6-1
6.1 Water Supply and Treatment	6-1
6.2 Sewerage System and Wastewater Treatment	6-2
6.3 Other Facilities and Services	6-3
6.4 Health Care	6-11
7 TRANSPORTATION SYSTEM	7-1
7.1 Road Network	7-1
7.2 Alternative Modes	7-12
7.3 Railroads, Trucking, Port Facilities and Airports	7-16
7.4 Air Quality	7-18
7.5 Transportation and Land Use Connection	7-19



Table of Contents (Continued)

8	INTERGOVERNMENTAL COORDINATION	8-1
8.1	Adjacent Local Governments	8-1
8.2	Independent Agencies, Boards and Authorities	8-1
8.3	School Board	8-2
8.4	Regional and State Programs	8-2
8.5	Consistency with Service Delivery Strategy	8-3
APPENDIX A	ATLAS OF MAPS.....	A-1
APPENDIX B	ENDNOTES.....	B-1



List of Tables

Table 2-1	Historic Population.....	2-1
Table 2-2	Historic Population Growth Rates	2-1
Table 2-3	Population Trends in Surrounding Counties.....	2-2
Table 2-4	Population Projections – Multiple Sources.....	2-2
Table 2-5	Population Projections – For Planning.....	2-3
Table 2-6	Average Household Size Historical and Projections.....	2-4
Table 2-7	Distribution of Household Types, Totals for 2000.....	2-5
Table 2-8	Percentage Distribution of Household Types, 2000.....	2-6
Table 2-9	Household Projections.....	2-7
Table 2-10	Historical Age Distribution.....	2-7
Table 2-11	Age Distribution Projections	2-8
Table 2-12	Race and Hispanic Origin Total Population	2-9
Table 2-13	Race and Hispanic Origin Share of Population	2-10
Table 2-14	Race and Hispanic Origin of Surrounding Counties 2004.....	2-10
Table 2-15	Race and Hispanic Origin Total Population Projections	2-11
Table 2-16	Household Income Distribution.....	2-12
Table 2-17	Median Household Income	2-14
Table 2-18	Per Capita Income	2-14
Table 2-19	Poverty - Percent of Specified Age Groups in Poverty.....	2-15
Table 2-20	Percentage of the Total Population in Poverty for Individuals	2-16
Table 2-21	Poverty Status for Family and Female-Headed Households.....	2-17
Table 2-22	Poverty Thresholds for 2005	2-18
Table 2-23	Educational Attainment by Share of the Population 25 Years and Older	2-19
Table 3-1	Number of Employees.....	3-1
Table 3-2	Historic County Average Monthly Employment.....	3-2
Table 3-3	County, MSA, State and Federal Comparison of Average Monthly Employment	3-2
Table 3-4	Employment Projections	3-3
Table 3-5	Weekly Wages by Industry 2004.....	3-4
Table 3-6	Average Employment Wages for All Industries	3-5
Table 3-7	Average Pay as Percentage of Atlanta MSA, State and Nation	3-5
Table 3-8	Historical Labor Force Size.....	3-5
Table 3-9	Labor Force Employment Status	3-6
Table 3-10	Labor Force Employment by Occupation 2000.....	3-6
Table 3-11	Personal Income	3-7
Table 3-12	Historical Labor Force Unemployment Rates	3-7
Table 3-13	Labor Force Employment by Industry	3-8
Table 3-14	Share of Labor Force Employment by Industry	3-9
Table 3-15	Labor Force Employment by Industry Projections	3-10
Table 3-16	Commuting Patterns – Inside/Outside County	3-10
Table 3-17	Employee Commuter Patterns	3-11
Table 3-18	Northeast Georgia Region Largest Job Growth Industries.....	3-14
Table 3-19	Northeast Georgia Region Industries with Most Job Decline	3-15
Table 3-20	Major Employers in Barrow County	3-16
Table 4-1	Types of Housing and Mix – Barrow County.....	4-1
Table 4-2	Types of Housing and Mix – Auburn	4-1
Table 4-3	Types of Housing and Mix – Bethlehem	4-2
Table 4-4	Types of Housing and Mix – Braselton	4-2
Table 4-5	Types of Housing and Mix – Carl.....	4-2



Table 4-6	Types of Housing and Mix – Statham.....	4-3
Table 4-7	Types of Housing and Mix – Winder	4-3
Table 4-8	Housing Permit Trends.....	4-3
Table 4-9	Housing Unit Trends in Surrounding Counties.....	4-4
Table 4-10	Housing Unit Projections.....	4-4
Table 4-11	Housing Age.....	4-5
Table 4-12	Housing Condition.....	4-6
Table 4-13	Housing Tenure	4-7
Table 4-14	Median Property Value and Median Rent	4-8
Table 4-15	Specified Owner-Occupied Units	4-9
Table 4-16	Number of Annual Home Sales and Annual Average Prices for Barrow County.....	4-9
Table 4-17	Cost-Burdened Households.....	4-10
Table 4-18	Police and Sheriff Actions Related to Domestic Violence	4-11
Table 4-19	Population with a Disability.....	4-12
Table 4-20	Type of Disabilities.....	4-12
Table 4-21	Jobs-Housing Balance for Barrow County.....	4-13
Table 4-22	Correlation of Average Weekly Wages to Housing Prices for Workers (2004).....	4-14
Table 4-23	Correlation of Household Income to Housing Prices for County Residents.....	4-15
Table 5-1	Soils Associations of Barrow County	5-5
Table 5-2	Important Farmland Soils.....	5-5
Table 5-3	Federal-& State-Listed Endangered and Threatened Species – Birds.....	5-6
Table 5-4	Federal- & State-Listed Endangered and Threatened Species – Animals and Fish.....	5-6
Table 5-5	Federal- & State-Listed Endangered and Threatened Species - Plants	5-7
Table 5-6	National Register of Historic Places	5-14
Table 6-1	Public Parks, Recreation and Cultural Affairs Facilities	6-5
Table 6-2	Barrow County School System (2005-2006 School Year).....	6-9
Table 6-3	Barrow County Public School General Information	6-10
Table 6-4	Barrow County Health Care Facility General Information.....	6-11
Table 7-1	Centerline Miles and AADT by Functional Classification.....	7-2
Table 7-2	County Traffic Volumes	7-3
Table 7-3	Manner of Commute 2000	7-4
Table 7-4	Employee Commuter Patterns	7-4
Table 7-5	Travel Time to Work for Workers 16 Years and Over	7-4
Table 7-6	Most Congested Roadways, 2005.....	7-6
Table 7-7	2030 E+C Projects	7-6
Table 7-8	Most Congested Roadways, 2030.....	7-7
Table 7-9	Comparison of Daily VMT and VHT, 2005 and 2030.....	7-7
Table 7-10	High Crash Intersections and Rates	7-8
Table 7-11	LOS for SR 316 Corridor.....	7-9
Table 7-12	Existing and Future Travel Indicators – SR 316 Corridor.....	7-10
Table 7-13	Bridge Inspection Rating.....	7-11
Table 7-14	Bicycle Suitability Rating by Factor	7-13
Table 8-1	Barrow County Service Delivery Strategy Summary.....	8-4



LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AADT	Average Annual Daily Traffic
ARC	Atlanta Regional Commission
Atlanta MSA	Atlanta-Sandy Springs-Marietta Metropolitan Statistical Area
BCFES	Barrow County Fire and Emergency Services
BCWSA	Barrow County Water and Sewer Authority
CAAA	Clean Air Act Amendments
DCA	Department of Community Affairs
DNR	Georgia Department of Natural Resources
E+C	Existing Plus Committed
EPD	Environmental Protection Division
FEMA	Federal Emergency Management Agency
GDOT	Georgia Department of Transportation
HUD	Department of Housing and Urban Development
I-85	Interstate 85
MACTEC	MACTEC Engineering and Consulting, Inc.
MGD	Million Gallons per Day
mph	Miles per hour
MPO	Metropolitan Planning Organization
MSW	Municipal Solid Waste
NEGRDC	Northeast Georgia Regional Development Center
NHS	National Highway System
OCGA	Official Code of Georgia Annotated
ROW	Right-of-way
SDS	Service Delivery Strategy
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USEPA	U.S. Environmental Protection Agency
WWTP	Wastewater Treatment Plant



1 Introduction

The “Analysis of Supporting Data” follows the guidelines of the Rules of Georgia Department of Community Affairs (DCA), Chapter 110-12-1, Standards and Procedures for Local Comprehensive Planning, effective May 1, 2005. This section presents the full collection of analysis and supporting data that provides the backbone of the Community Assessment. Maps associated with this document can be found in Appendix A: Atlas of Supportive Maps.

Located in the northeast Georgia region, Barrow County covers approximately 140 square miles of predominantly rural, yet increasingly suburban landscape. Barrow County includes six municipalities: Auburn, Bethlehem, Braselton, Carl, Statham, and Winder. The largest of the municipalities is Winder with a population estimated by the U.S. Census Bureau (USCB) in 2005 at more than 12,000 residents. Barrow County also includes a portion of the Town of Braselton, which is divided among Barrow, Gwinnett, Hall, and Jackson counties. The historic population data presented in the Analysis of Supporting Data breaks out the Barrow County portion of Braselton. Data in other tables presented in this text include information for the entire city limits of Braselton. Braselton information is included for the purpose of reference. However, the Barrow County Comprehensive Plan 2007-2027 does not include Braselton’s Barrow County portion. Instead, Braselton’s comprehensive plan is updated based on the Jackson County comprehensive plan update schedule defined by DCA.



2 Population

2.1 Total Population

2.1.1 Historic Population

Barrow County's population changed little between the 1930s and the 1960s. The 1930 Census reported the population of the County at 12,401, and then reported a population of 14,485 in 1960. In 1970, the reported population was 16,859, and the growth rate began to increase more rapidly from that point as shown in Table 2-1. The population grew by about 4,500 people in the 1970s. In the 1980s, the population grew by about 8,500. As a result of the suburban expansion outward from Atlanta, the USCB added Barrow County to the Atlanta-Sandy Springs-Marietta Metropolitan Statistical Area (Atlanta MSA) in 1983. The growth continued throughout the 1990s as the population increased by 16,500. The USCB estimates a population increase of 14,000 between 2000 and 2005, making Barrow County the fifth fastest growing county in the state, and the 24th-fastest growing county in the nation with a population of just below 60,000 and growth rates that exceed the state's, as shown in Table 2-1.

Table 2-1 Historic Population

Area	1970	1980	1990	2000	2005
Barrow County	16,859	21,354	29,721	46,144	59,954
Auburn	361	692	3,139	6,904	7,134
Bethlehem	304	281	348	716	938
Carl	234	239	263	205	258
Statham	817	1,101	1,360	2,040	2,555
Winder	6,605	6,705	7,373	10,201	12,451
Braselton (Barrow only) ¹	NA	NA	NA	242	NA ¹
Unincorporated	8,538	12,336	17,238	26,078	36,618

¹ Braselton annexed property in Barrow County after then 1990 Census. Estimates for 2005 did not sort city population by county.

Source: U.S. Census Bureau, Annual Estimates of the Population for Counties of Georgia: April 1, 2000 to July 1, 2005

Table 2-2 Historic Population Growth Rates

Area	1970-1980		1980-1990		1990-2000		2000-2005	
	% Change	Average Annual Rate						
Barrow County	26.7%	2.4%	39.2%	3.4%	55.3%	4.5%	29.9%	5.4%
Auburn	91.7%	6.7%	353.6%	16.3%	119.9%	8.2%	3.3%	0.7%
Bethlehem	-7.6%	-0.8%	23.8%	2.2%	105.7%	7.5%	31.0%	5.5%
Braselton (Barrow only) ²	N/A		N/A		N/A		N/A	
Carl	2.1%	0.2%	10.0%	1.0%	-22.1%	-2.5%	25.9%	4.7%
Statham	34.8%	3.0%	23.5%	2.1%	50.0%	4.1%	25.2%	4.6%
Winder	1.5%	0.2%	10.0%	1.0%	38.4%	3.3%	22.1%	4.1%
Unincorporated	44.5%	3.7%	39.7%	3.4%	51.3%	4.2%	40.4%	7.0%

Source: U.S. Census Bureau, Annual Estimates of the Population for Counties of Georgia: April 1, 2000 to July 1, 2005



2.1.2 Population Growth in Surrounding Counties

Rapid suburban growth has been impacted by Barrow County's neighbor to the west, Gwinnett County, for at least 35 years. The average annual growth rate in Gwinnett County since 1970 has been 6.8%. The other five neighboring counties' growth rates, shown in Table 2-3, range from 2.9% in Clarke County (Athens) to 24.7% in Walton County. Barrow, Gwinnett, Jackson, and Walton counties all have growth rates in excess of 20% measured over the past five years.

Table 2-3 Population Trends in Surrounding Counties

County	Total Population					State Rank	Rate of Growth for Specified Periods				
	1970	1980	1990	2000	2005		1970-1980	1980-1990	1990-2000	2000-2005	Ga./Nat'l Rank
Barrow	16,859	21,354	29,721	46,144	59,954	19 th	26.7%	39.2%	55.3%	29.9%	5 th /24 th
Clarke	65,117	74,498	87,594	101,489	104,439	10 th	14.4%	17.6%	15.9%	2.9%	102 nd /NA
Gwinnett	72,349	166,903	352,910	588,448	726,273	1 st	130.7%	111.4%	66.7%	23.4%	12 th /NA
Hall	59,405	75,649	95,428	139,277	165,771	16 th	27.3%	26.1%	45.9%	19.0%	19 th /NA
Jackson	21,093	25,343	30,005	41,589	52,292	42 nd	20.1%	18.4%	38.6%	25.7%	7 th /43 rd
Oconee	7,915	12,427	17,618	26,225	29,748	46 th	57.0%	41.8%	48.9%	13.4%	33 rd /NA
Walton	23,404	31,221	38,586	60,687	75,647	22 nd	33.4%	23.6%	57.3%	24.7%	10 th /43 rd

Source: U.S. Census Bureau, Annual Estimates of the Population for Counties of Georgia: 4/1/00 to 9/1/20

2.1.3 Population Projections – Multiple Sources

MACTEC Engineering and Consulting, Inc. (MACTEC) examined Georgia Office of Budget and Planning estimates prepared in 2005 and the county estimates prepared by USCB for 2005. With this information, MACTEC used the data spreadsheet created by the Georgia DCA to present a range of projections for 2010, 2015, 2020, 2025 and 2030, as shown in Table 2-4. The projections range from a 2030 population of 83,329 with an average annual growth rate of 1.9% to 173,750 as prepared in 2004 by the Northeast Georgia Regional Development Center (NEGRDC).

Table 2-4 Population Projections – Multiple Sources

Year	DCA (1.0 Multiplier) ¹	Exponential ²	OPB ³	DCA (1.6962 Multiplier)	NEGRDC
2005**	52,342	57,496	56,656	56,656	56,656
2010	58,539	71,642	70,553	67,168	80,000
2015	64,737	89,267	84,663	84,999	97,750 (2014)
2020	70,934	111,229	108,226	102,830	124,370
2025	77,132	138,594	131,792	133,075	162,430 (2024)
2030	83,329	172,691	155,357	163,319	173,750
Growth Rate 2005-2030	59.2%	200.4%	174.2%	188.3%	174.2%
Annual Average Growth Rate 2005-2030	1.9%	4.5%	4.1%	4.3%	7.0%

¹DCA projections based on the average increment of change from 1980 and 2000. The base multiplier of 1.6962 means that the increment of change will be increased (in addition to the increase based on the average increment of change 1980-2000) by 69.62% every 10 years. The multiplier of 1.6962 was selected because it created the growth rate necessary to accommodate the U.S. Bureau of Census estimated population of 56,656 in 2005.

² Exponential Growth Rate based on percent 4.5% annual change between 1990 and 2000.

³OPB projected 83.5% growth rate for 2000 to 2015, but did not publish projections past 2015; projections shown for 2015 to 2030 created using the same rate of growth OPB used for 2000 to 2015.

Source: U.S. Census Bureau, DCA, OPB



2.1.4 Population Projections – For Planning

Population projections, shown in Table 2-5, are the projections selected based on a review of the projections presented in Table 2-4. Projections in Table 2-5 are based on the NEGRDC projections, with slight modifications in order to adjust the numbers to five-year multiples as used throughout this report. Based on these projections, Barrow County population will increase approximately 190% between 2005 and 2030 from a population of 59,954 in 2005 to 173,750, with an average annual growth rate of 4.3%. Long-range population projections for the cities and unincorporated Barrow County will likely be statistically impacted by annexation (*i.e.*, when a city annexes population that was previously included in unincorporated Barrow County the population for the city increases and the population for the unincorporated area decreases).

Table 2-5 Population Projections – For Planning

Year	Barrow County	Auburn	Bethlehem	Carl	Statham	Winder	Unincorporated ¹
2005	59,954	7,134	938	258	2,555	12,451	36,618
2010	80,000	9,979	1,143	469	3,536	18,048	46,824
2015	102,000	12,724	1,458	598	4,508	23,012	59,701
2020	124,370	15,514	1,777	729	5,497	28,059	72,794
2025	169,493	21,143	2,422	994	7,491	38,239	39,199
2030	173,750	21,674	2,483	1,019	7,679	39,199	101,696
Growth Rate 2005-2030	189.8%	203.8%	164.7%	295.0%	200.5%	214.8%	214.8%
Annual Average Growth Rate 2005-2030	4.3%	4.5%	4.0%	5.6%	4.5%	4.7%	4.2%
¹ Unincorporated includes the Town of Braselton in Barrow County. Projections prepared by the NEGRDC did not distribute Braselton population projections by county							
Note: Projections calculated by using the average of the share of the population for each community from 1990, 2000, and 2005; NEGRDC Projections were adjusted based on the projected average annual growth rate (<i>e.g.</i> , 2004 projection was multiplied by the average annual growth rate projected for 2004-2030 in order to provide the 2005 projected population figure). The average annual growth rate from NEGRDC was 4.3%.							

Source: MACTEC, NEGRDC.

2.1.5 Household Size

Average household size dropped to 2.79 in 2000, and the projections provided in Table 2-6 show that the household size will continue to shrink in Barrow County. The smaller household size explains the difference in household and population growth rates and reflects both state and national trends. Auburn had the highest average household size of the municipalities in the County in 2000 at 3.05. Projections show that while the cities' average household size will become smaller by 2030, Auburn should continue to have the largest average household size of the County's cities.



Table 2-6 Average Household Size Historical and Projections

Year	Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder
1980	2.9	3.1	2.7	2.99	2.69	2.74	2.68
1990	2.76	2.83	2.6	2.56	2.71	2.83	2.52
2000	2.79	3.05	2.82	2.63	2.28	2.73	2.53
2005	2.76	3.04	2.85	2.54	2.18	2.73	2.49
2010	2.74	3.03	2.88	2.45	2.08	2.73	2.46
2015	2.71	3.01	2.91	2.36	1.97	2.72	2.42
2020	2.68	3	2.94	2.27	1.87	2.72	2.38
2025	2.65	2.99	2.97	2.18	1.77	2.72	2.34
2030	2.63	2.98	3	2.09	1.67	2.72	2.31
Growth Rate 1980-2000	-3.8%	-1.6%	4.4%	-12.0%	-15.2%	-0.4%	-5.6%
Growth Rate 2000-2030	-5.7%	-2.3%	6.4%	-20.5%	-26.8%	-0.4%	-8.7%
Average Annual Growth Rate 1980-2000	-0.2%	-0.1%	0.2%	-0.6%	-0.8%	0.0%	-0.3%
Average Annual Growth Rate 2000-2030	-0.2%	-0.1%	0.2%	-0.8%	-1.0%	0.0%	-0.3%

Source: U.S. Census Bureau: 2000 Census; DCA 2006

2.1.6 Household Types

Barrow County’s percentage of families with children under 18 was higher than the state in 2000, as shown in Table 2-7. On the other hand, Barrow County’s percentage of female-headed households with children under 18 years was lower than the state and the Atlanta MSA. In fast-growing suburban communities, married couple family households tend to make up a greater share of the total households. Generally, Barrow County has a higher share of family households and married couple families, including those with children, and lower percentages of single persons living alone and single mothers, than the state (see Table 2-8).



Table 2-7 Distribution of Household Types, Totals for 2000

Type	Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder
Total:	16,354	2,260	254	459	90	731	3,877
1-person household:	3,045	290	48	84	27	147	1,060
Family households:	12,542	1,846	200	361	59	551	2,631
Married-couple family:	9,864	1,515	177	315	50	412	1,771
With own children under 18	5,013	933	89	123	16	199	849
Other family:	2,678	331	23	46	9	139	860
Male householder, no wife present:	784	110	8	14	5	34	183
With own children under 18	396	68	6	8	1	16	86
Female householder, no husband present:	1,894	221	15	32	4	105	677
With own children under 18	1,110	152	8	16	0	68	390
Non-family households:	767	124	6	14	4	33	186
Households with one or more people under 18:	7,165	1,222	110	162	21	323	1,472
Households with one or more people 65 and over:	2,980	184	53	89	33	148	981
Householder 65 or older	2,561	132	48	79	30	133	891

Source: U.S. Census Bureau: 2000 SF1 Tables P18, P19, P21, and P23



Table 2-8 Percentage Distribution of Household Types, 2000

Type	Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder	Atlanta MSA	State of Georgia
1-person household:	18.6%	12.8%	18.9%	18.3%	30.0%	20.1%	27.3%	23.3%	23.6%
Family households:	76.7%	81.7%	78.7%	78.6%	65.6%	75.4%	67.9%	69.2%	70.2%
Married-couple family:	60.3%	67.0%	69.7%	68.6%	55.6%	56.4%	45.7%	51.4%	51.5%
With own children under 18	30.7%	41.3%	35.0%	26.8%	17.8%	27.2%	21.9%	25.7%	24.4%
Other family:	16.4%	14.6%	9.1%	10.0%	10.0%	19.0%	22.2%	17.9%	18.7%
Male householder, no wife present:	4.8%	4.9%	3.1%	3.1%	5.6%	4.7%	4.7%	4.3%	4.2%
With own children under 18	2.4%	3.0%	2.4%	1.7%	1.1%	2.2%	2.2%	1.9%	2.0%
Female householder, no husband present:	11.6%	9.8%	5.9%	7.0%	4.4%	14.4%	17.5%	13.6%	14.5%
With own children under 18	6.8%	6.7%	3.1%	3.5%	0.0%	9.3%	10.1%	8.1%	8.6%
Non-family households:	4.7%	5.5%	2.4%	3.1%	4.4%	4.5%	4.8%	7.4%	6.1%
Households with one or more people under 18:	43.8%	54.1%	43.3%	35.3%	23.3%	44.2%	38.0%	14.8%	18.8%
Households with one or more people 65 and over:	18.2%	8.1%	20.9%	19.4%	36.7%	20.2%	25.3%	39.5%	39.1%
Householder 65 or older	15.7%	5.8%	18.9%	17.2%	33.3%	18.2%	23.0%	12.5%	16.5%

Source: U.S. Census Bureau: 2000 SF1 Tables P18, P19, P21, and P23



2.1.7 Household Projections

Household Projections for Barrow County and the municipalities are shown in Table 2-9. These projections are based on the population projections shown in Table 2-3.

Table 2-9 Household Projections

Area	2005	2010	2015	2020	2025	2030
Barrow County	25,981	34,180	44,722	55,930	78,300	82,480
Auburn	3,143	4,135	5,411	6,767	9,473	9,979
Bethlehem	365	480	628	785	1,099	1,158
Carl	190	249	326	408	571	602
Statham	1,166	1,534	2,007	2,510	3,514	3,701
Winder	6,605	8,689	11,369	14,218	19,905	20,967
Unincorporated (plus Braselton in Barrow)	14,513	19,093	24,981	31,242	43,737	46,072

* Calculated by using the average of the share of the households for each community from 1990, 2000; NEGRDC Projections were adjusted based on the projected average annual growth rate (e.g. 2004 projection was multiplied by the average annual growth rate projected for 2004-30 in order to provide the 2005 projected population). The average annual growth rate from NEGRDC was 4.9%.

Source: MACTEC, NEGRDC

2.2 Age Distribution

Age distribution affects a variety of needs and services as the County plans for future housing, commercial, public institutions, and recreational facilities. Table 2-10 shows the historical age distribution for Barrow County. The proportion of the population falling into the 14-to-17, 18-to-20 and 21-to-24 age groups dropped from 1980 to 2005, falling from 18.7% to 11.6% of the population. The youngest age group classifications are predicted to increase or maintain their 2005 proportion. The 55 and over age groups decreased from 20.7% to 16%, while the 25 to 54 age groups increased from 45 to 55%.

Table 2-10 Historical Age Distribution

Age Group	1980		1990		2000		2005		% Change 1980-2005
	Total	% of Total							
0 – 4	1,641	7.7%	2,523	8.5%	3,812	8.3%	4,767	8.4%	190.5%
5 – 13	3,452	16.2%	4,514	15.2%	7,403	16.0%	9,140	16.0%	164.8%
14 – 17	1,546	7.2%	1,277	4.3%	1,910	4.1%	2,070	3.6%	33.9%
18 – 20	1,055	4.9%	1,298	4.4%	1,657	3.6%	1,922	3.4%	82.2%
21 – 24	1,390	6.5%	1,818	6.1%	2,264	4.9%	2,648	4.6%	90.5%
25 – 34	3,259	15.3%	5,578	18.8%	8,171	17.7%	10,331	18.1%	217.0%
35 – 44	2,468	11.6%	4,203	14.1%	7,765	16.8%	10,094	17.7%	309.0%
45 – 54	2,116	9.9%	2,985	10.0%	5,506	11.9%	6,997	12.3%	230.7%
55 – 64	1,939	9.1%	2,277	7.7%	3,475	7.5%	4,150	7.3%	114.0%
65 +	2,488	11.7%	3,248	10.9%	4,181	9.1%	4,925	8.6%	98.0%
Total	21,354	100.0%	29,721	100.0%	46,144	100.0%	57,044	100.0%	167.1%

Source: NEGRDC, DCA, MACTEC



Table 2-11 shows the age distribution projections through the year 2030. The projections base the growth on trends experienced from 1980 to 2000. As a result, these projections show the share of the population in each age group remaining fairly constant over the next 25 years. National projections, however, anticipate that the senior citizen share of the population will increase significantly during this time period. For example, the number of Americans aged 45 to 65 (who will reach age 65 over the next two decades) increased by 39% from 1994 to 2004, according to the U.S. Department of Health and Human Services' Administration on Aging. The 25 to 54 age groups are projected to increase from 55% to 59% between 2005 and 2030.

Table 2-11 Age Distribution Projections

Age Groups	2010		2015		2020		2025		2030		% Change 2005-2030
	Total	% of Total	Total	% of Total	Total	% of Total	Total	% of Total	Total	% of Total	
0 – 4	5,721	8.4%	7,401	8.5%	9,080	8.5%	12,033	8.6%	14,987	8.6%	214.4%
5 – 13	10,878	16.0%	13,934	16.0%	16,990	16.0%	22,365	16.0%	27,741	16.0%	203.5%
14 – 17	2,230	3.3%	2,512	2.9%	2,793	2.6%	3,288	2.3%	3,784	2.2%	82.8%
18 – 20	2,186	3.2%	2,652	3.0%	3,118	2.9%	3,937	2.8%	4,756	2.7%	147.5%
21 – 24	3,033	4.5%	3,709	4.3%	4,385	4.1%	5,574	4.0%	6,763	3.9%	155.4%
25 – 34	12,491	18.4%	16,290	18.7%	20,090	18.9%	26,773	19.1%	33,455	19.3%	223.8%
35 – 44	12,424	18.3%	16,521	19.0%	20,618	19.4%	27,825	19.9%	35,031	20.2%	247.0%
45 – 54	8,487	12.5%	11,110	12.8%	13,732	12.9%	18,344	13.1%	22,956	13.2%	228.1%
55 – 64	4,826	7.1%	6,014	6.9%	7,202	6.8%	9,292	6.6%	11,382	6.6%	174.3%
65 +	5,670	8.3%	6,979	8.0%	8,289	7.8%	10,592	7.6%	12,895	7.4%	161.8%
Total	67,946	100.0%	87,122	100.0%	106,297	100.0%	140,023	100.0%	173,750	100.0%	204.6%

Source: NEGRDC, DCA, MACTEC

The anticipated shifts in the overall age distribution of residents in Barrow County are not predicted to change significantly in the next 20 years. The population in the older age groups (55 and over) is projected to gradually decline, though as previously mentioned, national trends speak otherwise. Therefore, changes in the age distribution alone are not significant enough to warrant major policy changes or County improvements. While the proportion may remain relatively constant, the tremendous rate of growth in total population for Barrow County will lead to significant growth in the real population number for each age group and these increases will drastically impact the service demands for each group.

The 203% projected increase for the 5-to-13 age group equates to an increase of roughly 17,000 elementary and middle school-aged children (from 10,878 in 2005 to 27,741 in 2030). The increase creates challenges for the County school system and other services provided in the County for children. Likewise, the projected increase in persons 65 and older from 5,670 to 12,985 will greatly increase the demand for services related to senior citizens. Whether or not these statistics remain consistent depends on the availability of housing allowing seniors the opportunity to age in their current community. The changing age structure of a population can affect Barrow County. Issues that Barrow County may need to face as a result of the changing population include the need for services, healthcare, changes in markets, participation in the labor force, and public policy decisions.



2.3 Race and Ethnicity

2.3.1 Racial and Ethnic makeup

White residents made up the largest share of the population in the County with an estimated 85.9% in 2004, as shown in Table 2-12 and Table 2-13. The Census does not include Hispanic as a race, but accounts for this population under ethnicity. As a result, people of Hispanic origin generally make up portions of more than one racial group. The figures included with this analysis include persons of Hispanic origin with the various racial groups for comparison purposes.

Table 2-12 Race and Hispanic Origin Total Population

Area	Category	Total Population	Population By Race					Persons of Hispanic origin
			White	African American	American Indian/ Alaska Native	Asian or Pacific Islander	other race	
Barrow Count	1990	29,721	25,962	3354	67	228	110	253
	2000	46,144	39,149	4483	139	1032	1341	1,460
	2004	56,418	48,457	6,246	198	1,653	N/A	3,124
	% Change 1990-2000	55.3%	50.8%	33.7%	107.5%	352.6%	1119.1%	477.1%
	% Change 2000-2004	22.3%	23.8%	39.3%	42.4%	60.2%	N/A	114.0%
Auburn	1990	3,139	2,988	46	1	39	65	108
	2000	6,904	6,131	182	21	292	278	300
	% Change 1990-2000	120%	105%	296%	2000%	649%	328%	178%
Braselton	1990	418	398	20	0	0	0	6
	2000	1,206	1,102	16	0	69	19	40
	% Change 1990-2000	189%	177%	-20%	N/A	N/A	N/A	567%
Bethlehem	1990	348	346	1	0	0	1	2
	2000	716	613	34	1	21	47	54
	% Change 1990-2000	106%	77.2%	3300%	N/A	N/A	4600%	2600%
Carl	1990	263	259	4	0	0	0	0
	2000	205	189	6	0	0	10	9
	% Change 1990-2000	-22.1%	-27.0%	50.0%	N/A	N/A	N/A	N/A
Statham	1990	1,360	1,052	299	3	2	4	10
	2000	2,040	1,680	299	14	11	36	47
	% Change 1990-2000	50.0%	59.7%	0%	367%	450%	800%	370%
Winder	1990	7,373	6,003	1,282	27	55	6	41
	2000	10,201	7,846	1,838	26	128	363	385
	% Change 1990-2000	38.4%	30.7%	43.4%	-3.7%	132.7%	5950%	839%

Source: U.S. Census Bureau; 2004 Estimates



Table 2-13 Race and Hispanic Origin Share of Population

Category	Year	White	African American	American Indian/ Alaska Native	Asian or Pacific Islander	other race	Persons of Hispanic origin
Barrow County	1990	87.4%	11.3%	0.2%	0.8%	0.4%	0.9%
	2000	84.8%	9.7%	0.3%	2.2%	2.9%	3.2%
	2004	85.9%	11.1%	0.4%	2.9%	N/A	5.5%
Auburn	1990	95.2%	1.5%	0.0%	1.2%	2.1%	3.4%
	2000	88.8%	2.6%	0.3%	4.2%	4.0%	4.3%
Bethlehem	1990	99.4%	0.3%	0.0%	0.0%	0.3%	0.6%
	2000	85.6%	4.7%	0.1%	2.9%	6.6%	7.5%
Braselton	1990	95.2%	4.8%	0.0%	0.0%	0.0%	1.4%
	2000	91.4%	1.3%	0.0%	5.7%	1.6%	3.3%
Carl	1990	98.5%	1.5%	0.0%	0.0%	0.0%	0.0%
	2000	92.2%	2.9%	0.0%	0.0%	4.9%	4.4%
Statham	1990	77.4%	22.0%	0.2%	0.1%	0.3%	0.7%
	2000	82.4%	14.7%	0.7%	0.5%	1.8%	2.3%
Winder	1990	81.4%	17.4%	0.4%	0.7%	0.1%	0.6%
	2000	76.9%	18.0%	0.3%	1.3%	3.6%	3.8%

Source: U.S. Census Bureau

2.3.2 Race and Ethnicity in Surrounding Counties

As indicated in Table 2-14, rapid growth of the population of persons of Hispanic origin in Barrow County exceeded that of any neighboring county between 2000 and 2004, according to Census estimates – growing 114%. As shown in Table 2-13, persons of Hispanic origin increased their share of the population from 3.2% in 2000 to 5.5% in 2004, according to the estimates. Providing bilingual services and education present a service challenge for the community.

Table 2-14 Race and Hispanic Origin of Surrounding Counties 2004

Category	Barrow	Clarke	Gwinnett	Hall	Jackson	Oconee	Walton
Population By Race							
White	85.0%	68.1%	71.1%	90.0%	90.1%	91.0%	83.7%
African American	10.6%	27.1%	18.0%	7.1%	7.5%	6.5%	14.3%
Other race	3.3%	3.7%	9.4%	2.2%	1.6%	1.9%	1.2%
Persons of Hispanic origin	5.5%	8.3%	15.2%	24.1%	3.4%	3.3%	2.4%
Persons of Hispanic origin % change (2000 to 2004)	114%	34%	66%	42%	34%	13%	48%

Source: U.S. Census Bureau, University of Georgia Center for Agribusiness & Economic Development



2.3.3 Race and Hispanic Origin Projections

Based on the trends established from 2000 to 2004, the share of population of persons of Hispanic origin should continue to grow over the next 25 years in Barrow County, as shown in Table 2-15 (Please note that Table 2-14 uses a 2005 estimate with a different source than the 2004 estimate used in Table 2-13.). While there are no major shifts in the racial and ethnic make up of the county projected, the growth of each group is likely to have implications for the types of goods and services demanded in the County’s commercial developments, as well as for publicly-provided services in schools and in the community. As the Hispanic population in particular rises, there will be a growing need in the County for educating non-English speaking residents. In accordance with these statistics, it is reasonable for Barrow County to anticipate gradual changes in the County’s overall make-up and for future services to be catered to a wider range of cultures.

Table 2-15 Race and Hispanic Origin Total Population Projections

Category	2005		2010		2015		2025		2030	
	Total	%								
White	44,394	84.8%	49,639	84.8%	54,884	84.8%	65,374	84.8%	70,619	84.7%
African American	4,818	9.2%	5,152	8.8%	5,487	8.5%	6,156	8.0%	6,490	7.8%
American Indian/ Alaska Native	172	0.3%	205	0.4%	237	0.4%	303	0.4%	336	0.4%
Asian or Pacific Islander	1,285	2.5%	1,539	2.6%	1,792	2.8%	2,298	3.0%	2,552	3.1%
Other race	1,673	3.2%	2,005	3.4%	2,337	3.6%	3,001	3.9%	3,333	4.0%
Persons of Hispanic origin	1,789	3.4%	2,119	3.6%	2,448	3.8%	3,106	4.0%	3,436	4.1%

Source: U.S. Census Bureau (population numbers for 2005 are estimates); DCA Projections

2.4 Income

2.4.1 Household Income

Household income distribution changes between 1990 and 2000 shifted a larger share of the County’s total households to higher income brackets as evidenced by a 32% drop in households earning under \$10,000 and large percentage increases in household earning over \$40,000 (shown in Table 2-16). Inflation and rising incomes both contributed to these shifts. Numbers of households within income categories of \$50,000 or more all increased by 254% or more. The largest percentage increase occurred in the \$125,000 to \$149,999 bracket where the number of households increased 803% – from 30 to 271 households.



Table 2-16 Household Income Distribution

Household Median Income Category	Barrow County					Atlanta MSA			State of Georgia		
	1990		2000		% Change 1990-2000	% of Total 1990	% of Total 2000	% Change 1990-2000	% of Total 1990	% of Total 2000	% Change 1990-2000
	Total	% of Total	Total	% of Total							
Total Households	10,642	100%	16,392	100%	54.0%	100%	100%	42.4%	100%	100%	27.1%
Less than \$10,000	1,900	17.9%	1,289	7.9%	-32.2%	11.1%	6.7%	-14.4%	16.8%	10.1%	-23.4%
\$10,000 - \$14,999	927	8.7%	939	5.7%	1.3%	6.2%	3.9%	-9.8%	8.6%	5.9%	-13.8%
\$15,000 - \$19,999	882	8.3%	840	5.1%	-4.8%	7.2%	4.4%	-13.6%	8.9%	5.9%	-15.4%
\$20,000 - \$29,999	2,063	19.4%	1,863	11.4%	-9.7%	15.9%	10.6%	-5.5%	17.1%	12.7%	-5.5%
\$30,000 - \$34,999	1,034	9.7%	1,094	6.7%	5.8%	7.9%	5.7%	3.1%	7.9%	6.2%	0.2%
\$35,000 - \$39,999	824	7.7%	999	6.1%	21.2%	7.2%	5.6%	11.0%	6.8%	5.9%	10.2%
\$40,000 - \$49,999	1,384	13.0%	2,215	13.5%	60.0%	12.7%	10.7%	20.1%	11.0%	10.9%	25.2%
\$50,000 - \$59,999	611	5.7%	2,164	13.2%	254.2%	9.6%	9.9%	46.2%	7.6%	9.2%	54.5%
\$60,000 - \$74,999	506	4.8%	2,160	13.2%	326.9%	9.4%	12.0%	83.2%	6.8%	10.5%	94.9%
\$75,000 - \$99,999	345	3.2%	1,597	9.7%	362.9%	6.9%	13.1%	167.7%	4.6%	10.4%	185.0%
\$100,000 - \$124,999	102	1.0%	693	4.2%	579.4%	2.7%	7.2%	285.2%	1.7%	5.2%	286.1%
\$125,000 - \$149,999	30	0.3%	271	1.7%	803.3%	1.1%	3.7%	380.7%	0.7%	2.5%	373.9%
\$150,000 +	34	0.3%	268	1.6%	688.2%	2.2%	6.6%	338.0%	1.4%	4.6%	313.2%

Source: U.S. Census Bureau

(Table 2-16 Continued)

Household Median Income Category	Auburn					Bethlehem				
	1990		2000		% Change 1990-2000	1990		2000		% Change 1990-2000
	Total	% of Total	Total	% of Total		Total	% of Total	Total	% of Total	
Total Households	1,106	100%	2,202	100%	99.1%	142	100%	242	100%	70.4%
Less than \$10,000	96	8.7%	36	1.6%	-62.5%	38	26.8%	20	8.3%	-47.4%
\$10,000 - \$14,999	49	4.4%	55	2.5%	12.2%	11	7.7%	9	3.7%	-18.2%
\$15,000 - \$19,999	63	5.7%	18	0.8%	-71.4%	10	7.0%	6	2.5%	-40.0%
\$20,000 - \$29,999	204	18.4%	234	10.6%	14.7%	32	22.5%	20	8.3%	-37.5%
\$30,000 - \$34,999	153	13.8%	171	7.8%	11.8%	15	10.6%	24	9.9%	60.0%
\$35,000 - \$39,999	108	9.8%	155	7.0%	43.5%	10	7.0%	17	7.0%	70.0%
\$40,000 - \$49,999	245	22.2%	341	15.5%	39.2%	10	7.0%	30	12.4%	200.0%
\$50,000 - \$59,999	96	8.7%	388	17.6%	304.2%	5	3.5%	46	19.0%	820.0%
\$60,000 - \$74,999	74	6.7%	376	17.1%	408.1%	1	0.7%	34	14.0%	3300.0%
\$75,000 - \$99,999	13	1.2%	271	12.3%	1984.6%	8	5.6%	20	8.3%	150.0%
\$100,000 - \$124,999	0	0.0%	112	5.1%	N/A	0	0.0%	5	2.1%	N/A
\$125,000 - \$149,999	3	0.3%	31	1.4%	933.3%	0	0.0%	5	2.1%	N/A
\$150,000 +	2	0.2%	14	0.6%	600.0%	2	1.4%	6	2.5%	200.0%

Source: U.S. Census Bureau



(Table Continued)

Household Median Income Category	Carl					Statham				
	1990		2000		% Change 1990-2000	1990		2000		% Change 90-2000
	Total	% of Total	Total	% of Total		Total	% of Total	Total	% of Total	
Total Households	100	100%	100	100%	0.0%	466	100%	750	100%	60.9%
Less than \$10,000	18	18.0%	11	11.0%	-38.9%	109	23.4%	76	10.1%	-30.3%
\$10,000 - \$14,999	10	10.0%	6	6.0%	-40.0%	48	10.3%	57	7.6%	18.8%
\$15,000 - \$19,999	10	10.0%	2	2.0%	-80.0%	44	9.4%	31	4.1%	-29.5%
\$20,000 - \$29,999	22	22.0%	17	17.0%	-22.7%	77	16.5%	99	13.2%	28.6%
\$30,000 - \$34,999	5	5.0%	2	2.0%	-60.0%	31	6.7%	61	8.1%	96.8%
\$35,000 - \$39,999	7	7.0%	4	4.0%	-42.9%	34	7.3%	49	6.5%	44.1%
\$40,000 - \$49,999	18	18.0%	15	15.0%	-16.7%	68	14.6%	130	17.3%	91.2%
\$50,000 - \$59,999	0	0.0%	2	2.0%	N/A	20	4.3%	84	11.2%	320.0%
\$60,000 - \$74,999	2	2.0%	13	13.0%	550.0%	25	5.4%	81	10.8%	224.0%
\$75,000 - \$99,999	2	2.0%	23	23.0%	1050.0%	5	1.1%	41	5.5%	720.0%
\$100,000 - \$124,999	3	3.0%	5	5.0%	66.7%	5	1.1%	26	3.5%	420.0%
\$125,000 - \$149,999	0	0.0%	0	0.0%	N/A	0	0.0%	8	1.1%	N/A
\$150,000 +	3	3.0%	0	0.0%	-100.0%	0	0.0%	7	0.9%	N/A

Source: U.S. Census Bureau

(Table Continued)

Household Median Income Category	Winder				
	1990		2000		% Change 1990-2000
	Total	% of Total	Total	% of Total	
Total Households	2,903	100%	3,815	100%	31.4%
Less than \$10,000	762	26.2%	564	14.8%	-26.0%
\$10,000 - \$14,999	319	11.0%	318	8.3%	-0.3%
\$15,000 - \$19,999	227	7.8%	306	8.0%	34.8%
\$20,000 - \$29,999	452	15.6%	464	12.2%	2.7%
\$30,000 - \$34,999	165	5.7%	213	5.6%	29.1%
\$35,000 - \$39,999	192	6.6%	229	6.0%	19.3%
\$40,000 - \$49,999	267	9.2%	459	12.0%	71.9%
\$50,000 - \$59,999	122	4.2%	338	8.9%	177.0%
\$60,000 - \$74,999	187	6.4%	322	8.4%	72.2%
\$75,000 - \$99,999	153	5.3%	348	9.1%	127.5%
\$100,000 - \$124,999	38	1.3%	116	3.0%	205.3%
\$125,000 - \$149,999	0	0.0%	75	2.0%	N/A
\$150,000 +	19	0.7%	63	1.7%	231.6%

Source: U.S. Census Bureau



2.4.2 Median Household Income

Median household income grew as the County added new households with higher levels of education and higher incomes between 1989 and 2004. However, the median income dipped between 2000 and 2004, reflecting state and national trends. As shown in Table 2-17, the median income was \$46,979 by 2004 after climbing to \$49,321 (in 2004 dollars) in 2000. Barrow County fared better than the state between 2000 and 2004 with a rate of change of -4.7%.

Table 2-17 Median Household Income

Area	1989 ¹	1995 ¹	2000 ¹	2004 Estimate	% Change 2000-2004	% Change 1990-2004
Barrow County	\$38,523	\$44,118	\$49,321	\$46,979	-4.7%	22.0%
State of Georgia	\$41,614	\$41,676	\$46,136	\$42,679	-7.5%	2.6%
United States	\$44,035	\$42,237	\$46,062	\$44,334	-3.8%	0.7%

¹ Adjusted for inflation to year 2004 dollars

Source: U.S. Census Bureau: Small Area Income & Poverty Estimates 1989, 1995, 2000, and 2004; Dollar adjustments provided by U.S. Bureau of Labor Statistics Consumer Price Index Inflation Calculator

2.4.3 Per Capita Income

Per capita income rose dramatically from 1990 to 2000, as captured in Table 2-18. The increase for the County was 64.5% between 1990 and 2000, compared to state and Atlanta MSA growth of 55.2% and 48.2%, respectively. In addition, the growth rate was 27.3% between 2000 and 2003, compared to 4.4% for the Atlanta MSA and 8.2% for the state over the same period. In contrast to household income, per capita income was lower for Barrow County than the Atlanta MSA and the state in 2000, and the 2003 estimate is still lower than the Atlanta MSA. This distinction is likely partly due to the larger average household size in Barrow County than in the Atlanta MSA and the state as a whole (2.79 versus 2.68 and 2.65, respectively).

Table 2-18 Per Capita Income

Area	1990	2000	2003 Estimate	% Change 1990-2000	% Change 2000-2003
Barrow County	\$11,156	\$18,350	\$23,360	64.5%	27.3%
Auburn	\$12,549	\$20,023	Not Available	59.6%	-
Bethlehem	\$14,979	\$17,214	Not Available	14.9%	-
Braselton	\$9,764	\$39,135	Not Available	300.8%	
Carl	\$14,045	\$20,948	Not Available	49.1%	-
Statham	\$9,552	\$15,783	Not Available	65.2%	-
Winder	\$11,878	\$17,108	Not Available	44.0%	-
Atlanta MSA	\$16,897	\$25,033	\$26,145	48.2%	4.4%
State of Georgia	\$13,631	\$21,154	\$22,879	55.2%	8.2%

Source: University of Georgia, Georgia Statistics System, University of Georgia Center for Agribusiness and Economic Development (estimate not available for cities in 2003), Atlanta MSA Estimate from Census 2003 ACS

For municipalities, Braselton, which lies mostly in Jackson County but extends into the northern area of Barrow County, saw a 300% increase in per capita income. This increase reflects a change of less than \$10,000 in 1990 to almost \$40,000 in 2000. Other municipalities in Barrow County saw rates of increase between 1990 and 2000 similar to or lower than the County as a whole.



2.4.4 Poverty

The total number and percent of all Barrow County residents living in households considered below the poverty thresholds set by USCB dropped between 1995 and 2000 according to USCB estimates, as shown in Table 2-19. However, numbers for the County followed state and national trends and rose significantly between 2000 and 2003. USCB estimated in 2003 that 10.1% of the County's residents lived in poverty, which represented a 24.2% increase from 2000. The 2003 estimates also showed that 14.3% of all children 17 and under, and 13.7% of children between the ages of 5 and 17 also lived in poverty.

Table 2-19 Poverty - Percent of Specified Age Groups in Poverty

	1995		2000		2003 Estimates		% Change 2000-03	% Change 1995-2003
All Ages in Poverty								
Barrow County	5,031	13.3%	4,563	9.5%	5,666	10.1%	24.2%	12.6%
Georgia	1,136,374	15.6%	1,006,329	12.3%	1,152,089	13.3%	14.5%	1.4%
United States	36,424,609	13.8%	31,581,086	11.3%	35,861,170	12.5%	13.6%	-1.5%
Ages 0-17 in Poverty								
Barrow County	2,048	19.1%	1,782	13.0%	2,244	14.3%	25.9%	9.6%
Georgia	470,855	23.5%	386,095	17.5%	444,368	19.1%	15.1%	-5.6%
United States	14,665,019	20.8%	11,587,118	16.2%	12,865,806	17.6%	11.0%	-12.3%
Ages 5-17 in Poverty								
Barrow County	1,379	18.8%	1,225	12.7%	1,533	13.7%	25.1%	11.2%
Georgia	308,614	22.1%	252,326	16.1%	291,342	17.8%	15.5%	-5.6%
United States	9,306,018	18.7%	7,536,575	14.6%	8,399,573	16.1%	11.5%	-9.7%

Source: U.S. Census Bureau: Small Area Income & Poverty Estimates 1995, 2000 and 2003; Model-based Estimates for States, Counties and School Districts



The percentage of the population living in poverty shrank in each category from 1990 to 2000, as shown in Table 2-20 and Table 2-21. Poverty rates were lower in each category than for the Atlanta MSA or the state, with the exception of the number of residents over 65 in poverty. This figure was slightly higher than the state average.

Table 2-20 Percentage of the Total Population in Poverty for Individuals

Area	Year	Individuals (all individuals below poverty)	Persons 18 and over below Poverty	Persons 65 and over	With Related Children Under 18	With Related children 5 to 17	With unrelated individuals
Barrow County	1990	14.65%	13.64%	21.56%	14.84%	15.74%	38.91%
	2000	8.29%	7.94%	14.38%	8.02%	9.02%	20.27%
Auburn	1990	7.82%	7.46%	23.68%	6.30%	7.79%	23.82%
	2000	5.21%	4.20%	0%	5.29%	6.23%	3.67%
Bethlehem	1990	18.25%	16.67%	25.00%	24.32%	25.00%	50.00%
	2000	6.71%	7.98%	24.14%	8.11%	10.71%	25.64%
Braselton	1990	12.29%	10.70%	19.18%	16.39%	12.20%	28.00%
	2000	6.31%	6.13%	12.61%	6.85%	8.55%	25.56%
Carl	1990	7.69%	9.30%	30.30%	0%	0%	51.43%
	2000	6.06%	5.83%	10.87%	4.35%	0%	20.00%
Statham	1990	20.81%	17.82%	23.70%	24.23%	26.21%	42.65%
	2000	12.71%	12.12%	27.39%	11.78%	12.93%	27.49%
Winder	1990	20.32%	18.79%	25.86%	22.79%	22.92%	44.96%
	2000	13.11%	12.70%	16.82%	13.42%	15.10%	30.41%
Atlanta MSA	1990	10.04%	8.67%	14.28%	11.03%	11.27%	18.70%
	2000	9.40%	8.41%	9.98%	9.56%	9.89%	16.07%
State of Georgia	1990	14.70%	12.60%	20.40%	15.98%	18.90%	27.40%
	2000	12.99%	11.47%	13.55%	13.90%	14.45%	24.40%

Source: U.S. Census Bureau (SF3), 2000 Tables P87, P89, P90; and 1990 Tables P117, P122, and P123.



Table 2-21 Poverty Status for Family and Female-Headed Households

Area	Year	Poverty Status for Family Households			Poverty Status for Female-headed Households		
		Families (all families below poverty line)	With related children under 18	With related children under 5	Female householder, no husband (all)	With related children under 18	With Related children 5 to 17
Barrow County	1990	10.62%	14.84%	14.91%	29.25%	41.09%	38.14%
	2000	6.15%	8.02%	6.66%	19.23%	26.76%	27.53%
Auburn	1990	5.36%	6.30%	7.26%	12.24%	15.79%	13.64%
	2000	3.57%	5.29%	5.14%	12.72%	18.80%	19.47%
Bethlehem	1990	11.00%	24.32%	23.53%	20.00%	42.86%	42.86%
	2000	4.39%	8.11%	0%	22.22%	25.00%	28.57%
Braselton	1990	11.40%	16.39%	24.14%	33.33%	50.00%	41.67%
	2000	4.07%	6.85%	1.54%	21.43%	35.29%	67%
Carl	1990	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	2000	1.47%	4.35%	20.00%	0.00%	NA	NA
Statham	1990	17.13%	24.23%	19.32%	43.28%	55.56%	60.98%
	2000	10.42%	11.78%	10%	29.41%	35.56%	36.21%
Winder	1990	14.49%	22.79%	25.35%	35.32%	51.53%	46.44%
	2000	10.25%	13.42%	11.22%	24.32%	32.14%	34.42%
Atlanta MSA	1990	7.68%	11.03%	13.77%	25.32%	33.51%	32.48%
	2000	6.86%	9.56%	11.81%	20.74%	25.90%	25.28%
State of Georgia	1990	11.45%	15.98%	19.56%	34.35%	44.33%	43.53%
	2000	9.90%	13.90%	16.79%	28.48%	35.35%	34.39%

Source: U.S. Census Bureau (SF3), 2000 Table P90



Table 2-22 outlines the poverty thresholds for 2005 as determined by USCB. USCB uses these income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but USCB updates for inflation using the Consumer Price Index. The official poverty definition uses money income before taxes and does not include capital gains or non-cash benefits (such as public housing, Medicaid, and food stamps).

Table 2-22 Poverty Thresholds for 2005

Size of family unit	Related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person									
Under 65	\$10,160								
65 and over	\$9,367								
Two persons									
Householder under 65	\$13,078	\$13,461							
Householder 65 and over	\$11,805	\$13,410							
Three persons	\$15,277	\$15,720	\$15,735						
Four persons	\$20,144	\$20,474	\$19,806	\$19,874					
Five persons	\$24,293	\$24,646	\$23,891	\$23,307	\$22,951				
Six persons	\$27,941	\$28,052	\$27,474	\$26,920	\$26,096	\$25,608			
Seven persons	\$32,150	\$32,350	\$31,658	\$31,176	\$30,277	\$29,229	\$28,079		
Eight persons	\$35,957	\$36,274	\$35,621	\$35,049	\$34,237	\$33,207	\$32,135	\$31,862	
Nine persons or more	\$43,254	\$43,463	\$42,885	\$42,400	\$41,603	\$40,507	\$39,515	\$39,270	\$37,757

Source: U.S. Census Bureau 2005

2.5 Education

2.5.1 Educational Attainment

Educational attainment improved more substantially for the County than for the state between 1990 and 2000, as shown in Table 2-23, but remained lower overall with a smaller share of graduate or professional degrees and bachelor's degrees than the state as a whole. This improvement suggests that new residents have contributed to the County's educational attainment progress and that these numbers should continue to climb as growth continues. The increase may also reflect the results of efforts by various County organizations to improve educational attainment in Barrow County.



Table 2-23 Educational Attainment by Share of the Population 25 Years and Older

Category	Barrow County			Atlanta MSA			State of Georgia		
	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000
Less than 9th Grade	16.1%	9.3%	8.8%	7.2%	5.4%	10.1%	12.0%	7.6%	-18.7%
9th to 12th Grade (No Diploma)	25.0%	17.4%	10.7%	13.2%	10.6%	17.1%	17.1%	13.8%	4.7%
High School Graduate (Includes Equivalency)	32.0%	36.0%	78.5%	26.7%	24.4%	34.1%	29.6%	28.7%	24.6%
Some College (No Degree)	13.7%	20.9%	141.4%	20.3%	21.8%	58.0%	17.0%	20.4%	54.8%
Associate Degree	3.8%	5.5%	129.2%	5.8%	5.7%	43.6%	5.0%	5.2%	35.3%
Bachelor's Degree	6.1%	7.8%	104.1%	18.5%	21.6%	71.3%	12.9%	16.0%	59.7%
Graduate or Professional Degree	3.1%	3.1%	58.1%	8.3%	10.4%	84.6%	6.4%	8.3%	67.1%
Category	Auburn			Bethlehem			Braselton		
	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000
Less than 9th Grade	6.4%	5.9%	98.3%	24.5%	14.0%	0.0%	29.2%	6.7%	-32.0%
9th to 12th Grade (No Diploma)	17.4%	14.3%	75.6%	29.7%	15.4%	-9.5%	22.6%	8.9%	17.2%
High School Graduate (Includes Equivalency)	33.7%	38.1%	142%	27.3%	40.8%	162%	26.5%	26.1%	193%
Some College (No Degree)	23.8%	24.2%	117%	9.2%	19.0%	261%	13.2%	24.9%	459%
Associate Degree	7.3%	7.2%	112%	1.6%	6.2%	575%	2.7%	7.1%	671%
Bachelor's Degree	9.9%	8.2%	76.4%	3.6%	4.6%	122%	5.1%	19.8%	1062%
Graduate or Professional Degree	1.4%	2.0%	200%	4.0%	0.0%	-100%	0.8%	6.6%	2400%
Category	Carl			Winder			Statham		
	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000
Less than 9th Grade	13.1%	14.9%	40.0%	25.8%	12.9%	-20.5%	16.3%	12.8%	8.9%
9th to 12th Grade (No Diploma)	13.1%	18.1%	70.0%	27.6%	21.0%	20.9%	23.1%	17.1%	2.8%
High School Graduate (Includes Equivalency)	35.9%	41.5%	41.8%	30.1%	37.7%	99.6%	28.5%	32.2%	56.5%
Some College (No Degree)	11.1%	17.6%	94.1%	8.6%	16.0%	197%	14.0%	19.8%	96.0%
Associate Degree	2.6%	0.5%	-75.0%	2.8%	2.9%	65.2%	3.4%	4.4%	81.3%
Bachelor's Degree	16.3%	1.1%	-92.0%	3.1%	7.4%	284%	8.6%	8.4%	34.5%
Graduate or Professional Degree	7.8%	6.4%	0.0%	2.0%	2.1%	68.8%	6.1%	5.3%	20.3%

Source: U.S. Census Bureau

Note: Percent Change represents the change in the total numbers for each category



3 Economic Development

Data collected for and analyzed in this section comes from a variety of sources that include the Winder-Barrow County Development Authority, Winder-Barrow Chamber of Commerce, Georgia Bureau of Labor, Georgia Department of Economic Development, USCB, U.S. Bureau of Labor Statistics, and the University of Georgia Center for Agribusiness and Economic Development. As a result of the various methods for categorizing data employed by each organization, some of the figures will seem inconsistent. For example, the total number of jobs in Barrow County reflected in the Shift-Share Analysis obtained from the University of Georgia Center for Agribusiness and Economic Development only includes jobs categorized by the U.S. Bureau of Labor into 11 sectors, The U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages shows a higher number because it includes all jobs in Barrow County as reported.

On another important note, understanding the following sub-sections requires an understanding of the difference between the definitions of *employment* and *labor force* for the purpose of this analysis. *Employment* represents the jobs located in Barrow County with no concern for where the employees live. *Labor force* represents the eligible working population of Barrow County with no concern for the location of the job.

3.1 Economic Base

3.1.1 Employment

The annual average number of jobs in Barrow County from 2001 through 2004 rose more significantly than the state and nation (latest data available), as shown in Table 3-1. The 10.2% average annual growth rate between 2001 and 2004 allowed for an estimated total of 15,098 jobs in Barrow County, in contrast to the state and national employment losses experienced during 2001, 2002, and 2003.

Table 3-1 Number of Employees

Year	Barrow County	Atlanta MSA	State of Georgia	United States
2001	11,284	2,177,725	3,871,763	129,635,800
2002	11,717	2,158,432	3,807,915	128,233,919
2003	12,646	2,147,191	3,783,232	127,795,827
2004	15,098	2,180,614	3,840,663	129,278,176
% Change 1990-2000	--	--	33.2%	19.6%
% Change 2000-2004	33.8%	0.1%	-1.9%	-0.5%
Annual % of Change 2000-2004	10.2%	0.0%	-0.3%	-0.1%

Source: U.S. Bureau of Labor Statistics - Quarterly Census of Employment and Wages 2006

As shown in Table 3-2 the average monthly employment in Barrow County increased 65.8% between 1990 and 2005, including an increase of 21.9% from 2000 to 2005. Average monthly employment in Tables 3-2 and 3-3 represent jobs covered by unemployment insurance legislation. Table 3-3 compares the County's 2005 average monthly employment by industrial sector to that of the MSA, state and nation. County employment increased by 6,618 jobs between 1990 and 2005 to 14,156. Service Producing sectors increased their share of employment from 39.7% to 55% between 1990 and 2005. The Services and Local Government sectors employed the largest shares of the total employment at 32%, 16% and 16% respectively in 2005. The Manufacturing sector, however, declined by 884, a 28.5% decline, between 1990 and 2005. The Services, Wholesale Trade, and Construction sectors grew significantly from 1990 to 2005 at rates of 518.0%, 308.2% and 234% respectively. The Retail Trade sector grew from 1990 to 2005 overall, but declined by 29% from 2000 to 2005. , but continues to make up 16.5% of the jobs in the County, compared to only 11.5% of the jobs in the state.



Table 3-2 Historic County Average Monthly Employment

Industrial Sector	1990		1995		2000		2005		% Change 1990-2005	%Change 2000-2005
	Count	%	Count	%	Count	%	Count	%		
Goods Producing	3,677	43.1%	3,639	38.8%	4,026	34.7%	3,729	26.3%	1.4%	-7.4%
Agriculture, forestry and fishing	187	2.2%	215	2.3%	268	2.3%	-	0.0%	-100.0%	-100.0%
Mining	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	-
Construction	389	4.6%	523	5.6%	755	6.5%	1,302	9.2%	234.7%	72.5%
Manufacturing	3,101	36.3%	2,901	30.9%	3,003	25.9%	2,217	15.7%	-28.5%	-26.2%
Service Producing	3,389	39.7%	3,944	42.1%	5,199	44.8%	7,765	54.9%	129.1%	49.4%
Wholesale Trade	139	1.6%	259	2.8%	314	2.7%	859	6.1%	518.0%	173.6%
Retail Trade	1,536	18.0%	1,992	21.2%	2,469	21.3%	1,731	12.2%	12.7%	-29.9%
Transportation, warehousing and utilities	234	2.7%	214	2.3%	461	4.0%	294	2.1%	25.6%	-36.2%
Finance, insurance and real estate	372	4.4%	297	3.2%	342	2.9%	322	2.3%	-13.4%	-5.8%
Services	1,108	13.0%	1,182	12.6%	1,613	13.9%	4,523	32.0%	308.2%	180.4%
Government	1,420	16.6%	1,766	18.8%	2,278	19.6%	2,651	18.7%	86.7%	16.4%
Federal	146	1.7%	136	1.5%	149	1.3%	146	1.0%	0.0%	-2.0%
State	165	1.9%	166	1.8%	119	1.0%	189	1.3%	14.5%	58.8%
Local	1,109	13.0%	1,464	15.6%	2,010	17.3%	2,316	16.4%	108.8%	15.2%
All Industries	8,538	100%	9,375	100%	11,612	100%	14,156	100%	65.8%	21.9%

Source: Georgia Department of Labor

Table 3-3 County, MSA, State and Federal Comparison of Average Monthly Employment

Industrial Sector	Barrow County		Atlanta MSA		State of Georgia		USA	
	2005	%	2005	%	2005	%	2005	%
Goods Producing	3,729	26.3%	309,426	13.8%	692,373	17.6%	22,847,530	17.6%
Agriculture, forestry and fishing	-	0.0%	2,303	0.1%	25,461	0.6%	1,156,528	0.9%
Mining	-	0.0%	,592	0.1%	6,947	0.2%	519,868	0.4%
Construction	1,302	9.2%	128,117	5.7%	209,343	5.3%	6,912,943	5.3%
Manufacturing	2,217	15.7%	177,415	7.9%	450,622	11.5%	14,258,191	11.0%
Service Producing	7,765	54.9%	1,619,979	72.4%	2,588,736	65.9%	85,400,261	65.7%
Wholesale Trade	859	6.1%	141,922	6.3%	212,190	5.4%	5,641,492	4.3%
Retail Trade	1,731	12.2%	256,022	11.4%	460,002	11.7%	15,059,622	11.6%
Transportation, warehousing and utilities	294	2.1%	116,701	5.2%	173,728	4.4%	7,673,831	5.9%
Finance, insurance and real estate	322	2.3%	151,330	6.8%	221,862	5.6%	7,892,313	6.1%
Services	4,523	32.0%	954,004	42.7%	1,520,954	38.7%	49,133,003	37.8%
Government	2,651	18.7%	305,397	13.7%	643,431	16.4%	21,700,000	16.7%
Federal	146	1.0%	46,090	2.1%	94,054	2.4%	2,706,000	2.1%
State	189	1.3%	58,670	2.6%	150,416	3.8%	5,020,000	3.9%
Local	2,316	16.4%	200,637	9.0%	398,961	10.1%	13,974,000	10.8%
All Industries	14,156	100%	2,236,258	100%	3,931,161	100%	129,947,791	100%

Source: Georgia Department of Labor



3.1.2 Employment Projections

Barrow County’s total employment is also expected to increase significantly. As shown in Table 3-4, the employment is projected to increase between 43,931 and 44,526 by 2030, an almost 180% increase. This employment growth was forecasted based on an average annual growth rate of 4.2%. Annual growth rate estimates for population over this same period ranged from 1.9% to 4.5%, with three of the four estimates between 4.1% and 4.5%. Forecasts developed by the Atlanta Regional Commission (ARC) are also provided. The ARC acts as the Metropolitan Planning Organization (MPO) for the 18-county Atlanta region including Barrow County, which is a federally-designated area for regional transportation planning to meet air quality standards.

The forecasted job growth appears to be well matched with forecasted population growth. It is expected that the current trend of residents commuting to work outside the county will continue.

Table 3-4 Employment Projections

Year	Number of Jobs	
	MACTEC	ARC Trip Generation Model
2005	15,882	14,853
2010	19,466	19,336
2015	23,859	NA
2020	29,243	NA
2025	35,842	NA
2030	43,931	44,526
Growth Rate 2005-2030	176.6%	
Ave. Annual Growth Rate	4.2%	

1990-2004 Data Source: University of Georgia, Georgia Statistics System, University of Georgia Center for Agribusiness and Economic Development and U.S. Bureau of Labor Statistics' Census of Employment and Wages 2004; MACTEC employment projection based on average annual growth rate observed between 1990 and 2004. Other projections provided by Atlanta Regional Commission



3.1.3 Wages

While Barrow County median household incomes exceed the state and national median household income, the weekly wages and annual pay offered by employers located in the County is lower than the Atlanta MSA, the state, and the national figures. County average weekly wages for all industries (with the exception of forestry) shown in Table 3-5, were lower than the Atlanta MSA, the state, and the national figures.

Table 3-5 Weekly Wages by Industry 2004

NAICS Sector	Barrow County	Atlanta MSA	State of Georgia	United States	Barrow County Growth Rates (%)		
					Business	Employment	Wage
Agriculture, Forestry, Fishing and Hunting*	\$574	\$609	\$432	\$429	NA	NA	NA
Construction	\$606	\$864	\$739	\$779	10.67	14.12	8.25
Manufacturing	\$664	\$954	\$798	\$920	5.56	-2.31	12.8
Wholesale Trade	\$587	\$1,208	\$1,084	\$1,025	5.56	-19.12	24.7
Retail	\$458	\$515	\$464	\$470	2.29	-5.37	5.71
Transportation and Warehousing	\$694	\$893	\$870	\$747	6.25	13.64	7.8
Information*	\$1,141	\$1,413	\$1,180	\$1,168	NA	NA	NA
Finance and Insurance	\$709	\$1,376	\$1,176	\$1,348	9.09	4.14	2.25
Real Estate and Rental and Leasing	\$356	\$928	\$769	\$717	11.63	-2.65	5.9
Professional, Scientific, and Technical Services	\$598	\$1,300	\$1,135	\$1,203	25	13.67	-2.84
Administrative and Support and Waste Management and Remediation Services	\$487	\$603	\$528	\$523	261.97	243.99	-9.65
Educational Services	\$382	\$801	\$705	\$681	50	127.78	-1.98
Health Care and Social Assistance	\$248	\$803	\$723	\$706	1.96	17.16	5.5
Arts, Entertainment, and Recreation	\$260	\$654	\$525	\$531	NA	NA	NA
Accommodation and Food Services	\$209	\$311	\$270	\$283	0	7.67	-0.96
Other Services (except Public Administration)	\$394	\$574	\$498	\$484	1.45	12.44	5.58
All industries	\$546	\$832	\$728				

Wage Information not available for Barrow County; wage is for Barrow County Area

Source: Georgia Department of Labor, Workforce Information and Analysis Division.



Average weekly wage and annual pay for all industries, shown in Table 3-6, trailed the state and nation. The average weekly wage of \$546 in the County was 66% of the average Atlanta MSA wage of \$832, 75% of the state average weekly wage of \$728, and 72% of the national average weekly wage of \$757 in 2004, as shown in Table 3-7. The average annual pay amounted to similar percentages of the Atlanta MSA, the state, and the nation in 2004 (figures not yet available for 2005). In addition, the annual rate of change in pay was lower for Barrow County than for the Atlanta MSA, the state, and the nation, indicating that this imbalance is not improving over the short term.

Table 3-6 Average Employment Wages for All Industries

Year	Average Weekly Pay				Average Annual Pay			
	Barrow County	Atlanta MSA	State of Georgia	United States	Barrow County	Atlanta MSA	State of Georgia	United States
2001	\$520	\$775	\$676	\$697	\$27,041	\$40,325	\$35,136	\$36,219
2002	\$525	\$786	\$687	\$707	\$27,299	\$40,892	\$35,734	\$36,764
2003	\$535	\$807	\$704	\$726	\$27,836	\$41,959	\$36,626	\$37,765
2004	\$546	\$832	\$728	\$757	\$28,372	\$43,250	\$37,866	\$39,354
% Change 2001-2004	5.00%	7.35%	7.70%	8.60%	4.92%	7.25%	7.80%	8.70%
% Annual Change 2001-2004	1.23%	1.79%	1.90%	2.20%	1.21%	1.77%	1.90%	2.20%

Source: U.S. Bureau of Labor Statistics - Quarterly Census of Employment and Wages 2006

Table 3-7 Average Pay as Percentage of Atlanta MSA, State and Nation

Pay Period	Atlanta MSA	State of Georgia	United States
Average Weekly Pay (2004)	66%	75%	72%
Average Annual Pay (2004)	66%	75%	72%

Source: U.S. Bureau of Labor Statistics - Quarterly Census of Employment and Wages 2006

3.2 Labor Force

3.2.1 Participation

The Barrow County labor force grew by 65.1% between 1990 and 2000 (as shown in Table 3-8), which amounts to an average annual growth rate of 5.1%. This figure is slightly lower than the County's 5.5% population growth experienced during the same period.

Table 3-8 Historical Labor Force Size

Labor Force	Barrow County	Atlanta MSA	State of Georgia	United States
1990	15,266	1,714,645	3,300,136	125,840,000
2000	25,197	2,372,493	4,233,388	142,583,000
2006	30,559	2,627,597	4,676,358	150,696,000
Growth Rate 1990-2000	65.1%	38.4%	28.3%	13.3%
Average Annual Growth Rate 1990-2000	5.1%	3.3%	2.5%	1.3%
Growth Rate 2000-2006	21.3%	10.8%	10.5%	5.7%
Average Annual Growth Rate 2000-2006	3.3%	1.7%	1.7%	0.9%
Growth Rate 1990-2006	100.2%	53.2%	41.7%	19.8%
Average Annual Growth Rate 1990-2006	4.4%	2.7%	2.2%	1.1%

Source: U.S. Bureau of Labor Statistics, Georgia Department of Labor; 2006 Data are for May (unadjusted)



3.2.2 Employment Status

Table 3-9 presents data on the characteristics of the Barrow County labor force. In 2000, almost 70% of all persons 16 years and over were in the labor force. Almost 80% of males in that age group were in the labor force compared to 60% of females.

Table 3-9 Labor Force Employment Status

Category	Total		Male		Female	
	Total	% of Total	Total	% of Total	Total	% of Total
Population 16 years and over	34,376	100	16,707	100	17,669	100
In labor force	23,898	69.5	13,293	79.6	10,605	60
Armed forces	28	0.1	28	0.2	0	0
Civilian labor force	23,870	69.4	13,265	79.4	10,605	60
Employed	22,874	66.5	12,761	76.4	10,113	57.2
Unemployed	996	2.9	504	3	492	2.8
% of civilian labor force	4.2	(X)	3.8	(X)	4.6	(X)
Not in labor force	10,478	30.5	3,414	20.4	7,064	40

Source: U.S. Census Bureau SF3 2000

3.2.3 Occupations

The share of Barrow County residents in occupation categories, shown in Table 3-10, was similar to the shares for the same categories for the state. Twenty-three percent of the labor force held management, professional and related occupations, compared to 30% of the state and 37.5% of the Atlanta MSA labor force. Slightly higher percentages of people were employed in construction and production/transportation categories in Barrow County compared to the Atlanta MSA and the state.

Table 3-10 Labor Force Employment by Occupation 2000

Occupation	Barrow County	Auburn	Bethlehem	Carl	Statham	Winder	Atlanta MSA	State of Ga.
Management, professional, and related occupations	22.5%	23.5%	14.6%	30.9%	17.8%	25.8%	37.5%	30.6%
Service occupations	11.3%	9.9%	13.8%	8.1%	12.4%	14.7%	12.1%	12.7%
Sales and office occupations	28.1%	29.0%	35.0%	23.6%	27.3%	27.4%	28.7%	26.7%
Farming, fishing, and forestry occupations	0.4%	0.0%	0.6%	0.0%	0.2%	0.4%	0.2%	0.4%
Construction, extraction, and maintenance occupations	16.3%	17.7%	21.2%	19.5%	13.6%	11.8%	10.0%	11.8%
Production, transportation, and material moving occupations	21.4%	19.9%	14.9%	17.9%	28.8%	19.9%	11.6%	17.7%

Source: U.S. Census Bureau (SPF 3) 2000, Table P50



3.2.4 Personal Income

County residents received more than 79% of their personal income from wages and salaries in 2000, compared to 78.2% for the state, as shown in Table 3-11. They received 3.3% of their personal income from interest, dividends or net rental, while the state as a whole received 5.3% of its personal income by that means. Approximately 7% of the county's personal income came from self employment, a higher percentage than that of the state (5.6%). Retirement income made up 3.9% of the personal income in the county, a lower percentage than that of the state.

Table 3-11 Personal Income

Category	Barrow County		Winder		Atlanta MSA		State of Georgia	
	1990	2000	1990	2000	1990	2000	1990	2000
Wages and/or Salaries	78.8%	79.6%	71.3%	72.6%	81.3%	93.6%	78.5%	78.2%
Other types	1.3%	1.3%	1.9%	1.9%	0.9%	1.5%	1.1%	1.7%
Self employment	5.6%	6.9%	4.5%	5.6%	6.2%	6.4%	6.3%	5.6%
Interest, dividends, or net rental	4.5%	3.3%	8.3%	6.7%	5.6%	5.8%	5.6%	5.3%
Social Security	5.7%	4.3%	8.5%	6.9%	3.0%	3.2%	4.3%	4.0%
Public assistance	0.8%	0.7%	1.0%	1.2%	0.4%	0.1%	0.7%	0.0%
Retirement	3.2%	3.9%	4.5%	5.1%	2.7%	4.0%	3.4%	4.6%

Source: U.S. Bureau of the Census (SF3)

3.2.5 Unemployment

The unemployment rate for Barrow County has improved significantly between 1990 and 2004, especially since about 1996, as shown in Table 3-12. The level of unemployment rose to 4.6 percent in 2002 during the national economic recession, but likely benefited from the economic rebound and dropped slightly since.

Table 3-12 Historical Labor Force Unemployment Rates

Year	Barrow County	Atlanta MSA	State of Georgia	United States	Year	Barrow County	Atlanta MSA	State of Georgia	United States
1990	7.3%	4.7%	5.5%	5.6%	1998	4.0%	3.3%	4.2%	4.5%
1991	6.0%	4.8%	5.0%	6.8%	1999	2.8%	3.0%	3.8%	4.2%
1992	7.6%	6.2%	7.0%	7.5%	2000	3.0%	3.1%	3.5%	4.0%
1993	6.7%	5.4%	5.8%	6.9%	2001	3.8%	3.6%	4.0%	4.7%
1994	5.1%	4.6%	5.2%	6.1%	2002	4.6%	4.9%	4.9%	5.8%
1995	5.4%	4.3%	4.9%	5.6%	2003	4.5%	4.8%	4.8%	6.0%
1996	3.8%	3.8%	4.6%	5.4%	2004	4.3%	4.8%	4.8%	5.5%
1997	4.0%	3.7%	4.5%	4.9%					

Source: U.S. Bureau of Labor Statistics



3.2.6 Labor Force Employment by Industry

As the County's labor force grows the number of residents over the age of 16 in each industry will also grow. Table 3-13 shows the projections for the industries that will absorb the new growth. It is important to keep in mind that this information reflects the labor force of Barrow County, and does not reflect the jobs that will actually locate in the county over the next 25 years. Ideally, the county would attract jobs in the high growth industries in order to provide opportunities for new residents to live near their jobs.

Table 3-13 Labor Force Employment by Industry

Category	Barrow County			Winder			Atlanta MSA	State of Georgia
	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000	% Change 1990-2000	% Change 1990-2000
Total Employed Civilian Population	13,875	22,874	64.9%	3,120	4,381	40.4%	33.9%	24.3%
Agriculture, Forestry, Fishing, hunting and mining	426	192	-54.9%	64	7	-89.1%	-62.0%	-35.5%
Construction	1,616	3,128	93.6%	196	439	124.0%	64.2%	42.1%
Manufacturing	3,625	4,332	19.5%	844	757	-10.3%	15.6%	-2.8%
Wholesale Trade	897	1,175	31.0%	180	242	34.4%	-6.6%	-5.6%
Retail Trade	2,017	3,124	54.9%	510	563	10.4%	-0.4%	-9.7%
Transportation, warehousing, and utilities	1,037	1,385	33.6%	175	228	30.3%	43.5%	-12.2%
Information	NA	519	NA	NA	116	NA	NA	NA
Finance, Insurance, and Real Estate	767	1,288	67.9%	259	256	-1.2%	167.8%	24.7%
Professional, scientific, management, administrative, and waste management services	522	1,469	181.4%	81	272	235.8%	101.5%	139.9%
Educational, health and social services	1,508	3,067	103.4%	426	637	49.5%	45.0%	46.5%
Arts, entertainment, recreation, accommodation, and food services	103	1,181	1046.6%	43	364	746.5%	-23.5%	760.0%
Other Services	802	1,075	34.0%	220	279	26.8%	-4.1%	-31.7%
Public Administration	555	939	69.2%	122	221	81.1%	21.2%	15.6%

Source: U.S. Census Bureau (SF3)



Table 3-14 Share of Labor Force Employment by Industry

Category	Barrow County		Winder		Atlanta MSA		State of Georgia	
	1990	2000	1990	2000	1990	2000	1990	2000
Agriculture, Forestry, Fishing, hunting and mining	3.1%	0.8%	2.1%	0.2%	1.3%	0.4%	2.7%	1.4%
Construction	11.6%	13.7%	6.3%	10.0%	6.5%	8.0%	6.9%	7.9%
Manufacturing	26.1%	18.9%	27.1%	17.3%	12.8%	11.1%	18.9%	14.8%
Wholesale Trade	6.5%	5.1%	5.8%	5.5%	6.4%	4.5%	5.1%	3.9%
Retail Trade	14.5%	13.7%	16.3%	12.9%	16.0%	11.9%	16.5%	12.0%
Transportation, warehousing, and utilities	7.5%	6.1%	5.6%	5.2%	6.4%	6.9%	8.5%	6.0%
Information	NA	2.3%	NA	2.6%	NA	5.0%	NA	3.5%
Finance, Insurance, and Real Estate	5.5%	5.6%	8.3%	5.8%	4.0%	8.0%	6.5%	6.5%
Professional, scientific, management, administrative, and waste management services	3.8%	6.4%	2.6%	6.2%	8.4%	12.6%	4.9%	9.4%
Educational, health, and social services	10.9%	13.4%	13.7%	14.5%	14.4%	15.6%	14.9%	17.6%
Arts, entertainment, recreation, accommodation, and food services	0.7%	5.2%	1.4%	8.3%	12.5%	7.2%	1.0%	7.1%
Other Services	5.8%	4.7%	7.1%	6.4%	6.6%	4.7%	8.6%	4.7%
Public Administration	4.0%	4.1%	3.9%	5.0%	4.7%	4.2%	5.4%	5.0%

Source: U.S. Census Bureau (SF3)



Table 3-15 Labor Force Employment by Industry Projections

Category	2000	2005	2010	2015	2020	2025	2030	% Change 2000-2030
Total Employed Civilian Population	22,874	26,620	30,365	34,485	38,605	43,137	47,669	108.4%
Agriculture, Forestry, Fishing, hunting & mining	192	172	152	131	109	85	61	-68.2%
Construction	3,128	3,784	4,441	5,163	5,885	6,679	7,474	138.9%
Manufacturing	4,332	4,441	4,551	4,671	4,792	4,924	5,057	16.7%
Wholesale Trade	1,175	1,411	1,646	1,906	2,165	2,450	2,735	132.8%
Retail Trade	3,124	3,650	4,177	4,756	5,335	5,972	6,608	111.5%
Transportation, warehousing, and utilities	1,385	1,614	1,842	2,093	2,345	2,621	2,898	109.2%
Information	519	NA						
Finance, Insurance, & Real Estate	1,288	1,556	1,823	2,117	2,412	2,736	3,059	137.5%
Professional, scientific, management, administrative, and waste management services	1,469	1,804	2,139	2,508	2,877	3,283	3,688	151.1%
Educational, health and social services	3,067	3,664	4,261	4,917	5,573	6,295	7,017	128.8%
Arts, entertainment, recreation, accommodation and food services	1,181	1,428	1,675	1,947	2,219	2,518	2,818	138.6%
Other Services	1,075	1,321	1,567	1,838	2,109	2,407	2,704	151.5%
Public Administration	939	1,112	1,286	1,476	1,667	1,876	2,086	122.2%

Source: U.S. Census Bureau (SF3); DCA projections (shaded) prepared with a multiplier of 1.1 to accommodate for the growth identified in the labor force between 2000 and 2004

3.2.7 Commuting Patterns

As shown in Table 3-16, 34.3% of the Barrow County labor force worked in the County in 2000. More than 36% worked in suburban Gwinnett County, and significant numbers also commuted to Clarke (Athens), DeKalb, and Fulton counties. In 2000, a large percentage of the working population went to work in other counties leaving only 7,751 (62% of all county workers) to work at the 12,557 reported jobs. The remaining county employment comes from a scattering of other counties, including Gwinnett, Jackson, and Clarke, with smaller contributions from additional counties.

Table 3-16 Commuting Patterns – Inside/Outside County

Category	1990		2000		% Change 1990-2000
Total Civilian Workforce	29,721	100.0%	46,144	100.0%	55.3%
Worked in State of Georgia	13,588	45.7%	22,539	48.8%	65.9%
In Barrow County	6,509	21.9%	7,751	16.8%	19.1%
Outside of Barrow County	7,079	23.8%	14,788	32.0%	108.9%
Worked outside of State of Georgia	45	0.2%	77	0.2%	71.1%

Source: U.S. Census Bureau (SF1)



As shown in Table 3-17, 34.3% of the Barrow County labor force worked in the County in 2000. More than 36% worked in suburban Gwinnett County, and significant numbers also commuted to Clarke (Athens), DeKalb, and Fulton counties.

Table 3-17 Employee Commuter Patterns

<i>Labor Force (employed residents) of Barrow County</i>			<i>Employed Working in Barrow County</i>		
County Where Employed	Number	% of Total	County of Residence	Number	% of Total
Barrow	7,751	34.3%	Barrow	7,751	61.7%
Gwinnett	8,229	36.4%	Gwinnett	894	7.1%
Clarke	1,580	7.0%	Jackson	883	7.0%
DeKalb	1,177	5.2%	Clarke	660	5.3%
Fulton	959	4.2%	Walton	554	4.4%
Hall	692	3.1%	Oconee	358	2.9%
Jackson	567	2.5%	Hall	336	2.7%
Walton	443	2.0%	Madison	154	1.2%
Other	1,218	5.4%	Other	967	7.7%
Total Employees	22,616	100.0%	Total Employees	12,557	100.0%

Source: U.S. Census Bureau 2000, Georgia Department of Labor

3.3 Economic Resources

3.3.1 Development Agencies

The Winder-Barrow County Joint Development Authority, along with the Winder-Barrow County Industrial Building Authority, was created to foster economic development and growth in Barrow County and its municipalities. These authorities can facilitate financing with certain tax advantages for eligible projects.

The Barrow County Chamber of Commerce promotes assists and encourages the development of Barrow County’s economic, educational, social, and natural resources in a manner consistent with preserving the County’s uniquely desirable quality of life. The nonprofit, nonpartisan, and nonsectarian organization includes programs for education, membership services, public relations, business development, tourism, and government affairs. The chamber staff compiles demographic statistics and works with business prospects on information needs. The chamber has identified the following as issues impacting the economic development of the county: improved road infrastructure, job creation to allow more county residents to work locally, identify secured water source and increase sewer capacity, sign regulation updates, and an update Economic Development Plan

The Winder Downtown Development Authority was created to foster the revitalization and redevelopment of Winder's Central Business District by facilitating projects that promote trade, commerce, industry and employment opportunities in the district.

3.3.2 Programs

Several agencies provide economic development assistance to Barrow County including Georgia Power, the Georgia Department of Economic Development and the University of Georgia’s Small Business Development Center. Georgia Power offers assistance through its community Development Department and its Resource Center. The Community Development Department offers development assistance in six program areas: research and information, business retention and expansion, leadership development, downtown revitalization, board governance, industrial location and demographic and labor market analysis. The Resource Center maintains a database of industrial parks and sites located throughout the State and



serves as an *entrée* to the State's economic development resources for prospective out-of-state and international industries.

The University of Georgia's Small Business Development Center (SBDC) provides management consulting for entrepreneurs and conducts marketing analyses and surveys designed to evaluate a community's economic development potential.

Georgia's "Quick Start" program is designed to train workers for specific, clearly designed jobs in a new or expanding company. Employees learn new skills and receive the opportunity to earn higher pay. Additionally, the company realizes one of its primary goals: increase production with minimum expenditures of time and money.

The local State Employment Agency in Winder recruits, tests and screens applicants in accordance with company specifications.

3.3.3 Tools

Barrow County has implemented a "Freeport" inventory tax exemption. All inventory is eligible for exemption if the manufacturer, wholesaler, or warehouse distributor meets specific criteria.

Under the Georgia Business Expansion Support Team (BEST) Act of 1994, qualified companies that locate or expand in Georgia may be eligible for incentives to reduce costs and improve a company's bottom line. Qualified companies in Barrow County can receive a \$500 tax credit for every job created in Barrow County in excess of 25 jobs. Credits are also available for investment, retraining employees, and child care expenses. Qualified companies may also receive exemptions for manufacturing machinery sales, primary material handling sales and electricity sales.

3.3.4 Education and Training

There are numerous comprehensive education and training opportunities available to Barrow County. With its proximity to Atlanta and being a part of the Golden Triangle - formed by Gainesville to the north, Gwinnett County to the west, and Athens to the east - Barrow County is located in the nucleus of boundless research and technological advancements.

Lanier Technical College – Winder-Barrow Campus

Lanier Technical College Winder-Barrow Campus began operation as part of the Lanier system in 2002. The campus evolved through a partnership with the City of Winder, Barrow County government, Barrow County Board of Education and the Barrow County Industrial Development Board. The 25,000-square-foot facility is located in the heart of downtown Winder, at 89 East Athens Street, and boasts a student enrollment of approximately 200 credit students. The Winder-Barrow Campus offers 27 certificate programs, seven degree programs, and nine diploma programs. Programs available in Winder include accounting, business office technology, computer information systems, early childhood education, emergency medical training, fire science, and welding. The Lanier Technical College system serves the workforce development needs of eight counties in Northeast Georgia: Banks, Barrow, Dawson, Forsyth, Hall, Jackson, Lumpkin, and North Fulton. The mission of the college is to enhance students' educational opportunities, help create a competent and competitive workforce, and support economic development for the area.

As part of its strategic planning process, the college has identified initiatives to help meet the demands of students, communities, and business partners in the future. Lanier Technical College plans to continue to offer a comprehensive range of programs and to respond to the area's critical needs by emphasizing the following eight strategic initiatives: high-performance technology training, healthcare programs, public safety programs, industrial/technical training, business incubation, international outreach, and independent learning resources. Although credit programs represent the core mission of the college, serving 5,282 students in these programs, the economic development and adult literacy noncredit programs serve large numbers of individuals. The adult literacy program served 7,026 students in 2005, and the economic development



program provided instruction and training for 15,048 students in customized noncredit classes during the same year.

Other Education and Training Options

Higher learning and advanced training are attainable in Barrow County. All within an hour's drive are: Georgia Tech, Georgia State University and Emory University. Less than 30 minutes away are Gainesville College, Brenau University, and the University of Georgia. Georgia Gwinnett College, the first public institution to start up in Georgia in more than 100 years, is located just to the west of Barrow County and will provide the county with even more opportunities for higher education. Three excellent technical colleges are also equally accessible: Lanier Technical College (Winder Campus), Athens Technical College, Gwinnett Technical College. Being within the realm of the Golden Triangle has provided Barrow County with a well-trained work force, educated in a variety of disciplines.

With access to Georgia Tech and Emory University, Barrow County businesses have the advantage of innovative developments in engineering and medicine, among other disciplines. Georgia Tech, one of the top engineering schools in the country, also runs the highest-ranked voluntary co-op program in the United States. Access to the University of Georgia provides local industry with up-to-date research on environmental, ecological, agricultural and chemical technologies, while access to Gwinnett Tech provides job training so that industries are able to become more efficient and profitable.

3.4 Economic Trends

3.4.1 Sector Trends

As shown in Table 3-18, educational services, food services and drinking places, and ambulatory health care services sectors in the Northeast Georgia Region are projected by the Georgia Department of Labor to increase employment in their respective sectors by more than 2,000 jobs between 2002 and 2012. The Northeast Georgia Region includes Barrow, Elbert, Madison, Jackson, Clark, Oglethorpe, Oconee, Walton, Newton, Morgan, Green, and Jasper Counties.



Table 3-18 Northeast Georgia Region Largest Job Growth Industries

NAICS Code	Industry Title	2002 Base Year Employment	2012 Projected Year Employment	Total Change in Employment	Percent Change in Employment	Projected Annual Growth Rate
6110	Educational Services	24,410	29,840	5,430	22.3%	2.0%
7220	Food Services and Drinking Places	11,330	14,650	3,320	29.3%	2.6%
6210	Ambulatory Health Care Services	4,350	6,440	2,090	47.9%	4.0%
5610	Administrative and Support Services	5,270	7,130	1,860	35.4%	3.1%
6220	Hospitals	6,210	7,830	1,620	26.1%	2.3%
2380	Specialty Trade Contractors	5,530	6,860	1,330	23.9%	2.2%
9030	Local Government, except Education and Hospitals	6,780	7,920	1,140	16.8%	1.6%
9020	State Government, except Education and Hospitals	3,230	4,310	1,080	33.5%	2.9%
3220	Paper Manufacturing	1,000	2,060	1,060	105.9%	7.5%
4520	General Merchandise Stores	3,880	4,880	1,000	25.6%	2.3%
3320	Fabricated Metal Product Manufacturing	1,270	2,140	870	68.7%	5.4%
6240	Social Assistance	1,630	2,470	840	51.6%	4.2%
8130	Religious, Grant making, Civic, Professional, and Similar Organizations	3,800	4,580	780	20.6%	1.9%
2370	Heavy and Civil Engineering Construction	2,270	3,020	750	33.1%	2.9%
5410	Professional, Scientific, and Technical Services	3,390	4,130	740	21.8%	2.0%

Source: Georgia Department of Labor



As shown in Table 3-19, the following industries in the Northeast Georgia Region are projected by the Georgia Department of Labor to see employment losses in their respective sectors of more than 500 jobs between 2002 and 2012: textile mills; agriculture, crop and animal production; credit intermediation and related activities; and wood product manufacturing sectors.

Table 3-19 Northeast Georgia Region Industries with Most Job Decline

NAICS Code	Industry Title	2002 Base Year Employment	2012 Projected Year Employment	Total Change in Employment	Percent Change in Employment	Projected Annual Growth Rate
3130	Textile Mills	1,800	760	-1,040	-57.7%	-8.3%
1110	Agriculture, Crop and Animal Production	5,090	4,240	-850	-16.8%	-1.8%
5220	Credit Intermediation and Related Activities	2,290	1,730	-560	-24.4%	-2.8%
3210	Wood Product Manufacturing	2,420	1,920	-500	-20.7%	-2.3%
3270	Nonmetallic Mineral Product Manufacturing	2,980	2,720	-260	-8.9%	-0.9%
4470	Gasoline Stations	1,680	1,500	-180	-10.8%	-1.1%
3140	Textile Product Mills	460	280	-180	-40.4%	-5.0%
9010	Federal Government, except Postal Service	1,440	1,280	-160	-11.2%	-1.2%
8140	Private Households	1,280	1,170	-110	-8.4%	-0.9%
5320	Rental and Leasing Services	510	410	-100	-19.2%	-2.1%
5170	Telecommunications	760	690	-70	-9.3%	-1.0%
5240	Insurance Carriers and Related Activities	1,080	1,040	-40	-3.6%	-0.4%
4820	Rail Transportation	180	150	-30	-18.9%	-2.1%
3360	Transportation Equipment Manufacturing	1,550	1,530	-20	-1.1%	-0.1%
2210	Utilities	950	930	-20	-2.7%	-0.3%
5110	Publishing Industries (except Internet)	560	540	-20	-3.9%	-0.4%
5150	Broadcasting (except Internet)	150	130	-20	-13.7%	-1.5%

Source: Georgia Department of Labor



3.4.2 Major Employers

Major employers in Barrow County are shown in Table 3-20. The Barrow County School System is the County’s largest employer with more than 1,700 jobs located at schools located throughout the County. Harrison Poultry follows with just below 900 jobs in Winder. Chateau Elan Resort and Winery located in Braselton northwest of the intersection of Interstate 85 and SR 211 is the third largest employer with 550 employees.

Table 3-20 Major Employers in Barrow County

<i>Employer Name</i>	<i>Number of Employees in 2007</i>
1. Barrow County School System*	1,757
2. Harrison Poultry	896
3. Chateau Elan Resort and Winery	550
4. Anderson Merchandisers	489
5. Barrow County Government	380
6. Johns Manville Corp.	330
7. United Waste Services	300
8. Akins Ford	234
9. Barrow Regional Medical Center	225
10. Total Logistics Control	201

Source: Barrow County Chamber of Commerce; Jackson EMC; Georgia Dept. of Labor

3.4.3 Important new developments

The Barrow County Industrial Development Authority commissioned the University of Georgia Small Business Development Center and the Georgia Department of Community Affairs to prepare an extensive report in 2004 entitled *Barrow County Summit (Summit)*. This extensive study included an economic development report card, a community choices assessment, and a market analysis report. The resulting recommendation outlined a long-range path for the County to follow in order to expand the economy. A primary recommendation was to designate specific “Gateways” where new development was expected to occur and to begin the process of improving and expanding county services in order to entice new development. These Gateways are shown in the Recommended Character Areas map of the Community Assessment. The Gateways are located at the intersections of SR 316/SR 81, SR316/SR 53, SR 316/SR 11, SR 211/SR 124 and SR 316/Georgia Club.

Since the completion of the *Summit* in October 2005, water, gas and sewer systems have been expanded to SR 316/SR 81 along with intersection and roadway improvements in the general area that have enabled a flood of new and proposed development that will continue to bring additional jobs, services and tax revenues to Barrow County. Home Depot and a proposed 550,000 square foot shopping center anchor this Gateway that promises to become a major gathering place and economic engine for the County. Sewer expansion is also underway to serve the SR 211/SR 124 and SR 316/SR 53 areas to facilitate new development. In addition, the County and Barrow County Schools are partnering to build a cultural arts/convention center at the SR 316/SR 53 intersection and working to determine appropriate commercial and industrial uses. At SR 211/SR 124, funds have been secured to improve the intersection and the county has adopted the Highway Overlay Corridor District to facilitate the orderly growth of the corridor. Improvements are underway at the Airport as well to expand the runway and provide additional service to the targeted biotechnical sector.



3.4.4 Unique economic situations

Barrow County offers several strengths for economic growth and development, including its proximity to the Atlanta and Athens area job centers, location of one interchange of Interstate 85 in the county, the location along the SR 316

The County also has a few challenges for economic development. The primary challenge is providing the infrastructure – roads, water and sewer – to support business development. The *Summit* report outlined these constraints and highlighted important Gateways in Barrow County where infrastructure development should be focused in order to capitalize on the location advantages of each. The County’s sewerage systems and drinking water supply also play a key role. Expansions of both are necessary in order to facilitate the long-term economic growth envisioned by the *Summit*.

Traffic congestion during the planning period also will create challenges for the County’s economic development efforts. Improvements planned for SR 316 would convert the four-lane highway into a limited-access freeway. The “Brain Train” commuter rail line currently being discussed would also provide a long-range transportation alternative that would make Winder and Barrow County more accessible to the region. These two visionary and potentially transforming transportation projects unfortunately do not have identified funding sources and will be forced to compete with other statewide projects for an ever dwindling pot of transportation funding available from the state and federal governments. Other improvements that are planned and moving forward include the Downtown Winder major thoroughfares improvements, expansion of SR 211 to four lanes between Winder and Interstate 85 and the proposed four-lane Winder Bypass will also provide relief. Other solutions are expected to arise out of the MTP currently under development and following alongside the same public participation track as the Comprehensive Plan Update.



4 Housing

4.1 Housing Types and Trends

4.1.1 Housing Types and Mix

Barrow County increased its inventory of housing units from 7,766 to 17,304 between 1980 and 2000, as shown in Table 4-1, an increase of 123% with an average annual growth of 4.1%. Single-family homes led all housing type categories with a share of 73.5%, up from 64.7% in 1990, and more similar to the share of the total in 1980. After a dramatic increase of 124% between 1980 and 1990, growth of mobile homes slowed between 1990 and 2000.

Table 4-1 Types of Housing and Mix – Barrow County

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Units	%	Units	%	Units	%		
Total Housing Units	7,766	100%	11,812	100%	17,304	100%	52.1%	46.5%
Single Family (detached)	5,673	73.0%	7,640	64.7%	12,711	73.5%	34.7%	66.4%
Single Family (attached)	49	0.6%	99	0.8%	89	0.5%	102%	-10.1%
Double Units	438	5.6%	611	5.2%	786	4.5%	39.5%	28.6%
Multi-Family	396	5.1%	660	5.6%	858	5.0%	66.7%	30.0%
Mobile Home or Trailer	1,210	15.6%	2,711	23.0%	2,853	16.5%	124%	5.2%
All Other	0	0.0%	91	0.8%	7	0.0%	NC	-92.3%

Source: U.S. Census Bureau (SF3)

Table 4-2 Types of Housing and Mix – Auburn

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Units	%	Units	%	Units	%		
Total Housing Units	240	100%	1,358	100%	2,225	100%	465.8%	63.8%
Single Family (detached)	166	69.2%	938	69.1%	1,848	83.1%	465.1%	97.0%
Single Family (attached)	0	0.0%	11	0.8%	4	0.2%	N/A	-63.6%
Double Units	8	3.3%	51	3.8%	48	2.2%	537.5%	-5.9%
Multi-Family	8	3.3%	86	6.3%	109	4.9%	975.0%	26.7%
Mobile Home or Trailer	58	24.2%	267	19.7%	216	9.7%	360.3%	-19.1%
All Other	0	0.0%	5	0.4%	0	0.0%	N/A	-100.0%

Source: U.S. Census Bureau (SF3)



Table 4-3 Types of Housing and Mix – Bethlehem

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Units	%	Units	%	Units	%		
Total Housing Units	111	100%	148	100%	262	100%	33.3%	77.0%
Single Family (detached)	91	82.0%	122	82.4%	226	86.3%	34.1%	85.2%
Single Family (attached)	0	0.0%	0	0.0%	0	0.0%	N/A	N/A
Double Units	0	0.0%	0	0.0%	0	0.0%	N/A	N/A
Multi-Family	0	0.0%	0	0.0%	0	0.0%	N/A	N/A
Mobile Home or Trailer	20	18.0%	26	17.6%	36	13.7%	30.0%	38.5%
All Other	0	0.0%	0	0.0%	0	0.0%	N/A	N/A

Source: U.S. Census Bureau (SF3)

Table 4-4 Types of Housing and Mix – Braselton

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Units	%	Units	%	Units	%		
Total Housing Units	109	100%	178	100%	451	100%	63.3%	153%
Single Family (detached)	93	85.3%	147	82.6%	416	92.2%	58.1%	183%
Single Family (attached)	2	1.8%	1	0.6%	0	0.0%	-50.0%	-100%
Double Units	0	0.0%	7	3.9%	0	0.0%	N/A	-100%
Multi-Family	8	7.3%	9	5.1%	14	3.1%	12.5%	56%
Mobile Home or Trailer	6	5.5%	13	7.3%	21	4.7%	116.7%	62%
All Other	0	0.0%	1	0.6%	0	0.0%	N/A	-100%

Source: U.S. Census Bureau (SF3)

Table 4-5 Types of Housing and Mix – Carl

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Units	%	Units	%	Units	%		
Total Housing Units	99	100%	106	100%	105	100%	7.1%	-0.9%
Single Family (detached)	90	90.9%	94	88.7%	101	96.2%	4.4%	7.4%
Single Family (attached)	2	2.0%	0	0.0%	0	0.0%	-100.0%	N/A
Double Units	0	0.0%	0	0.0%	0	0.0%	N/A	N/A
Multi-Family	2	2.0%	0	0.0%	0	0.0%	-100.0%	N/A
Mobile Home or Trailer	5	5.1%	12	11.3%	4	3.8%	140.0%	-66.7%
All Other	0	0.0%	0	0.0%	0	0.0%	N/A	N/A

Source: U.S. Census Bureau (SF3)



Table 4-6 Types of Housing and Mix – Statham

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Count	%	Count	%	Count	%		
Total Housing Units	431	100%	518	100%	811	100%	20.2%	56.6%
Single Family (detached)	321	74.5%	356	68.7%	590	72.7%	10.9%	65.7%
Single Family (attached)	7	1.6%	3	0.6%	5	0.6%	-57.1%	66.7%
Double Units	13	3.0%	25	4.8%	30	3.7%	92.3%	20.0%
Multi-Family	31	7.2%	25	4.8%	48	5.9%	-19.4%	92.0%
Mobile Home or Trailer	59	13.7%	101	19.5%	138	17.0%	71.2%	36.6%
All Other	0	0.0%	8	1.5%	0	0.0%	N/A	-100.0%

Source: U.S. Census Bureau (SF3)

Table 4-7 Types of Housing and Mix – Winder

Category	1980		1990		2000		% Change 1980-1990	% Change 1990-2000
	Count	%	Count	%	Count	%		
Total Housing Units	2,617	100%	3,202	100%	4,092	100%	22.4%	27.8%
Single Family (detached)	1,884	72.0%	2,152	67.2%	2,817	68.8%	14.2%	30.9%
Single Family (attached)	21	0.8%	43	1.3%	37	0.9%	104.8%	-14.0%
Double Units	362	13.8%	363	11.3%	443	10.8%	0.3%	22.0%
Multi-Family	244	9.3%	494	15.4%	607	14.8%	102.5%	22.9%
Mobile Home or Trailer	106	4.1%	126	3.9%	181	4.4%	18.9%	43.7%
All Other	0	0.0%	24	0.7%	7	0.2%	N/A	-70.8%

Source: U.S. Census Bureau (SF3)

4.1.2 Latest Housing Trends

For the year 2000 through the end of 2005, Barrow County issued permits for an additional 4,883 housing units, as shown in Table 4-8. It is important to note that the issuance of a building permit does not always translate into construction of new housing units, since plans for construction plans often change. The number of permits issued by the County increased every year since 2000, from 855 to 1,416 in 2005.

Table 4-8 Housing Permit Trends

Category	2000	2001	2002	2003	2004	2005	Total 2001-2005
Number of Structures Permitted	855	949	1,227	1,333	1,358	1,416	7,138
Number of Units Permitted	855	950	1,227	1,348	1,358	1,416	7,154

Source: Selig Center for Economic Growth, based on U.S. Census Bureau, Construction Statistics Division: Housing Units Authorized by Building Permits (C-40).



According to USCB estimates for 2005 shown in Table 4-9, the County increased its number of housing units 33.7%, from 17,304 units in 2000 to 23,141 units in 2005. This increase was the fastest growth rate among the surrounding counties, although Gwinnett County's lower growth rate still translated into an increase of 55,780 units between 2000 and 2005. With the exception of Clarke County, all surrounding counties saw increases in their housing stock of more than 15%.

Table 4-9 Housing Unit Trends in Surrounding Counties

Category	Barrow	Clarke	Gwinnett	Hall	Jackson	Oconee	Walton
Housing Units 2000	17,304	42,126	209,682	51,057	16,226	9,528	22,500
Housing Units 2005	23,141	48,212	265,462	59,048	21,072	11,481	29,050
% Change 2000-2005	33.7%	14.4%	26.6%	15.7%	29.9%	20.5%	29.1%

Source: U.S. Census Bureau - Annual Estimates of Housing Units for Counties in Georgia: April 1, 2000 to July 1, 2005

4.2 Housing Unit Projections

Housing Unit Projections for Barrow County and each municipality are shown in Table 4-10. These projections are based on the population projections for planning presented previously.

Table 4-10 Housing Unit Projections

Area	2005	2010	2015	2020	2025	2030
Barrow County	25,237	27,314	32,923	42,789	53,798	65,005
Auburn	3,073	3,326	4,009	5,211	6,551	7,916
Bethlehem	349	378	455	592	744	899
Carl	190	205	248	322	405	489
Statham	1,145	1,239	1,493	1,941	2,440	2,949
Winder	6,405	6,932	8,355	10,859	13,653	16,497
Unincorporated/Braselton in Barrow	14,076	15,234	18,362	23,865	30,005	36,255

Source: MACTEC, NEGRDC



4.3 Condition and Occupancy

4.3.1 Housing Age

As shown in Table 4-11, 39.8% of the housing units recorded in 2000 were built after 1990 and 61.3% were built after 1980, which is a reflection of the rate of growth taking place in Barrow County. Less than 5% of Barrow County's housing units were built prior to 1939.

Table 4-11 Housing Age

Category	Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder	Atlanta MSA	State of Georgia
Total Housing Units 2000	17,304	2,225	262	451	105	811	4,092	1,589,568	3,281,737
Built 1990-2000	6,892	853	84	276	6	319	1,037	490,090	915,130
Built 1990-2000 (% of total units in 2000)	39.8%	38.3%	32.1%	61.2%	5.7%	39.3%	25.3%	30.8%	27.9%
Built 1980-1989	3,723	938	34	82	20	110	760	391,440	721,174
Built 1980-1990 (% of total units in 2000)	21.5%	42.2%	13.0%	18.2%	19.0%	13.6%	18.6%	24.6%	22.0%
Built before 1980	6,689	434	144	93	79	382	2,295	708,038	1,645,433
Built before 1980 (% of total units in 2000)	38.7%	19.5%	55.0%	20.6%	75.2%	47.1%	56.1%	44.5%	50.1%
Built 1970 - 1979	2,634	222	34	14	26	131	647	286,397	608,926
% Built 1970 - 1979	15.2%	10.0%	13.0%	3.1%	24.8%	16.2%	15.8%	18.0%	18.6%
Built 1960 - 1969	1,628	84	20	44	17	67	708	190,805	416,047
% Built 1960-1969	9.4%	3.8%	7.6%	9.8%	16.2%	8.3%	17.3%	12.0%	12.7%
Built 1950 - 1959	974	23	45	21	16	71	460	112,855	283,424
% Built 1950 - 1959	5.6%	1.0%	17.2%	4.7%	15.2%	8.8%	11.2%	7.1%	8.6%
Built 1940 - 1949	636	49	5	2	11	49	241	51,044	144,064
% Built 1940 - 1949	3.7%	2.2%	1.9%	0.4%	10.5%	6.0%	5.9%	3.2%	4.4%
Built 1939 or earlier	817	56	40	12	9	64	239	66,937	192,972
% Built 1939 or earlier	4.7%	2.5%	15.3%	2.7%	8.6%	7.9%	5.8%	4.2%	5.9%

Source: U.S. Census Bureau (SF3), Table H34



4.3.2 Housing Condition

The age of the housing stock greatly contributes to the housing conditions shown in Table 4-12. In each category, Barrow County mirrors the figures for the Atlanta MSA and the state. The cities within the County also mirror the figures for the County overall.

Table 4-12 Housing Condition

<i>Area</i>	<i>Complete Plumbing Facilities</i>	<i>Lacking Plumbing Facilities</i>	<i>Complete kitchen facilities</i>	<i>Lacking complete kitchen facilities</i>
Barrow County	99.20%	0.80%	99.29%	0.71%
Auburn	98.11%	1.89%	98.25%	1.75%
Bethlehem	100%	0%	97%	3%
Carl	100%	0%	97.14%	2.86%
Statham	99.63%	0.37%	100%	0%
Winder	98.73%	1.27%	99.17%	0.83%
Atlanta MSA	99.48%	0.52%	99.43%	0.57%
State of Georgia	99.10%	0.90%	99.03%	0.97%

Source: U.S. Census Bureau (SF3) 2000 Tables H47 and H50, 1990 Tables H042, H064.



4.3.3 Housing Tenure

Barrow County recorded a vacancy rate of 5.5% in 2000, somewhat lower than the state figure of 8.4%, as shown in Table 4-13. The rate dropped from 9.6% in 1990. Owner-occupied housing increased from 72% in 1990 to 75% in 2000. The County's ownership rate was higher in 2000 than either the state or the nation. Renter-occupied housing declined from a share of 27% of all units to 24% between 1990 and 2000. The number of renters is lower than the state or national averages. Due to the low number of multifamily units (approximately 10% of the available units), many renters appear to live in single-family units or mobile homes.

Table 4-13 Housing Tenure

Category		Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder	Atlanta MSA	State of Georgia
% in 2000	Total Housing Unit	16,354	2,159	247	419	97	730	3,908	1,504,871	3,006,369
	Owner Occupied	75.5%	80.7%	82.19%	91.7%	90.7%	80.4%	54.81%	66.4%	67.5%
	Renter Occupied	24.5%	19.3%	17.8%	8.4%	9.3%	19.6%	45.2%	33.6%	32.5%
	Vacant	5.5%	3.0%	5.7%	7.1%	7.6%	10.0%	4.5%	5.3%	8.4%
% in 1990	Total Housing Unit	11,812	1,358	172	153	113	518	3,202	1,174,007	2,638,418
	Owner Occupied	72.3%	74.3%	70.3%	64.0%	84.85%	75.9%	57.6%	62.3%	64.9%
	Renter Occupied	27.7%	25.7%	29.7%	36.1%	15.15%	24.1%	42.4%	37.7%	35.1%
	Vacant	9.62%	18.4%	15.7%	3.9%	12.39%	7.1%	9.2%	10.0%	10.3%
Vacancy % Change 1990-2000		-42.9%	-83.9%	-63.5%	80.9%	-38.5%	39.8%	-51.2%	-46.8%	-18.6%
Owner Occupied % Change 1990-2000		4.5%	8.6%	16.8%	43.3%	6.9%	6.0%	-4.8%	6.6%	4.0%

Source: U.S. Census Bureau 2000



4.4 Housing Costs

4.4.1 Median Property Values and Rent

Median property values and median rent slightly trailed the state from 1990 to 2000, as shown in Table 4-14. The median rents are also slightly lower than the state average. Median property values for the entire County were higher than the median property values for each of the cities. Of the cities, median property values were highest in Braselton. Median rents were highest in Auburn at \$664, even though that was a drop from \$677 in 1990 (in dollars adjusted for inflation to 2000 dollars). The most significant median property values change occurred in Braselton where values grew by 67.6%. The most significant median rent increases occurred in Braselton as well where values grew by 47.9%.

Table 4-14 Median Property Value and Median Rent

Area	Year	Median property value ¹	Median rent
Barrow County	1990	\$83,662	\$516
	2000	\$103,400	\$583
	% Change1990-2000	23.6%	13.0%
Auburn	1990	\$91,699	\$677
	2000	\$98,900	\$663
	% Change1990-2000	7.9%	-2.1%
Bethlehem	1990	\$62,582	\$478
	2000	\$102,800	\$622
	% Change1990-2000	64.3%	30.1%
Braselton	1990	\$88,142	\$428
	2000	\$147,700	\$633
	% Change1990-2000	67.6%	47.9%
Carl	1990	\$83,663	\$560
	2000	\$83,500	\$488
	% Change1990-2000	-0.2%	14.8%
Statham	1990	\$67,852	\$423
	2000	\$90,000	\$529
	% Change1990-2000	32.6%	25.1%
Winder	1990	\$82,872	\$437
	2000	\$94,700	\$554
	% Change1990-2000	14.3%	26.8%
Atlanta MSA	1990	\$117,655	\$697
	2000	\$135,300	\$746
	% Change1990-2000	15.0%	7.0%
State of Georgia	1990	\$93,939	\$570
	2000	\$111,200	\$613
	% Change1990-2000	18.4%	7.5%

¹ 1990 values shown have been adjusted to 2000 dollars for comparison

Source: U.S. Census Bureau (SF3) 2000 Tables H63 and H76, 1990 Tables H043A and H061A



4.4.2 Owner Occupied Housing Values

Property values for owner-occupied housing climbed to a median of \$103,400 in 2000, as shown in Table 4-15. Based on the home sales prices shown in Table 4-15, however, the property value increases since 2000 have most likely moved more housing into higher property value brackets.

Table 4-15 Specified Owner-Occupied Units

Property Value	Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder	Atlanta MSA	State of Georgia
Less than \$50K	3.4%	1.3%	12.1%	2.3%	0%	6.9%	5.9%	2.4%	9.5%
\$50K to \$99K	42.7%	52.11%	33.3%	28.1%	67.2%	69.2%	51.1%	25.5%	34.2%
\$100K to \$149K	40.6%	42.09%	50.9%	20.7%	26.66%	20.5%	24.6%	30.7%	25.8%
\$150K to \$199K	6.1%	3.21%	3.6%	6.8%	0%	1.6%	8.8%	17.1%	13.3%
\$200K to \$299K	5.3%	1.26%	0%	1.4%	3.1%	1.3%	8.1%	14.3%	10.2%
\$300K to \$499K	1.31%	0%	0%	7.7%	0.00%	0.45%	1.55%	7.36%	5.10%
\$500K to \$999K	0.52%	0%	0%	30.7%	3.13%	0%	0%	2.23%	1.57%
\$1M or more	0%	0%	0%	2.3%	0%	0%	0%	0.41%	0.32%
Median	\$103,400	\$98,900	\$102,800	\$147,700	\$83,500	\$90,000	\$94,700	\$135,300	\$111,200

Source: U.S. Census Bureau 2000 (SF3), Table H74

4.4.3 Home Sale Prices

Annual home sales in the County during the period from 1997 to 2004 ranged from a low of 915 units in 1997 to a high of 1,758 units in 2003, according to the Center for Agribusiness and Economic Development at the University of Georgia (shown in Table 4-16). Both the number of sales and the value of homes in the County showed a steady increase. Average home sale prices increased, when adjusted for inflation, 28.2% from 1997 to 2004, and 14.0% from 2000 to 2004. The average home sales price was \$141,320 in 2004.

Table 4-16 Number of Annual Home Sales and Annual Average Prices for Barrow County

Sales Year	Number of Sales	Average Sale Price	Ave. Sale Price (Adjusted to 2004 Dollars)
1997	915	\$93,693	\$110,272
1998	990	\$95,845	\$111,074
1999	1,088	\$107,121	\$121,460
2000	1,263	\$112,979	\$123,936
2001	1,321	\$123,079	\$131,354
2002	1,556	\$125,804	\$132,098
2003	1,758	\$130,762	\$134,244
2004	1,165	\$141,320	\$141,320
Rate of Change 1997-2004		50.8%	28.2%
Rate of Change 2000-2004		25.1%	14.0%

Source: University of Georgia Center for Agribusiness & Economic Development 2005



4.4.4 Affordability for Residents and Workers

As demonstrated in the Tables 4-14, 4-15 and 4-16, housing costs for residents and workers of Barrow County increased during the 1990-2000 period. Data for home sales collected 2000-2004 showed a continued rise in home value as new homes were constructed throughout the County. Increased costs, generally speaking, can be attributed to increased land valuations, construction of homes with larger square footage floor plans and increased building costs. Owner-occupied housing costs were higher for the County as a whole than for the municipalities. Costs have continued to increase since 2000, as demonstrated by Table 4-16 in sale of new homes.

4.5 Cost-Burdened Households

Barrow County households considered by the U.S. Department of Housing and Urban Development (HUD) to be cost-burdened (monthly housing costs exceed 30% of the household income) and severely cost-burdened (monthly housing costs exceed 50% of the household income) in 2000 closely mirrors data for both Atlanta MSA and the state, as shown in Table 4-17. The cities of Auburn, Bethlehem, Statham, and Winder also have similar shares of total households that are cost-burdened. The cities of Carl and Bethlehem have the lowest percentage of these households. Table 4-17 also shows that Barrow County saw a 70.0% increase in the 30% and greater category from 1990 to 2000, more than twice the rate of increase experienced by the state and 30% higher than the MSA. In addition, each city also saw increases, with the exception of Carl, that were well beyond the state proportion.

Table 4-17 Cost-Burdened Households

Year	Category	Barrow County	Auburn	Bethlehem	Carl	Statham	Winder	Atlanta MSA	State of Georgia
2000	Total	13,372	2,004	209	73	591	3,704	1,386,220	2,560,854
	30% - 49%	2,089	359	21	6	98	544	230,340	397,964
		15.6%	17.9%	10.0%	8.2%	16.6%	14.7%	16.6%	15.5%
	50% and greater	1,255	116	10	2	42	503	144,386	278,401
		9.4%	5.8%	4.8%	2.7%	7.1%	13.6%	10.4%	10.9%
	30% and greater	3,344	475	31	8	140	1,047	374,726	676,365
25.0%		23.7%	14.8%	10.9%	23.7%	28.3%	27.0%	26.4%	
1990	Total	7,562	985	102	81	360	2,660	953,013	1,961,474
	30% and greater	1,967	289	22	19	102	724	265,581	521,113
		26.0%	29.3%	21.6%	23.5%	28.3%	27.2%	27.9%	26.6%
% Change 1990-2000	30% and greater	70.0%	64.4%	40.9%	-47.9	37.3%	44.6%	41.1%	29.8%

* Rent 0-30% = Units with gross rent (rent and utilities) that are affordable to households with incomes below 30% of HUD Area Median Family Income. Affordable is defined as gross rent less than or equal to 30% of a household's gross income.
 ** Value 0-50% = Homes with values affordable to households with incomes at or below 50% of HUD Area Median Income. Affordable is defined as annual owner costs less than or equal to 30% of annual gross income. Annual costs are estimated assuming the cost of purchasing a home at the time of the Census based on reported value of the home. Assuming a 7.9% interest rate and national averages for utility costs, taxes, and hazard and mortgage insurance, multiplying income times 2.9 represents the value of a home a person can afford to purchase. For example, a household with an annual gross income of \$30,000 is estimated to be able to afford an \$87,000 home without having total costs exceed 30% of their annual household income.

Source: U.S. Bureau of the Census (SF3), 2000 Tables H69, H94 and 1990 Tables H050, H058; Comprehensive Housing Affordability Strategy (CHAS) Data Book



4.6 Special Housing Needs

4.6.1 Elderly

Several housing options for elderly citizens in need of health assistance are available in Barrow County. These options are summarized in the Health Care subsection of Chapter 6 of this document. In addition, the Housing Authority of Winder provides some subsidized rental housing for elderly citizens.

4.6.2 Homeless

Barrow County has one homeless shelter, the Lighthouse Homeless Shelter, located at 80 King Street in Winder. The Lighthouse shelter has 40 beds. Limited resources are available in adjacent Clarke and Gwinnett counties.

4.6.3 Victims of Domestic Violence

Georgia Bureau of Investigation data, shown below in Table 4-18, indicate police actions related to domestic violence have increased along with the population increases since 1996, with the latest figures from 2003. This rise may indicate a need for more support and housing shelters for those impacted by domestic violence in Barrow County. Peace Place and Piedmont Victim Assistance Program provides domestic violence crisis support resources in the County. Peace Place is a non-profit organization that provides a safe shelter for victims of abuse and assists victims through counseling, support groups, legal advocacy, life skills programs, and a crisis line. It also serves as an educational and outreach resource on domestic violence for the Piedmont Judicial Circuit, which includes Barrow, Jackson, and Banks counties. Peace Place is currently constructing the Transitional House that will provide housing for four families as they transition from a sheltered environment to more independent living.

Table 4-18 Police and Sheriff Actions Related to Domestic Violence

Action Type	1996	2000	2003
Arrested	59	183	224
Citation	1	2	4
Separation	53	97	113
Mediation	40	73	49
Other	49	180	201
No Action	55	119	71
Total	257	654	662

Source: Georgia Bureau of Investigation, Family Violence Statistics, 1996, 2000, 2004/3

4.6.4 Migrant Farm Workers

Based on the 2002 Census of Agriculture, there is not a significant enough population of migrant farm workers to warrant special housing in Barrow County.

4.6.5 Persons with Disabilities

The percentage of County residents with a disability in the 21 to 65 age group (18.69%) is slightly lower than the state, as shown in Table 4-19. Of this population, 55.4% had employment in 2000 compared to 80.1% in the state. The three most frequent disabilities recorded in 2000 were employment, physical, and go-outside-home, as shown in Table 4-20.



Table 4-19 Population with a Disability

Classification	Barrow County	Auburn	Bethlehem	Braselton	Carl	Statham	Winder	Atlanta MSA	State of Georgia
Percent Age 21 to 64 with a Disability	18.67%	13.86%	14.90%	16.21%	19.48%	20.78%	22.82%	16.92%	19.90%
Employed	55.40%	73.89%	61.29%	49.56%	63.33%	50.20%	49.51%	62.12%	80.10%
Percent Age 21 to 64 with no Disability	81.33%	86.14%	85.10%	83.79%	80.52%	79.22%	77.18%	83.08%	80.10%
Employed	81.36%	84.45%	82.20%	77.74%	74.19%	83.88%	79.58%	79.23%	77.60%

Source: U.S. Census Bureau (SF3) 2000 Table P42

Table 4-20 Type of Disabilities

Type of Disability	Barrow County	Atlanta MSA	State of Georgia
Sensory disability	9.63%	6.28%	6.87%
Physical disability	22.99%	17.01%	18.87%
Mental disability	10.90%	9.91%	10.66%
Self-care disability	4.61%	4.79%	5.22%
Go-outside-home disability	18.17%	22.61%	21.07%
Employment disability	33.70%	39.41%	37.32%

Source: U.S. Census Bureau (SF3) 2000, Table P41. Data are for disabled residents of Barrow County, aged 16-64.

4.6.6 Persons with HIV/AIDS

Between 1981 and 2004, 38 AIDS cases were reported in Barrow County, according to the University of Georgia Center for Agribusiness and Economic development. Barrow County does not have special housing options for HIV/AIDS patients. Due to the small number of cases in the County, there is not a notable unmet housing need for this group.

4.6.7 Persons Recovering from Substance Abuse

While reliable numbers of those persons recovering from substance abuse are not attainable, the University of Georgia's Georgia Statistics System estimated a need to provide substance abuse treatment for approximately 3,063 residents or 6.6% of the County population in 2001. Four Seasons, Project Adam (25 beds) and Lighthouse Homeless Shelter (40 beds) each provide substance abuse treatment programs located in Winder.

4.7 Job-Housing Balance

The jobs-to-housing ratio compares the number of jobs to the number of people living in an area. The ratio is a useful analysis tool because housing location decisions, in relation to workplace, affect commute times, costs, and congestion. In 2030, the projected balanced ratio in the Atlanta MSA ranges between 0.81 and 1.2. This ratio applied on a sub-regional basis would indicate a balance in the number of jobs available for the working population in the area, thus reducing trip lengths and congestion.

The 2005 jobs-to-housing ratio for Barrow County is 0.69 jobs per household. In 2030, the jobs-to housing ratio is projected to increase to 1.04 jobs per household. In terms of the threshold for the region, Barrow County is projected to enhance its employment base to have jobs available for the working population within the County. The nature of the employment may require residents to continue commuting to work outside of



the County; however, economic development efforts that increase employment opportunities within Barrow County may help reduce commute travel times on the road network.

An ideal community would provide housing for the labor force near employment centers that give the workers transportation choices (e.g., walking, biking, driving, public transit, etc.). Bedroom community suburbs often develop without such balance and require the labor force to commute to work in private automobiles along major arterials resulting in congestion and other quality of life challenges. Governments can use two jobs/housing balance ratios to monitor their community's ability to achieve a balance of jobs and housing: employment (jobs)/housing unit ratio and employment/labor force ratio. According to the *Jobs/Housing Balance Community Choices Quality Growth Toolkit*, prepared by the Atlanta Regional Commission, an employment (jobs) to housing ratio of between 1.3 and 1.7 implies an ideal balance with 1.5 as the standard target. An employment (jobs) to labor force (employed residents) ratio of between 0.8 and 1.25 implies a balance for that ratio with 1:1 as the standard target.

Table 4-20 shows the employment to housing ratio and employment to labor force ratio for Barrow County. The 2004 employment to housing ratio of 0.75 falls well below the standard target of 1.5. Table 4-21 also shows the employment to labor force ratio for the County. The 2004 ratio of 0.54 falls well below the standard target of 1.0. These ratios, while improved from 1990, still outline the county's dependence on employment from other counties and emphasize the need to attract employment to the County that appeals to both current and future residents.

Table 4-21 Jobs-Housing Balance for Barrow County

Category	1990	2000	2004
Population	29,721	46,144	56,656
Average Household Size ¹	2.76	2.79	2.76
Number of Households	10,676	16,354	19,396
Housing Units	11,812	17,304	20,159
Labor Force	15266	25197	27,718
Employment	8,538	11,646	15,094
Employment/Population Ratio	0.29	0.25	0.27
Employment/Housing Unit Ratio	0.72	0.67	0.75
Employment/Labor Force Ratio	0.56	0.46	0.54
¹ Average Household size is for 2005, not 2004			
Note: 2004 Housing Units, and Labor Force were calculated using growth rate between 1990 and 2000.			

Source: U.S. Census Bureau and Georgia Department of Labor

4.7.1 Supply of Affordable Housing

Tables 4-22 and 4-23 compare the income between the Barrow County labor force (those who live in Barrow County) and those who actually work in Barrow County in 2004. As displayed in Section 3.2.7 Commuting Patterns in Table 3-16, 66% of the county labor force in 2000 commuted to jobs in other counties, while 38.3% of the jobs in the county were filled by non-Barrow County residents. The residents overall earn much higher incomes and can afford more easily the housing available on the market. The county's workers have fewer housing choices.



Table 4-22 Correlation of Average Weekly Wages to Housing Prices for Workers (2004)

Sector	Average Weekly	Average Monthly	Monthly Income Available for Housing	Equivalent House Price
Agriculture, forestry, & fishing	NA	NA	NA	NA
Construction	\$656	\$2,843	\$853	\$129,646
Manufacturing	\$749	\$3,246	\$974	\$148,025
Wholesale trade	\$733	\$3,177	\$953	\$144,863
Retail trade	\$482	\$2,089	\$627	\$95,258
Transportation and warehousing	\$740	\$3,207	\$962	\$146,246
Information	\$752	\$3,259	\$978	\$148,618
Finance and insurance	\$725	\$3,142	\$943	\$143,282
Real estate and rental and leasing	\$377	\$1,634	\$490	\$74,507
Professional, scientific/tech services	\$582	\$2,522	\$757	\$115,021
Administrative and waste services	\$440	\$1,907	\$572	\$86,957
Health care and social services	\$556	\$2,410	\$723	\$109,883
Arts, entertainment and recreation	\$248	NA	NA	NA
Accommodation and food services	\$207	\$897	\$269	\$40,909
Other services (except government)	\$409	\$1,773	\$532	\$80,831
Government	\$582	\$2,522	\$757	\$115,021
All industries - Barrow County 2000	\$509	\$2,206	\$662	\$100,594
All industries - Barrow County 2004	\$546	\$2,366	\$710	\$107,906
All industries - Atlanta MSA	\$832	\$3,606	\$1,082	\$164,428
All industries - State of Georgia 2004	\$658	\$2,852	\$856	\$130,041

*Based on a 95% loan at 7% interest for 30 years

Source: Georgia Department of Labor, U.S. Bureau of Labor Statistics

As shown previously in Table 4-16 the average sale price of homes in Barrow County was \$123,936 in 2000 (adjusted for inflation and shown in 2004 dollars) and climbed to \$141,320 in 2004. The house price supported by the county’s average annual wage in 2000 was only 23.4% of the total value of the average sale price. The house price supported by the county’s median household income in 2004 was 20.1% of the total value of the average sale price in 2004.

In 2000, county residents had an average household income of \$51,566, which could support a house price of roughly \$195,591, as shown in Table 4-23. The county median household income of \$44,961 could support a house price of \$170,852. Meanwhile, people who worked in Barrow County in 2000 earned an average annual wage of \$26,472 (shown as weekly wage of \$509 in Table 4-22).



Table 4-23 Correlation of Household Income to Housing Prices for County Residents

<i>Annual Household Income</i>	<i>Maximum Annual Income</i>	<i>Maximum Monthly Income for Housing (30 %)</i>	<i>Equivalent House Price *</i>	
Less than \$15,000	\$15,000	\$375	\$57,000	
\$15,000-24,999	\$25,000	\$625	\$95,000	
\$25,000-\$34,999	\$35,000	\$875	\$133,000	
\$35,000-\$49,999	\$50,000	\$1,250	\$190,000	
\$50,000-\$74,999	\$75,000	\$1,875	\$285,000	
\$75,000-\$99,999	\$100,000	\$2,500	\$380,000	
\$100,000-\$149,999	\$150,000	\$3,750	\$570,000	
\$150,000-\$249,999	\$250,000	\$6,250	\$950,000	
\$250,000-\$499,999	\$500,000	\$12,500	\$1,900,000	
\$500,000 or more	NA	NA	NA	
Average Household Income				
	2000	\$51,566	\$1,289	\$195,951
	2004	\$54,823	\$1,371	\$208,327
Median Household Income				
	2000	\$44,961	\$1,124	\$170,852
	2004	\$46,979	\$1,174	\$178,520

**Based on a 95% loan at 7% interest for 30 years*

Source: Georgia Department of Labor, U.S. Bureau of Labor Statistics, U.S. Census Bureau: Small Area Income & Poverty Estimates 1995, 2000 and 2003; Model-based Estimates for States, Counties and School Districts

Median household income in 2004 increased to \$46,979, which could support a house price of \$178,520. The average annual wage in 2004 had increased to \$28,396 (or an average weekly wage of \$546 as shown in 4-22, which can support a house price of \$107,906. To add more perspective to the challenges faced by those who work in Barrow County, the county median income of \$46,979 in 2004 supported a home price of \$170,852. The 2004 average weekly wage would allow for a home priced at \$107,907 (or a monthly rent cost of \$710). Again, the average home price in 2004 was \$141,320, and the average rent in 2000 (which has most surely increased) was \$583. To complicate matters, the counties largest job sector in 2004, Administrative and Waste Services, Government and Retail Trade, retail trade, only paid an average weekly wage of \$440, \$582 and \$482, which translates into a home of \$86,957, \$115,021 and \$95,258, respectively (or a monthly rent of \$572, \$757 and \$627, respectively).

4.7.2 Barriers to Affordability

Barrow County wages fall considerably lower than the average weekly wage for the 28-county Atlanta-Sandy Springs-Marietta Metropolitan Statistical Area (Atlanta MSA) and the State of Georgia, which provides an explanation for why many of the county’s new residents choose not to work in the county. A large percentage of Barrow County residents commute to areas outside of Barrow County to work, as previously outlined. Most of the County’s multi-family housing is located in Winder. Most of the County’s mobile homes are located in unincorporated areas of the County. Large-acre lot, single-family residential products dominate the Barrow County housing market, as explained in Section 4.1.1. Few multi-family products have come on line to meet the growing demand for housing to support the workforce. These conditions together with the demand to provide higher end housing for Atlanta MSA’s growing workforce have created a housing market that cannot provide for all segments of the growing workforce.



5 Natural and Cultural Resources

5.1 Environmental Planning Criteria

The Georgia Department of Natural Resources (DNR) requires counties and municipalities to establish five environmental protection districts: water supply watersheds, protection of groundwater recharge areas, river corridor protection, wetlands protection, and mountain protection. The sections below provide a brief analysis of the Barrow County regulations relating to these districts in addition to an inventory of the location of these districts in the County. Water supply watersheds, groundwater recharge areas, river corridor protection and mountain protection are each shown on Map 5-1, in Appendix A. Wetlands are shown on Map 5-2 in the Atlas of Maps.

5.1.1 Water Supply Watersheds

DNR defines water supply watershed as the land area upstream of a governmentally-owned public drinking water intake. In response to Official Code of Georgia Annotated (OCGA) 12-2-8, the DNR, and Environmental Protection Division's (EPD) Rules for Environmental Planning Criteria Chapter 391-3-16, Barrow County and the municipalities of Auburn, Carl, Statham and Winder have adopted regulations to implement these state planning criteria. Bethlehem is not impacted by Water Supply Watersheds, as defined by DNR and therefore has not adopted a protection ordinance.

DNR differentiates between large watersheds (greater than 100 square miles) and small watersheds (less than 100 square miles). In large water supply watersheds, the perennial streams 7 miles upstream of a reservoir are protected through maintenance of a 100-foot vegetative buffer, limitation of impervious surfaces, and restricted location of septic tanks and drain fields. Within small water supply watersheds, the criteria require maintenance of a 100-foot vegetative buffer, a prohibition on impervious surfaces within 150 feet of the streams, and septic tank drain fields. Beyond the 7-mile limit, a 50-foot vegetative buffer is required and impervious surfaces and septic tank drainfields area prohibited within 75 feet of the streams.

Barrow County contains portions of three large water supply watersheds and five small water supply watersheds. Large water supply watersheds Barrow County include the Appalachian River Watershed, the Middle Oconee River Watershed, and the Mulberry River Watershed. The City of Winder has a primary public water intake on the Mulberry River. Small water supply watersheds include the Cedar Creek, Laurel Lane Reservoir, Fort Yargo Lake, Barber's Creek, and Bear Creek watersheds.

Of particular importance in Barrow County is the protection of the small water supply watersheds. The Unified Development Code identifies river and stream buffers in these watersheds and buffers around the water supply reservoirs as Primary Conservation Areas that cannot be developed. However, State Environmental Planning Criteria mandates that the land area draining to these water supplies be developed to a maximum of 25% impervious surface. One of the best ways to ensure limited development within water supply watersheds is through conservation easements and fee simple land acquisition for conservation purposes.

5.1.2 Groundwater Recharge Areas

As described in Georgia Geologic Survey Hydrologic Atlas 18: "Most Significant Ground-water Recharge Areas of Georgia," published in 1989, mapping of the recharge areas was based on outcrop area, lithology, soil type and thickness, slope, density of lithologic contacts, geologic structure, the presence of karst, and potentiometric surfaces.

In response to OCGA 12-2-8, the DNR, and EPD's Rules for Environmental Planning Criteria Chapter 391-3-16, Barrow County and the municipalities of Auburn and Carl have adopted regulations to implement the state planning criteria as it pertains to the protection of groundwater recharge areas. Bethlehem and Winder



and Statham are not impacted by Groundwater Recharge Areas as defined by DNR and therefore have not adopted a protection ordinance. These criteria would place restrictions on new sanitary landfills, use of hazardous wastes, use of above ground storage tanks, agricultural activities, and a minimum lot size for those areas requiring septic tank systems. These criteria would allow for development in a water supply watershed while maintaining the integrity of the water source to a point where it can be treated to meet drinking water standards.

Likely areas of significant groundwater recharge have been generally mapped by DNR in Barrow County. These areas occur at two sites. The first is between Winder and Auburn, which covers most of Carl. This groundwater recharge area is at one point 4 miles by 3 miles wide. The second is in northwest Auburn along the Barrow/Gwinnett county line. This area has an approximate 1.5-mile diameter. Like water supply watersheds, it is advisable to limit the development of impervious surfaces in these areas of significant groundwater recharge.

5.1.3 Wetlands

Wetlands provide flood and storm damage protection, erosion control, water supply, and groundwater recharge. The U.S. Fish and Wildlife Service National Wetlands Inventory provides general mapping of wetland areas, which makes general wetland areas easy to locate and protect. Wetland areas in Barrow County are usually contiguous with streams and rivers.

In accordance with EPD's Rules for Environmental Planning Criteria Chapter 391-3-16, Barrow County and the municipalities of Auburn, Bethlehem, Carl, Statham and Winder have adopted regulations to protect areas designated as wetlands within the County. Bethlehem has not adopted regulations to protect areas designated as wetlands. Discussions are underway, however, for Bethlehem to adopt the Barrow County Unified Development Code. The Unified Development Code identifies protected wetlands and an associated 25-foot buffer as a Primary Conservation Area that cannot be developed.

The State of Georgia does not currently have laws in place protecting freshwater wetlands located in the interior of the state. Only coastal wetlands have such protection. State criteria do not specify regulations to be adopted, but they require local governments to identify wetlands within their jurisdiction and assess the impacts of the land-use plan on these areas. The U.S. Army Corp of Engineers (USACE) does have limited authority to regulate the discharge of dredge or fill material into freshwater wetlands in the U.S. under Section 404 of the Clean Water Act; however, the Supreme Court ruled in 2001 that the USACE jurisdiction is limited only to those wetlands connected to a navigable water body. As a result, isolated wetlands are no longer federally protected areas. Many of the wetlands identified within Barrow County are isolated, as shown in Map 5-2.

5.1.4 River Corridor

River corridors are strips of land that flank major rivers. These corridors are important due to their role as wildlife habitat, recreational areas, and buffers that protect the quality of river water. River corridors also help to control erosion and river sedimentation. Only a small portion of the Middle Oconee River that flows through eastern Barrow County currently meets the DNR river protection criteria as shown in Map 5-1. However, the Unified Development Code protects the Apalachee, Mulberry, and Middle Oconee Rivers as it would be required to treat state-designated protected river corridors due to their importance as drinking water sources. The Mulberry River provides water for Jackson, Clarke, and Barrow counties, while the Apalachee River feeds Lake Oconee, a water source for Madison and Greensboro.

Barrow County has adopted regulations that meet the state requirements with the Unified Development Code. The municipalities of Auburn, Bethlehem, Carl, Statham and Winder are not impacted by River Corridors as defined by DNR and therefore have not adopted protection ordinances. The code extends protection beyond the state requirement and identifies river and stream channels and associated buffers (including buffers around water supply reservoirs) as a Primary Conservation Area that cannot be developed.



As stated in the paragraph above, the code uses this designation to protect the Apalachee, Mulberry, and Middle Oconee rivers.

5.1.5 Coastal Resources

Coastal resources include beaches, coastal marches, and estuaries. No land in Barrow County meets these criteria. As a result neither the County nor the municipalities of Auburn, Bethlehem, Carl, Statham and Winder have adopted protection ordinances.

5.1.6 Mountain Protection

Mountain protection applies to land areas with an elevation of 2,200 or more, and with slopes of 25%. No land in Barrow County meets these criteria. As a result neither the County nor the municipalities of Auburn, Bethlehem, Carl, Statham and Winder have adopted protection ordinances.

5.2 Other Environmentally Sensitive Areas

Barrow County lies in the upper fringes of the Piedmont Plateau physiographic province of Georgia.

5.2.1 Air Quality

Since the adoption of the federal Clean Air Act Amendments (CAAA), the Atlanta region has experienced the challenge of meeting federal clean air standards. Significant amounts of the region's air pollutants come from automobiles and trucks. In an effort to control the formation of ozone in the region, state and federal air quality planners placed a limit on the amount of emissions originating from vehicles. The region has had difficulty meeting its emissions allocation because of rapid population and employment growth. Starting in the late 1990s, the region entered a conformity lapse that halted the construction of regionally significant transportation projects. For transportation planning purposes, these regionally significant projects include roadways classified as minor arterials or above and large transit projects such as rail extensions.

A conforming Regional Transportation Plan, developed by the ARC, was approved by the U.S. Department of Transportation in coordination with the U.S. Environmental Protection Agency (USEPA) in January 2003. Meeting regional air quality conformity standards will continue to be a challenge with capacity additions to area arterial routes.

As part of the Metro Ozone and Particulate Matter (PM_{2.5}) Non-Attainment area, Barrow County must follow all federal transportation planning and programming regulations. Most importantly, projects that add capacity to the transportation system must undergo the region's testing to ensure they meet CAAA standards. Consequently, the Georgia Department of Transportation (GDOT) and Barrow County no longer have the capability to add certain needed projects into the transportation program without exceeding standards air quality scrutiny. If the region is unable to meet federal air quality standards, funding for projects that add capacity will be withheld.

5.2.2 Public Water Supply Sources

Water supplies for Barrow County include surface water from the Mulberry River and Barber Creek, as well as a system of wells (Town of Braselton) and the Upper Oconee Basin/Bear Creek Reservoir.

5.2.3 Steep Slopes

Steep slopes (15% or greater) are concentrated in the northwest areas and just south of Auburn, but are scattered throughout the County.



5.2.4 Floodplains

Flooding is the temporary covering of soil with water from overflowing streams and by runoff from adjacent slopes. Water standing for short periods after rainfalls is not considered flooding, nor is water in swamps. Barrow County's 100 and 500-year floodplains are shown on Map 5-4 in Appendix A.

Floodplains in their natural or relatively undisturbed state are important water resource areas. The floodplains serve three major purposes: natural water storage and conveyance, water quality maintenance, and groundwater recharge. Unsuitable development can destroy their value. For example, any fill material placed in the floodplain eliminates essential water storage capacity causing water elevation to rise, resulting in the flooding of previously dry land.

The Federal Emergency Management Agency (FEMA) has identified and mapped the areas of Barrow County prone to flooding in order to establish actuarial flood insurance rates and promote a sound floodplains management plan. A management plan has been established for areas having high development potential and/or prone to a 1% annual chance (100-year) flood. Floodplains primarily impact unincorporated Barrow County along perennial creeks and rivers as well as streams. To a lesser degree, floodplains impact the incorporated areas along some intermittent streams.

5.2.5 Soils

Soil is the product of parent material (underlying geology), topography, climate, plant and animal life, and time. The nature of the soil at any given place depends on the combination of these five factors. Each factor acts on the soil and each modifies the effect of the other four. Because of this interaction, knowledge of soil types in an area provides a good indication of topography (slope), erosion patterns, the presence and depth of rock, and the presence of water, as in wetland or floodplain areas. Soil types are also useful in estimating runoff from precipitation, which is essential in developing stormwater management programs.

Soil Associations

The soils in Barrow County are generally red in color and, with the exception of those found in floodplain areas, are well drained. Soils in Barrow County fall into four associations as interpreted in Table 5-1. A soil association is a landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and it is named for the major soils. The soils in one association may occur in another, but in a different pattern. Map 5-5 provides a general idea of the soils in the County and allows for a comparison of different parts of the County. It also shows the location of large tracts that are suitable for specific land uses. The map is a useful guide in preparing the County's Character Areas and outlining the Areas of Special Concern. It is not intended that this map would serve the purpose for selecting an exact location for a road, building, or other structure. More detailed maps of soil types are needed and are available for such purposes.¹



Table 5-1 Soils Associations of Barrow County

<i>Soil Association</i>	<i>Descriptions</i>	<i>Location</i>	<i>Percent Slope</i>
Chewacla-Toccoa	Deep, somewhat poorly drained and well drained, nearly level, mainly brown and reddish-brown soils that are mottled in the subsoil or underlying layers; on floodplains soils	Broad to narrow floodplains located along the Apalachee, Mulberry and Little Mulberry rivers and Beach and Marburg creeks	0 to 2%
Cecil-Madison	Deep and moderately deep, well drained, very gently sloping and gently sloping soils that have mainly a red to yellowish-red subsoil; on broad interstream divides	Located on smooth plateaus and gently sloping soils on hillsides throughout the County and makes up the largest share of the associations in the County	2 to 10%
Pacolet-Madison	Moderately deep and deep, well drained, sloping to steep soils that have a red to yellowish-red subsoil; mainly on hillsides	Found on narrow to medium ridges and strongly sloping to steep soils on hillsides adjacent to the Chewacla-Toccoa soil association near rivers and creeks	2 to 25%
Gwinnett-Musella-Pacolet	Shallow and moderately deep, well drained, gently sloping to steep soils that have a dark-red to red subsoil; on ridgetops and hillsides	Narrow to medium ridges and hillsides in small quantities in the northwest, northeast and south portions of the County	6 to 35%

Source: Soil Survey of Barrow-Hall-Jackson Counties, GA 1975 - U.S. Department to Agriculture; National Resources Conservation Service

Prime Agricultural Soils²

Table 5-2 lists the map units in Barrow County that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use. These areas are shown in Map 5-6.

Table 5-2 Important Farmland Soils

<i>Map Symbol</i>	<i>Map Unit Name</i>	<i>Farmland Classification</i>
ApB	Appling sandy loam 2 to 6% slopes	Prime Farmland
CeB	Cecil sandy loam 2 to 6% slopes	Prime Farmland
MdB	Madison sandy loam 2 to 6% slopes	Prime Farmland
ApC	Appling sandy loam 6 to 10% slopes	Farmland of Statewide Importance
Au	Augusta loam	Farmland of Statewide Importance
Cc	Cartecay and Chewacla soils	Farmland of Statewide Importance
CeC	Cecil sandy loam, 6 to 10% slopes	Farmland of Statewide Importance
Ck	Chewacla loam, frequently flooded	Farmland of Statewide Importance

Source: U.S. Department of Agriculture, Natural Resources Conservation Service

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested federal, state, and local government organizations, has inventoried land that can be used for the production of the nation's food supply.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable



acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or protected from flooding. Slopes mainly range from 0 to 6%.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and drought, are needed. On-site evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Land that does not meet the criteria for prime or unique farmland is considered to be "farmland of statewide importance" for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate state agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland, if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by state law.

5.2.6 Plant and Animal Habitats

Georgia Ecological Services, Athens, Brunswick, Columbus Division of the U.S. Fish and Wildlife Services maintains an inventory of plants and animals that are rare enough to warrant state and federal protection. The species identified, all of which are designated unusual, endangered, or threatened, are vulnerable to the impacts of rapid land use changes and population growth and should be protected by Barrow County to the extent possible. Federal and State Listed Endangered and Threatened Species plant and animal data for Barrow County is shown on Tables 5-2, 5-3 and 5-4.

Table 5-3 Federal- & State-Listed Endangered and Threatened Species – Birds

Species	Federal Status	State Status	Habitat
Bald Eagle, <i>Haliaeetus leucocephalus</i>	Threatened	Endangered	Inland waterways and estuarine areas in Georgia.

Source: U.S. Fish and Wildlife Services: Georgia Ecological Services Athens, Brunswick and Columbus - May 2004 Updated

Table 5-4 Federal- & State-Listed Endangered and Threatened Species – Animals and Fish

Species	Federal Status	State Status	Habitat
Altamaha Shiner <i>Cyprinella xaenura</i>	No Federal Status	Endangered	Upper Altamaha River drainage of north Georgia; Inhabit small tributaries and rivers. Most often found in small pools with rocky to sandy substrates

Source: U.S. Fish and Wildlife Services: Georgia Ecological Services Athens, Brunswick and Columbus - May 2004 Updated



Table 5-5 Federal- & State-Listed Endangered and Threatened Species - Plants

<i>Species</i>	<i>Federal Status</i>	<i>State Status</i>	<i>Habitat</i>
American Pillwort <i>Hydrastis canadensis</i>	No Federal Status	No State Status; Imperiled because of rarity	Granite outcrops; seasonally exposed muddy shores
Granite-rock stonecrop <i>Sedum-pusillum</i>	No Federal Status	Threatened	Granite outcrops among mosses in partial shade under red cedar trees
Pink Ladyslipper <i>Cypripedium acaule</i>	No Federal Status	Unusual	Upland oak-hickory pine forests; piney woods

Source: U.S. Fish and Wildlife Services; Georgia Ecological Services Athens, Brunswick and Columbus - May 2004 Updated

The Unified Development Code identifies the wildlife habitats of threatened and endangered species and an adjacent 100-foot buffer as a Primary Conservation Area that cannot be developed. However, these critical wildlife areas are not mapped. The Unified Deployment Code specifically protects the habitats of the Altamaha shiner, the bald eagle, and granite rock stonecrop.

5.3 Significant Natural Resources

5.3.1 Scenic Areas

Barrow County has a wide range of scenic attractions, including creeks, rivers, agricultural areas, hills and significant historic sites. The Barrow County Unified Development Code identifies scenic areas or viewsheds as candidates for Secondary Conservation Areas that can be protected with the conservation easement, but for which a conservation easement is not required. There are four basic kinds of scenic resources:

- Landscape vistas
- Botanical and animal life
- Unique sites
- Sites of activities with contemporary significance

Scenic views and sites identified in the previous updates of the Barrow County Comprehensive Plan include the following sites:

- Hall Jackson Road
- Corinth Church
- Kigore Mill Covered Bridge
- S.R. 82 between Bowman Mill Road and Pleasant Hill Church Road
- Boss Hardy Road
- Bramlett Farm
- Carson Wages Road
- Apalachee River corridor
- Mulberry River corridor
- Rock Creek
- Wetland Mitigation area on Beech Creek
- Hog Mountain Road
- Freeman Johnson Road
- S.R. 316 corridor
- Fort Yargo



- Nordoroc Volcano

5.3.2 Forests, Parks, Recreation and Conservation

Fort Yargo State Park is located in Winder. The majority of the 1,700-acre park is dedicated to undisturbed nature conservation. However, it does have many outdoor recreational facilities including a 260-acre lake with areas for swimming, boating, and fishing. The grounds also provide facilities for camping, hiking, picnicking, tennis, and miniature golf.

5.4 Significant Cultural Resources

5.4.1 Local History

Government

The Georgia Legislature adopted an act that formed Barrow County in 1914, with Winder established as the county seat. Among the last of the Georgia counties created by the Legislature, the act carved out 168 square miles from Gwinnett, Jackson, and Walton counties where rivers had separated residents. The earlier history of Barrow County can be found through an examination of the histories of neighboring counties.

Several attempts to form Barrow County failed. The earliest attempt, in 1835, was to form a county around Jug Tavern (the present site of Winder). Another attempt was made in 1855-1856, but was unsuccessful. In 1877, the state constitution specified that no new counties be created, which was followed until 1904 when an amendment was introduced to form eight new counties. At this same time, pressure was placed on the legislature to form a county, with Winder as its county seat. Once again, Barrow County's creation was delayed until 1911. A bill was finally signed into law in 1914 to establish Barrow County, in honor of David Crenshaw Barrow, Chancellor of the University of Georgia.

Barrow County's formation in 1914 was followed by the first term of court in March 1915. Winder was designated as the county seat and temporarily occupied Sharpton Opera House. In 1915, the County also employed several government officials including: a Probate Court Judge, a Sheriff, Clerk of Superior Court, Tax Collector, Superintendent of Schools, treasurers, county surveyors, and a coroner. R. L. Carithers was elected as Barrow County's first state representative in 1915. There were also several district officials representing various parts of the County.

Early Settlement

Before 1800, the area now called Barrow County was claimed by the Upper Creek and Cherokee Native American tribes. Land possession between tribes changed according to the fortunes of war. The Upper Creeks may have come first and named the settlement Snodon, which is located at the current intersection of Athens and Church streets in Winder. The Native Americans' migratory nature caused Snodon to be only a temporary home as hunting and fishing were the mainstay of the Native Americans' existence in addition to the corn, squash, and beans raised by the Native American women. Tribes moved on when the resources were exhausted.

In fear of uprisings from Native Americans, the pioneers erected Fort Yargo around 1792 as a means of protection. By 1794, the Tallassee Colony had separated into several communities. By the early nineteenth century, most of the Native Americans had been removed west of the Mississippi and pioneers branched into the western areas of the state.

Education

The earliest known formal school in Barrow County was the Rockwell School built just prior to the onset of the Civil War. It was approximately 50 feet long and 30 feet wide, with a chimney at each end. The building was made of logs that were covered with boards. During the Civil War, Company B, 16th Georgia Volunteer



Infantry, organized at the school by Capt. Abner Monroe Reynolds. The ladies of the community were known to meet at the schoolhouse to sew for the soldiers.

One of the earliest Barrow County schools was the County Line School, organized about 1877 and was used until 1904. A new building constructed about 1904 had two stories and a steeple with a bell. After being destroyed by fire, it was replaced in 1932 by a modern brick building that included four classrooms, an auditorium with stage, and a principal's office. In order to accommodate expanding enrollment in 1957, the Barrow County Board of Education provided funds to build an annex to the 1932 building. This consisted of three classrooms, a lunchroom, restrooms, a storage room, a corridor and a furnace room. From 1962 to 1963, a gymnasium was built; it later had to be made into classrooms because of a fire on January 12, 1972, which destroyed the original 1932 portion of the building. In 1973, the original structure was eliminated entirely by a new building that was opened in May of that year.

Another noteworthy education facility was the Perry-Rainey Institute. The school had its beginning in 1892 when the Mulberry Association of Baptist Churches decided to build a school. For several decades the largest private educational institute in the County, the Perry-Rainey Institute was known by several names including: Mulberry High School, Perry-Rainey College, Perry-Rainey Institute and, finally, Southeastern Christian College. In 1909, a new brick administration building was completed that housed administrative offices, classrooms, and an auditorium, with a kitchen and dining room in the basement. Facing budgetary restraints, the Georgia Baptist Association was forced to sell the school. The new school wanted to include high school grades, so a new building was proposed to house the expanded enrollment. The land selected for the new site was owned by Charlie Duncan, a local farmer that grew sweet potatoes on the site. Due to strained financial resources and the rise of public higher education institutions, Southeastern Christian College closed in 1924 and the City of Auburn assumed control of the property.

Because of its early settlement and sustained growth, the development of Winder's schools occurred earlier and on a grander scale than in the rest of Barrow County. Winder, then known as Jug Tavern, had its first school form in 1833 as a one-room log tenant house on the present Broad Street. The few children living in the area at the time attended Professor Gause's summer sessions. This school was discontinued when Concord School was erected near the intersection of Athens and Church Streets in 1836. The Concord Building also served as a Methodist Church.

About 1884, Hinton's Academy was built on East Broad Street on the current site of the Late Robert Luther Carithers' home. Summer and winter sessions in this one-room structure accommodated about 25 pupils, who planted crops in the spring and harvested them in fall. On the other side of the village, a one-room building, Cedar Creek Community School, was built in 1885. Since distance and lack of transportation was a challenge, there were other one-room, one-teacher schools throughout the rest of the area for convenience of the early settlers.

The first public high school in Winder was known as the Jug Tavern Institute. The definite date of its beginning is uncertain, but an old report card dated 1893 verifies its existence. In 1894, the Jug Tavern Institute was chartered as Winder Institute with power to grant diplomas and confer degrees. By 1907, Winder Institute was changed to Winder Public School and operated as an independent system. In 1915, citizens approved a bond issue for a new school building, and in September 1915 the cornerstone of a \$40,000 building was laid. On December 5, 1938, a fire destroyed the entire building. After two years of holding classes in makeshift rooms in the old City Hall, a new one-story building was opened on Bellview in September 1941. In 1956, Winder High and Statham High consolidated by a contract between the city and county boards of education and took the name Winder-Barrow High School. A new building was erected at the corner of Wright and King streets in 1957 for the instruction of black students from both the city and County. Integration began slowly in 1965, and total integration of the school system was achieved by the fall of 1973.

Other historically significant developments among Barrow County's educational institutions include Cook's Consolidated School, which used two 1923 Model T Fords to provide the County's first bus service, and the



creation of the Barrow County School District in 1914 from the consolidation of three independent school systems.

Agriculture

Barrow County is part of the Piedmont section of Georgia with a gently rolling topography blanketed with hardwoods and pines. With a mild climate and adequate rainfall, conditions are favorable for the growth of field crops, pasture grasses, vegetables, and timber. The Piedmont area was settled by farmers from the Carolinas and Virginia. Farms were typically small, self-sufficient operations, managed by small farmers who worked their own land and owned few, if any, slaves. Prior to 1840, rice was produced on many farms and production continued until 1899. Several public places, such as water driven mills and factories, were established to provide for the needs of the early farmers.

Cotton production soared with the increase and growing demand in the markets. In 1919, there were 33,769 acres planted in cotton, but production dropped to less than 1,000 acres in the 1970s. With the advance of the boll-weevil, cotton production ceased. The production of cotton as the main cash crop brought the tenant farmer labor system to the County. The share-cropper system peaked in 1930 and has declined ever since.

Corn production fell from 16,220 acres in 1919 to 1,120 acres in 1978. The farm population declined from 7,287 farms in 1925 to 411 in 1987. Land under actual production has increased from 1978 to 1987 with an average farm size of 98 acres. What once was a small system of self-sufficient farmers is now a major agribusiness community. Barrow County's total population in 1980 was 21,354 persons with 68.6% of the population living in rural areas. Of that 68.6%, 722 people lived on rural farms; the rest of the rural population lived on rural non-farms.

Religion

Barrow County has a number of historic churches, each exhibiting distinctive architectural traits. As a group, these religious landmarks show a strong ecclesiastical vernacular tradition that dates back to the early 1800's. With only two individually listed and a few others included as contributing properties in some of the historic districts, most of these properties are not currently listed on the National Register of Historic Places.

Pentecost United Methodist Church was probably the first church to organize in the County. The congregation was first organized in 1786 under the leadership of the Rev. William Pentecost. Many of the founding members of the church, including Rev. Pentecost, are buried in the adjoining cemetery. The land on which the fifth and present church building stands was given, in the early 1800s, by a Mr. Sell, who was a member at that time.

Bethlehem United Methodist Church is also thought to be one of the oldest congregations in the County. Its first services were held in 1790 in a small log structure located about 2 miles northeast of the present site on the Monroe-Jefferson Road. After three years, a small church was erected on Bethlehem-Jones Road, where the congregation worshiped for several years. In 1878, the old church was torn down and a modern church was erected. The fifth and present church was built in 1949, additional Sunday School rooms were added in 1967, a new parsonage in 1969, and a new steeple and narthex in 1970. The campground was incorporated by the Georgia legislature in 1851, and, in order to hold camp meetings, an arbor was built soon afterward. It was used as a mobilization center during the Civil War, and two companies were mobilized from the site.

Bethabra Baptist Church, the oldest Baptist congregation in Barrow County, was organized in 1813. Another historically significant congregation in the County is the Rockwell Universalist Church, situated at the intersection of Rockwell Church Road and Georgia Highway 53. First organized in 1839 and later reorganized in 1867, Rockwell Church is the second oldest Universalist church in the state and was the site of the Georgia State Universalist Convention 18 times between 1890 and 1975. Other congregations active in Barrow County include Presbyterian, Episcopal, Christian, and Roman Catholic.

The majority of Barrow County's churches developed during the latter half of the 19th century. Most of these and earlier congregations were organized and first met in simple brush arbors or shelters constructed of



canvas and wood timbers. Camp meetings were also common for early churches, and many congregations rented space in public meeting houses or Masonic lodges before they built their own church buildings.

Transportation

As the number of settlements in the Piedmont section increased, settlers needed better transportation. Waterways were the original highways of trade and settlements occurred on the rivers. In 1833, the Charleston and Hamburg Railroad was built. The first charter to produce a railroad in Georgia was secured by James Camak in 1833, for the Georgia Railroad to run from Athens to Augusta. The Gainesville Midland was built from Jug Tavern in 1883 to connect Gainesville and Social Circle. Regular stops along this railroad were Bethlehem, Jug Tavern, and Mulberry. The Seaboard Air Line Railway was built and by 1892 the first Seaboard train passed through Jug Tavern. In honor of this great achievement, Jug Tavern renamed itself Winder for John H. Winder, general manager of the Seaboard Air Line Railroad. A passenger depot was built on Porter Street in 1892, but was replaced with a depot built in 1912 in the late American Queen Anne-style depot architecture. With the arrival of the railroad, new economic activity encouraged construction of fashionable Victorian-era and Neoclassical houses plus rows of commercial structures adjacent to the railroad depot.

The arrival of the railroad influenced other towns in Barrow County. From the rail link of Athens to Atlanta, other towns began to benefit. Auburn, originally a temporary campsite for the contractors and builders, built a new depot in 1892, because two generous patrons, J. O. Hawthorne and J. J. Wages, donated land for the railroad rights of way on both sides of the tract. The town was built around the railroad. Russell was a flag-stop type of station that provided Judge Richard B. Russell with a commuter link to Atlanta, where he served on the Court of Appeals and the Supreme Court of Georgia. Statham was transformed from a residential community into a small town with the construction of the railroad. The new railroad from Birmingham, Alabama, to Norfolk, Virginia, cut through J. C. Statham's farmlands. Mr. Statham deeded the right-of-way (ROW) to the Georgia, Carolina, and Northern Railway Company. The town grew around the new railway, principally from the Union Army veterans who helped build the railway and settled in the town.

From 1890 to 1920, railroads provided the chief means of transportation. Shifts in population from farm to urban areas created a 14% increase in urban populations. The railroads declined with the introduction of automobiles, trucks, and buses. Georgia's revenue system did not supply adequate revenue to provide better schools, public health facilities, and roads. The federal government provided assistance in meeting needs for roads due to the increased use of the automobile. In 1916, states could obtain federal funds on a matching basis to assist in construction of roads. The Georgia Highway Commission was created for this purpose and through the convict lease system, a source of cheap labor was provided to enable the state to build a modern highway system by 1920. By 1920, Georgia was experiencing vigorous urban growth. Atlanta emerged as a wholesale and retail center because of the railroad. Barrow County profited from this growth in Atlanta and the role of the railroads.

Commerce

Growth was rapid with the advent of the railroads. The population increased from 200 in 1884 to 1,200 by 1895, and new connections with Atlanta and other markets brought a boom to Winder's commercial development. Commercial districts developed around Barrow County's railroad communities. Turn of the century commercial buildings borrowed styles used across the nation, such as the Romanesque Style. Elements of this style can be seen in the use of extensive detailing and brick corbeling. Winder's commercial district speaks of the importance of government and commerce in the community. The commercial buildings were built primarily with brick, although granite was used on some buildings. Governmental buildings display a more monumental character. The County Jail, located in Winder, was an impressive work of Gothic architecture and now houses the Barrow County Museum. The County Courthouse was a massive Neoclassical structure.



Towns

The growth of many of the towns in Barrow County focused on the development of the railroad. Old Auburn existed in the early 1800s but was not incorporated until 1892 when the Seaboard Railroad came through the area. A plat for the town was drawn and the land surveyed by the railroad company. The streets were laid out on both sides of the railroad and lined with trees and street lights. The railroad depot was built in 1892, eight warehouses were built on the railroad siding, and people moved to Auburn to be near the railroad. Two blacksmith shops, a sawmill, a gristmill, a cotton gin, a tanning yard, a shoe shop, and doctors and dentists established business in Auburn during this boom in growth. Boarding houses were built to accommodate the traveling salesmen. In 1903, the Chandler brothers built a brick kiln in Auburn and the first brick building, T. C. Flanagan's store, was built with Auburn clay bricks. The Bank of Auburn was established in 1907 and attached to Flanagan's store. In 1908, the Auburn Telephone Company was founded.

Bethlehem was a small village in Walton County in the early 1800s. The town of Bethlehem grew from and was named after the congregation of Bethlehem Methodist Church, established in 1796. The Beddingfield brothers built the first store in 1884 when the Gainesville Midland Railroad ran between Gainesville and Social Circle. This first store now stands and serves as the post office. Other commercial enterprises were a blacksmith shop, a large general store, two banks, a drug store, a cotton gin and a warehouse. Many residences were built in the 1880s and 1890s. Streets were laid out to bear the names symbolic of the first Christmas. Many of Bethlehem's historic structures were built between 1850 and 1890, a period of prosperity due to cotton production.

Carl was formerly known as Dillard's Cross Roads. In 1892, the name changed to Lawson when the railroad came through town. In 1906, Lawson was renamed Carl by the state legislature in honor of Carl Pate, the son of the general store operator.

Russell was incorporated in 1902 with a mayor and council form of government. Judge Richard B. Russell established his home in this area over the eastern border of the city limits of Winder, on the south side of the ROW of the Seaboard Railroad. The railroad made a flag stop in Russell to transport Judge Russell to Atlanta. The Russell Homeplace National Register Historic District includes four family residences, a modern guest house/library, a family cemetery and memorial garden, a grape arbor, and five historic outbuildings, one of which contains an old law office on the second floor. The Russell family home is a two-story, "Four Square" house constructed in 1912.

Statham grew from a combination country store and post office that belonged to J. C. Statham. The Statham home, built in 1850, was a log structure that was relocated to an alley off Broad Street. The Statham's emigrated from England, bringing with them a number of thoroughbred race horses. The building of the railroad from 1890 to 1891 brought the transition from village to town. With the vision of building a great town, Mr. Statham deeded the railroad the ROW through his farmland. The first depot was built around 1900 and the second depot was built in 1912. Statham was incorporated and received its charter in 1892. After the railroad was constructed, Mr. Statham cut up his orchard into lots which he donated for the town property. The streets ran parallel with the railroad and were lined with beautiful oak trees. The first brick buildings were erected by Mr. A. L. Malcolm in 1900 and are still standing, though greatly altered. The Statham Bank was constructed shortly thereafter and remains unaltered. Some homes in Statham were the homes of railroad workers who came from Ohio and decided to remain. These men organized themselves into the Ohio Colony, a group devoted to the promotion of development of Statham. Agriculture was the mainstay of Statham. Cotton, hay, corn, and small grains also were grown in Statham and two cotton gins were built during the prosperous cotton producing period.

Winder was originally the village of Jug Tavern and was settled in 1872. In 1884, the town of Jug Tavern was incorporated. Through the efforts of Dr. W. H. Bush, the Gainesville-Midland Railroad came to town, followed by the Seaboard Air Line Railroad in 1892. With the construction of the railroad, development came quickly. The railroads, and especially the route to Atlanta, brought rapid growth to Winder. The population increased to 1,200 by 1895 and the central business district was concentrated on Broad Street. By 1899, the town had hardware, harness, general merchandise, wagon, and drug stores. The Winder Banking Company



opened in September of 1899. In the early 1900s, the Winder Foundry and Machine Works had opened for business. Storefronts made by this company are located in Winder and Monroe, Georgia. The Granite Hotel (later named the Winder Hotel) was built around 1900 on Broad Street. By 1903, the hotel was part of one and a half blocks of commercial structures along Broad Street. The Sharpton Opera House and the Garrison Building were built in the Broad Street area around 1907. The central business district developed further with the Waterworks and electric-light plant built in 1909. At this time, Winder was still part of Jackson County and after many attempts, Barrow County was formed in 1914. The courthouse was constructed on the site of Dr. Bush's residence. His house was moved to face Porter Street. Other commercial buildings were constructed during the 1880s through the 1930s and are primarily of decorative brickwork.

5.4.2 Historic Resources

As shown in Maps 5-8 and 5-9 and in Table 5-6, Barrow County has 15 historic resources listed on the National Register of Historic Places. These resources include historic churches, homes, institutional buildings and farms. They also include historic districts. Historic districts contain a number of historic structures that relate to one another historically and architecturally. Many structures that could qualify individually as landmarks are included in historic districts along with less significant structures.

The last comprehensive survey of Barrow County's historic properties was conducted in 1976. This initial field survey identified 1,134 properties that met the two basic criteria for National Register consideration – they were at least 50 years old, and had sufficiently maintained their structural and stylistic integrity. This survey and subsequent research indicates that Barrow County has some historic resources of regional and statewide significance, and that a large percentage of historic properties that have been preserved form an important composite of southern and Georgia history.

According to Table 4-10 (Section 4.2.1 *Housing Age*), there are 3,805 residential properties that are over 50 years old in the County. Based on these figures (not including commercial or institutional properties), Barrow County has well over 4,000 properties that would currently meet the criteria for National Register consideration to be listed individually or as part of a district. With proper planning, the County's historic built environment could be a valuable cultural legacy for future generations and for the promotion of Barrow County's heritage tourism.

National Register Listed Sites and Districts

As early as the 1970s, Barrow County and the City of Winder recognized the importance of its cultural resources with the National Register Listings of the Kilgore Mill Covered Bridge and Mill Site in 1975 and the Winder Depot in 1979. In the 1980s and 1990s, a number of listings, that total seven sites and eight districts, were added to the National Register of Historic Places throughout Barrow County (see Table 5-6 and Maps 5-1 and 5-9).

Athens-Candler-Church Historic District

Listed in 1986 and located in the City of Winder, this district is comprised primarily of late 19th to early 20th-century residential structures. The areas of significance include Architecture and Social History. Current ownership of the properties in the district is private, with primarily residential uses.

Auburn Historic District

Listed in 1997, this district encompasses five city blocks of downtown Auburn. There are 25 residential and commercial contributing properties and the city cemetery listed that are in a 26-acre area. The areas of significance include Architecture, Transportation, Community Planning, and Development with three significant periods of development including 1875-1899, 1900-1924, and 1925-1949. Current ownership of the properties in the district is both private and government, with uses including City Hall, rail-related, restaurant and retail establishments, and single-family dwellings.

Barrow County Courthouse



Listed in 1980 and located in the City of Winder, this site was designed by Jamie Baldwin and built in 1920 in the Late Gothic Revival and Classical Revival styles of architecture. The areas of significance include Communications, Architecture, Economics, Politics/Government, and Law. It is owned and operated by Barrow County, being utilized as one of the primary governmental facilities in the County.

Broad Street Commercial Historic District

Listed in 1984 and located in the City of Winder, this district is centrally located around the courthouse.

Table 5-6 National Register of Historic Places

Name	Location	City	Year Added
Athens-Candler-Church Street Historic District	Roughly Candler Street between Melrose and Woodlawn Streets., Church Street, and Athens Street between Horton and Center streets.	Winder	1986
Auburn Historic District	Roughly bounded by 3rd Avenue, 6th Street, 6th Avenue, and Main Street	Auburn	1997
Barrow County Courthouse	Courthouse Square	Winder	1980
Broad Street Commercial Historic District	Broad Street and Athens Street	Winder	1984
Downtown Winder Historic District	Roughly bounded by Broad, Jackson, Candler and Athens Streets	Winder	1994
Jackson Street Commercial Historic District	Roughly bounded by Jackson, Athens, Candler, and Broad Streets	Winder	1994
Jackson-Johns House	116 Candler Street	Winder	1985
Kilgore Mill Covered Bridge and Mill Site	3.5 mi. southwest of Bethlehem across Apalachee River/County line	Bethlehem	1975
Manning Gin Farm	Junction of Manning Gin and McElhannon Roads.	Bethlehem	1991
North Broad Street Residential Historic District	Roughly bounded by Woodlawn Avenue, Center, Broad, and Stephens Streets	Winder	1984
Omer Christian Church and Cemetery	Junction of GA 316 and GA 324	Winder	2000
Rockwell Universalist Church	GA 53 & Rockwell Church Road	Winder	1985
Russell Home place Historic District	US 29	Russell	1984
Statham Historic District	Roughly bounded by Elizabeth, 8th, and 1st Streets and CSX RR tracks	Statham	1998
Winder Depot	Broad and Porter Streets	Winder	1979

Source: National Register of Historic Places 2006

Historic Resources

Barrow County

The Barrow County Historical Society and Museum is housed in the Historic Barrow County Jail, built in 1915 and located on West Athens Street directly behind the courthouse. Opened as a museum in 1993 after renovating the National Register listed property, it features the original "hanging tower," three original jail cells, an exhibit honoring Richard B. Russell of Winder, who served 38 years in the U.S. Senate, as well as hundreds of artifacts donated by the citizens of Barrow County. A reading and research room is located on the second floor and holds archives of the Winder News dating back to 1915, as well as a reference room for the Genealogy Society.

City of Winder

In 1986 in an effort to better protect the city’s historic resources, the City of Winder established a Historic Preservation Commission. That same year, the city adopted a local historic district with boundaries that encompass much of what is included in the National Register districts. Properties within the district are



subject to design review. The City of Winder became a Certified Local Government in 1987, which provides additional funding and technical support for cities and counties with historic preservation ordinances.

The Historic Preservation Commission consists of seven members appointed by the Mayor and City Council. The purpose of the Commission is to protect, enhance and perpetuate properties of historical value, stimulate the revitalization of historic neighborhoods and business districts, and to enhance opportunities for federal tax relief and tax credits for appropriate projects. The Commission typically reviews all proposed new development and exterior renovations within the City's historic district for compatibility and appropriateness. The commission adopted design guidelines that are to be used by both the commission and property owners. Considered part of the Planning function of the City, the commission's actions are coordinated through the Planning Department.

The continued support of the Winder Main Street Program, established in 1986, illustrates the City of Winder's commitment to preserving and encouraging the revitalization of its historic downtown core. The purpose of Main Street Winder, which is affiliated with the National Trust for Historic Preservation's National Main Street Center, is to improve the quality of life within the community by strengthening downtown through concentrated efforts in organization, promotion, design and economic restructuring.

Cities of Auburn and City of Statham

Both cities have National Register Districts with a number of commercial and residential properties in each. The Identities of Auburn and Statham are synonymous with their historic structures and largely intact historic downtown commercial districts. While being listed on the National Register of Historic Places provides recognition of their importance, it does very little to actually protect the structures or the integrity of these areas.

Cities of Bethlehem and Carl

Both cities have a significant number of historic properties, both residential and commercial, that are eligible for listing in the National Register either individually or in districts.

Potentially Eligible National Register Sites

A variety of historic landmark community buildings exist in Barrow County. Community landmark buildings house or once housed community institutions such as local governments, educational programs, and civic organizations or they are architecturally or historically significant structures that are particularly important to the County as a whole. All noted landmarks have the potential for listing (or are listed).³

Bethlehem Historic District

Although a small town, Bethlehem has good examples of commercial and residential architecture dating from the late 19th and early 20th-century. Research on a National Register district nomination began in 1990 and work on the nomination needs to be continued and completed. The proposed boundaries of the Bethlehem Historic District would encompass most of Bethlehem, running south of Star Street to north of Angel Street, then west to Christmas Avenue. The district would include the properties located on Shepherds Street, David Avenue, and Manger Avenue within the aforementioned boundaries.

King's Tan Yard Battlefield

This potential district, the site of an 1864 cavalry engagement between Confederate and union forces, is primarily of archaeological importance.



Old Fort Yargo

Fort Yargo was originally listed in the National Register in 1975. It was removed from the National Register in 1979 because further documentation was not received by the Department of the Interior. The Humphrey Brothers built Fort Yargo (c. 1792) as one of five forts to provide protection for the early settlers from Native American attacks. Senator Richard B. Russell helped to establish Fort Yargo as a state park with the purchase of 1,800 acres of land continuous to the fort. The fort is presently the oldest, intact building in the County and is part of the Fort Yargo State Park.

Winder Cotton Mill

This historic textile mill and mill village, circa 1898, form a representative “New South” development found throughout the Piedmont section of Georgia. This two-story brick complex with a central tower began business as a manufacturer of canvas and duck. It was originally founded by Col. George W. Scott of Decatur, a former Confederate cavalry officer who founded the Scottdale Mills and other enterprises in the Atlanta era. During World Wars I and II the Winder Cotton Mill, manufactured khaki pants for use by servicemen. In 1962, the mill was sold and became the Winder Rug Company.

5.4.3 Centennial Farms⁴

Georgia's Centennial Farm Program was developed in 1992 to distinguish those farms and farm families who have contributed to preserving Georgia's agricultural resources and to encourage the continued use of these farms for future generations. By honoring centennial farms, the program seeks to not only promote agricultural awareness but to gain a deeper understanding of Georgia's agricultural heritage.

The Georgia Centennial Farm Program encourages Georgia's residents to save and recognize farms that have contributed to Georgia's agricultural heritage for 100 years or more. Recognition is given to farmers through one of three distinguishing awards. The Centennial Heritage Farm Award honors farms owned by members of the same family for 100 years or more and are listed in the National Register of Historic Places. The Centennial Farm Award does not require continual family ownership, but farms must be at least 100 years old and listed in the National Register of Historic Places. The Centennial Family Farm Award recognizes farms owned by members of the same family for 100 years or more that are not listed in the National Register of Historic Places.

Five Barrow County farms have received these awards since the program began in 1992.

Centennial Farm Award

- Manning Gin Farm (1993)

Centennial Family Farm Award

- Pentecost Farm (1993)
- Robinson McNeal Farm (1998)
- Robinson-Stalling Farm (2002)
- Hill Family Farms (2005)

5.4.4 Archaeological Resources

In Barrow County, the Georgia Archaeological Site File contains 31 known sites in the County. There undoubtedly exist many other archaeological sites that have not been identified or documented.

Archaeological sites in Georgia are protected by Georgia laws described in the *OCGA* 12-3-620 to -621. Site protection is provided for any person or entity not operating under one of the following conditions:



- The provisions of Section 106 of the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)
- The express written permission of the land owner

In addition, cemeteries are considered valuable historic resources in Barrow County. Abandoned cemeteries and burial grounds should also be protected. According to code, "If a land owner or occupier proposes to develop or change the use of any part of such land containing a known cemetery, burial ground, human remains, or burial object, then a permit must first be obtained from the governing authority wherein the cemetery or burial ground is located." (OCGA 36-72-4).

In the past, archaeological sites and/or burial grounds have been accidentally discovered during construction of residential subdivisions. These sites are generally located in areas that witnessed concentrations of Native-American inhabitation and occupation, such as the area around and near Auburn.

5.4.5 Landmarks⁵

The following historic resources are considered landmarks in Barrow County. Properties included on this list possess historical significance as well as local significance. They do not carry protection related to national landmark status. However, several of the properties identified as landmarks are also listed in the National Register of Historic Places, listed in Table 5-6. These properties should be given special consideration in the planning process and are appropriate for future preservation activity.

Auburn and Vicinity:

- **Auburn United Methodist Church:** Organized in 1892, the current solid granite structure was constructed in 1955. (RR)
- **Apalachee Baptist Church:** This is located outside of Auburn and was the site where plans for the famous Perry Rainey Institute began.
- **Battle of King's Tan Yard:** On August 3, 1864, the Battle of King's Tan Yard was fought in this vicinity between members of the 9th Kentucky Cavalry, CSA, and members of the U.S. Army Cavalry. The South was the victor. The battle occurred southeast of the intersection of GA 211 and the County Line – Auburn Road.
- **Cain House:** Located in Auburn, this house was built circa 1900. Mrs. Cain's house was the boundary of old Auburn. Originally the house was built with a two-story full facade porch.
- **Hawthorne House:** This is the home of J. D. Hawthorne who gave the land for the town of Auburn.
- **Sloan House:** Also located near Auburn (old Auburn near Apalachee Church), this house is located adjacent to the Cain House and was the house of the Rev. Sloan who conceived the idea of the Perry-Rainey Institute.
- **T. C. Flanagan House:** Built in 1900, Mr. Flanagan was the owner of a store, gin, cotton warehouse, grist mill, and a mineral spring which provided fine water that was bottled and shipped to other areas. This is located on the north side of 4th Avenue.
- **T. C. Flanagan's Store:** Built in 1904, this building was the first brick building in Auburn and constructed of locally made bricks of the auburn-red color that gave the town its name. It is located on the northeast corner of 4th Avenue and 5th Street.

Bethlehem and Vicinity:

- **Bethlehem United Methodist Church:** Founded in the 1790s just after the Methodist denomination was established in America in 1789, the site is located on Manning Gin and



McElhannon Roads in Bethlehem. A large and old campground stood here until 1914 and the church was built in 1879, withstanding the earthquake of 1884. It is located on the northwest corner of Bethlehem Church Road and Manning Gin Road.

- **Jackson Trail:** This road runs through Jackson and Barrow counties and connects the Smith's Mill road two miles East of Bethlehem. Originally the highway connecting northeast Georgia with Milledgeville, it was used by General Stonewall Jackson in his troop movements during the Civil War.
- **Kilgore Mill Covered Bridge:** The bridge was, at one point in time, one of only 12 extant-covered bridges in Georgia. It was destroyed by arsonists in circa 1994. The Kilgore Bridge had spanned the Apalachee River between Barrow and Walton counties. It was built in 1874 to replace an earlier bridge. It had been listed on the National Register of Historic Places and located on Briscoe Mill Road (dirt), 6/10 mile south of Tanner Bridge Road. The site of the bridge still exists.
- **Omer Christian Church:** Organized and built in 1883 by the Rev. R. V. Omer, the church has been inactive since 1920 and is used now for funerals and yearly reunion services.
- **Tanner House:** This school is located next to the Kilgore Covered Bridge and was known as the Tanner school, a community school house.
- **David Smith House:** Originally, this house was a log cabin. The current house was built prior to the Civil War. Smith was a Revolutionary War veteran and is buried in the Smith Family Cemetery adjacent to the house. Located on the northwest corner of GA 53 and Jackson Trail Road.
- **E. C. Perkins House:** Built in the 1880s, the house has stayed in continuous ownership with the Perkins family. Located on the southeast corner of GA 53 and Austin Road.
- **Harrison House:**

Carl and Vicinity

- **Bush Chapter A. M. E. Zion Church:** Although the church was officially organized in 1862, this solid fieldstone building was constructed in 1922 on land given by Wiley H. Bush of Winder.
- **Williams-Durham House:** This Neoclassical two-story was built in 1911 for A. C. Williams. In 1920 the house and property were sold to Arthur J. Durham, who established a nursery for ornamental plants and operated a commercial fruit orchard nearby.

Russell and Vicinity

- **Russell Cemetery:** The cemetery was created in 1953 by Ina Dillard Russell, the widow of the late Richard B. Russell Sr., for a burial place of the Russell family and descendants. The grave of U. S. Senator Richard B. Russell is here. It is located on the east side of Russell Cemetery Road, 1/10 mile south of U. S. 29.

Statham and Vicinity

- **Bank of Statham:** The first bank in Statham, organized in 1904, was one of the first brick buildings. Built in the Romanesque Commercial style, the bank used a wide storefront window with adjacent front door, attached by wide brick arch surrounds. The original fixtures, grillwork, and marble floors remain. Located on the north side of Railroad Street.
- **J. C. Statham Residence:** Located on Broad Street in Statham, this is the first house in Statham (originally Barber Creek) and the home of the man who founded the town and a race track famous in the area during that time. It is located on the south side of Broad Street, 1/10 mile east of Jefferson Street.



- **Depot:** In 1912, the Depot was built for use by the Georgia, Carolina, and Northern Railroad. It is located on the southwest corner of Railroad Street and Jefferson Street.
- **The Nunally-Jones House:** This was built in 1888. It is located on the north side of Broad Street, 1/10 mile east of Jefferson Street.
- **Old Statham Store and Post Office:** Built in circa 1850 and operated by Mr. and Mrs. John C. Statham, this was the first structure in the settlement that grew to become Statham. It is located behind the Nunnally-Jones House.
- **Statham Elementary School:** This was the site of Georgia's first Future Farmers of America Chapter in 1929 and is located on the north side of Broad Street, 3/10 mile east of Jefferson Street.
- **Thurmond House:** Built in circa 1850, this was the reputed house where the owner fed cake and cookies from the front porch to passing Southern soldiers during the Civil War. It is located on the southwest corner of GA 82 and Thurmond Road.
- **The Edward Jackson House:** This circa 1900 beautifully restored farmhouse is indicative of rural housing from the cotton era. It is located on the southwest corner of GA 82 and GA 211.
- **Pentecost United Methodist Church:** One of the oldest Methodist Churches in Georgia and the United States, it was founded by Revolutionary War veterans and begun in the 1790s. The location is on Georgia 82 and Jackson Trail.
- **R. N. Pentecost House:** Built in the Civil War era, relatives of R. N. Pentecost still reside in the house. It is located on the north corner of Pleasant Hill Church Road and Bowman Mill Road.
- **The Thompson-Wall House:** Dr. James A. Thompson, postmaster and physician in the Malinda community, built this house in c. 1880.
- **The Malinda Post Office:** Built in circa 1890, this post office served the community from 1892 until 1902. It is located on the north side of Hancock Bridge Road.

Winder and Vicinity

- **Edith E. House:** The house of the first female law graduate from the University of Georgia is located at 208 Church Street in the Winder Church Street Historic District.
- **The Rogers House:** Built in 1908 by R. L. Rogers, a successful cotton broker in Winder, this house is located on the west side of Center Street, 1/10 mile north of GA 81.
- **Barrow County Courthouse:** Built in 1920, the courthouse is an imposing Neoclassical building. It was designed by James J. Baldwin of Anderson, South Carolina and built for \$133,400 by R. W. Wimbish of Savannah. The courtroom has been restored to its original appearance. The courthouse is listed on the National Register of Historic Places and is part of the Broad Street Commercial Historic District of Winder.
- **Fort Yargo State Park:** Included in this park are recreational activities for miniature golf, canoeing, nature trails, camping, swimming, and more. The park houses the Old Fort Yargo and offers a special program, Will-A-Way, especially designed for the handicapped.
- **Old Barrow County Jail:** Constructed in 1915, the jail is an imposing brick structure resembling a Gothic fortress. The jail is listed on the National Register of Historic Places.
- **Winder Opera House:** Used as Barrow County's first courthouse, as a vaudeville theater, public auditorium, gymnasium, manufacturing plant, newspaper office, and the site of a store, this building is located on Broad Street in Winder.



- **Sharpton Opera House:** 313 S. Broad Street. Built in 1903, the Opera House featured Chautauqua programs and silent movies in its heyday. Later, it housed County offices until the Courthouse was constructed.
- **Jackson Street Buildings:** Built in the early 1900s, Smith Hardware remains in its original location.
- **People's Bank:** 100 S. Broad Street. This building was constructed in the 1910s, the bank was organized in 1926, and the building was remodeled in 1965.
- **City Pharmacy Building:** Located at 200 South Broad Street. This was built in circa 1913.
- **Gazebo:** A reminder of a bygone era and favorite resting spot.
- **City Hall:** Built in 1935, this building originally served as the Winder Post Office.
- **Winder Woman's Club:** 106 Midland Avenue. Built in 1931.
- **J. H. Jackson House:** 102 Woodlawn Avenue. Built in 1908.
- **Stephens Street Homes:** Built in the early 1920s and 1930s, the Camp Strickland House (102 Stephens Street) is the exception and was built in the 1890s. Constructed on Broad Street, it was moved to Stephens Street.
- **Camp-Tuck House:** 201 N. Broad Street. Built in 1919 beside the family's original home.
- **First Baptist Church:** 200 N. Broad Street. Organized in 1893, the building was constructed in 1893, and the windows have been attributed to Tiffany.
- **Smith-Russell House:** 304 N. Broad Street. Built in the 1890s for Green Smith, a leading businessman and farmer.
- **W. Clair Harris House:** 307 N. Broad Street. Built in 1932, Harris was an organizer and contributor to numerous philanthropic activities in Georgia.
- **Woodruff House:** 305 N. Broad Street. Built in 1901 for G. W. Woodruff, a businessman and state representative.
- **Walter Jackson House:** 207 N. Center Street. This house was built in the early 1920s by Walter Jackson, a banker and businessman.
- **Jackson-Holdridge House:** 205 N. Center Street. Built in 1908 by Mercer Jackson, a businessman and farmer.
- **Perry-Navarre House:** 102 N. Center Street. This house, built in c.1900 by J. H. Perry, has a huge ballroom, occupying the entire third floor.
- **Old Methodist Parsonage:** 107 S. Center Street. Built in 1907.
- **Old First Methodist Church:** 201 Candler Street. Built in 1904, it served the congregation until 1964.
- **Mathews House:** 217 Candler Street. Built in the early 1900s by W. B. Mathews, owner of the local telephone company.
- **McCurry-Almond House:** 222 Candler Street. Built c. 1922 by A. D. McCurry. Later, resident Mrs. C. B. Almond established Doctor's Day, first observed nationally on March 30, 1930.
- **Blassingame-Wise House:** 224 Church Street. Built in the early 1900s by W. L. Blassingame.



- **Snodon:** Corner of Church Street and Athens Street, this was the location of a Creek Native American village. From this point, the town of Jug Tavern grew.
- **Old First Presbyterian Church:** 227 West Athens Street. Built in 1903, it served its congregation until 1970.
- **Concord Methodist Cemetery:** Located on Athens Street, across from the Presbyterian Church. This served as Winder's first church, organized in 1836.
- **DeLaPerriere House:** 203 Candler Street. Built in 1905 by William Perry.
- **Griffeth House:** Located at 200 Candler Street, built in 1905 by Marcus Griffeth.
- **Hillman Jackson House:** 118 Candler Street. Built in 1883.
- **Winder Cotton Mill (Winder Rug Mill):** Built during the Southern textile boom of the late 19th century, Winder Cotton Mill is a visual landmark with its prominent four story tower.
- **Carter Hill Cemetery:** The cemetery is located in the camping area of Fort Yargo State Park. Carter Hill, one of leading pioneers in the area following the Revolutionary War, is buried here. The family home place stood on the hill above the park ranger's cabin.
- **Richard E. Hill Gin:** c. 1830-1840, this was a cotton gin driven by oxen and located on the old road that lead from Winder to Hoschton.
- **Nodoroc Volcano:** Located off U. S. Highway 29, this is said to be the last active mud volcano East of the Mississippi River. It last erupted about 1810 nearly covering a nearby house. It was used by the Native Americans as a place of worship and human sacrifice.
- **White's Mill:** This is the site of the grist mill on Cedar Creek above GA 53 that was used as a meeting place for sewing circles during the Civil War and where Confederate uniforms were made. The White cemetery and site of the White homeplace are on the hill above the mill site. Mr. White's brother, John, founded a mill near Athens around which the town of Whitehall grew.
- **Wilson-Thompson House:** Located on Highway 211, this is the oldest (c. 1800) house in Barrow County and the home of G. J. N. Wilson, the author of *The Early History of Jackson County*.
- **W. E. Flanagan House:** The Flanagan house was built c. 1875 by W. E. Flanagan, a successful farmer and a leader in the Bethabra Baptist Church. Located on the Old Thompson Mill Road.
- **Bethabra Baptist Church:** Organized in 1812, it is the oldest Baptist Church in Barrow County and is located on the southwest side of Old Thompson Mill Road, 1/10 mile south of GA 211.
- **Williams House:** Built c. 1881, it is located on the south side of Old Thompson Mill Road, one mile east of Bethabra Baptist Church.
- **Maynard-Russell House:** Built by Julius Maynard in the 1870s, this house was moved to this site from a nearby location in the 1970s and has been restored by Sally Russell. Located on the north side of Mulberry Road, 1 and 2/10 miles west of GA 53.



6 Community Facilities and Services

This chapter provides an assessment of the community facilities and services in Barrow County, including each municipality. Community facilities and services assessed were organized into the following major categories shown in the sections that follow: water supply and treatment, sewerage system and wastewater treatment, other facilities and services

6.1 Water Supply and Treatment

6.1.1 Water Service Area and Distribution

Water services for the residents of Barrow County are supplied by the cities of Auburn, Statham, Winder, the Town of Braselton, and the Barrow County Water and Sewer Authority (BCWSA). User fees fund these services. Water service areas for Barrow County are shown in Map 6-1, Appendix A.

Barrow County Water and Sewer Authority

BCWSA was created in 1987 to serve the northwest part of the County with water supplied by neighboring Gwinnett County. Now, BCWSA serves three areas of the unincorporated County not served by the municipalities. BCWSA is primarily supplied with water from the Bear Creek project. The current water usage is 1 million gallons per day (MGD). As of January 2006, 3,750 customers were served by the retail water system. The number of customers has doubled since 2000.

City of Winder Utilities Department

The City of Winder Utilities Department supplies the City of Winder and a large portion of the unincorporated area in central Barrow County. The Department serves a population of approximately 20,000. The daily production capacity is 5 MGD, with a storage capacity of 5.1 million gallons. The City also has agreements in place to purchase water from other jurisdictions, should the need arise. In 1995, an agreement for up to 300,000 gallons per day (with more available on a case-by-case basis) was reached with the Barrow County Water and Sewer Authority. In 1998, an agreement was reached with the Walton County Water and Sewer Authority for up to 1 MGD. In 2002, the City signed an agreement with Barrow County for up to 5 MPD from the Bear Creek Reservoir and Treatment Facility.

City of Statham

The City of Statham provides water to the incorporated area of the City, as well as to unincorporated areas west and south of the city. The City of Statham owns and operates a water treatment facility with a capacity of 1 MGD.

City of Auburn

The City of Auburn provides water to the incorporated area of the City, as well as to unincorporated areas of the County, as shown in Map 6-1, Appendix A.

Town of Braselton

The Town of Braselton Water supplies the Town of Braselton and unincorporated areas granted by HB 489 (primarily to the incorporated Town of Braselton area). The system serves a population of approximately 8,500 with 3,500 connections in a 24 square mile area. The system is about 40 years old, with a storage capacity of 1.5 million gallons. Braselton does not have treatment capacity. The town purchases water from Barrow, Gwinnett, and Jackson Counties.



6.1.2 Water Supply

Water supplies for Barrow County include surface water from the Mulberry River and Barber Creek, as well as a system of wells (Town of Braselton) and the Upper Oconee Basin/Bear Creek Reservoir. The County also has a water purchase agreement with Gwinnett County. Barrow County has 8 MGD of treated water supply at the Bear Creek project that can be expanded to 11 MGD.

6.1.3 Future Water Demand Projections

The Barrow County Transmission line usage has reached approximately 1.4 MGD, which is 15.5% of the County's available capacity, in the Bear Creek Reservoir. According to the NEGRDC Regional Comprehensive Plan, Barrow County demand is projected to exceed supply shortly before 2020. Long-range planning was advised in the recommendations of the regional plan. Barrow County leaders are currently in search of the means to secure a long-range water supply that will support future growth.

6.2 Sewerage System and Wastewater Treatment

6.2.1 Barrow County

Barrow County operates two wastewater treatment facilities. The County has no plans to add new facilities; however, capacity increase is being sought at Tanners Bridge WWTPs to 5 MGD. Overall, in 2003 the WWTPs operated at 20% capacity. The existing WWTPs include:

- Barber Creek WWTP, 0.5 MGD capacity with planned expansion to 1.5 MGD
- Tanner's Bridge WWTP, 0.5 MGD capacity with planned expansion to 5 MGD

Barrow County has purchased 1 MGD of capacity in the new Winder Cedar Creek facility. The Winder cedar Creek facility construction should be completed in 2009 with a capacity of 4 MDG. Based on projected public sewerage demand for 2010 to 2050 prepared by the NEGRDC 2004 Regional Comprehensive Plan, Barrow County is one of six counties in the northeast Georgia region with either a current deficiency or that will face demand exceeding their capacity by 2010. Green, Jasper, Madison, Oconee, and Oglethorpe counties are the other five.¹

6.2.2 City of Winder

Unlike the City of Winder's Water System, which serves both the City and a large portion of Barrow County, the sewer system is confined to the city limits of Winder, except for key industrial areas outside of the City. The system currently supports approximately 3,700 connections and has a system of some 75 miles of sewer main. Because Winder is divided by a substantial ridgeline, the City is served by two sewage treatment facilities:

- Cedar Creek WWTP – 4 MGD capacity (new facility under construction)
- Marburg Creek WWTP – 1.6 MGD capacity

The Cedar Creek facility serves the area north of the Seaboard Railroad Line. The Marburg Creek facility serves the area south of the Seaboard Railroad Line. The effluent from the Marburg Creek plant can be discharged into the stream, sprayed on dedicated spray fields, or used to provide irrigation water for non-agricultural uses. Currently, the Chimneys Golf Course and the Barrow County Recreation Department are using this reuse water for this purpose. The Marburg Creek treatment facility is one of the few totally enclosed sewage treatment plants in the state.

6.2.3 Septic Systems

Technology has transformed the septic system from a temporary method of disposal to a permanent fixture. As with any tool of continuous operation, a septic system must have ongoing repair, maintenance, and



sensible use in order to function properly and not cause adverse environmental concerns. Approximately 5,000 septic systems have been installed in Barrow County within the past five years. The typical minimum lot size required for Barrow County is 0.6 acre for sites with an individual water and septic system. These areas are exclusive of easements, rights of way, setbacks, floodplains, unsuitable soils, or similar limiting factors. All subdivision lots approved currently are to have an area reserved for a full conventional length repair area as per the Georgia On-Site Sewage Management Manual, according to the health department. The health department requires a Level III soil analysis for all new on-site sewage disposal systems and test pits or Level III soil analysis of all failing sewage systems. Follow up and inspections are implemented for all installations or repairs. The current needs for septic systems are a mandatory septic tank maintenance program in place and an existing inventory and condition assessment of private septic systems.

6.3 Other Facilities and Services

6.3.1 Fire Protection

Barrow County fire protection for unincorporated areas as well as Auburn, Bethlehem, Braselton (in Barrow County) and Statham is provided by the Barrow County Fire and Emergency Services Department. The City of Winder provides fire protection service for their residents. Facilities are shown in Map 6-3, Appendix A.

Barrow County Fire and Emergency Services²

The Barrow County Fire and Emergency Services Department (BCFESD) conducts plan reviews and inspections as well as respond to emergency calls. The department operates six stations in Barrow County. In 2005, the department responded to more than 2,000 fire calls and treated approximately 7,800 (State of the County address, 2005). The department employed in 2005 approximately 75 firefighters who are also cross trained in EMT.

The department is currently in the process of securing property to rebuild the Holsenbeck Area Fire Station. This new building will contain office space for the Administrative Offices and training center. The addition of the new training center is necessary for development of departmental staff as well as ensuring staff receives the minimum training requirements placed upon the department by the state and federal agencies. This project is a SPLOST funded.

Below is a list of actions for the future growth of the BCFESD:

- Relocation of Holsenbeck Station, County Line Station, Statham Station, and Bethlehem Station for a consistent 3 mile coverage area.
- New facility near Rockwell Church Road at the County Line Elementary
- New facility near Highway 53 and Highway 316
- Construction of a training facility and administration building

Winder Fire Department³

The Winder Fire Department operations division is responsible for answering emergency calls within the city limits of Winder. This division responds to over 1,000 calls a year for assistance. Operations consist of two fire stations, three engine companies, one ladder company, one rescue company, and one special response unit.

Volunteer Fire Departments

Volunteer fire departments also assist the Barrow County firefighters at the following locations: ⁴

- Holsenbeck Volunteer Fire Department, 625 SR 211 NE
- County Line Fire Department, 1292 SR 211 NW



6.3.2 Public Safety

The Barrow County Sheriff's Office provides law enforcement services for unincorporated areas as well as Bethlehem, Braselton (in Barrow County), and Carl. Fire protection is provided by the Barrow County Fire and Emergency Services Department. Municipal police departments provide public safety services for the cities of Auburn, Braselton, Statham, and Winder. Public safety facilities are shown in Map 6-3, Appendix A.

Barrow County Sheriff's Office

Barrow County Sheriff's Office provides public safety services to the residents of unincorporated Barrow County. The Sheriff's Office also provides these services to the residents of the cities of Carl and Bethlehem. The Sheriff's Office provides detention and court services for all residents of Barrow County.⁵ The Sheriff's Office is made up of five major divisions:

- Uniform Patrol: The backbone of any law enforcement agency, it includes the Traffic Unit, DARE/School Resource/Crime Prevention Unit, and the H.E.A.T. Unit
- Special Operations: Includes Property Crime and Persons Crimes Investigations, Narcotics Unit, Training Unit, and Tactical Team
- Court Services: Provides court security, civil paper service, records management, and code enforcement
- Detention: Another very important part of any Sheriff's Office, the Detention Center houses new arrestees as well as offenders not yet in the state prison system.

Winder Police Department

The Winder Police Department employs approximately 43 workers providing neighborhood and business patrol, crime prevention programs, school resource officers, bicycle patrols, D.U.I. and accident-reduction patrols, and Winder Housing Authority Patrol.⁶

Auburn Police Department

The Auburn Police Department employs approximately 25 officers.⁷

Statham Police Department

The Statham Police Department employs approximately four officers, which includes one chief, two full-time officers and one part-time officer.⁸

Braselton Police Department

The Braselton Police Department employs approximately 13 officers.

6.3.3 Parks and Recreation

The Barrow County *Comprehensive Parks, Recreation, and Cultural Affairs Master Plan 2005-2015* included an extensive inventory of County facilities. Public and private facilities were inventoried and served as the basis for a facilities needs assessment and recommendations regarding existing park, recreation, and cultural affairs facilities. Park and recreation facilities are shown in Map 6-4.

Public Areas

Table 6-1 presents publicly owned sites and facilities by type. Barrow County currently has six civic buildings, four civic spaces, two community parks (parks that serve a 2 to 5 mile radius), one undeveloped park sites four passive/greenspace parks, five neighborhood parks (parks that serve a 2 to 5 mile radius), one special use



facility, and one state park totaling 2,062 acres of publicly owned land. Of the 25 sites, the State of Georgia owns one, the County owns four, Barrow County Schools owns one, and the municipalities own or lease 18. Fort Yargo, the only state park located in Barrow County, totals approximately 1,814 acres.

Table 6-1 Public Parks, Recreation and Cultural Affairs Facilities

Name	Acreage	Type
Barrow County		
A/B Park	66.25	Community Park
Undisturbed Greenspace	11.5	Passive/Greenspace Park
Undisturbed Greenspace	3.5	Passive/Greenspace Park
M.F. Osborne Park	6.5	Neighborhood Park
Barrow County Seniors Center	5.25	Special Use Facility
City of Auburn		
Auburn City Hall/Community Center	0.5	Civic Building
Auburn Nature Park	11	Passive/Greenspace Park
Auburn Baseball/Softball Complex	5	Neighborhood Park
Auburn City Park	3	Neighborhood Park
Downtown Auburn	0.5	Civic Space
Town of Bethlehem		
Bethlehem Community Center and City Hall	1	Civic Building
Downtown Bethlehem	1.5	Civic Space
City of Carl		
Carl City Hall/Community Center	0.75	Civic Building
Carl City Park	1.25	Neighborhood Park
City of Statham		
Statham Community Center	0.25	Civic Building
Downtown Statham	1.75	Civic Space
Statham Community Park	43.5	Community Park
Statham 12-acre undeveloped site	12	Undeveloped Park Site
City of Winder		
Winder Community Center	1.25	Civic Building
Winder Police and Fire Station (old city hall)	2.25	Civic Building
Winder Picnic Pavilion and Veteran's Community Park	4.75	Neighborhood Park
Winder City Pond	73	Passive/Greenspace Park
Downtown Winder	1.75	Civic Space
State of Georgia		
Fort Yargo State Park	1,814	State Park
Total	2,072	

Source: Barrow County Comprehensive Parks, Recreation and Cultural Affairs Master Plan 2005-2015

Georgia Department of Natural Resources Properties

The Georgia Department of Natural Resources operates Fort Yargo State Park. The park provides recreational facilities that include an amphitheater, a beach, two boat ramps, 50 camp sites/cottages, two campgrounds/group camps, three fishing docks, seven group shelters/pavilions, a miniature golf course, a nature center, two picnic areas, three playgrounds, two tennis courts, and a walking/hiking/biking trail.



Barrow County Properties

Barrow County owns four sites totaling 93 acres. Of these, two are undisturbed greenspace properties. One is the Barrow County Seniors Center, and one is Park A/B, which is a community park containing the Barrow County Leisure Services Center. The Barrow County Senior Center and the Barrow County Leisure Services Center provide indoor facilities such as activity rooms, meeting rooms, a dining hall, and a gymnasium with a stage. Outdoor recreational facilities are limited to Park A/B and include a baseball field, a batting cage, two playgrounds, four soccer fields, six softball fields, six tennis courts, and a walking trail.

The Barrow County Senior Center addresses the needs of the County's elderly by promoting the physical, emotional, and economic well-being of older adults and promoting their participation in all aspects of their community life so that they can remain productive, self-sufficient, and lead useful and dignified lives. The Senior Center, located at 80 Lee Street in Winder, is the hub of activity for the Aging Program in the County. Meals are served to the seniors at the center totaling 9,041 from January 2005 through January 2006.

Municipally-Owned Properties

Of the 24 publicly owned sites in the County, 20 (totally 242.5 acres) are controlled by the cities. Each city owns a city hall or community center that contains indoor meeting space. Outdoor facilities found in city sites include a combination of active and passive recreational facilities ranging from gazebos and picnic areas to basketball courts and softball fields. With the exception of those facilities found in Park A/B, all public active recreational facilities in Barrow County are provided by the cities.

Barrow County Schools

Barrow County Schools do not currently have a formal joint-use agreement to share their facilities with either the municipalities' parks departments or the County's Leisure Services Department. However, the execution of a joint use agreement would immediately increase the inventory of facilities available to the County for programmed and informal activities. Additionally, the opportunity exists for coordinated programming between Barrow County Leisure Services and the schools' athletic, fine arts, and performing arts programs.

Private Properties

Private recreation space in Barrow County includes four semi-public golf courses totaling 1,001 acres and six private/non-profit sites totaling 51 acres. The four golf courses include five 18-hole golf courses and one nine-hole golf course. Each also includes a clubhouse. Other private/non-profit facilities include the American Legion Fields in Statham and the Winder Lions Club in Winder, both of which serve youth baseball leagues. The Pine Shores Club is a private swimming facility in Winder that has a large outdoor swimming pool and a small club house. Both the Winder-Barrow YMCA and the Winder-Barrow Boys & Girls Club serve general community recreational needs focused on youth and families. The Georgia Piedmont Arts Center provides a gallery and a potter studio. Though its offerings are limited, the arts center is one of the only facilities for the fine arts in Barrow County.

Future Plans

Based on the needs assessment performed for Barrow County, the County currently provides 2.88 acres of active park land per 1,000 residents. The County's Parks and Recreation Master Plan recommends that Barrow County adopt a standard of 5 acres of active parkland per 1,000 residents. That means that the County currently has a deficit of 45 acres that will grow to 265 acres by 2015 if there is no further land acquisition. The plan sets a standard for 10 acres per 1,000 population for passive parkland, which equates to a current deficit of 99 acres. The County is projected to need 539 acres by the year 2015. The plan also recommends that Barrow County's parks system include 15 neighborhood parks, seven community parks, seven special use facilities, one regional park, a primary bicycle and pedestrian network, a greenways and scenic road corridor network, four passive parks and additional cultural resources. To meet this challenge, the County would need to implement the following, according to the plan:



- Community Park Development – Southeast Barrow County
- Community Park Development – Southwest Barrow County
- Family Aquatics Center – Central Barrow County
- Land Acquisition (530 ares passive parkland) – Countywide
- Land Acquisition (community parks) – Countywide
- Neighborhood Park improvements (two per year) – Countywide
- Park A/B Expansion – Winder
- Park A/B Renovation – Winder
- Scenic Road Corridors/Greenways/Trails (10 miles) – Countywide with focus on railroad, S.R. 11 and S.R. 53 corridors

6.3.4 Stormwater Management

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination Systems (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The Georgia Environmental Protection Division (EPD) administers the NPDES regulations for Georgia. The first phase of the NPDES issues in 1990 was aimed at medium and large Municipal Separate Storm Sewer Systems (MS4s) with populations of 100,000 or more. The second phase issued in 1999 required that MS4s with populations of between 10,000 and 100,000, like Barrow County, prepare and implement stormwater management plans to control and mitigate pollution, which Barrow County has done.

Barrow County and the municipalities of Auburn and Carl were in 2002 required to develop stormwater management plans under the National Pollutant Discharge Elimination Systems (NPDES) Phase II Storm Water Management Program. Each community adopted the required plans. In addition, Barrow County and the City of Auburn created separate departments for the purpose of administering. The stormwater management system in Barrow County consists of conveyance, storage and treatment facilities as well as the existing procedures for proper design, permitting, construction, enforcement and management of new facilities to control the quantity and quality of non-point discharges into streams and other water bodies. The management of these facilities are subject to the Clean Water Act and a long list of related federal and state regulations.

Under the requirements of the NPDES, all development sites that disturb greater than one acre are required to receive a permit before they can begin land disturbance. Larger development sites (those with more than 5 disturbed acres) must prepare an approved erosion sedimentation and pollution control plan with Best Management Practices to control soil erosion and sedimentation at the site and maintain onsite water quality monitoring during construction.

Also, under this NPDES Phase II permit, Barrow County is required to inventory its stormwater management facilities and discharges, and create a monitoring database that maintains and evaluates samples of water quality for the discharges. The vast majority of stormwater management facilities in Barrow are privately owned and maintained. Most publicly-owned and maintained stormwater management facilities have been constructed in conjunction with highway and utility projects.

Total Maximum Daily Loads

The Clean Water Act also includes monitoring of the quality of fresh water rivers, streams and lakes. The Clean Water Act provides water quality standards and guidelines that EPD implements with Total Maximum



Daily Loads (TMDLs) for various water bodies based on certain designated uses. All stream segments in Barrow County are given designated uses, such as fishing, swimming and potable water withdrawal, and then divided into three categories based on ambient levels of water quality: fully supporting designated uses, partially supporting designated uses, and not supporting designated uses.

In Barrow County, there are a number of rivers and streams that do not support their designated uses. These include the Apalachee River (Williamson Creek to Marburg Creek), Cedar Creek (headwaters); and Wheeler Creek (headwaters to Duncan Creek). Rivers and streams that only partially support their designated uses include the Little Mulberry River (headwaters), Marburg Creek (Marburg Lake to Massey's Lake and Massey's Lake to the Apalachee River), and the Mulberry River (Little Mulberry River to Middle Oconee River and Mulberry Creek to the Little Mulberry River). The County has been working with Georgia EPD to refine and implement special management plans for stormwater and other discharges in these sub-basins.

Barrow County Stormwater Management Department

The mission on the Stormwater Management Department is to ensure that the waterways of Barrow County are protected from the effects of stormwater pollution. The Department focuses on informing the public of stormwater issues, and implementing a program that monitors and maintains the quality of water that enters the County's waterways via the municipal storm sewer system. In order to control and manage stormwater and improve the conditions of its stream, the County prepared a Stormwater Management Program. As part of the Stormwater Management Program, federal and state regulations require the implementation of specific activities called "Best Management Practices", or BMPs that will be implemented to relieve the impacts of stormwater runoff. BMPs include structural devices, such as silt fences at construction sites, detention ponds, and sediment basins. BMPs also include non-structural practices, such as stricter regulations on development, street sweeping, and educating the public on pollution prevention practices that can be implemented around the home and at businesses. The federal NPDES program required Barrow County to complete a Notice of Intent (NOI), which outlines Barrow County's stormwater management program. In June 2004, the NOI was approved by the Georgia EPD and the County must now implement the program requirements.

6.3.5 Solid Waste Management

Collection

Barrow County residents can have their waste and recyclables collected by Robertson Sanitation, which has a permit to operate in the County. Businesses contract for commercial collection with either Roberson Sanitation or BFI Sanitation. Barrow County offers two unstaffed locations for recycling of magazines, newspapers and corrugated cardboard. Residential curbside and recycling pick up is arranged between the residential hauler and the resident. Commercial collection is arranged between the individual business and their preferred hauler. Unstaffed recycling centers are managed by Keep Barrow Beautiful and Robertson Sanitation and SP Recycling Company. Yard trimmings are not collected by the County.

The City of Winder offers residents curbside collection of solid waste once a week. The City also offers curbside collection of yard trimmings. Residents of Winder may also contract with BFI for curbside recyclables collection.⁹

Disposal

One municipal solid waste (MSW) landfill, Oak Grove landfill, operates in Barrow County. Republic Waste owns and operates the landfill, where it disposes of most of the Barrow County waste. Significantly smaller amounts of MSW from Barrow County are disposed of at other landfills, including the Richland Creek landfill in Gwinnett County, the Pine Bluff landfill in Cherokee County and the Eagle Point landfill in Forsyth County. The majority of the construction and demolition debris in Barrow County is delivered to U.S. 78 Construction and Demolition Debris Landfill in Walton County and to Oglethorpe County's construction and demolition landfill.



The City of Statham transports municipal waste to the City of Monroe transfer station. The City of Winder uses the Oak Grove landfill. ¹⁰

6.3.6 Education

Public Schools

The Barrow County School System enrolled 11,485 students in December 2006 on campuses located throughout the County, including two high schools, four middle schools, eight elementary schools, one pre-kindergarten, one performance learning center, and one alternative school. Each school currently operates below capacity, as shown in Table 6-2. Barrow County Schools has one undeveloped elementary school site north of Statham. Barrow County Schools plans to construct four new elementary school and two middle schools by spring 2016. Barrow County will be purchasing additional schools sites throughout the County prior to 2016 and may be reusing or releasing some existing sites.

Table 6-2 Barrow County School System (2005-2006 School Year)

School	Address	Number of Students	Max Student Capacity	% of Capacity in 2005-06	Number of Teachers	Future plans, Expansion plans, needs, etc.
Early Learning Center	54 Star St., Bethlehem	248	250	99%	13	
Auburn Elementary	1334 Sixth Ave., Auburn	432	900	48%	23	
Bethlehem Elementary	47 McElhannon Rd., Bethlehem	746	900	83%	36	
Bramlett Elementary	622 Freeman Brock Rd., Auburn	801	900	89%	37	
County Line Elementary	334 Rockwell Church Rd., Winder	827	900	92%	40	
Holsenbeck Elementary	445 Holsenbeck School Rd., Winder	710	900	79%	34	
Kennedy Elementary	200 Matthews School Rd., Winder	528	900	59%	24	
Statham Elementary	1970 Broad St., Statham	823	900	91%	39	
Yargo Elementary	1000 Haymon Morris Rd., Winder	732	900	81%	35	
Haymon-Morris Middle	1008 Haymon Morris Rd., Winder	646	1200	54%	25	
Westside Middle	240 Matthews School Rd., Winder	532	700	76%	20	
Russell Middle	84 W. Midland Ave., Winder	676	800	85%	26	Addition to 1,200 (2011)
Winder-Barrow Middle	240 Matthews School Rd., Winder	736	700	105%	28	Addition to 1,200 (2010)
Apalachee High	940 Haymon Morris Rd., Winder	1,452	1500	97%	76	Addition to 1,800 (2008)
Winder-Barrow High	272 N. 5th Ave., Winder	1,484	1500	99%	82.5	Addition to 1,800 (2008)
Alternative School/PLC	905 Mulberry Rd., Winder	112	200	56%	13	
Early Learning Center	54 Star St. Bethlehem	248	250	99%	13	

Source: Barrow County School System 2006

Based on data from the 2003-2004 school year, the school system spends more per student than the state average, as shown in Table 6-3. The percent of students from economically disadvantaged homes falls below



the share for the state as a whole (37.4% and 46.4% respectively). The County drop-out rate is slightly higher than the state at 5.2%.

Barrow County Schools employs more than 460 people, which makes it the County’s largest single employer. The system employs a well-qualified, experienced staff. Almost 67% of the staff hold a master’s degree or beyond and have an average 13 years of professional experience. A staff of more than 200 classified employees provides support to the certified staff in positions such as paraprofessionals, bus drivers, school nutrition workers, clerical staff, bookkeepers, custodians, maintenance workers, etc.

Table 6-3 Barrow County Public School General Information

<i>Topic</i>	<i>Barrow County</i>	<i>State of Georgia</i>
General Fund Expenditures per Pupil (2003-2004))	\$6,683	\$6,478
Percent of Economically Disadvantaged (qualify for free/reduced lunch)(Fiscal Year 2006)	37.4%	46.4%
High School Dropout Rate per 100 enrolled	5.2	5.1
Percent White	74.5%	50.6%
Percent Black	12.5%	37.9%
Percent Hispanic	5.2%	6.9%

Source: Barrow County School System and Georgia County Guide, 2005-2006, University of Georgia Center for Agribusiness and Economic Development

Private Schools

Two K-12 private schools operate in Barrow County. Hope Christian Academy offers grades 1-12 for a total of 111 students. Hope Christian is accredited by the Georgia Association of Christian Schools, and is located on Pleasant Hill Church Road. Barrow County Christian Academy is located on Patrick Mill Road in Winder and offers grades 1-12 for a total of 69 students.¹¹ In addition, Bethlehem Christian Academy offers grades 1-4 on Christmas Avenue in Bethlehem with a total of 79 students.

Technical Colleges

Lanier Technical College Winder-Barrow Campus began operation as part of the Lanier system in 2002. The campus evolved through a partnership with the City of Winder, Barrow County government, Barrow County Board of Education and the Barrow County Industrial Development Board. The 25,000-square-foot facility is located in the heart of downtown Winder, at 89 East Athens Street, and boasts a student enrollment of approximately 200 credit students. The Winder-Barrow Campus offers 27 certificate programs, seven degree programs, and nine diploma programs. Programs available in Winder include accounting, business office technology, computer information systems, early childhood education, emergency medical training, fire science, and welding.

The Lanier Technical College system serves the workforce development needs of eight counties in Northeast Georgia: Banks, Barrow, Dawson, Forsyth, Hall, Jackson, Lumpkin, and North Fulton. The mission of the college is to enhance students’ educational opportunities, help create a competent and competitive workforce, and support economic development for the area.

As part of its strategic planning process, the college has identified initiatives to help meet the demands of students, communities, and business partners in the future. Lanier Technical College plans to continue to offer a comprehensive range of programs and to respond to the area’s critical needs by emphasizing the following eight strategic initiatives: high-performance technology training, healthcare programs, public safety programs, industrial/technical training, business incubation, international outreach, and independent learning resources.



Although credit programs represent the core mission of the college, serving 5,282 students in these programs, the economic development and adult literacy noncredit programs serve large numbers of individuals. The adult literacy program served 7,026 students in 2005, and the economic development program provided instruction and training for 15,048 students in customized noncredit classes during the same year.¹²

6.3.7 Libraries

The Piedmont Regional Library System has served the residents of Banks, Barrow, and Jackson counties for more than 40 years. The system includes the following three member libraries and two book deposit locations in Barrow County:¹³

- Piedmont Regional Library – 189 Bell View Street, Winder
- Auburn Public Library – 7 Seventh Street, Auburn
- Statham Public Library – 330 Jefferson Street, Statham
- Bethlehem Book Deposit – 750 Manger Street, Bethlehem
- Carl Book Deposit, 1690 Carl-Bethlehem Road, Carl

6.4 Health Care

Table 6-4 shows an outline of the basic health care facilities in Barrow County. Senior services include the Barrow County Senior Center at 80 Lee Street, which provides meals on wheels, and the Barrow County Adult Day Care, at 43 East New Street. Both facilities are located in Winder.

Table 6-4 Barrow County Health Care Facility General Information

Facility Name	Address	Number of beds/units	Services (general)
Barrow Regional Medical Center	316 N. Broad St., Winder	56	More than 100 physicians on staff and employs 300 support staff. 24/7 ER, Obstetrics/Gynecology, Outpatient surgery and inpatient surgery, imaging services, accredited laboratory, and rehab services.
Winder Health Care and Rehabilitation	263 E May St, Winder	163	Nursing Home
Bowles Personal Care Home 05	9 Jefferson Rd., Statham		Assisted Living
Guardian Angel	178 Green St Winder		Assisted Living
Lifetime Personal Care Home	706 High Pointe Dr Winder		Assisted Living
Magnolia Estates of Winder	624 Gainesville Hwy, Winder		Assisted Living
Mulberry Grove	343 Price St		Assisted Living
Terrells House of Love PCH	2055 Venura St, Statham		Assisted Living
Four Seasons Independent Living Center	169 Athens St., Winder		Assisted Living
Peace Place	Winder		Domestic Violence Shelter
Project Adam	112 Lanthier St, Winder	25	Substance abuse treatment services including long-term residential treatment (more than 30 days)
Four Seasons	W. Athens St, Winder		Substance Abuse Recovery Center
Lighthouse Homeless Shelter	80 King St. Winder	40	Homeless shelter and Substance Abuse Recovery Center

Source: Northeast Georgia Regional Development Center, Barrow County Comprehensive Plan Advisory Committee Input



7 Transportation System

Several trends affect transportation planning for Barrow County and understanding these trends is crucial to successfully identifying both transportation impacts and the appropriate mix of strategies and projects necessary to address transportation needs. An inventory of the County's existing transportation infrastructure was prepared to ensure that facilities are properly identified and that the basis for future analyses is accurate and complete.

A review of existing and forecast operating conditions for the transportation network, as well as system-wide performance measures, will be undertaken to identify transportation needs based on the existing facilities inventory. An overview of Barrow County's existing transportation system characteristics and the trends influencing the system over the 24-year horizon of the Comprehensive Plan are discussed in the following pages.

Key organizational planning initiatives and regulatory changes are also presented in this section. The continuing emphasis at the state and federal government levels on protecting air and water resources influences the mix of appropriate future transportation projects. While regulatory considerations are a challenge for governments and agencies in the Atlanta MSA, new planning initiatives also offer new funding opportunities. The remainder of this chapter maps out the service area and level of service for the following major components of the Barrow County transportation system: road network; alternative modes; parking; railroads, trucking, port facilities and airports; and transportation and land use connection.

Information collected for this section comes from the *Barrow County Multi-Modal Transportation Plan (MTP)*. The County is developing the *MTP* in planning process parallel to the Comprehensive Plan Update. A summary of the data from the Needs Assessment Report is presented below. More detailed information related to methodology and other statistics presented here can be found in the *MTP* documents. The *MTP* Needs Assessment document, prepared by Carter+Burgess, Inc., referenced here has been reviewed and approved by the County and the Atlanta Regional Commission, which is a funding partner.

7.1 Road Network

Barrow County is well served by a system of roads ranging from Interstate to city streets and local roads that accommodate a significant number of intra-county and through county trips. The highway network is by far the dominant system of travel, serving passenger vehicle and truck needs in Barrow County. This section includes a description of the existing roadway system. Existing and future needs are presented for the county. Major roadway needs are categorized by capacity, safety, bridges, and Intelligent Transportation System (ITS).

The southern portion of Barrow County is bisected by U.S. 29/SR 316/University Parkway, a major east-west state highway, which serves as a gateway to points west, including employment centers in the Atlanta region, as well as Oconee and Clarke Counties to the east. In addition to US 29/SR 316, roads important to the development of Barrow County include SR 8/Atlanta Highway, SR 11, SR 211, SR 53, and SR 81. The only interstate highway access point in Barrow County is at Interstate 85 (I-85) and SR 211, in the far northwest corner of the County.

7.1.1 Functional Classification

Barrow County has 726.4 centerline miles of existing roadway network. Classifying the roadway system by how each roadway functions allows for analysis and evaluation of the roadway's effectiveness within the system. Roadways are described by the federal functional classification system, which defines a roadway based on its accessibility and mobility. On one end of the spectrum are expressways or interstates, which provide the greatest mobility but the least accessibility. On the other end are local roads providing the greatest accessibility but the least mobility. Barrow's roadway system according to major functional classification categories is described below and illustrated in Table 7-1.



- **Interstates Principal Arterials/Urban Freeway and Expressways** – Provide the greatest mobility because access is generally limited to defined interchanges and high-speed movement is permitted. Interstates and expressways in Barrow County include I-85 and account for 0.4% (2.4 miles) of total roadway network. The Annual Average Daily Traffic (AADT) on this roadway is 67,570 vehicles per day (vpd).
- **Urban Principal Arterial and Minor Arterial Streets** – Carry large volumes of traffic at moderate speeds, providing the essential network and connecting activity centers. Barrow’s principal arterial is SR 316. The arterial system in Barrow comprises 11.3% (82.3 miles) of the total roadway network, of which 10.9 miles are classified as principal arterials and 71.4 miles as minor arterials. The AADT on arterial roadways in Barrow County averages 27,410 vpd on principal arterials and 10,240 vpd on minor arterials.
- **Collector Streets** – Connect activity centers and residential areas by collecting traffic from streets in residential and commercial areas and distributing it to the arterial system at low to moderate speeds. Barrow’s collector system comprises nearly 19% (107.2 miles) of the total roadway network and experiences an AADT of 3,670 vpd.
- **Local Streets** – Provide the greatest access but the least mobility. Usually found in subdivisions, they feed the collector system from low volume residential and commercial areas at low speeds. Local roadways comprise 66.4% (379.7 miles) of Barrow’s total roadway network, with an AADT averaging 760 vpd.

Table 7-1 Centerline Miles and AADT by Functional Classification

Functional Classification	Mileage	Percentage of County System	AADT
Interstate Principal Arterial	2.4	0.4%	67,570
Principal Arterial	10.9	1.9%	27,410
Minor Arterial	71.4	12.5%	10,240
Collector	107.2	18.8%	3,670
Local	379.7	66.4%	760

Source: GDOT

7.1.2 National Highway System

The National Highway System (NHS) was established by the Intermodal Surface Transportation Efficiency Act of 1991 to serve as a network of highways that could link together different modes of transportation, such as major shipping ports, airports, intermodal facilities, and public transportation. The linking of these transportation systems allows the NHS to form a quality system important to the nation's economy, defense, and mobility. I-85 and SR 316/US 29 are the only NHS routes in Barrow County.

The advantage of NHS is that it encourages states to focus on a limited number of high priority routes and to concentrate on improving them with federal aid funds. At the same time, the states can incorporate design and construction improvements that address their traffic needs safely and efficiently. With NHS, states can choose from a range of improvements. They can make operational changes, such as a program to locate and remove disabled vehicles that are impeding smooth traffic flow. States can employ available technological improvements, such as intelligent transportation systems, which will help reduce congestion and keep traffic moving without major, roadway expansion. Federal NHS funds are received by states based on mileage of principal arterials, vehicle miles traveled on arterials, and amounts of diesel fuel used on highways in the state.



7.1.3 Speed Limits and Number of Lanes

Posted speed limits throughout Barrow County range from 15 miles per hour (mph) to 70 mph. Approximately 14% of roadway miles in Barrow County are signed for a 55 to 70 mph speed limit, 29% have a speed limit of 40 to 50 mph, 23% have a speed limit of 30 to 35 mph, and 34% of roadway has a speed limit of 25 mph or less.

Of the total lane miles of roadway in Barrow County, 92% are two-lane roads while 7.4% are four-lane roads. The remaining 0.6% of roadways represents other various lane configurations.

7.1.4 Existing Traffic Volumes

GDOT prepares existing traffic volume field counts and reports AADT counts throughout the County. Historic traffic count data was reviewed to determine what changes have occurred in recent history. The two-way traffic AADT volume for 2005 was compared to the AADT volume for 1996. The highest traffic volume changes occurred near county lines with Gwinnett, Walton, and Jackson counties on the state route system including SR 8, SR 53, SR 81, SR 124, SR 211, and I-85. The range of growth has been from 21% to 248%. Overall, the greatest daily volumes are found on I-85, located in northwest Barrow County. Traffic volume changes inside the Winder corporate limits have been highest on SR 211 to the west and on SR 81 to the southwest of the downtown area. SR 53 north of Winder has also seen a fairly sizable growth of 101%. No roads showed a decrease in traffic over the years studied. Table 7-2 summarizes various traffic volume changes throughout Barrow County. Map 7-3 displays the existing AADT.

Table 7-2 County Traffic Volumes

Highway (Station No.)	Count Location	1996 AADT	2005 AADT	Percent Change
SR 8 (1)	Near Gwinnett County, West of SR 324	11,700	22,400	91%
SR 316 (363)	Near Gwinnett County	18,700	22,660	21%
SR 81 (87)	Near Walton County	3,500	8,250	136%
SR 11 (51)	Bethlehem	7,600	10,700	41%
SR 53 (76)	Near Oconee County	3,000	3,750	25%
SR 8/316/US 29 (375)	South of Statham, Near Oconee County	-0-	21,480	
SR 82 (114)	Near Jackson County	1,200	1,790	49%
SR 11 (74)	Near Jackson County	3,400	4,590	35%
SR 53 (85)	North of Winder	5,000	10,490	101%
SR 211 (143)	West of Winder, S of Rockwell Church Rd	5,800	9,880	70%
Mt. Moriah Rd (181)	West Barrow County, Northern Auburn	Not avail	3,510	
US 29 BU (29)	Western Winder	11,400	16,940	49%
SR 8 (32)	Southeast Winder	-0-	12,230	
SR 11 (65)	Winder	-0-	22,560	
SR 124 (116)	Near Gwinnett County	2,200	6,280	185%
SR 124 (120)	Near Jackson County	1,500	5,220	248%
I-85 (174)	Near Gwinnett County	38,100	70,300	85%
SR 211 (149)	Near Gwinnett County	4,800	14,660	205%

Source: Georgia DOT Traffic Count Data

7.1.5 Commuting Patterns

Examining the commuting patterns of residents helps to guide transportation improvement investments. Typically, a transportation plan addresses the movement of people and goods by each transportation mode within the area. In most rural areas, trips are accomplished via a system of highway, airport, pedestrian and



bicycle facilities. The appropriate level of analysis for each mode is a function of the role it plays within the area.

Table 7-3 shows county manner of commute from the U.S. Census. A comparable number of Barrow County commuters drive alone for work trips (77.8%) as in the state (77.5%); however, more commuters carpool (18.4%) in Barrow County than in the state (14.5%). Lack of access to transit is apparent in that only 0.4% of commuters take transit to work versus 2.3% statewide.

Table 7-3 Manner of Commute 2000

Geographic Area	Workers Age 16 and over	Drive Alone	Carpool	Public Transit	Walk	Other	Work at Home
Barrow County	22,616	77.8%	18.4%	0.4%	0.3%	0.7%	2.4%
Georgia	3,832,803	77.5%	14.5%	2.3%	1.7%	1.1%	2.8%

Source: U.S. Census 2000

In 2000, 34.3% of the Barrow County labor force worked in the County, comprising 61.7% of the total reported jobs in Barrow County. More than 36% of the County labor force worked in suburban Gwinnett County, and significant numbers also commuted to Clarke (Athens), DeKalb, and Fulton counties, with a total of 65.7% of the labor commuting to jobs outside of Barrow County (see Table 7-4). Daily work trips are especially important to the overall transportation system and its efficiency because the majority of work-related travel occurs during peak demand periods.

Table 7-4 Employee Commuter Patterns

Labor Force (employed residents) of Barrow County			Employed Working in Barrow County		
County Where Employed	Number	% of Total	County of Residence	Number	% of Total
Barrow	7,751	34.3%	Barrow	7,751	61.7%
Gwinnett	8,229	36.4%	Gwinnett	894	7.1%
Clarke	1,580	7.0%	Jackson	883	7.0%
DeKalb	1,177	5.2%	Clarke	660	5.3%
Fulton	959	4.2%	Walton	554	4.4%
Hall	692	3.1%	Oconee	358	2.9%
Jackson	567	2.5%	Hall	336	2.7%
Walton	443	2.0%	Madison	154	1.2%
Other	1,218	5.4%	Other	967	7.7%
Total Employees	22,616	100.0%	Total Employees	12,557	100.0%

Source: U.S. Census Bureau 2000, GA Dept. of Labor

Table 7-5 compares commute travel times in 1990 and 2000. The proportion of commuters in Barrow County with travel times less than 30 minutes has decreased while commutes exceeding 30 minutes have increased. Commute times greater than 45 minutes have increased by the greatest proportion, from 22.2% to 41.2%. Countywide, the greatest percentage of commuters travel to work in 45 to 60 minutes (36.3%).

Table 7-5 Travel Time to Work for Workers 16 Years and Over

Year	Commuters Age 16 and Over	<10 Minutes	10-19 Minutes	20-29 Minutes	30-44 Minutes	45-60 Minutes	> 60 Minutes
1990	13,633	16.3%	27.7%	14.1%	19.7%	12.9%	9.3%
2000	22,076	8.9%	20.5%	15.2%	25.3%	36.3%	4.9%

Source: U.S. Bureau of the Census 1990, 2000



7.1.6 Capacity

The level of system performance varies by type of transportation facility, geographic location, time of day and other characteristics. Each roadway in the network has a theoretical capacity based on its functional classification and characteristics. When roadways are operating in free-flow conditions, capacity constraints are not apparent. However, as traffic volumes increase, available capacity is restricted and roadway congestion results. Federal regulations define traffic congestion as the level at which transportation system performance is no longer acceptable due to traffic congestion.

Future roadway congestion was identified using the 2030 E+C modeled network. Locations where the v/c ratio exceeded 1.00 were mapped using GIS. Data was reviewed where congested links were identified to determine whether any links should be aggregated to represent a need corridor. Contiguous congested links were aggregated into single segments when they met all of the following conditions:

- Located along a common road or corridor
- Contiguous or in close enough proximity to be functionally contiguous
- Enough descriptive commonality, including functional classification, traffic volume and direction, to be considered similar
- Located within boundaries or endpoints that constituted reasonable limits

Auxiliary roads such as ramps and access roads were aggregated with the segments they serve. During the aggregation process, the highest v/c ratio of all links within a segment was retained as the segment's overall v/c ratio. Once the links were aggregated, they were further evaluated. Segments and links deemed unlikely or unreasonable based on their location, value or other criteria were qualitatively evaluated and either validated or deleted from the model.

Volume to Capacity and Level of Service Measures

Capacity needs are identified using measures such as daily v/c. The v/c ratio of a specific roadway is an indicator of the level of service (LOS) that can be expected on that roadway. A v/c ratio of less than 1.0 is an acceptable LOS in an urban environment, indicating that the road can handle additional volume and remain within capacity. A v/c ratio of 1.0 indicates that the road has reached its capacity and additional traffic volume will result in a less than acceptable LOS. A v/c ratio greater than 1.0 indicates that the road's traffic volume exceeds its capacity to handle that traffic, resulting in an unacceptable LOS. The computation and analysis of roadway v/c allows system-wide analysis of the transportation network, thereby providing an approximation of the LOS of roadways or corridors based on information such as lane configuration, observed roadway speed and traffic volumes.

V/C ratios are linked to LOS to provide an easier way to communicate roadway operations. LOS is a user-based assessment of conditions, with roadways given a letter designation representing the best operating conditions (LOS A) to the worst (LOS F). The 2001 *Highway Capacity Manual* provides the following LOS guidelines:

- LOS A, B and C indicate conditions where traffic can move relatively freely.
- LOS D describes vehicle speed beginning to decline slightly due to increasing flows. Speed and freedom of movement are severely restricted.
- LOS E describes conditions where traffic volumes are at or close to capacity, resulting in serious delays.
- LOS F describes breakdown in vehicular flow downstream from a bottleneck, which exists when the flow rate exceeds roadway capacity.

The LOS criteria used to determine congestion levels on roadway segments in Barrow were:



- LOS A through C is equivalent to a v/c less than 0.70
- LOS D is equivalent to a v/c of 0.70 to 0.85
- LOS E is equivalent to a v/c of 0.85 to 1.00
- LOS F is equivalent to a v/c of 1.00 and greater

Existing Roadway Conditions

Existing conditions were determined by comparing 2005 traffic volumes to roadway capacities based on functional classification and number of lanes. Map 7-3 shows the year existing daily v/c ratios on Barrow County’s roadway network. In 2005, 1.7% of non-local roadway miles in the county demonstrated a v/c ratio of greater than 1.0, indicating that a majority of the system operates efficiently on a daily basis. A breakdown by level of service reveals 92.8% of Barrow’s roadway network functions at or better than LOS C, 5.6% operates at LOS D, 1.6% at LOS E, and less than 1% at LOS F. This is an indication that state, county and local jurisdictions are addressing roadway needs and deficiencies as they emerge. Table 7-6 lists the most congested roadways in 2005.

Table 7-6 Most Congested Roadways, 2005

<i>Roadway</i>	<i>Segment</i>
Old Winder Highway	County line to SR 124
Midland Avenue	Center Street to North Myrtle Street
SR 53/SR 211	Midland Avenue to New Street
SR 11	SR 316 to Carl Bethlehem Road
SR 11	Tanners Bridge Road to County line

Source: Carter+Burgess, Inc.

Future Roadway Conditions (2030 E+C)

In addition to knowing how well the existing transportation system functions, it is equally important to understand likely future demand on the transportation system. An industry practice to assess future travel demand assumes no additional improvements to the existing transportation system (e.g., road widenings or new roadways) will occur beyond what is currently under construction or funded. This scenario is called an existing plus committed (E+C) network. For purposes of this analysis and as part of the MTP, the E+C transportation system is what currently exists on the ground today plus right-of-way (ROW) and construction (CST) projects contained within ARC’s Fiscal Year (FY) 2005-2010 TIP. Table 7-7 identifies capacity-adding projects contained in the E+C modeled network.

Table 7-7 2030 E+C Projects

<i>Roadway</i>	<i>Begin</i>	<i>End</i>
SR 124	SR 211	SR 211
SR 11 (Winder-Monroe Highway)	Scott Creek	Scott Creek
I-85 North	SR 211	SR 53

Source: Atlanta Regional Commission, Carter+Burgess, Inc.

The 2030 E+C model developed for Barrow County allowed for a detailed assessment of the v/c ratios for the county’s transportation network. As a large-area planning tool, the model forecasts the performance of major roads in the county but does not incorporate all local roads. Wherever possible, alternative means were used to assess network impacts of significant local roads. In 2030, the average LOS is expected to be LOS C



or better on 65.1% (293 miles) of the model network, a reduction from 92.8% in the 2005 model. Similarly, about 24.4% of county roadway miles are expected at LOS D, and 5.7% at LOS E. The portion of roadway network operating at LOS F is forecast to increase from less than 1% in 2005 to 4.8% in 2030. Table 7-8 lists the most congested roadways in 2030.

Table 7-8 Most Congested Roadways, 2030

<i>Roadway</i>	<i>Segment</i>
Old Winder Highway	County line to SR 124
Thompson Mill Road	Old Hog Mountain Road to County line/Auburn Road
Midland Avenue	North Myrtle Street to Center Street
SR 81	Pipeline Line Road to County line
SR 81	Carl Bethlehem Road to Hoyt King Road
SR 11	SR 316 to McElhannon Road
SR 11	Pipeline Line Road to County line
Horton Street	SR 8 to Thompson Mill Road

Source: Carter+Burgess, Inc.

Vehicle Miles Traveled and Vehicle Hours Traveled

An objective in developing an efficient transportation system is slowing the growth in trip lengths and congestion on the roadway network. VMT and VHT are useful measures for gauging progress in achieving this objective. VMT is derived from the total number of vehicles multiplied by the annual average daily miles driven, while VHT is the average daily time of all vehicles on the roadway network during a typical day.

Table 7-9 illustrates modeled VMT and VHT for Barrow County. The 2005 modeled daily VMT on the county's roadway network was 1,809,909. By 2030, this figure is anticipated to grow to nearly 2,907,751, an increase of 60.7%. VHT is forecast to increase from 44,031 in 2005 to 94,687 in 2030, a 115% increase. The greater rate of VHT indicates much greater growth in time spent in vehicles compared to growth in trips and trip-lengths.

Table 7-9 Comparison of Daily VMT and VHT, 2005 and 2030

<i>Geography</i>	<i>Modeled Daily VMT</i>			<i>Modeled Daily VHT</i>		
	<i>2005</i>	<i>2030 E+C</i>	<i>Percent Change</i>	<i>2005</i>	<i>2030 E+C</i>	<i>Percent Change</i>
Barrow County	1,809,909	2,907,751	60.7%	44,031	94,687	115%

Source: Carter+Burgess, Inc.

Travel Time Index (TTI)

The Travel Time Index (TTI), another indicator of the severity of congestion on the roadway network, can also be calculated from the model for comparison with regional numbers. The TTI for Barrow in 2005 was 1.10, which is slightly lower than the regional TTI of 1.33. The 2030 E+C TTI is estimated to be 1.33, a 21% increase but still lower than the expected regional 2030 E+C TTI of 1.82.

Interstate and Freeway Needs

Barrow County has only a minimum amount of interstate highway, with I-85 just clipping the northwest corner of the county. In 2005, all of I-85 in Barrow operated at LOS C or above. Increased traffic in Barrow



and areas further north is expected to increase congestion along I-85. The 2030 E+C model shows I-85 as experiencing LOS D south of Thomson Mill Road and LOS C or above north of Thomson Mill Road.

Safety Needs

The Georgia Department of Transportation (GDOT) and Barrow County are both responsible for maintaining a safe transportation system for the traveling public. Safety is also a federal concern, and factors included in federal guidance address the need to increase the safety and security of the transportation system for motorized and nonmotorized users. Given its criticality, an evaluation using GDOT crash data was conducted to identify roadway segments and intersections with safety concerns.

The crash rate of a roadway segment has implications beyond roadway safety. A segment’s crash rate can also be indicative of design and operational needs, access management deficiencies or congestion issues. The most recent and accurate crash records maintained by GDOT (2002, 2003, 2004 and 2005) were compiled and mapped. Crashes within each corridor were aggregated, and the total number of crashes within each quarter-mile segment of all corridors was compared against traffic volume counts for the segment (as determined by GDOT) to produce the segment’s crash rate. Road segments with a crash rate exceeding one standard deviation above the county average for their functional classification were identified as a potential safety need, indicating that the corridor warrants further study to determine strategies to decrease the crash rate and improve safety.

Crashes occurring at intersections from 2002 to 2005 were identified and aggregated to determine the total number of crashes for each intersection. Intersections experiencing the greatest crash frequency were identified to indicate which intersections warrant further study to determine strategies to decrease the crash frequency and improve safety. Table 7-10 shows intersection crash frequencies.

Table 7-10 High Crash Intersections and Rates

<i>Intersection</i>	<i>Number of Crashes</i>
East May Street at South Williamson Street	35
South Broad Street at Lee Street	29
SR 211 at Cedar Creek Road	25
SR 316 at Craft Road	22
River Mill Road at SR 81	17
SR 8 at Mount Moriah Road	14
Patrick Mill Road at Kennedy Sells Road	13
North Broad Street at East Stephens Street	13
SR 11 at East Broad Avenue	13
SR 316 at Wall Road	13

Carter+Burgess, inc.

SR 316 Corridor Analysis

Overall mobility in Barrow County is dependent upon the performance of certain critical roadways throughout the county. Based upon existing and projected share of traffic and level of development, the SR 316 corridor is most important to Barrow’s overall mobility. The following conditions were inventoried to identify specific needs within the SR 316 corridor:

- Roadway Characteristics – Roadway conditions based on GDOT standards and functional classification



- Traffic Conditions, Intersection, and Safety – Traffic characteristics including daily traffic volumes, travel time, levels of congestion, and accident locations
- Bicycle and Pedestrian Facilities – General overview of bicycle and pedestrian travel characteristics
- Future Roadway Improvements – List of planned and programmed improvements in the ARC TIP and, if applicable, other planned improvements by GDOT.

Corridor Description

The SR 316 corridor begins at I-85, traversing the southern part of Barrow in an east/west direction towards Athens in Clarke County. The roadway serves not only Barrow County residents and businesses, but also those within Clarke County and the communities of Bethlehem, Statham and Athens.

Traffic Conditions, Intersections, and Safety

Major traffic generators in the corridor include the City of Statham and Barrow County’s Water Treatment Plant. There are ten signalized intersections along the SR 316 corridor. Roadway congestion from the 2030 E+C model along the segments of SR 316 in Barrow is shown in Table 7-11.

Table 7-11 LOS for SR 316 Corridor

<i>Segment of Corridor</i>	<i>Level of Service</i>
Gwinnett County line to Patrick Mill Road	LOS E
Patrick Mill Road to Carl Bethlehem Road	LOS D
Carl Bethlehem Road to SR 81	LOS E
SR 81 to SR 11	LOS D
SR 11 to SR 53	LOS A to C
SR 53 to SR 211	LOS D
SR 211 to Clarke County Line	LOS A to C

Carter+Burgess, Inc.

Pursuant to accident data provided by GDOT for the years 2002 to 2005, the SR 316 intersections with Craft Road and SR 324 were the locations with the highest number of crashes. Numerous injury crash incidents also occurred at the intersections with Loganville Highway and Patrick Mill Road.

Planned Transportation Projects in the Corridor

Barrow County submits its request for state and federal funding for transportation projects to ARC. Barrow County currently has one project included in ARC’s TIP: SR 316/US 29 Interchanges (Project BA-010). This project to increase capacity for 17 intersections along SR 316 is programmed for network year 2015.

Corridor Needs Assessment

Output from the ARC 2030 E+C travel demand model was utilized to identify future conditions that reflect levels of congestion along the SR 316 corridor. This model reflects conditions along the roadway network given projected growth patterns with capacities that would result from the completion of roadway projects that are currently programmed and/or in some phase of development. Model results are presented in Table 7-12.



Table 7-12 Existing and Future Travel Indicators – SR 316 Corridor

<i>Traffic Indicator</i>	<i>2005</i>	<i>2030</i>	<i>Difference</i>
Total Vehicle Miles Traveled (VMT)	606,707	904,357	49%
Travel Time Index (TTI)	1.06	1.22	15%
Volume to Capacity Ratio (V/C)	0.53	0.80	51%
Average Speed	53	44	17%
Average Daily Traffic	17,530	26,710	52%
Average Daily Truck Traffic	2,160	4,050	88%
Truck Percentage	12%	15%	25%

Source: Carter+Burgess, Inc.

As reflected in Table 7-12, roadway conditions are projected to worsen by 2030. Travel along the corridor is projected to increase considerably, resulting in increased delays and lower overall travel speeds. Truck traffic is also projected to increase, which also has the potential to create added conflicts along the roadway. The forecasts indicate that 82% of the corridor will be operating at LOS D or worse (42% at LOS E or worse) by 2030. Maintaining acceptable LOS along the entire corridor will require some capacity and/or operational improvements. Improvements should take into account signalization at intersections along the corridor to increase safety. Additionally, multimodal travel options along the corridor should be considered, in particular the potential for park and ride lots for express buses and carpools/vanpools.

7.1.7 Connectivity

The *MTP*, in a coordinated fashion with the update of the *Barrow County Comprehensive Plan 2007-2027* currently under development, will address this topic in more detail.

7.1.8 Signs

There are no major issues with the County’s signage beyond regular maintenance, which the County and municipalities each address through their maintenance programs. The *MTP*, in a coordinated fashion with the update of the *Barrow County Comprehensive Plan 2007-2027* currently under development, will address this topic in more detail.

7.1.9 Signals

There are no major issues with the County’s traffic signals that will not otherwise be addressed by the operational improvements that come with the programmed upgrades. The *MTP*, in a coordinated fashion with the update of the *Barrow County Comprehensive Plan 2007-2027* currently under development, will address this topic in more detail.

7.1.10 Bridges

Federal regulations require that bridges be maintained in safe condition before federal transportation funds can be used for other transportation projects. Maintaining the bridge network is important because of the delays created by diversions when bridges are posted or closed. Not only is the movement of goods and people diverted and delayed, emergency vehicle response time can be reduced greatly due to bridge restrictions. Bridges are scored according to their condition, with replacements scheduled on a statewide basis by GDOT.

The Federal Highway Administration (FHWA) established the National Bridge Inventory (NBI) to monitor the condition of bridges on public roads. NBI identifies bridge characteristics including age, sufficiency and composition, and bridge inspectors must meet stringent requirements to qualify for certification. Structural



deficiency and functional obsolescence are calculated using the federal definition for these terms. Generally, structural deficiency refers to the inadequate capability of the bridge structure, while functional obsolescence is related to insufficient geometric capability of the bridge to carry traffic, including inadequate deck geometry, underclearance or approach roadway alignment. Approximately 49 of Barrow’s 72 bridges are more than 20 years old, with 38 more than 30 years old. According to the NBI ratings, four bridges in Barrow require repair.

GDOT performs structural assessments that provide recommended improvements for all bridges. In November 2001, GDOT bridge engineers inspected bridges in Barrow County to ensure compliance with federal bridge inspection guidelines requiring biennial inspections. In accordance with federal inspection standards, all roadway bridges were inspected and their condition rated, while the non-roadway structures were inspected for clearance only. Table 7-13 shows bridge inspection ratings used by GDOT to characterize the conditions of bridges.

Table 7-13 Bridge Inspection Rating

<i>Rating</i>	<i>Score</i>	<i>Description</i>
Excellent Condition	9	
Very Good Condition	8	No problems noted.
Good Condition	7	Some minor problems.
Satisfactory Condition	6	Structural elements show some minor deterioration.
Fair Condition	5	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
Poor Condition	4	Advanced section loss, deterioration, spalling or scour.
Serious Condition	3	Loss of section, deterioration, spalling and/or scour has seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete.
Critical Condition	2	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored, it may be necessary to close the bridge until corrective action is taken.
Imminent Failure Condition	1	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may restore light service.
Failed Condition	0	Out of service and beyond repair.

Source: Carter+Burgess, GDOT

The GDOT inspection surveyed 72 bridges in Barrow County, 46 of which are locally owned and maintained. The 46 locally-owned bridges inspected received the following ratings:

- Excellent Condition – 16 (34.8%)
- Very Good Condition – 12 (26.1%)
- Good Condition – 9 (19.5%)



- Satisfactory Condition – 4 (8.7%)
- Fair Condition – 1 (2.2%)
- Poor Condition – 2 (4.3%)
- Serious Condition – 1 (2.2%)
- Failed Condition – 1 (2.2%)

7.2 *Alternative Modes*

7.2.1 **Bicycle Facilities**

As Barrow County continues to urbanize, additional bicycle facilities and networks will accommodate increased demand created by general population growth and increasingly higher density land uses. Bicycle networks can be built from several types of bicycle facilities, both within and off existing roadway right-of-way. Map 7-4 shows bicycle, pedestrian and multi-use facilities in Barrow County.

AASHTO recognizes three classes of bicycle facilities, all of which can be combined within a single bicycle route:

- **Bicycle Paths (Class I):** A bicycle facility separate from motorized vehicular traffic. A bicycle path may be located within a highway right-of-way or on an independent right-of-way. A bicycle path is not a sidewalk but may be designed to permit shared use with pedestrians.
- **Bicycle Lanes (Class II):** A lane designated for exclusive or preferential bicycle use through the application of pavement striping or markings and signage.
- **Bicycle Routes (Class III):** Roadways designated for bicycle use through the installation of directional and informational signage.

Needs and opportunities were based on suggestions received through Stakeholder Committee meetings, stakeholder interviews, review of existing and proposed facilities, and qualitative reviews of the county's transportation and land use. In addition to planning and implementing designated bicycle facilities, attention must be given to pedestrian and bicycle safety issues within Barrow's roadway network to allow bicyclists a reasonable degree of safety when riding on a roadway that is not a designated bikeway. Roadway suitability for bicycling is examined in the quantitative analysis.

The quantitative analysis was based on assessing each roadway's suitability to accommodate bicycle travel based on information contained in GDOT's Roadway Characteristics (RC) file. The suitability rating is composed of three factors: traffic volume, travel speeds and functional class. Table 7-14 shows the numeric value for each factor and associated measure.



Table 7-14 Bicycle Suitability Rating by Factor

<i>Factor</i>	<i>Measures</i>	<i>Suitability Rating</i>
Traffic Volume	Less than 2,500 vpd per lane	4
	Between 2,500 and 5,000 vpd per lane	2
	More than 5,000 vpd per lane	0
Travel Speeds	Less than or equal to 30 mph	4
	Between 30 and 40 mph	2
	Greater than 40 mph	0
Functional Class	Local streets/collectors	4
	Minor arterials	2
	Other(major arterials and highways)	0

Source: Carter+Burgess, GDOT

After determining a rating for each factor along a roadway section, the sum of the three scores is divided by three. The section then receives a descriptive rating based on the averaged score as follows:

- 3.0-4.0: Best conditions
- 2.0-2.9: Medium conditions
- 1.0-1.9: Difficult conditions
- <1.0: Very difficult conditions

On a countywide basis, over 50% of roadways exhibit the “best” conditions for bicyclists, 36.7% “medium” conditions, 10.6% “difficult” conditions, and 1.9% “very difficult” conditions. Map 7-5 in the Atlas of Maps shows bicycle suitability and facilities in Barrow. Functional classification is a significant determinate in the probability of a road being suitable for bicyclists. As illustrated in Table 7-5 nearly all roads classified as local or collector received a “best” or “medium” rating, roads classified as minor arterials were rated predominately as “medium” or “difficult”, and all principal arterials were classified as very difficult. All of the mileage of “very difficult” roads comes from SR 316. Overall, the analysis results indicated bicycle facility needs exist along a total 10.9 centerline miles of roadway throughout county.

Statewide Bicycle Route

Barrow County has one bicycle route that is part of the statewide trail system. The Athens Link runs from Walton County to downtown Winder via Loganville Highway, then from Winder to Oconee County via Lawrenceville-Athens Highway and Hog Mountain Road.

County Planned Facilities

Barrow County has over 110 miles of proposed routes and greenways. Of this, 82 miles are associated with roadways (46 miles with state roads and 36 miles with local roads), which will include bike lanes with sidewalks, paved shoulders, or bike lanes without sidewalks. The remaining 28 miles is a proposed shared use greenway path running along the Oconee River.

Additional Bicycle Facility Needs

The majority of facility improvements are needed along principal arterials, mainly along SR 316. Another bicycle facility more directly connecting Winder and Statham is also proposed. The facility could follow US 29 east out of Winder, then heading northeast along Atlanta Highway to downtown Statham.



7.2.2 Pedestrian Facilities

Providing for safe and convenient pedestrian travel is an essential part of creating a lively community, neighborhood commercial area, or downtown district. Federal transportation policy promotes walking as a viable transportation mode, and SAFETEA-LU guidance (as well as FHWA and FTA regulations) stipulates inclusion of pedestrian walkways and trails as part of transportation plans. Map 7-4 shows bicycle, pedestrian and multi-use facilities in Barrow County.

The pedestrian facility analysis for Barrow County utilized both qualitative and quantitative assessment, based on the MTP performance measures established for pedestrian facilities:

- Safety (pedestrian/vehicle crashes)
- Linear miles of sidewalks
- Connectivity between activity centers

Needs and opportunities were identified from suggestions received through committee meetings, stakeholder interviews, review of existing and proposed facilities, and qualitative review of the county's transportation system and land use. The technical analysis considered pedestrian crash rates, the existing sidewalk inventory, and how well major activity centers are served by pedestrian facility infrastructure.

The technical assessment for identifying pedestrian facility needs considered pedestrian safety as well as the availability of pedestrian facility infrastructure (particularly sidewalks) for foot travel in areas that pedestrian travel is expected or desired. Spatial analysis employing GIS was utilized for both the safety and availability assessments. The safety analysis identified locations with a greater incidence of collisions between pedestrians and motorized vehicles, which may need pedestrian facility improvements. The availability analysis identified locations where the greatest need for pedestrian facility infrastructure exists based on land use and development characteristics and activity intensity. The pedestrian facility needs criteria reflect a qualitative assessment of pedestrian expectations regarding locations where sidewalks should be available. In general, pedestrians expect a sidewalk along streets in more urbanized and developed areas and, in less developed areas, along major roadways connecting to local activity centers.

Due to lack of available data, the needs assessment did not consider actual sidewalk usability. Uneven surface, utility poles or benches, buffers to high-speed traffic, landscape maintenance, and availability and quality of curb cuts all affect the utility of a sidewalk, especially for those with disabilities. A sidewalk with broken pavement adjacent to a high-speed, multilane arterial may not provide the desired walking environment.

Pedestrian Facility Availability Analysis

The pedestrian facility availability assessment utilized spatial GIS analysis of data from GDOT's Roadway Conditions (RC) file to determine where additional pedestrian facilities are needed. The RC file is the only source of sidewalk data currently available, which should be field verified to ensure accuracy. Roadways classified as interstates were excluded from the analysis. A pedestrian facility need was identified if a roadway segment met one of the following conditions:

- No sidewalk is present and the roadway is located in an area categorized as central business district, high-density urban, medium-density urban, low-density urban, suburban, exurban, or rural.
- No sidewalk is present and the roadway is located within a quarter-mile of a school, mall, hospital, or transit station.

Pedestrian Crash Analysis

Pedestrian/vehicle crash records for 2001 were mapped using GIS. The data was processed to assign a value of pedestrian crashes per mile for all major corridor segments classified as arterials or collectors within Barrow County. Road segments not classified as arterials or collectors were added if the mapping of crash



sites indicated significant crash activity. The resulting data was divided into five classifications based on pedestrian crashes per mile:

- Low: 0-0.42 pedestrian crashes per mile
- Moderate: 0.43-1.44 pedestrian crashes per mile
- High: 1.45-3.07 pedestrian crashes per mile
- Very High: 3.08-5.73 pedestrian crashes per mile
- Severe: 5.74 and greater pedestrian crashes per mile

Corridor segments that received a “High”, “Very High” or “Severe” pedestrian crash rating were identified as pedestrian need locations. Corridor segments that received a “Moderate” pedestrian crash rating were flagged potential pedestrian need locations warranting additional study.

Countywide Analysis

Barrow County’s most pressing pedestrian facility need is the lack of sidewalks along most roadways, especially within city limits. Of all roadways, only 4.2% have sidewalks on one or both sides, and only 8% of roadways within the cities have sidewalks. Areas that generate significant pedestrian traffic are high priority locations for pedestrian facility improvement and include areas such as schools, downtown districts, and activity centers.

Identified Pedestrian Facility Needs by Location

Location specific pedestrian facility and sidewalk needs were identified through the technical screening exercise and qualitative input from local stakeholders. The recommended sidewalk projects would improve school pedestrian safety, provide pedestrian mobility on heavy traffic routes, and enhance connectivity between neighborhoods and activity centers. The most immediate need is to ensure all sidewalks comply with Americans with Disabilities Act (ADA) standards.

Overall, the project locations identified for pedestrian improvements complete missing sidewalks along collector and arterial streets to avoid pedestrians walking in vehicle travel lanes. These projects will be included in the Community Agenda. Additionally, the following priorities will be evaluated as projects are developed:

- Schools with hazardous walking conditions
- High pedestrian traffic generators including parks and libraries
- Dangerous mid-block crossings

7.2.3 Public Transportation and Services

Barrow County currently has no transit system in operation. While sufficient demand for service does not currently exist, as strong growth continues in the county population densities might reach levels where services would be beneficial, especially those that serve residents commuting to the Atlanta area.

Potential Future Services

The following is a description of potential future services and how they were identified.

Commuter Rail

It is Barrow County’s policy to actively participate in national, state and regional efforts to explore the feasibility of a commuter rail system within the state and region. Potential commuter rail options have included an Atlanta-Athens route, often called the “Brain-Train”, which utilizes the CSX Transportation



Railways. A GDOT fact sheet released in 2006 proposes a route that begins in Athens and travels west to Winder after stopping in Winder the route will go southwest through Lawrenceville, Lilburn, and Tucker. The service is expected to serve over 8,000 passengers per day and start with six round-trip trains per day, two of which will serve the entire route from Athens to Atlanta. The fares will be based on distance traveled and will include a free transfer to MARTA. In early 2004 the Federal Transit Administration (FTA) approved the project's Finding of No Significant Impact (FONSI) which allows federal funding to be sought for construction.

Express Bus

Throughout the Metro Atlanta area, commuter bus service is offered through Georgia Regional Transportation Authority (GRTA). The service, called Xpress Bus, uses coach-type busses to provide a commute alternative to downtown Atlanta from various suburban locations. This service currently does not serve Barrow county but as urban sprawl continues and more Barrow residents commute to Downtown Atlanta, a similar service could be created to serve the SR 316 corridor and Barrow County.

Vanpool Service

Vanpool service works much like the commuter bus service except can be more flexible and serve more locations. Commuters are matched up based on their location of residence and location of employment. Vans, typically 15-passenger, are provided and riders pay a monthly fee to participate. These type services are more appropriate for areas with lower densities or as an addition to express bus services since they can have destinations other than downtown. Vanpools are often operated through a public-private partnership between the county and the vanpool service.

Demand Response Service

As the number of elderly Barrow residents increases, it is important to ensure that safe alternatives are provided for those that feel uneasy with driving. A demand response service works similar to taxi service except it usually is only available to drop-off at specified locations such as doctor's offices, hospitals, government buildings, and grocery stores. Residents are typically approved for service by completing an application that requires proof of residency and proof of need (handicap or financial). After approval, service is obtained by setting up a reservation via telephone. Transportation is typically provided through vans or mini-buses and can be provided either county-wide or in select higher density areas. Customers are typically charged a fee that can be either flat rate or mileage based.

7.2.4 Parking

Park and ride lots are an important element of the region's transportation system, providing carpooling opportunities and express bus pick-up and drop-off points. There is currently one park and ride lot in Barrow County. The 112-space lot is on SR 124 at SR 211 near I-85.

7.3 Railroads, Trucking, Port Facilities and Airports

Although the primary focus of transportation planning has long been on moving people, understanding and planning for goods movement (freight) has been a part of metropolitan and statewide transportation planning requirements since the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Freight movement via trucks is inhibited by congested roadways. Roadway design, operational characteristics, roadway safety, pavement condition, and land use and development characteristics all impact the mobility of truck freight movement. Map 7-6 shows designated truck routes, railroad facilities and potential destinations in Barrow County.

Planning for freight movement does present different considerations than moving people. Conducted by commercial operators within the private sector, moving freight is often a complex, multimodal endeavor. The distribution of goods has become a field of its own – logistics – which is the systematic process of moving a shipment from its origin to its destination. These days, one shipment of consumer goods may move via ship,



train or airplane, and finally truck on its journey from the manufacturer to the retail outlet. Therefore, not only are the means for transporting goods important (waterways, roadways, air routes and railways), but also the connections between the modes (intermodal junctions). In addition, since most goods movement is controlled by the private sector, gathering data and having a full understanding of freight needs presents some challenges.

Recent initiatives in the Atlanta region have targeted gaining better understanding of freight transportation needs from the public sector perspective. Efforts by ARC have included developing a Freight Advisory Task Force, as well as undertaking a regional freight study. Intended to identify and prioritize improvements and strategies that accommodate and enhance mobility of both people and goods while mitigating the negative impacts on congestion, safety, environment and quality of life, the study is reviewing freight needs in the Atlanta Region and developing potential improvements. The resulting plan is expected to be complete during the summer of 2007.

7.3.1 Railroad Freight

Barrow County has one major active (Class I) freight rail line running in a northeast/southwest direction through the County. The CSX Atlanta/Athens rail line parallels US 29 and passes through Auburn, Carl, Winder, Russell, and Statham. The Georgia Rail Passenger Program envisions future commuter rail service between Atlanta and Athens along this line with a station stop in Winder. Map 7-6 illustrates the rail network in Barrow County. Within the county, there are a total of 54 railroad crossings, including 44 public and 10 private crossings, of which 52 are at-grade and 2 separated grade crossings. Winder has the greatest number of public, at-grade crossings (20), followed by Statham (8), Russell (6), and Auburn (4).

7.3.2 Truck Freight

Restrictions on truck use of public roadways are often designated to facilitate traffic flow, separate truck traffic from other vehicles, and offer economic development incentives. Industrial sites important to the community's economic well-being are served by roadways that are appropriately designed, constructed and designated for truck use. Connectivity to Interstate highways and other regional arterials is essential to attract industrial users. In addition, large trucks may hinder the operation and maintenance of local roads built for use by automobiles and light trucks.

The Surface Transportation Assistance Act of 1982 (STAA) designated specific routes, based on recommendations by each state, to facilitate the movement of freight. The majority of these national network routes are interstate highways and other major roads. Georgia created STAA Access Routes to assist truck traffic in reaching terminals and delivery points more directly. Map 7-6 illustrates county and state designated truck routes. In addition to specific named routes, all sections of roadway adjoining industrially zoned property are also designated as truck routes. GDOT administers the STAA. Highways designated as STAA routes are I-85, SR 316, Winder-Jefferson Highway, Gainesville Highway, Winder-Monroe Highway, and the section of Hog Mountain Road between SR 316 and Oconee County. There are 32 miles of name-designated truck routes in the county, of which 29.6 miles are STAA routes and 2.4 miles are other federally designated truck routes.

The GDOT RC file maintains data on truck utilization. As is expected, the Interstate shows the greatest truck utilization in Barrow. From the travel demand model, truck trips in Barrow were estimated at approximately 15,970 per day in 2005, with an anticipated 103% increase to 32,490 per day in 2030.

7.3.3 Port Facilities

There are currently no port facilities in Barrow County.



7.3.4 Airports

The Winder-Barrow Airport (WDR) provides private general aviation air service including fuel sales and aircraft storage. The airport is located 3 miles east of the City of Winder. US Highway 29 provides access to the airport. The airport has two paved runways, the longest of which is 5,500 feet long x 100 feet wide. The other runway, 5/23, is 3610 feet long by 100 feet wide. A wide variety of services are provided on field by either the Barrow County Airport Authority or Fixed Base Operators including both AvGas and Jet-A1 fuel sales, aircraft parking, tiedown, maintenance, flight training, and rental car service and ground transportation. A restaurant is located in the terminal and serves hot food, sandwiches, and deserts. Based aircraft and operations have steadily increased to over 151 single and multi-engine aircraft, two Jet airplanes, three helicopters, and 20 military aircraft. The airport has an average of 183 aircraft operations per day with 45% transient general aviation, 28% local general aviation, and 27% military.

7.3.5 Freight Needs

Efficient goods movement is important for the local, regional, state and national economies, and there is public interest in maintaining a transportation system that can facilitate goods movement. As indicated previously, roadway freight needs mirror the capacity, operations and safety needs of moving people. Freight movement within and through the county is driven by economic factors associated with an increasingly global distribution network. National trends indicate continued growth in moving freight via large trucks. Addressing future congestion and operational needs to facilitate goods movement in Barrow will be an ongoing challenge. Another issue will be monitoring the compatibility of goods movement with existing and future residential development.

Although the Interstate system provides the backbone for goods movement, Barrow County is limited in its capacity to address Interstate needs beyond where county roads meet the Interstate system at interchanges. Several federal and state designated truck routes currently exist in the county. As industries, and in turn freight movement, continue to increase, additional roadways may need to be designated. Stakeholder comments include addressing downtown grade crossings as well as industrial growth in the city of Braselton

7.4 Air Quality

Since the adoption of the federal CAAA, the Atlanta region has experienced the challenge of meeting federal clean air standards. Significant amounts of the region's air pollutants come from automobiles and trucks. In an effort to control the formation of ozone in the region, state and federal air quality planners placed a limit on the amount of emissions originating from vehicles. The region has had difficulty staying within its emissions allocation because of rapid population and employment growth. Starting in the late 1990's, the region actually entered a conformity lapse that halted the construction of regionally significant transportation projects. For transportation planning purposes, these regionally significant projects include roadways classified as minor arterials or above, and large transit projects such as rail extensions.

A conforming Regional Transportation Plan (RTP), developed by ARC, was approved by the U.S. Department of Transportation in coordination with the USEPA in January 2003. Staying within regional air quality conformity standards will continue to be a challenge with capacity additions to area arterial routes.

As part of the Metro Ozone and Particulate Matter (PM_{2.5}) Non-Attainment area, Barrow County must follow all federal transportation planning and programming regulations. Most importantly, projects that add capacity to the transportation system must undergo the region's testing to ensure they meet CAAA standards. Consequently, GDOT and Barrow County no longer have the capability to add certain needed projects into the transportation program without failing air quality standards. If the region is unable to meet federal air quality standards, funding for projects that add capacity is withheld.



7.5 Transportation and Land Use Connection

The overall land use policies and current land development patterns of the county as a whole, with a hand full of exceptions, favor a vehicle-oriented transportation system. Historically, land uses were segregated by type, forcing residents and workers to drive to meet their daily needs. The development pattern led to inefficient traffic flow, especially in Winder. The low housing densities seen in Barrow County developed in this manner largely due to a lack of sewer. The low densities do not favor the implementation of mass transit. However, an east-west commuter rail line connecting Atlanta and Athens is envisioned to follow the railroad route through Barrow County. The early vision for the “Brain Train” calls for a station in downtown Winder. With a downtown station, opportunities would emerge for transit oriented development in addition to a more extensive public transportation system that could feed into the commuter rail station, connecting various points of the county to commuter rail.



8 Intergovernmental Coordination

This chapter identifies existing coordination mechanisms and processes in Barrow County. These include intergovernmental agreements, service delivery, joint planning and service agreements, special legislation or joint meetings or work groups for the purpose of coordination. Sections below outline the independent agencies, boards and authorities, regional programs, and consistency with the Barrow County Service Delivery Strategy. The purpose of this element is to assess the adequacy and suitability of existing coordination mechanisms to serve the current and future needs of the community and articulate goals and formulate a strategy for effective implementation of community policies and objectives that, in many cases, involve multiple governmental entities.

8.1 *Adjacent Local Governments*

A substantial portion of intergovernmental coordination is achieved through informal processes, such as the exchange of data between City and County government agencies. These informal processes are useful and effective, but formal mechanisms for intergovernmental coordination are also necessary to address some issues that cannot always be resolved through informal methods. The following sections will detail some of the many formal and informal coordination mechanisms that exist between Barrow County and local adjacent governments.

Barrow County includes all or part of six municipalities. One-hundred percent of the city boundaries for Winder, Bethlehem, Statham and Carl fall within Barrow County. Braselton has a small portion of its city limits inside Barrow County and is divided among four counties. A small portion of Auburn lies in Gwinnett County. In addition Barrow County is surrounded by the county governments of Athens-Clarke (consolidated government), Gwinnett, Hall, Jackson, Oconee and Walton counties.

8.2 *Independent Agencies, Boards and Authorities*

8.2.1 **Winder-Barrow Joint Development Authority and Winder-Barrow Industrial Building Authority**

The Winder-Barrow Joint Development Authority and the Winder-Barrow Industrial Authority foster economic development and growth in Barrow County and its cities. Both authorities can facilitate financing with certain tax advantages for eligible projects. Members serve three-year terms.

8.2.2 **Barrow County Water and Sewerage Authority**

The seven-member Barrow County Water and Sewerage Authority was created in 1987 to serve the northwest portion of Barrow County with water supplied by Gwinnett County. The Authority now has three service areas with more than 3,750 customers that are serviced by the retail water system installed and maintained by the Authority. Wholesale customers in Barrow County are the County and the cities of Winder, Auburn, Statham, and Braselton.

8.2.3 **Barrow County Airport Authority**

The Barrow County Airport Authority is comprised of seven members who manage the Northeast Georgia Regional Airport located in Winder. The Authority also oversees development and business expansion at the Airport.



8.2.4 Winder Downtown Development Authority

The seven-member Winder Downtown Development Authority works toward the revitalization and redevelopment of Winder's Central Business District by facilitating projects that will promote trade, commerce, industry, and employment opportunities. Members serve six-year terms.

8.2.5 Winder Housing Authority

The Winder Housing Authority, which follows HUD guidelines, operates 321 public housing units in the City of Winder and surrounding areas. The Authority's goal is to provide safe, affordable housing to eligible lower income residents, as well as recreation and other amenities. The Housing Authority Board members include one current tenant and five volunteer directors appointed by the City of Winder. The six members serve six-year terms.

8.2.6 Braselton Urban Redevelopment Agency

The Braselton Urban Redevelopment Agency was created to foster the revitalization of downtown historic Braselton by providing financing mechanisms, such as, bonds to support new building projects.

8.3 School Board

8.3.1 Barrow County Schools Board of Education

The Board of Education is the official governing body of the Barrow County School System, which includes 17 educational facilities. The Board's nine members serve a four year term. Six members are elected by district, and three are elected at-large.

8.4 Regional and State Programs

8.4.1 Northeast Georgia Regional Development Center (NEGRDC)

NEGRDC provides support to 12 counties and 54 municipalities in the areas of local government planning, economic development, grant preparation and administration, job training, and aging services. Its 41 board members represent then Northeast Georgia region's counties, municipalities and private sector. NEGRDC also coordinates regional planning efforts in the areas of comprehensive planning, bicycle/pedestrian planning, and water resource/assessment planning. Barrow County's Board of Commissioner's chair and the Mayor of one of Walton County's municipalities serve on the NEGRDC Board. **Atlanta Metropolitan Planning Organization (MPO)**

The MPO is an 18-county area that is federally-designated for regional transportation planning to meet air quality standards and for programming projects to implement the adopted Regional Transportation Plan. In addition to the 10 counties served by the ARC, the MPO also includes eight counties based on areas that are forecast to become urbanized through the year 2030. Parts of Barrow County are included in the MPO boundary.

8.4.3 Georgia Department of Transportation (GDOT)

GDOT maintains and improves state and Federal highways in Barrow County and provides financial assistance for local road improvements.



8.4.4 Georgia Department of Community Affairs (DCA)

The Georgia DCA has several management responsibilities for the State's coordinated planning program and reviews plans for compliance with minimum planning standards. DCA provides a variety of technical assistance and grant funding to the County and cities.

8.4.5 Georgia Department of Natural Resources (DNR)

The Georgia DNR is available to provide assistance and guidance to the County and cities in a number of important areas including: water conservation, environmental protection, wildlife preservation and historic preservation. It is the mission of the DNR to sustain, enhance, protect and conserve Georgia's historic and cultural resources for present and future generations, while recognizing the importance of promoting the development of commerce and utilize sound environmental practices. The department has 9 divisions working to accomplish this mission: Environmental Protection Division, the Coastal Resources Division, Pollution Prevention Assistance Division, Wildlife Resources Division, Water Conservation Program, and the Program Support Division.

The Environmental Protection Division (EPD) of the Georgia DNR is a state agency charged with protection of Georgia's air, land and water resources through the authority of state and federal environmental statutes. These laws regulate public and private facilities in areas of air quality, water quality, hazardous waste, water supply, solid waste, surface mining, underground storage tanks and others. EPD issues and enforces all state permits in these areas and has full delegation for federal environmental permits except Section 404 (wetland) permits.

8.5 Consistency with Service Delivery Strategy

In 1997, the state passed the Service Delivery Strategy Act (HB489). This law mandates the cooperation of local governments with regard to service delivery issues. The act required each county to adopt a Service Delivery Strategy (SDS). The SDS must include an identification of services provided by various entities, assignment of responsibility for provision of services and the location of service areas, a description of funding sources, and an identification of contracts, ordinances, and other measures necessary to implement the SDS.

The Barrow County Board of Commissioners and councils of each the County's municipalities adopted the Barrow County SDS summarized in 1999 shown in Table 8-1. The governing bodies adopted an addendum to the SDS, the Land Use Dispute Resolution Process, in 2000. However, as part of the Comprehensive Plan Update, the SDS is being examined and evaluated. The summary shown in Table 8-1 provided officials from the County and each municipality an opportunity to review the SDS and provide updates where questions have arisen or where changes have occurred. These are shown in the "Notes" column of the table and intended to be addressed in the future.



Table 8-1 Barrow County Service Delivery Strategy Summary

Services Provided	Barrow County Service Delivery Strategy	Service Area	Notes
Land Use Agreement Summary	The County and each city has adopted the same process that allows for the city to notify the County of proposed annexation and zoning classification. The County must notify the city of objections within 30 days or lose the right to object to the proposed annexation or zoning classification. If the County objects, the city must respond by agreeing to the County's stipulations, stopping the annexation, seeking court judgment, or initiating a 30 day maximum mediation process for which the NEGRDC will assist in the selection of a mediator.	Countywide	
Airport Authority	The Barrow County Airport Authority owns, operates and maintains an airport facility, airplane hangers and terminal buildings. Funding is serviced from user fees, hanger rentals and sales. The Board of Commissioners is responsible for payment of the bond for the Barrow County Airport Authority.	Countywide	
Industrial Authority	The Winder-Barrow Industrial Authority provides services for industrial development and promotion of industry within the cities and the County. Taxing agencies fund this service through a contract (Barrow County, Bethlehem, Statham, and Winder). The contract is a yearly contract and each taxing agency provides a different level of financial support.	Countywide	SDS shows that funding and service contracts take place with Barrow County, Bethlehem, Statham and Winder. Auburn and Carl are not included; Winder-Barrow Industrial Building Authority also exists. Should the SDS clarify the relationship?
Planning and Development	Planning and Development reviews zonings, annexations and assists in the development requirements for Barrow County. The Planning and Department for the unincorporated sections of Barrow County is staffed by county employees. Barrow County offers technical assistance to the City of Bethlehem and the County also has an open offer to assist any municipalities with the efforts associated with Planning and Development. Funding for the Barrow County service is derived from County General Fund. Each of the municipalities in Barrow County is responsible for the duties of Planning and Development within the boundaries of the municipal limits. Funds for each service are derived from the General Fund of each municipality.	Barrow County (unincorporated areas and Bethlehem); Auburn (city limits), Braselton (city limits), Carl (city limits), Statham (city limits) and Winder (city limits)	
Recreation	Auburn and Barrow County offer programs and facilities to serve Barrow County. The Barrow County Recreation Department maintains, administers and develops recreation parks, facilities and programs for Barrow County. The Barrow County Recreation Department is staffed by county employees. The Auburn and Barrow County recreational programs area is available to all of Barrow County. Funding of the Barrow County Service is derived from the County General Fund and user fees. Funding for Auburn's Recreational programs is derived from user fees.	Countywide	Barrow County has changed the name of the recreation department to the Leisure Services Department



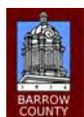
Services Provided	Barrow County Service Delivery Strategy	Service Area	Notes
Library	The Piedmont Regional Library is the main library that serves all residents of Barrow County. The Building is owned and maintained by Barrow County. Auburn, Barrow County, Bethlehem, Carl, Statham, and Winder provide funding. In addition, three small book deposits are located in the city halls of Bethlehem, Carl, and Statham. These libraries receive some services through the extension department of the regional system. Most of their books are purchased with state funds and are rotated among the five deposit stations in the region. Braselton participates with the Jackson County Piedmont Library.	Countywide	
Road/Bridge Maintenance	The Barrow County Roads and Bridges Department maintains roads, bridges and ROW, throughout the unincorporated portions of Barrow County. The Roads and Bridges Department is staffed by county employees and funding is derived from the county general fund, SPLOST, and stat sources such as the local assistance road program. Auburn, Bethlehem, Braselton, Carl, Statham, and Winder are responsible for maintenance of roads within the city limits of the municipality. These efforts are often undertaken through contractual arrangements. Municipal efforts are funded by the city general funds and state sources.	Barrow County (countywide), Auburn (city limits), Bethlehem (city limits), Braselton (city limits), Carl (city limits), Statham (city limits) and Winder (city limits)	
Water	Auburn, Barrow County Water and Sewer Authority, Braselton, Statham and Winder operate public water supply systems. Funding for each of these services is derived from user fees. BCW&SA and Winder work within a contract for water supply and sale. BCW&SA and Statham also have a water supply agreement. BCWSA and Gwinnett County have a wholesale water contract.	Auburn (city limits and surrounding area), Braselton (city limits), Statham (city limits and surrounding area), Winder (city limits and central Barrow County)	Is the map up to date? BCWSA/Winder contract listed in SODS ended 12-31-2000 (is there a new agreement?); BCWSA/Gwinnett contract listed in SDS ended 12-6-2005. (Is there a new agreement?).
Sewage	Barrow County, Braselton, Statham, and Winder have sewage systems in Barrow County and the municipalities of Barrow County. Enterprise funds and user fees are utilized to offset costs associated with the system.	Barrow County, Braselton, Statham and Winder	Is the map up to date?
Natural Gas	Atlanta Gas & Light, the City of Buford and the City of Winder operate natural gas distribution systems in Barrow County for unincorporated areas and cities. Enterprise funds and user fees are utilized to offset costs associated with the system.	See map	Map of service areas needed
Solid Waste Collection	Auburn, Barrow County, Bethlehem, Braselton, and Carl contract with private companies for solid waste collection. Statham and Winder have city solid waste collection services. Auburn, Bethlehem, and Winder have curb-side recycling. Barrow County has drop-off recycling. Statham does not offer recycling. Funding for Braselton and Carl's solid waste collection is derived from the cities' general funds. Funding for Auburn, Barrow County, Bethlehem, Statham, and Winder is derived from user fees.	Auburn (city limits), Barrow County (unincorporated), Bethlehem (city limits), Braselton (city limits), Carl (city limits), Statham (city limits), Winder (city limits)	Is this consistent with the regional plan?



Services Provided	Barrow County Service Delivery Strategy	Service Area	Notes
Public Safety - Police Department, County Marshal/Sheriff	Barrow County is served by Auburn, Barrow County, Braselton, Statham, and Winder law enforcement agencies. The Sheriff's Department is manned by county employees and the service area is countywide. Auburn, Braselton, Statham, and Winder have Police Departments to provide a higher level of service to areas included in its corporate limits. Funding for the Sheriff's Department is derived from the County General Fund, fines, forfeitures, and fees. Funding for Departments in Auburn, Braselton, Statham, and Winder are largely derived from City General Fund.	Barrow County (countywide), Auburn (city limits), Braselton (city limits), Carl (city limits), Statham (city limits), and Winder (city limits)	SDS mentions County Marshal. (Is this still a position or have these duties been moved to the permits department?)
Public Safety - Fire Protection	Fire protection for Barrow County is provided by Barrow County staff and City of Winder staff. The Fire Departments are responsible for responding to fire calls, auto accidents, entrapments, and emergency medical situations. The Fire Departments maintain and operate first responder medical units, fire response units and fire equipment. Funding is derived from a fire tax within the service area of the service provider. The geographic service area for Barrow County is countywide except for the City of Winder. The City of Winder Fire Department is the service provider for the City of Winder. Each department serves as a backup provider for the other.	Barrow County (unincorporated and municipalities except City of Winder); City of Winder (city limits)	
Public Safety - E-911	The E-911 service for Barrow County receives and dispatches emergency calls for fire, law enforcement, and medical assistance. The E-911 Center is owned and operated by Barrow County. E-911 routes Winder Police dispatch to Winder for law enforcement. Barrow County E-911 services are funded through charges to local telephone users and is supplemented by the Barrow County General Fund.	Countywide	
Public Safety - Emergency Management Services	Emergency medical services (EMS) are provided by Barrow County. The Barrow County EMS Department is responsible for answering medical assistance requests, determining the patient's medical disposition, securing a patient's health, and transporting individuals to advanced medical facilities for additional medical services. The EMS Department also maintains medical training for the highest level of care possible, maintains medical equipment, repairs and schedules services for medical equipment, and operates EMS vehicles for response and transport. The department also bills for services rendered. Funding is derived from county general funds and user fees.	Countywide	
Public Safety - Animal Control	Animal Control services in unincorporated Barrow County and the municipalities are provided by Barrow County staff. The Animal Control Office is charged with the duty of enforcing the Animal Owner's Responsibility Resolution for Barrow County. The Animal Shelter is owned, operated, and maintained by Barrow County for the purpose of housing and adopting animals that are impounded or unwanted. Funding for this service is derived from the County General Fund.	Countywide	

Source: Barrow County Service Delivery Strategy Summaries of Service Deliver Arrangements





APPENDIX A ATLAS OF MAPS

- Map 5-1: Environmental Planning Criteria – Supply Watersheds, Groundwater Recharge Areas, Protected Rivers and Stream
- Map 5-2: Environmental Planning Criteria – Wetlands
- Map 5-3: Slope
- Map 5-4: Floodplains
- Map 5-5: Soils of Statewide Importance
- Map 5-6: Forests, Recreation, Conservation Areas
- Map 5-7: Historic Sites and Landmarks
- Map 6-1: Approximate Water Service Areas
- Map 6-2: Approximate Sewer Service Areas
- Map 6-3: Community Facilities
- Map 7-1: Road Network
- Map 7-2: Functional Classification
- Map 7-3: Daily Traffic Counts
- Map 7-4: Truck Routes and Alternative Modes of Transportation
- Map 7-5: State Transportation Improvement Plan Projects
- Map 7-6: Traffic Accident Types



APPENDIX B ENDNOTES

Chapter 2

- ¹ 2005 U.S. Census estimates did not divide the population by county. The 2005 estimated population for Braselton was 2,294. The 2000 population for Braselton was 1,206.
- ² Braselton annexed property in Barrow County after the 1990 U.S. Census; therefore years prior to 1990 do not record a population for the Barrow County portion of Braselton.

Chapter 5

- ¹ Soil Survey of Barrow, Hall and Jackson Counties, Georgia, U.S. Department of Agriculture, National Resources Conservation Service
- ² U.S. Department of Agriculture, National Resources Conservation Service, Web Soil Survey 2006
- ³ Barrow County and Cities of Auburn, Bethlehem, Carl, Statham and Winder Comprehensive Plan 1998
- ⁴ Georgia Centennial Farm Award Recipients List, Georgia Department of Natural Resources, Historic Preservation Division
- ⁵ Barrow County and Cities of Auburn, Bethlehem, Carl, Statham and Winder Comprehensive Plan 1998

Chapter 6

- ¹ Northeast Georgia Regional Comprehensive Plan 2004 & Northeast Georgia Water Resources Study Update 2004
- ² Barrow County Fire and Emergency Services *Web site:* <http://www.barrowga.org/index.html>
- ³ City of Winder Fire Department *Web site:* <http://www.cityofwinder.com/departments/fire/ops.asp>
- ⁴ AccessNorthGa.com *Web site* Barrow County newcomer page:
<http://www.accessnorthga.com/community/barrow/newcomer.asp>
- ⁵ Barrow County Sheriff's Department *Web site:* <http://www.barrowga.org/>



- 6 City of Winder Police Department *Web site:* <http://www.cityofwinder.com/departments/police/default.asp>
- 7 City of Auburn Police Department *Web site:* <http://www.auburngapd.com/>
- 8 City of Statham Police Department *Web site:* <http://www.cityofstatham.com/policedept.htm>
- 9 Northeast Georgia Regional Solid Waste Plan 2004
- 10 Northeast Georgia Regional Solid Waste Plan 2004
- 11 Source: <http://www.privateschoolsreport.com/> and Georgia Private School Accreditation Council
<http://www.gapsac.org/>
- 12 Lanier Technical College *Web site:* <http://www.laniertech.edu/>
- 13 Piedmont Regional Library *Web site:* <http://library.barrow.public.lib.ga.us/>

