

CHAPTER 6 LAND USE

Section One: Existing Land Use

Introduction

The following provides an inventory and assessment of existing land use in Morgan County. The information presented is based on a general survey of the county and data from 2000 tax assessor's records for Morgan County. Additional verification and reclassification was conducted using aerial photographs of the county taken in 2002. Attempts were made to reduce the amount of previously unclassified land throughout the county. The resulting analysis consists of tables describing the distribution of land in each use category and thematic maps depicting land classifications. The current distribution of land uses will provide an information base for future land use planning. Maps and summarized statistics are included for Morgan County and the municipalities of Bostwick, Buckhead, Madison, and Rutledge. In addition, land use patterns have been compared with figures in the previous comprehensive plan in order to measure changes in land use.

Morgan County is located north of Jasper and Putnam counties, east of Walton and Newton counties, and west of Greene and Oconee counties. Morgan County is known for its pastoral open landscape, well-preserved antebellum homes and traditional rural small town heritage. Most residential areas are located in and around Madison. However, smaller residential areas exist in Bostwick, Buckhead, and Rutledge as well as scattered settlements throughout the county. In addition to the traditional community centers there is another significant residential area adjacent to Lake Oconee. A mixture of year-round and seasonal-recreational homes varying significantly in size and value exists. The majority of commercial and industrial establishments are located within the city limits of Madison. However, increased commercial and industrial activity is occurring along transportation corridors in the central part of the county, particularly along I-20.

Table 6.1 Morgan County Total Acreage

Morgan County Total Acres		
	Acres	% of County Total
Morgan County	227,125	100.0%
Unincorporated Morgan County	217,022	95.6%
Incorporated Cities Total	10,103	4.4%
Bostwick	2,004	0.9%
Buckhead	496	0.2%
Madison	5,475	2.4%
Rutledge	2,128	0.9%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

6.1 Inventory

The Georgia Department of Community Affairs (DCA) has established a statewide land classification system for regional and local governmental agencies in Georgia. The system is based on the Standard Industrial Classification (SIC) code, and consists of eight categories required by the Minimum Planning Standards. In addition to the land use categories required by the Department of Community Affairs, subcategories were created, including four subcategories of residential land use based on density. These subcategories have been maintained from the 1994 Morgan County Comprehensive Plan to facilitate comparisons across time. Likewise, agricultural uses have been subcategorized to distinguish between agriculture and commercial forestry as consistent with the 1994 Morgan County Comprehensive Plan.

Where multiple uses are present on one parcel, a determination was made as to the primary use for classification purposes. For instance, no agricultural parcels are shown as residential, although many have houses or mobile homes located on them. Large tracts of land (more than twenty-five acres) are typical throughout the unincorporated portion of Morgan County. These tracts are predominantly classified as agricultural.

The following land use categories were used to survey existing land use in Morgan County and its four municipalities.

Agriculture: This category is for land dedicated to farming (fields, lots, pastures, farmsteads, specialty farms, livestock production, etc.) or aquaculture.

Commercial Forestry: This category is for land dedicated to commercial timber cultivation or pulpwood harvesting.

Commercial: This category is for land dedicated to non-industrial business uses, including retail sales, office, service and entertainment facilities. Commercial uses may be located as a single use in one building or grouped together in a shopping center or office building.

Industrial: This category is for land dedicated to manufacturing facilities, processing plants, factories, warehousing and wholesale trade facilities, mining or mineral extraction facilities or other similar uses.

Park/Recreation/Conservation: This category is for land dedicated to active or passive recreational uses which are accessible to the general public. These areas may be either publicly or privately owned and may include playgrounds, public parks, nature preserves, wildlife management areas, national forests, golf courses, recreation centers, and similar uses.

Public/Institutional: This category includes certain state, federal, or local government uses and institutional land uses. Examples of institutional land uses include colleges, churches, and cemeteries, hospitals, etc. Government uses in this category would include city halls or government building complexes, police and fire stations, libraries, prisons, post offices, schools, military installations, etc.

Residential: The predominant use of land within the residential category is for single family and multi-family dwellings. Residential land use has been subcategorized according to the following density classifications.

1. Single-family housing (except mobile homes).

High Density:	0.00 - 0.25 acres per dwelling unit
Medium Density:	0.25+ - 1.00 acres per dwelling unit
Low Density:	1.00+ - 10.00 acres per dwelling unit
Estate:	10.00+ - 25.00 acres per dwelling unit

2. Multi-family housing, including duplexes, apartments, and public housing.

3. Mobile home, including mobile home parks.

High Density:	0.00-.25 acres per dwelling unit
Medium Density:	0.25+ - 1.00 acres per dwelling unit
Low Density:	1.00+ - 10.00 acres per dwelling unit
Estate:	10.00+ - 25.00 acres per dwelling unit

Transportation/Communication/Utilities: This category includes such uses as roads, power generation plants, railroad facilities, radio towers, public transit stations, telephone switching stations, airports, port facilities and other similar uses.

Vacant/Undeveloped: This category is for land that is not developed for a specific use or land that was developed for a particular use but which has been abandoned for that use. This category includes woodlands or pasture land (not in agricultural crop, livestock, or commercial timber production), undeveloped portions of residential subdivisions and industrial parks, water bodies (lakes, rivers, etc.) and locations of structures that have been vacant for some time and allowed to become deteriorated or dilapidated.

Existing Land Use Distribution

Unincorporated Morgan County

Morgan County remains a predominantly rural agricultural county. Unincorporated Morgan County consists primarily of two types of land use, agricultural and commercial forestry (See Map 6.1).. These two classifications account for 79.7% of land area in the county. Agriculture is the largest land use category with 145,476.7 acres, or 67% of the unincorporated county land area. The next largest category is commercial forestry, a distant second with 27,484.5 acres or 12.7% of the county. The third largest category of land use is residential, accounting for 8% of land use in Morgan County. The fourth largest land use category is vacant/undeveloped, which accounts for 13,739.5 acres or 6.3% of the county. The remaining five categories combined represent only 6% of Morgan County land use (Table 6.2).

Table 6.2 Land Use in Unincorporated Morgan County

Unincorporated Morgan County Land Use			
Land Use	Acres	Parcels	% of County Acreage
Agriculture	145,476.7	1,614	67.0%
Commercial	219.3	45	0.1%
Commercial Forestry	27,484.5	148	12.7%
Industrial	479.2	6	0.2%
Public/Institutional	454.9	113	0.2%
Parks/Recreational/Conservation	6,280.5	16	2.9%
Residential	17,276.9	3,316	8.0%
Transportation/Communication/Utilities	5,610.9	89	2.6%
Vacant/Undeveloped *	13,739.5	1,494	6.3%
Total	217,022.4	6,841	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002; *Includes Lake Oconee

Table 6.3 Land Use Change in Unincorporated Morgan County 1993 - 2002

Unincorporated Morgan County Land Use Change			
Land Use	Acres 1993	Acres 2002	% Change
Agriculture	160,649.0	145,476.7	-9.4%
Commercial	217.0	219.3	1.1%
Commercial Forestry	28,978.0	27,484.5	-5.2%
Industrial	300.0	479.2	59.7%
Public/Institutional	575.0	454.9	-20.9%
Parks/Recreational/Conservation	6,068.0	6,280.5	3.5%
Residential	9,023.8	17,276.9	91.5%
Transportation/Communication/Utilities	1,233.0	6,199.1	402.8%
Vacant/Undeveloped *	8,136.0	13,739.5	68.9%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002; *Includes Lake Oconee

Table 6.4 Breakdown of Residential Land in Unincorporated Morgan County

Unincorporated Morgan County Residential Breakdown			
Residential Type	Acres	Parcels	% of Total Residential
Single Family Residential	16,026.2	2,889	92.8%
High Density	1.8	12	0.01%
Medium Density	262.4	358	1.5%
Low Density	7,328.0	2,092	42.4%
Estate	8,433.9	427	48.8%
Multi-Family Residential	0.0	0	0.0%
Mobile Home Residential	1,250.7	427	7.2%
High Density	0.0	0	0.0%
Medium Density	53.9	67	0.3%
Low Density	936.2	343	5.4%
Estate	260.6	17	1.5%
Total Residential	17,276.9	3,316	100.0%

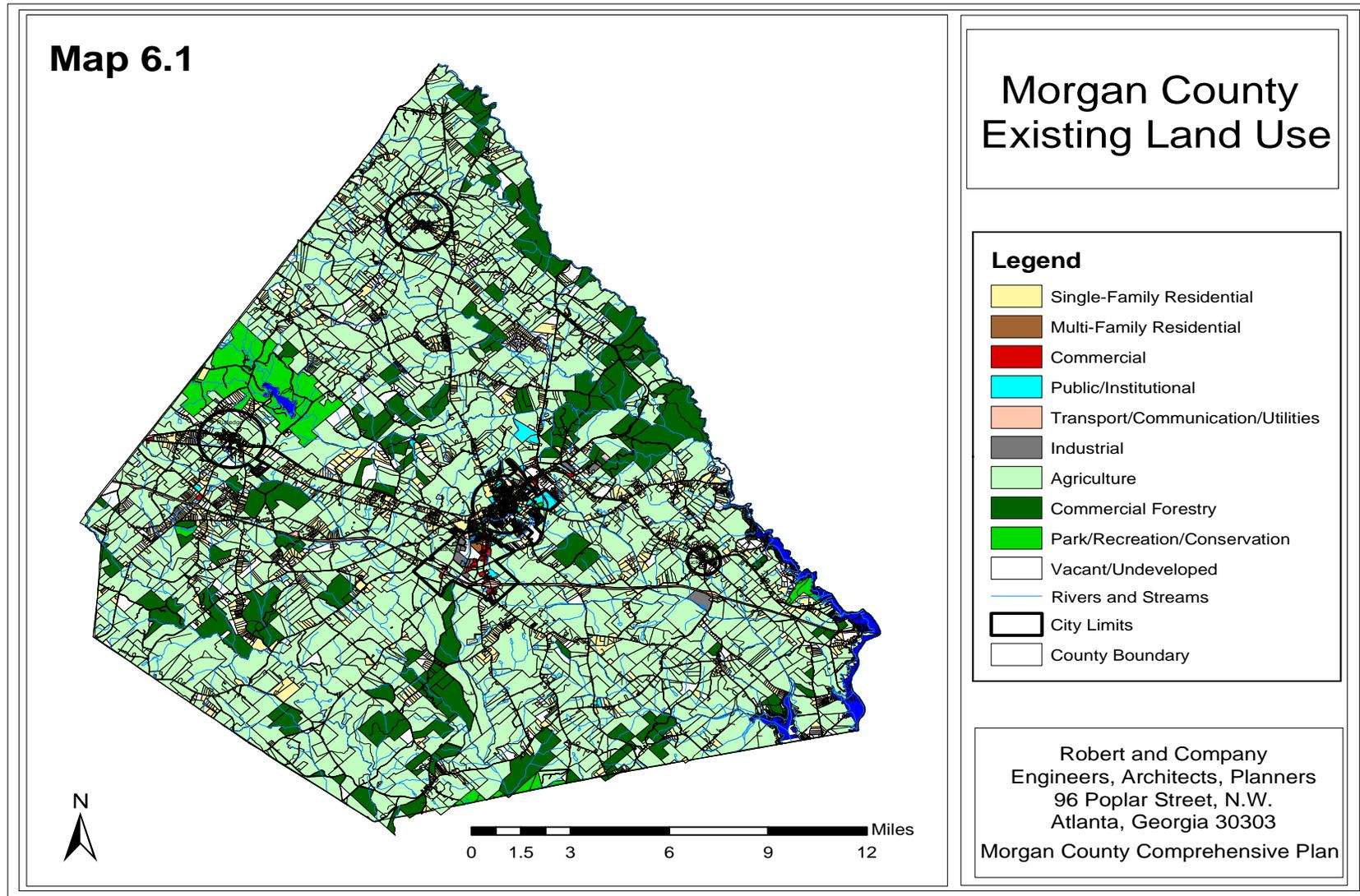
Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.5 Change in Residential Land Use in Unincorporated Morgan County

Unincorporated Morgan County Residential Change			
Residential Type	Acres 1993	Acres 2002	% Change
Single Family Residential	7,674.8	16,026.2	108.8%
High Density	0.8	1.8	126.9%
Medium Density	467.0	262.4	-43.8%
Low Density	3,927.0	7,328.0	86.6%
Estate	3,280.0	8,433.9	157.1%
Multi-Family Residential	0.0	0.0	N/A
Mobile Home Residential	1,349.0	1,250.7	-7.3%
High Density	0.0	0.0	N/A
Medium Density	195.0	53.9	-72.4%
Low Density	999.0	936.2	-6.3%
Estate	155.0	260.6	68.1%
Total Residential	9,023.8	17,276.9	91.5%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Map 6.1 Morgan County Existing Land Use



The most prevalent land use in Morgan County is agriculture. Commercial forestry is also widespread. Much of the land in commercial forestry is located on the northeast border of Morgan County along the Apalachee River and along Hard Labor Creek northeast of Madison. Despite the predominance of agriculture and commercial forestry in Morgan County the amount of land dedicated to these uses had declined since the 1994 assessment. Agricultural use has declined 9.4% losing over 15,000 acres, and commercial forestry has declined 5.2% (Table 6.3).

Land in the park/recreation/conservation land use category consists mainly of Hard Labor Creek State Park, located north of Rutledge, the Oconee National Forest located adjacent to Lake Oconee, and the Central Georgia Wildlife Management Area on the southeast border of the county..

Residential land can be found scattered throughout the county particularly along major thoroughfares. Residential land use showed the largest total increase in acreage over the period of comparison, adding 8,253.1 acres. This represents an increase of 91.5% (Table 6.3). In addition, there are numerous undeveloped parcels of land which have been subdivided for residential use, particularly along Lake Oconee. The vast majority of the residential development in Morgan County is low density and estate density single family homes. These two categories of single family residential development taken together account for 91.2% of the total residential development in the county (Table 6.4). Manufactured homes have decreased in share of residential development and now account for approximately 7% of the county's residential land.

Commercial and industrial land in the county is primarily located in the incorporated communities with additional locations along I-20 and concentrated northeast of Madison, along U.S. 441 and Lower Apalachee Rd. With the exception of Madison, each city has experienced a decline in commercial land use, however commercial increased slightly in the unincorporated county.

The transportation/communication/utilities (TCU) land use category consists primarily of road networks, highway rights-of-way, airports and utility lines. Because of the increased accuracy of computerized GIS mapping, the total acreage occupied by Morgan County road networks are now included in the TCU category. Increases in the transportation/communications/utilities category are largely due to this improved accuracy and more comprehensive categorization.

The final land use category, public institutional, is spread throughout the county and includes primarily churches, cemeteries, and educational facilities.

City of Bostwick

Land classified as agricultural is the largest land use in Bostwick, accounting for 1,560.8 acres or 77.9% of Bostwick's land area (Map 6.2, Table 6). Residential land ranks second with 315.4 acres or 15.7% of the total. The third largest land use in Bostwick is transportation/communication/utilities, which accounts for 3.6% of the land area. The remaining categories combined account for only 2.8% of the total land area.

Map 6.2 City of Bostwick Existing Land Use

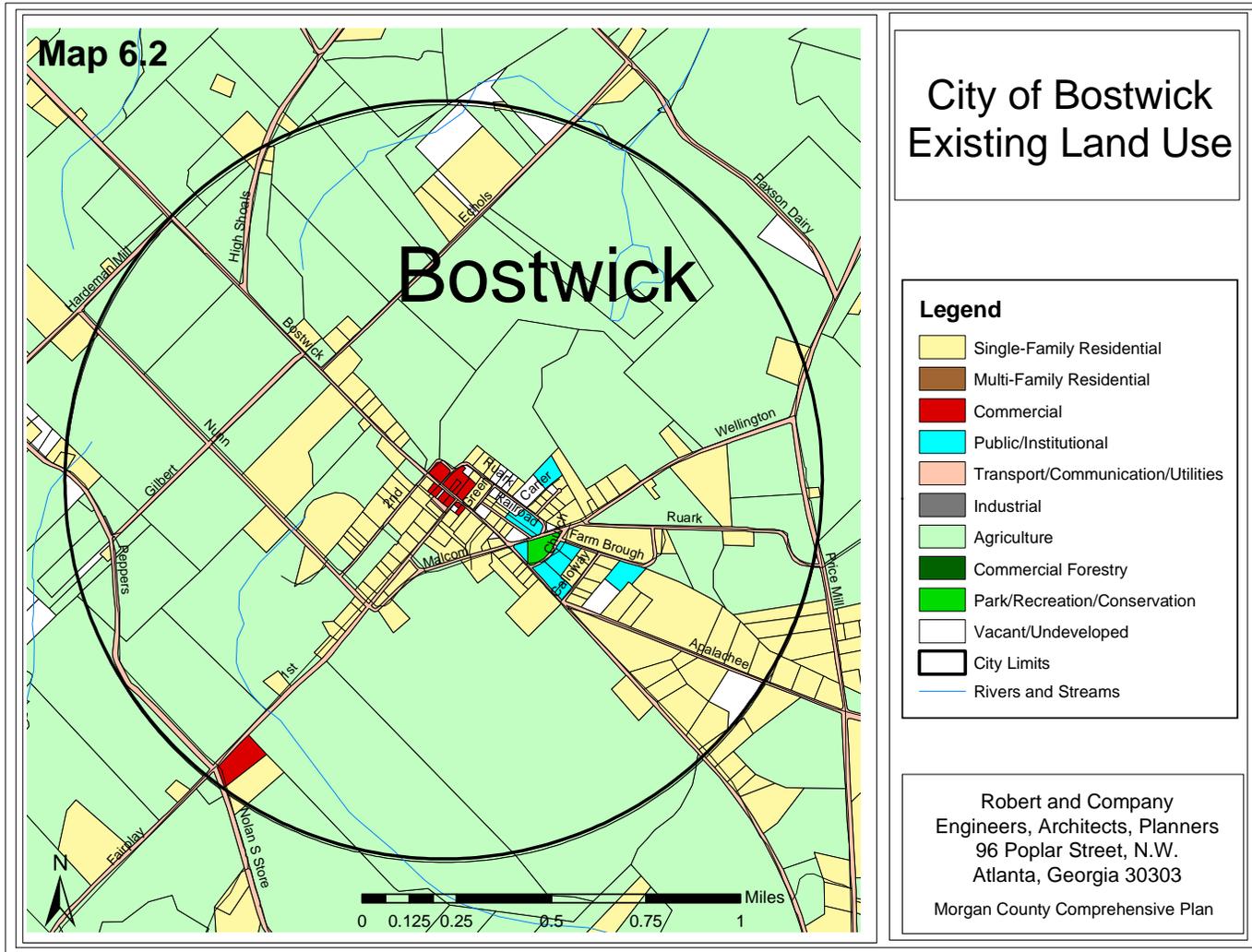


Table 6.6 Land Use in City of Bostwick

Bostwick Land Use			
Land Use	Acres	Parcels	% of City Acreage
Agriculture	1,560.8	54	77.9%
Commercial	10.5	10	0.5%
Commercial Forestry	0.0	0	0.0%
Industrial	0.0	0	0.0%
Public/Institutional	13.8	8	0.7%
Parks/Recreational/Conservation	2.8	1	0.1%
Residential	315.4	132	15.7%
Transportation/Communication/Utilities	71.8	2	3.6%
Vacant/Undeveloped	28.9	26	1.4%
Total	2,004.0	233	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.7 Land Use Change in Bostwick 1993 - 2002

Bostwick Land Use Change			
Land Use	Acres 1993	Acres 2002	% Change
Agriculture	1,424.0	1,560.8	9.6%
Commercial	11.0	10.5	-4.7%
Commercial Forestry	0.0	0.0	N/A
Industrial	0.0	0.0	N/A
Public/Institutional	12.0	13.8	15.4%
Parks/Recreational/Conservation	5.0	2.8	-44.6%
Residential	317.0	315.4	-0.5%
Transportation/Communication/Utilities	1.0	71.8	7083.0%
Vacant/Undeveloped	235.0	28.9	-87.7%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.8 Breakdown of Residential Land Use in Bostwick

Bostwick Residential Breakdown			
Residential Type	Acres	Parcels	% of Total Residential
Single Family Residential	295.0	121	93.6%
High Density	0.0	0	0.0%
Medium Density	33.8	55	10.7%
Low Density	153.8	59	48.8%
Estate	107.5	7	34.1%
Multi-Family Residential	0.0	0	0.0%
Mobile Home Residential	20.3	11	6.4%
High Density	0.0	0	0.0%
Medium Density	3.4	4	1.1%
Low Density	16.9	7	5.4%
Estate	0.0	0	0.0%
Total Residential	315.4	132	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.9 Change in Residential Land Use in Bostwick

Bostwick Residential Change			
Residential Type	Acres 1993	Acres 2002	% Change
Single Family Residential	294.0	295.0	0.3%
High Density	0.0	0.0	N/A
Medium Density	34.0	33.8	-0.7%
Low Density	158.0	153.8	-2.7%
Estate	102.0	107.5	5.4%
Multi-Family Residential	0.0	0.0	N/A
Mobile Home Residential	23.0	20.3	-11.6%
High Density	0.0	0.0	N/A
Medium Density	3.0	3.4	14.4%
Low Density	20.0	16.9	-15.5%
Estate	0.0	0.0	N/A
Total Residential	317.0	315.4	-0.5%
Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.			

Agricultural land use is prevalent in Bostwick. Residential land in Bostwick is predominantly low density and estate single family housing. Public/institutional land and commercial land are primarily located in the downtown area with some commercial use along thoroughfares. Land use patterns in Bostwick are similar to Buckhead and Rutledge. All three cities have large amounts of agricultural land and small amounts of commercial and industrial land. Additionally, all three cities experienced slight declines in commercial land use. Bostwick is not heavily developed, however infrastructure expansion needs may prevent developable areas from developing in the near term.

Town of Buckhead

Agricultural land is the predominant land use in the Town of Buckhead (Map 6.3). There are 198.4 acres of agricultural land in Buckhead, representing 40% of the town’s total land area. The second largest category is vacant/undeveloped with 125 acres or 25.2% of the total Buckhead land area. The third largest land use category is residential, which accounts for 24.6% of the land area. Combined, the remaining six categories combined make up only 10.2% of Buckhead’s total land area.

Map 6.3 Town of Buckhead Existing Land Use

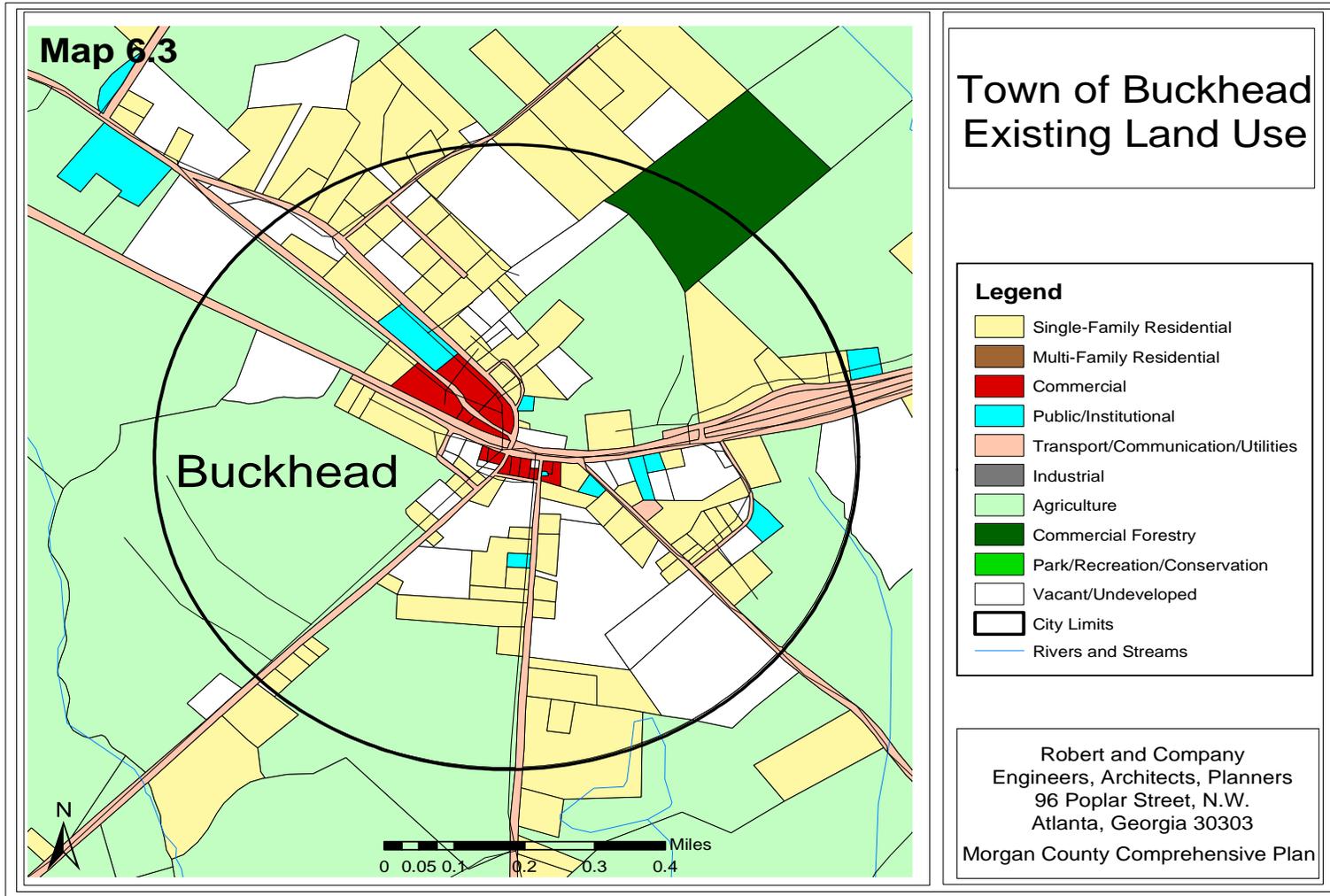


Table 6.10 Town of Buckhead Land Use

Buckhead Land Use			
Land Use	Acres	Parcels	% of City Acreage
Agriculture	198.4	7	40.0%
Commercial	3.7	9	0.8%
Commercial Forestry	11.7	1	2.4%
Industrial	0.0	0	0.0%
Public/Institutional	7.0	8	1.4%
Parks/Recreational/Conservation	0.0	0	0.0%
Residential	121.8	83	24.6%
Transportation/Communication/Utilities	27.9	3	5.6%
Vacant/Undeveloped	125.0	40	25.2%
Total	495.7	151	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.11 Change in Buckhead Land Use 1993 - 2002

Buckhead Land Use Change			
Land Use	Acres 1993	Acres 2002	% Change
Agriculture	212.0	198.4	-6.4%
Commercial	4.0	3.7	-6.6%
Commercial Forestry	11.0	11.7	6.5%
Industrial	0.0	0.0	N/A
Public/Institutional	8.0	7.0	-12.0%
Parks/Recreational/Conservation	0.0	0.0	N/A
Residential	113.4	121.8	7.4%
Transportation/Communication/Utilities	0.7	27.9	3886.7%
Vacant/Undeveloped	152.0	125.0	-17.8%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.12 Breakdown of Residential Land Use in Buckhead

Buckhead Residential Breakdown			
Residential Type	Acres	Parcels	% of Total Residential
Single Family Residential	102.1	69	83.8%
High Density	0.3	2	0.3%
Medium Density	20.1	33	16.5%
Low Density	70.8	33	58.1%
Estate	10.9	1	8.9%
Multi-Family Residential	0.0	0	0.0%
Mobile Home Residential	19.7	14	16.2%
High Density	0.1	1	0.1%
Medium Density	3.5	6	2.9%
Low Density	16.1	7	13.2%
Estate	0.0	0	0.0%
Total Residential	121.8	83	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.13 Change in Residential Land Use in Buckhead

Buckhead Residential Change			
Residential Type	Acres 1993	Acres 2002	% Change
Single Family Residential	92.4	102.1	10.5%
High Density	0.4	0.3	-20.5%
Medium Density	25.0	20.1	-19.6%
Low Density	58.0	70.8	22.1%
Estate	9.0	10.9	20.8%
Multi-Family Residential	0.0	0.0	N/A
Mobile Home Residential	21.0	19.7	-6.2%
High Density	0.0	0.1	N/A
Medium Density	9.0	3.5	-61.0%
Low Density	12.0	16.1	33.8%
Estate	0.0	0.0	N/A
Total Residential	113.4	121.8	7.4%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

The majority of agricultural land in Buckhead is located northeast and west of downtown. Vacant/undeveloped parcels are scattered throughout the city. Buckhead contains one parcel of commercial forestry in the northeast corner of the city. Most residential land in Buckhead is medium and low density single family homes, which together account for 74.6% of the residential land area. Northeast of Buckhead, two residential subdivisions have been developed for estate and low density single family homes. Commercial land is concentrated in the center of the city and has experienced a slight decline. The city contains no industrial land, however, an asphalt plant has recently been constructed south of Buckhead adjacent to I-20.

City of Madison

The largest land use in the City of Madison is agriculture, which makes up 2177.9 acres or 39.8% of Madison's total land area (Map 6.4, Table 6.14). The second largest land use in Madison is residential, which includes 1,022.6 acres or 18.7% of total land area. The third largest use category is vacant/undeveloped land with 748.8 acres and 13.7% of total land. The next category is transportation/communications/utilities with 9.5% of city land. Public/institutional represents 6.9% of city land. Commercial represents 6.7% of city land. Industrial represents 4.4% of city land and parks/recreational/conservation represents 0.5% of city land (Table 6.14).

Map 6.4 City of Madison Existing Land Use

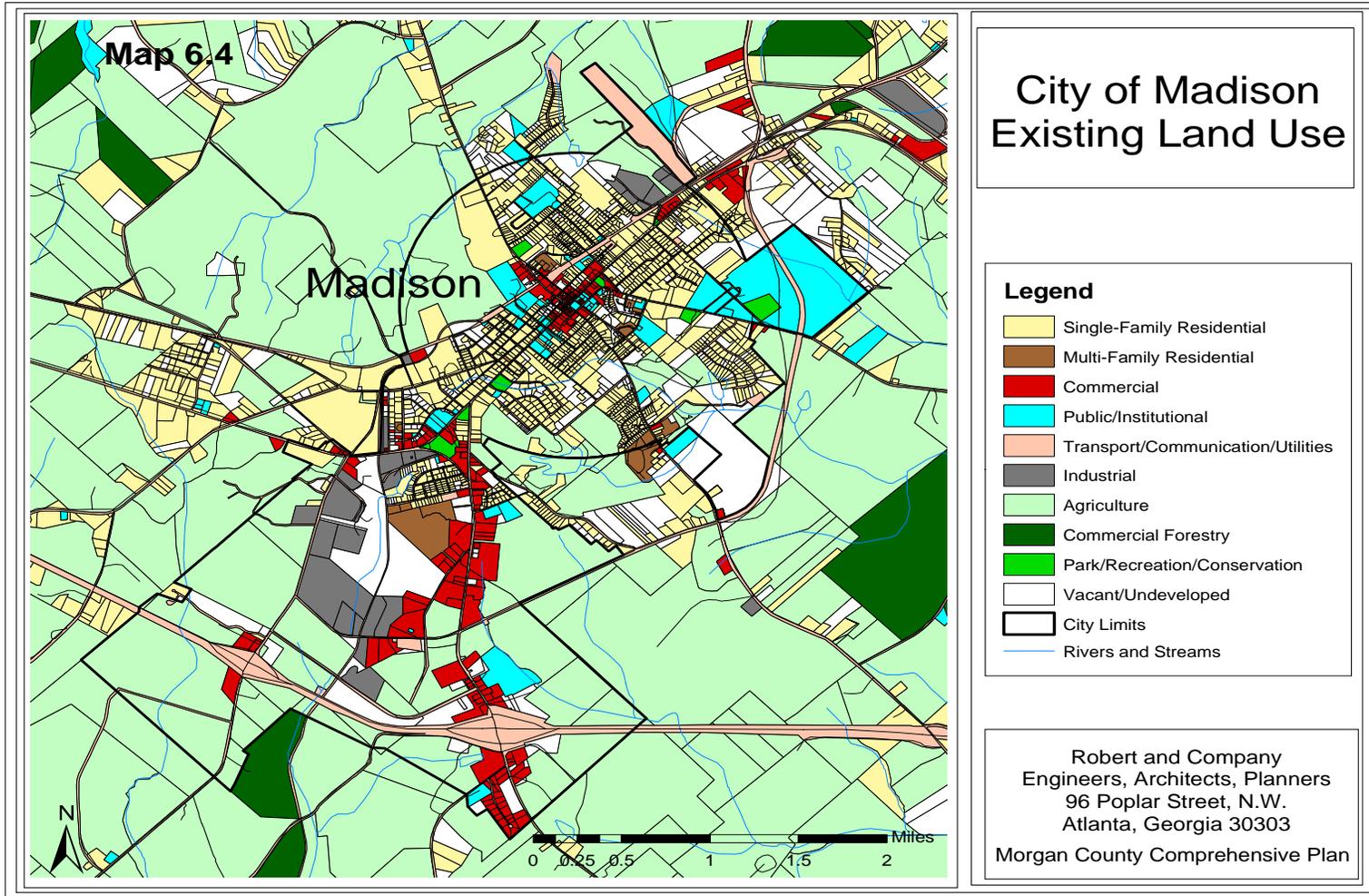


Table 6.14 City of Madison Land Use

Madison Land Use			
Land Use	Acres	Parcels	% of City Acreage
Agriculture	2,177.9	48	39.8%
Commercial	364.8	217	6.7%
Commercial Forestry	0.0	0	0.0%
Industrial	239.2	22	4.4%
Public/Institutional	375.7	63	6.9%
Parks/Recreational/Conservation	25.3	6	0.5%
Residential	1,022.6	1,164	18.7%
Transportation/Communication/Utilities	520.5	19	9.5%
Vacant/Undeveloped	748.8	344	13.7%
Total	5,474.9	1,883	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.15 Land Use Change in Madison 1993 - 2002

Madison Land Use Change			
Land Use	Acres 1993	Acres 2002	% Change
Agriculture	2,564.0	2,177.9	-15.1%
Commercial	300.0	364.8	21.6%
Commercial Forestry	0.0	0.0	N/A
Industrial	169.0	239.2	41.6%
Public/Institutional	411.0	375.7	-8.6%
Parks/Recreational/Conservation	14.0	25.3	80.8%
Residential	961.5	1,022.6	6.4%
Transportation/Communication/Utilities	320.0	520.5	62.7%
Vacant/Undeveloped	708.0	748.8	5.8%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.16 Breakdown of Residential Land Use in Madison

Madison Residential Breakdown			
Residential Type	Acres	Parcels	% of Total Residential
Single Family Residential	994.9	1,128	97.3%
High Density	33.6	178	3.3%
Medium Density	385.0	718	37.7%
Low Density	473.7	223	46.3%
Estate	102.5	9	10.0%
Multi-Family Residential	16.1	15	1.6%
Mobile Home Residential	11.6	21	1.1%
High Density	0.3	2	0.0%
Medium Density	8.6	17	0.8%
Low Density	2.7	2	0.3%
Estate	0.0	0	0.0%
Total Residential	1,022.6	1,164	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.17 Change in Residential Land Use in Madison 1993 - 2002

Madison Residential Change			
Residential Type	Acres 1993	Acres 2002	% Change
Single Family Residential	930.0	994.9	7.0%
High Density	56.0	33.6	-40.1%
Medium Density	379.0	385.0	1.6%
Low Density	454.0	473.7	4.3%
Estate	41.0	102.5	150.1%
Multi-Family Residential	20.0	16.1	-19.5%
Mobile Home Residential	11.5	11.6	0.9%
High Density	0.5	0.3	-32.6%
Medium Density	10.0	8.6	-14.1%
Low Density	1.0	2.7	167.7%
Estate	0.0	0.0	N/A
Total Residential	961.5	1,022.6	6.4%
Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.			

The largest amount of agricultural land is located in the southern half of the city with some agricultural land west of downtown (Map 6.4). Residential areas are mainly in the northern half of the city. The largest percentage of residential development is low and medium density single family housing, which together make up 84% of Madison’s residential land use (Table 6.16). Vacant/undeveloped land is located throughout the city with a large amount already subdivided for residential use. Public/institutional land is located throughout the city with concentrations downtown and in the northeast corner of the city at the high school (Map 6.4) Transportation/communication/utilities consists of roads, the airport and some railroad right-of-way. Commercial land is concentrated in the downtown area with significant portions extending along Eatonton road (Hwy 441) from I-20 towards downtown. Industrial areas in the city are primarily located near I-20 off Monticello Road in the south portion of the city and near the airport in the north. Of all the cities in Morgan County, Madison contains the largest amounts of commercial, industrial, and public/institutional land (Table 6.14).

City of Rutledge

The largest land use category in Rutledge is agriculture with 1359.3 acres or 63.9% of total land area. The second largest category of land use in Rutledge is residential with 378.5 acres or 17.8% of total land area. The third category is vacant/undeveloped with 10.7% of total land. The remaining categories combined represent 7.7% of Rutledge’s total land area.

Map 6.5 City of Rutledge Existing Land Use

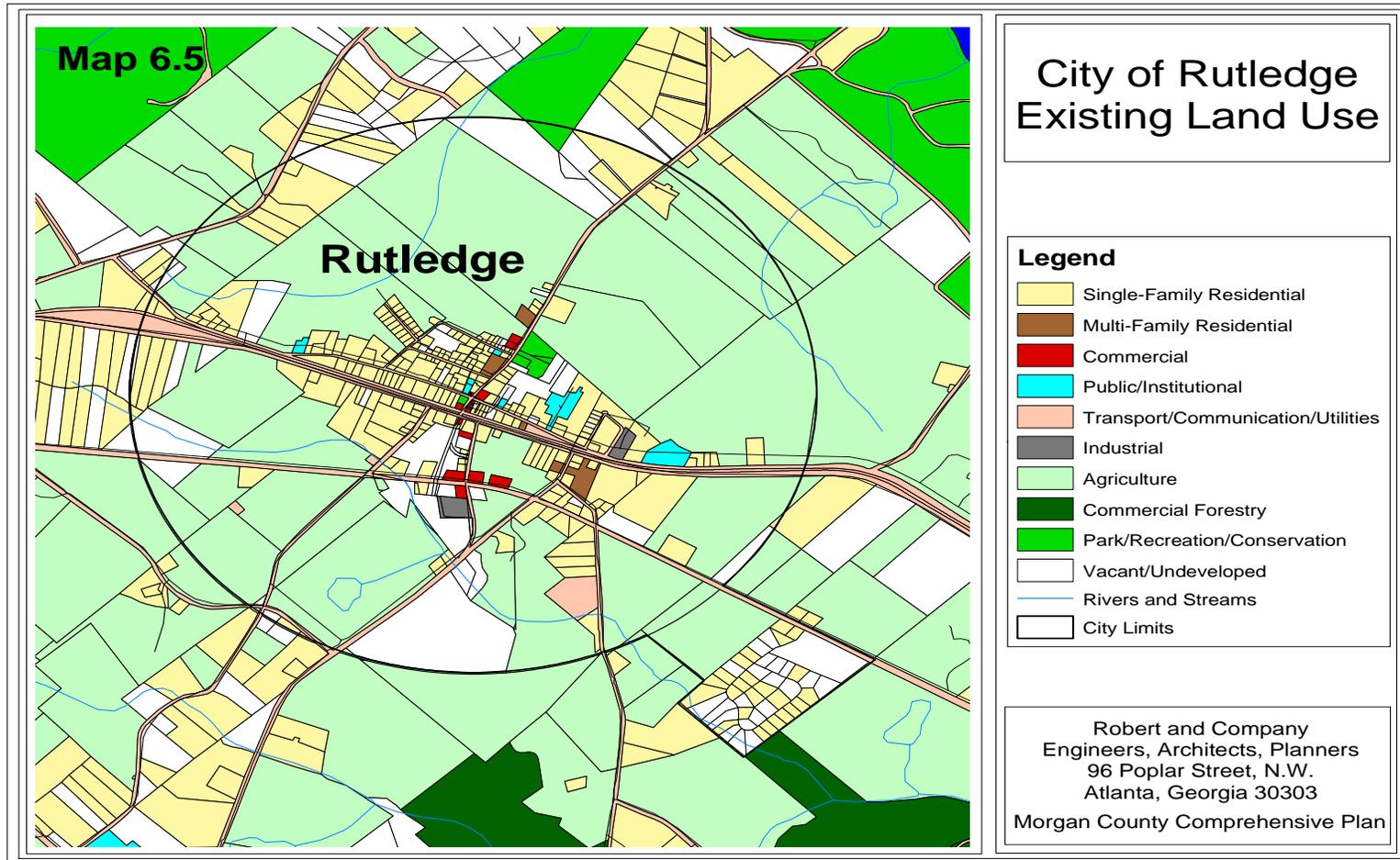


Table 6.18 City of Rutledge Land Use

Rutledge Land Use			
Land Use	Acres	Parcels	% of City Acreage
Agriculture	1,359.3	33	63.9%
Commercial	8.3	18	0.4%
Commercial Forestry	0.0	0	0.0%
Industrial	7.1	2	0.3%
Public/Institutional	13.7	10	0.6%
Parks/Recreational/Conservation	12.2	6	0.6%
Residential	378.5	251	17.8%
Transportation/Communication/Utilities	122.3	8	5.7%
Vacant/Undeveloped	227.1	75	10.7%
Total	2,128.4	403	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.19 Change in Rutledge Land Use 1993 - 2002

Rutledge Land Use Change			
Land Use	Acres 1993	Acres 2002	% Change
Agriculture	1,412.0	1,359.3	-3.7%
Commercial	10.0	8.3	-17.2%
Commercial Forestry	0.0	0.0	N/A
Industrial	7.0	7.1	0.7%
Public/Institutional	13.0	13.7	5.3%
Parks/Recreational/Conservation	10.0	12.2	21.7%
Residential	368.2	378.5	2.8%
Transportation/Communication/Utilities	44.0	122.3	178.0%
Vacant/Undeveloped	263.0	227.1	-13.7%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.20 Breakdown of Residential Land Use in Rutledge

Rutledge Residential Breakdown			
Residential Type	Acres	Parcels	% of Total Residential
Single Family Residential	337.6	236	89.2%
High Density	1.7	10	0.5%
Medium Density	77.8	138	20.5%
Low Density	200.9	84	53.1%
Estate	57.1	4	15.1%
Multi-Family Residential	10.4	5	2.7%
Mobile Home Residential	30.6	10	8.1%
High Density	0.1	1	0.04%
Medium Density	1.1	2	0.3%
Low Density	29.3	7	7.7%
Estate	0.0	0	0.0%
Total Residential	378.5	251	100.0%

Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.

Table 6.21 Change in Rutledge Residential Land Use

Rutledge Residential Change			
Residential Type	Acres 1993	Acres 2002	% Change
Single Family Residential	315.0	337.6	7.2%
High Density	1.0	1.7	73.7%
Medium Density	79.0	77.8	-1.5%
Low Density	177.0	200.9	13.5%
Estate	58.0	57.1	-1.5%
Multi-Family Residential	10.0	10.4	3.6%
Mobile Home Residential	43.2	30.6	-29.2%
High Density	0.2	0.1	-29.5%
Medium Density	3.0	1.1	-62.6%
Low Density	40.0	29.3	-26.7%
Estate	0.0	0.0	N/A
Total Residential	368.2	378.5	2.8%
Source: Morgan County Tax Assessor, 2000; Aerial Photos 2002.			

Like Bostwick and Buckhead, Rutledge has a large amount of agricultural land spread throughout the city. Residential land is primarily low density with significant proportions at medium and estate densities. There are also significant amounts of residential land just outside the Rutledge city limits (Map 6.5). Vacant/undeveloped land is located throughout the city with many parcels subdivided for residential use. Public/institutional land uses are located along Main Street. Park/recreational/conservation land is located near downtown on Fairplay Road and in the extreme northern corner of the city where a portion of Hard Labor Creek State Park extends into the city. Commercial land is located in downtown Rutledge and along U.S. Highway 278 (Map 6.5).

Section Two: Future Land Use Plan

Introduction

The Future Land Use Plan is a graphic representation of the future land use goals and policies as they pertain to the twenty-year outlook for the Comprehensive Plan. The Future Land Use Map and associated text serves as a guiding policy document for future decisions to be made concerning zoning and development. It provides local officials and planners with a basis for rational, objective decision making. The plan also serves to assist landowners and the private development community by clearly stating the local government's official land use policies and increasing the level of predictability of future development trends, thereby enhancing the level of security of investment in land and property.

The Future Land Use Plan has been developed through the process of comprehensive planning, and all elements of the comprehensive plan have factored into the Future Land Use Plan at some level. The basis for the Future Land Use Map is the inventory of physical/natural resources and existing land uses. Analysis of development trends and forecasts is also a significant factor as are existing and planned infrastructure systems that are supportive of development. Ultimately, the Future Land Use Map must be consistent with the goals, objectives and policies of all elements of the comprehensive plan, and particularly the land use goals, objectives and policies.

6.4 Future Land Use Needs Projections

With the existing land use inventory as a basis, future land use needs have been projected for Morgan County, Bostwick, Buckhead, Madison and Rutledge for the forecast years of 2015 and 2025. The method used to establish future land use projections is reliant on the future population projections that have been established for each jurisdiction. With the 2000 Census population counts as a basis, a ratio of persons to acres was established for each land use category. The application of this ratio to projected population levels for future years yields future land use acreage needs by category. The land use need projections resulting from this method are useful as a general guide in the process of preparing future land use plans for the jurisdictions. However, it is not appropriate to view these projected acreage needs as precise figures to direct future land use planning.

The following tables (6.22 – 6.27) describe the future land use need projections for the County and each municipality, including indication of the net change by classification from the existing land use inventory. For each, projections are made to the benchmark years 2015 and 2025.

Table 6.22 Morgan County Projected Land Use Needs

Morgan County Projected Land Use Needs (In Acres)					
Land Use	Existing Total	2015	Net Change From Existing	2025	Net Change From Existing
Residential	19,115	26,117	7,002	30,576	11,461
Commercial	607	829	222	969	363
Industrial	726	991	266	1,160	435
Public/Institutional	865	1,182	317	1,383	518
Transportation/Communication/Utilities	6,321	8,636	2,315	10,163	3,842
Parks/Recreational/Conservation	6,321	8,636	2,315	10,112	3,791
Agriculture	150,773	141,045	(9,728)	134,877	(15,896)
Commercial Forestry	27,496	39,625	12,129	37,884	10,388
Vacant/Undeveloped *	14,869				
Total	227,093	227,062		227,124	

Table 6.23 Unincorporated Morgan County Projected Land Use Needs

Unincorporated Morgan County Projected Land Use Needs Breakdown (In Acres)					
Land Use	Existing Total	2015	Net Change From Existing	2025	Net Change From Existing
Residential	17,277	23,620	6,343	27,641	10,364
Commercial	219	300	81	351	132
Industrial	479	655	176	767	287
Public/Institutional	455	622	167	728	273
Transportation/Communication/Utilities	5,611	7,671	2,060	8,977	3,366
Parks/Recreational/Conservation	6,280	8,586	2,306	10,048	3,768
Agriculture	145,477	136,792	-8,685	131,288	-14,189
Commercial Forestry	27,484	25,815	-1,669	24,756	-2,728
Vacant/Undeveloped *	13,740	12,961	-779	12,467	-1,273
Total	217,022	217,022	0	217,022	0

Table 6.24 City of Bostwick Projected Land Use Needs

Bostwick Land Use Needs (In Acres)					
Land Use	Existing Total	2015	Net Change From Existing	2025	Net Change From Existing
Residential	315.4	429.9	114.6	503.4	188.0
Commercial	10.5	14.3	3.8	16.7	6.3
Industrial	0.0	0.0	0.0	0.0	0.0
Public/Institutional	13.8	18.9	5.0	22.1	8.3
Transportation/Communication/Utilities	71.8	97.9	26.1	114.7	42.8
Parks/Recreational/Conservation	2.8	3.8	1.0	4.4	1.7
Agriculture	1,560.8	1,413.0	-147.8	1,318.3	-242.5
Commercial Forestry	0.0	0.0	0.0	0.0	0.0
Vacant/Undeveloped	28.9	26.1	-2.7	24.4	-4.5
Total	2,004.0	2,004.0	0.0	2,004.0	0.0

Table 6.25 Town of Buckhead Projected Land Use Needs

Buckhead Land Use Needs (In Acres)					
Land Use	Existing Total	2015	Net Change From Existing	2025	Net Change From Existing
Residential	121.8	166.4	44.6	194.3	72.5
Commercial	3.7	5.1	1.4	6.0	2.2
Industrial	0.0	0.0	0.0	0.0	0.0
Public/Institutional	7.0	9.6	2.6	11.2	4.2
Transportation/Communication/Utilities	27.9	38.1	10.2	44.5	16.6
Parks/Recreational/Conservation	0.0	0.0	0.0	0.0	0.0
Agriculture	198.4	163.6	-34.8	141.9	-56.6
Commercial Forestry	11.7	9.7	-2.1	8.4	-3.3
Vacant/Undeveloped	125.0	103.1	-21.9	89.4	-35.6
Total	495.7	495.7	0.0	495.7	0.0

Table 6.26 City of Madison Projected Land Use Needs

Madison Land Use Needs (In Acres)					
Land Use	Existing Total	2015	Net Change From Existing	2025	Net Change From Existing
Residential	1,022.6	1,395.2	372.6	1,632.6	610.0
Commercial	364.8	497.7	132.9	582.4	217.6
Industrial	239.2	326.4	87.2	382.0	142.7
Public/Institutional	375.7	512.7	136.9	599.9	224.1
Transportation/Communication/Utilities	520.5	710.2	189.7	831.0	310.5
Parks/Recreational/Conservation	25.3	34.5	9.2	40.4	15.1
Agriculture	2,177.9	1,486.9	-691.0	1,046.7	-1,131.2
Commercial Forestry	0.0	0.0	0.0	0.0	0.0
Vacant/Undeveloped	748.8	511.2	-237.6	359.9	-388.9
Total	5,474.9	5,474.9	0.0	5,474.9	0.0

Table 6.27 City of Rutledge Projected Land Use Needs

Rutledge Land Use Needs (In Acres)					
Land Use	Existing Total	2015	Net Change From Existing	2025	Net Change From Existing
Residential	378.5	516.6	138.1	604.4	225.9
Commercial	8.3	11.3	3.0	13.2	4.9
Industrial	7.1	9.6	2.6	11.3	4.2
Public/Institutional	13.7	18.7	5.0	21.9	8.2
Transportation/Communication/Utilities	122.3	166.9	44.6	195.3	73.0
Parks/Recreational/Conservation	12.2	16.6	4.4	19.4	7.3
Agriculture	1,359.3	1,189.9	-169.5	1,082.2	-277.2
Commercial Forestry	0.0	0.0	0.0	0.0	0.0
Vacant/Undeveloped	227.1	198.8	-28.3	180.8	-46.3
Total	2,128.4	2,128.4	0.0	2,128.4	0.0

6.5 Morgan County Future Land Use

Overview

Planning for future land use in Morgan County is based on the premise that there should remain a strong distinction between those areas that are designated for preservation of the rural landscape and those areas that are designated for growth. It is recognized that the potential exists for “suburban sprawl” in Morgan County as the regional growth of metro Atlanta extends farther from its core. As evidenced in nearby communities, most notably Gwinnett and Rockdale Counties, sprawling growth can have the effect of completely changing the character of a place while also placing a heavy burden on local government to provide a high level of community services across an expansive area.

Through the joint comprehensive planning process in Morgan County, the issue of the negative effects of sprawl and how to prevent them has been a common theme. A logical approach to preventing suburban sprawl is the placement of emphasis on the preservation of rural open space. The Morgan County GreenPrint planning process, conducted in conjunction with the Joint Comprehensive Plan Update, has resulted in a general master plan for the preservation of significant features and the rural environment of Morgan County. To be consistent with the general recommendations of the GreenPrint plan, the Future Land Use Plan for Morgan County should guide growth and development into the municipalities, the unincorporated areas immediately surrounding municipalities, and compact community nodes (sometimes called “hamlets”) in various parts of the county. For the majority of the county, agriculture, forestry and rural-density residential land uses should serve to preserve the rural landscape and natural environmental resources.

The future land use plan for Morgan County is presented in Map 6.6. The distribution of acreage in each land use category is included in Table 6.28 and a comparison of the existing, projected, and mapped distributions acreages among the land use categories is presented in Table 6.29.

Map 6.6 Morgan County Future Land Use

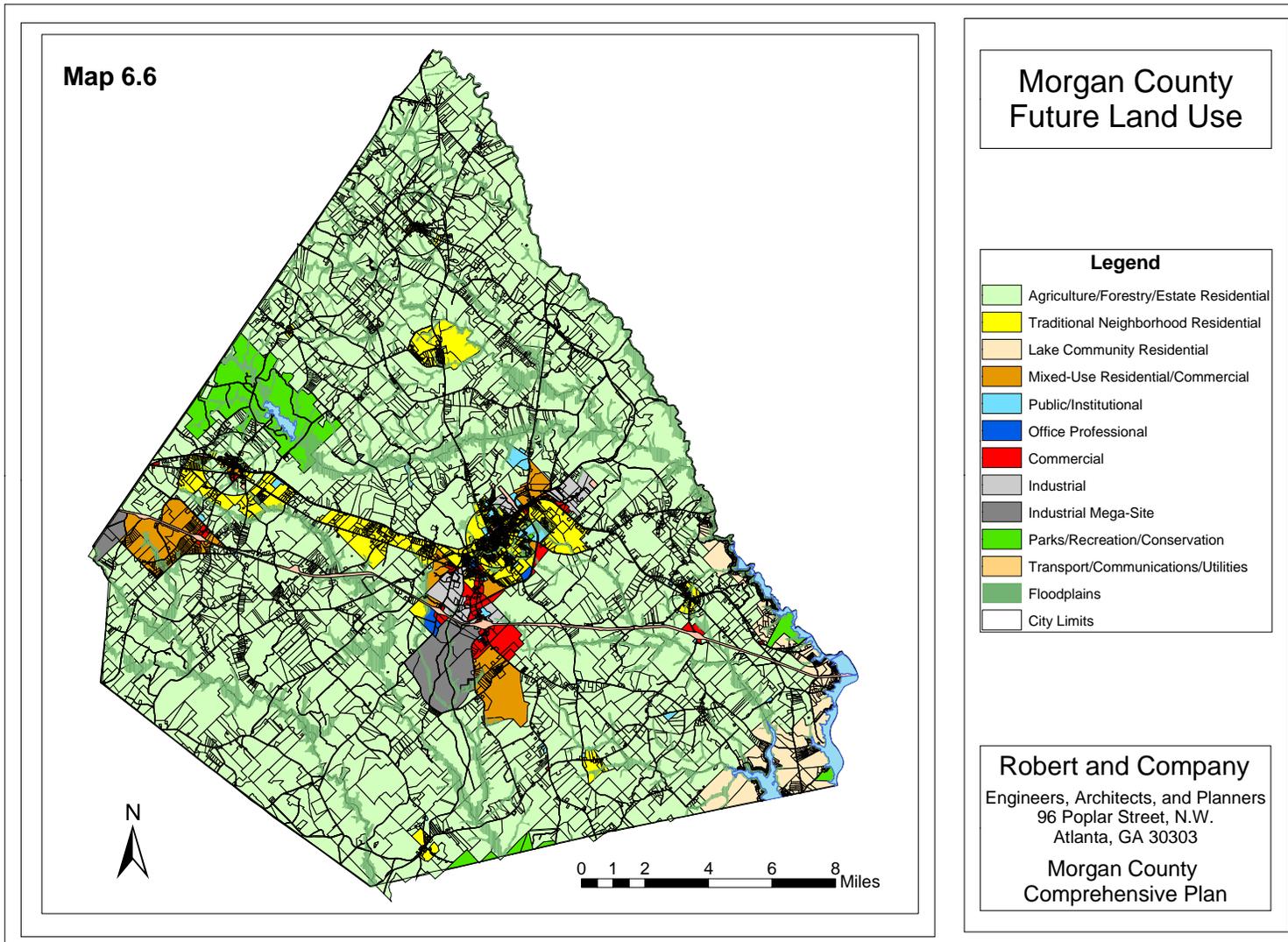


Table 6.28 Morgan County Future Land Use Distribution

Morgan County Future Land Use Distribution		
Land Use	Acreage	Percent of County
Agriculture / Commercial Forestry / Estate Residential	182,590	79.74%
Commercial	1,895	0.83%
Industrial	1,672	0.73%
Industrial Mega Site	3,244	1.42%
Lake District Residential	8,165	3.57%
Mixed Use (Residential & Commercial)	5,665	2.47%
Office / Professional	335	0.15%
Public / Institutional	1,192	0.52%
Parks / Recreation / Conservation	6,370	2.78%
Traditional Neighborhood Residential	11,582	5.10%
Transportation / Communications / Utilities	6,282	2.74%

Table 6.29 Comparison of Land Use Acreage Distribution

Comparison of Land Use Acreage Distribution			
Land Use	Existing Acreage Distribution	Projected Acreage Based on Projected 2025 Needs	Future Land Use Map Distribution
Residential	8.42%	13.46%	8.87%
Commercial & Office / Professional	0.27%	0.43%	0.88%
Industrial	0.32%	0.51%	2.15%
Public/Institutional	0.38%	0.61%	0.52%
Transportation/Communication/Utilities	2.78%	4.47%	2.74%
Parks/Recreational/Conservation	2.78%	4.45%	2.78%
Agriculture & Commercial Forestry*	78.50%	76.06%	79.74%
Vacant/Undeveloped *	6.55%	N/A	N/A
Mixed Use (Residential / Commercial)	N/A	N/A	2.47%
Total	100.00%	100%	100.00%

The percentage of acreage projected for residential use appears to be low when compared to the projected acreage based on 2025 housing and population projections. However the land use designations used in previous comprehensive plans and the 2025 Future Land Use Map differ in that it is assumed that the emerging pattern of large lot "estate" residential will continue in the majority of the unincorporated county. This type of development is assumed to absorb a share of new residential development needed to provide housing for the projected 2025 population. Due to the county's desire to preserve the rural landscape specific areas for this manner of residential development have not been segregated but rather estate residential development is recommended as a desirable land use intermixed with agriculture and commercial forestry. Additionally, a percentage of the projected residential acreage needed to meet 2025 projections is also included within the Mixed-Use category.

The rise in the percent of total acreage dedicated to commercial forestry is due to the reclassification of a number of tracts of "vacant/undeveloped" into the forestry category due to their vegetation.

Future Land Use Plan Description

Future Agriculture and Forestry Land Use

Agriculture/Forestry/Estate Residential land use classification indicates areas designated for agriculture activities, such as row crops and livestock pasture, and also indicates areas where very low density residential land use is appropriate. It has been the trend in many counties to consider the Agriculture areas as “holding zones” for future residential subdivision and development. This trend has resulted in suburban sprawl and a loss of farmland, open space and environmental resources in many circumstances. The intent of the Future Land Use Plan is to establish a different pattern for Morgan County that will result in the preservation of the rural environment and concentration of development into clusters of various sizes (cities/towns, villages/hamlets, conservation subdivisions).

Future Residential Land Use

Residential land use in Morgan County should include several different types of housing and communities. For the most part, it is with residential land use that the issue of agriculture/open space preservation is concerned. In a suburban sprawl scenario, the development of low to moderate density single-family subdivisions generally precedes the development of commercial centers and employment centers to serve the residents. Development extends increasingly farther from city or town centers until an entire county becomes essentially a low to moderate density city. This has become undesirable to many people today and, perhaps more significantly, it is a pattern that is inefficient in terms of the provision of local government services and infrastructure. To prevent this pattern, there must be a distinction established between those areas where the development of housing communities is desired and the surrounding areas where open space preservation is both more desirable and a more efficient land use pattern.

The vast majority of the land in unincorporated Morgan County is currently considered to be rural open space and is used either for agriculture, forestry, very low density residential or is unused/vacant. Certain of these areas are not appropriate for development of any kind, such as wetlands and floodplains. Residential land use should be allowed in those areas that are not restricted by environmental factors, but the density of development should remain very low so as to not require urban/suburban infrastructure and services. Net residential densities in the portions of unincorporated Morgan County that are classified as **Agriculture, Forestry and Estate Residential** should remain very low (minimum of 2 acres per unit net density). Additionally, conservation subdivision development practices should be required for all new residential subdivision development in Agriculture/Forestry and Estate Residential classified areas.

Residential communities in unincorporated Morgan County either exist or are taking shape in different forms. Historic community centers that are not incorporated, such as the Godfrey and Swords communities, can be considered “hamlets” or small villages that have the potential to develop further with residences in close proximity to one another. Other unincorporated areas such as Flat Rock are not necessarily historic communities, but development trends suggest the formation of a community. Lake Oconee has attracted a significant amount of high-end residential development including housing for

retirees and second-homes. And there are master-planned communities, such as Madison Lakes, which is anticipated to become equivalent to a village or town with a mixture of land uses. Common to all of these is the fact that development is clustered into nodes or communities, not sprawling over the landscape. Also, in these residential communities it is more feasible to develop urban infrastructure (water and sewer systems, parks, street networks, etc.) due to the relatively compact and dense development pattern. And, unlike housing on large tracts of land, the high average cost of land does not excessively affect the affordability of housing, though developers must plan appropriately to provide affordable housing in a mixed-income community format.

Residential land use that is classified as ***Traditional Neighborhood Residential*** in the Future Land Use Plan should be at a significantly higher density level than surrounding low density areas. The appropriate maximum residential density in these areas should also depend upon the level of infrastructure that is available to serve the communities, particularly water and sewer system infrastructure. Where water and sewer service is available, either as part of a public system or due to the development of substantial private systems, moderate and high residential densities may be allowed. Where water but not sewer service is available to development, only low to moderate densities should be allowed where soils are capable of supporting septic systems with no environmental concerns. In areas that are served by neither water nor sewer, low residential density is appropriate, with the maximum density allowable not being higher than the Health Department standard for development with septic tank and wells.

The area of the unincorporated county that is adjacent to and includes Lake Oconee is a unique resource for Morgan County and adjacent Greene and Putnam counties. While Morgan County does not have direct jurisdiction over Lake Oconee or its immediate buffers, the County does have jurisdiction over adjacent areas that are identified as ***Lake Community Residential***. Due to the desirability of development in this area, special regulations and guidelines should be established to ensure high quality development and environmental sensitivity.

The Future Land Use Map identifies certain areas in the unincorporated County for mixed-use communities. Called ***Mixed-Use Residential/Commercial***, this land use classification supports the traditional neighborhood development town planning philosophy of developing new communities that include residential, commercial, office/professional and public/institutional land uses, resulting in live/work/play environments. This is a land use pattern that should be encouraged in Morgan County, where appropriate. Commercial and Office/Professional land use in these areas should be organized in a “traditional town center” arrangement and should be limited to only a small percentage of each community’s land use. Residential densities in Mixed-Use Residential/Commercial areas should follow the same guidelines as the Traditional Neighborhood Residential classification.

Within the Traditional Neighborhood Residential and Mixed-Use Residential/Commercial designated areas of Morgan County and municipalities, there may be an opportunity to allow greater residential development density levels in the

context of a Transferable Development Rights program. Should Morgan County establish a Transferable Development Rights system in the future, these areas in the unincorporated County and within the municipalities should be considered as receiving areas for development rights. Thereby, higher density residential development would be allowable in clustered communities as a result of permanently preserving open space in the surrounding rural areas of Agriculture/Forestry and Estate Residential (sending areas) by transferring development rights.

Future Commercial Land Use

The majority of the existing commercial land use in Morgan County is located within the municipalities. Due to the fact that commercial land use generally requires urban services such as water and sewer, it is expected that commercial development will continue to gravitate to, or near, the municipalities that can provide these services. There are areas of unincorporated Morgan County, however, that have a strong potential for commercial development due to the immediate access to I-20. Commercial land use is recommended adjacent to each I-20 exit in the County in recognition of the demand created by the Interstate. Similarly, small-scale commercial land use is recommended at intersections of major county roads and within small communities to provide services to residents and farms in the vicinity.

Commercial land use is vitally important to the success of traditional neighborhood or mixed-use developments. Often, such developments are planned and initiated but result only in the completion of the residential component of the community. For master planned, mixed-use development in Morgan County, the inclusion of appropriate amounts of commercial land use should be required.

In recent decades, commercial land use has tended to follow “strip” development patterns, consistent with suburban sprawl. To avoid strip commercial conditions, commercial land uses should be organized into nodes wherever possible. Also, the design of commercial development must be regulated in an appropriate manner. For commercial land use along major corridors, such as SR83 and 441, good design can help to preserve the visual quality of the roadway and landscape. Limiting curb cuts along major corridors can improve the visual quality and also maintain good traffic flow. Standards for consistent landscaping and building materials also support visual quality. Building setbacks should be appropriately proportional to the scale of the roadway, with greater setbacks required from larger arterial roadways. Additionally, new commercial developments must include pedestrian elements such as sidewalks, crosswalks, and landscaped buffers between walk way and automobile travel lanes.

Future Industrial Land Use

Like commercial land use, industrial land use in Morgan County has generally been located in municipalities with urban services, particularly in Madison. With the exception of certain industrial uses, such as the pulpwood industry, it is important for industrial land use in Morgan County to be conveniently located to major arterials and I-20. Railroad access is also important, though many industries do not rely on rail for transporting goods due to the prevalence of trucking.

Future land use projections suggest a need for additional industrial land in Morgan County during the planning period. The potential for economic development that is created by Morgan County's level of access to I-20 makes it advisable to provide excess amounts of land for industrial development in strategic locations. Specifically, industrial land use is recommended for the area of the county between the two Madison exits (SR83 and 441) where infrastructure can be extended from Madison. Also, industrial land use is recommended for the extreme western edge of the county directly adjacent to I-20 in the location of the planned four-county industrial development, Stanton Springs. Industrial development potential also exists for the Madison Airport area north of the city limits, however this is not considered as desirable for near-term industrial development due to the less convenient access to I-20 and the limited capacity of the airport.

Two different classifications of industrial land use are indicated on the Future Land Use Map. The **Industrial** classification is intended to accommodate general industrial uses ranging from distribution to manufacturing in an industrial park setting. The **Industrial Mega-Site** classification specifically identifies a new industrial development area that should be reserved as a "mega-site" for one or more very large industrial developments. There are several such mega-site industrial areas identified in the State of Georgia that have similar characteristics to this area of Morgan County (more than 500 acres of land, water/sewer infrastructure capability, rail access, interstate access, etc.). For the area classified as **Industrial Mega-Site**, it is important to restrict future industrial development to only that which is consistent with the mega-site designation. Piecemeal development of this area with smaller industries will detract from the unique mega-site potential and will result in undesirable land use patterns. Additionally, zoning requirements for mega-site development should include very large setback or buffer areas from surrounding streets and/or properties and access to mega-site development should be designed so as to minimize conflicts with local traffic.

Future Office/Professional Land Use

Distinct from the Commercial land use classification, **Office/Professional** recommends lighter intensity business uses that are not retail-oriented. Appropriate developments within Office/Professional include low to mid-rise professional office buildings, office parks, office/distribution facilities, research and development facilities and similar. Uses such as colleges/universities and large churches are appropriate in the Office/Professional classification as well as the Public/Institutional classification.

Future Public/Institutional Land Use

Public and Institutional land uses include public buildings, schools, libraries, churches and similar uses. Most Public/Institutional uses in unincorporated Morgan County are churches, though there is a major school planned for the area directly east of the city of Rutledge.

While an increase in the needed amount of Public/Institutional land is projected for Morgan County, this increase is not directly reflected on the Future Land Use Map due to the difficulty of predicting exactly where future public buildings or churches may be

developed. For public buildings and properties needed in the future, it is recommended that the County choose land that is appropriately located with respect to the general land use plan and purchase land well in advance of the anticipated time of development of public facilities.

Future Transportation/Communication/Utility Land Use

Transportation/Communication/Utility (TCU) land use in Morgan County primarily consists of road rights-of-way. As a result of increasing map detail and accuracy made possible by GIS, there is shown to be a great increase in the amount of TCU land use over that identified in the previous land use plan. Future TCU land use needs are not specifically located on the Future Land Use Map as they will be determined by future transportation improvements and development.

Summary of Future Land Use Classifications

Agriculture, Forestry and Estate Residential (Light Green) –

- Designated for non-industrialized agriculture activities and also very low net density residential land use.
- Limited agriculture-oriented commercial uses and rural businesses may be permitted.
- Open space preservation in residential developments is required through conservation subdivision design principles.
- Potential sending area for transferred development rights.

Traditional Neighborhood Residential (Yellow) –

- Single-family residential within or adjacent to cities.
- Density determined by existing surrounding/adjacent density and infrastructure availability. Density greater than one unit per two acres requires public utilities and open space preservation.
- Open space preservation in residential development is encouraged through conservation subdivision design principles.
- Potential receiving area for transferred development rights.

Lake Community Residential (Tan) –

- Single-family residential in the identified areas adjacent to Lake Oconee.
- Density limited so as to protect environmental resources from groundwater pollution due to septic systems and runoff pollution due to impervious surfaces.

Mixed-Use Residential/Commercial (Orange) –

- Single-family residential with some mixed-use (multi-family residential and commercial) that follows the form of traditional town/neighborhood centers.
- Uses other than single-family residential (multi-family residential/commercial) are limited to nodes on a small percentage of land within a development.
- Density determined by availability of utilities (water/sewer).
- Open space preservation (e.g. neighborhood park) required through traditional neighborhood design and conservation subdivision design principles.

- Potential receiving area for transferred development rights.

Commercial (Red) –

- Non-industrial business uses, including retail sales, office, service, and entertainment facilities.
- Commercial uses may be located as a single use in one building or grouped together in a shopping center or complex.
- Commercial developments should be designed to accommodate pedestrian *and* vehicular transportation with building setbacks should appropriately proportional to the scale of the roadway, with greater setbacks required from larger arterial roadways.

Industrial (Light Grey) –

- General industrial uses ranging from distribution to manufacturing in an industrial park setting.
- Industrial development should include setback or buffer areas from surrounding streets and/or properties.
- Access to industrial development should be designed so as to minimize conflicts with local traffic.

Industrial Mega-Site (Dark Grey) –

- Specifically identifies a new industrial development area that should be reserved as a “mega-site” for one or more very large industrial developments.
- Restrict future industrial development to only that which is consistent with the mega-site designation.
- Mega-site development should include very large setback or buffer areas from surrounding streets and/or properties as well as other appropriate site design guidelines.
- Access to mega-site development should be designed so as to minimize conflicts with local traffic.

Office/Professional (Dark Blue) –

- Light intensity business uses that are not retail-oriented, including low to mid-rise professional office buildings, office parks, office/distribution facilities, research and development facilities and similar.
- Also appropriate are public/institutional uses such as colleges/universities and large churches.
- Requires public utilities.

Public and Institutional (Light Blue) –

- Uses include public buildings, schools, libraries, churches and similar.
- All potential locations for future Public and Institutional uses are not shown on the Future Land Use Map due to the difficulty of predicting exactly where future public buildings or churches may be developed.

Transportation/Communication/Utility (Pink) –

- Primarily road rights-of-way; also utility corridors.
- All future needs are not specifically located on the Future Land Use Map as they will be determined by future transportation improvements and development.

Parks/Recreation/Conservation (Green) –

- Active and passive recreation use of public-owned land.

Floodplains (Dark Green) -

- Floodplain areas are recommended for open space preservation, passive recreation and limited active recreation use.
- Development of structures should be restricted from areas identified by FEMA as 100-year floodplains.

Greenprint Planning and the Comprehensive Plan

GreenPrint planning in conjunction with the Joint Morgan County Comprehensive Plan Update has resulted in a strong recommendation to preserve agricultural and forested lands in Morgan County. The application of several strategies will be required to accomplish this objective. From the land use planning standpoint, it is crucial to not allow greater net density of residential development in Agriculture and Forestry areas. The limitation of residential density to no more than one unit per five acres across much of unincorporated Morgan County has apparently served to protect open space in recent years, when Morgan County is compared with some neighboring counties. However, in order to maintain low density open space and also encourage growth, incentives for “smart growth” must be provided and appropriate areas for significant growth and development must be planned. Beyond land use planning, financial incentives for preservation of open space and agricultural land must be established. These incentives include tax benefits for preserving land in agricultural and forestry as well as opportunities to financially benefit from the development potential of land without actually developing (conservation easements, transferable development rights, etc.).

Morgan County Growth Areas

As suggested in the above descriptions of land use types, certain areas in Morgan County have been recognized in the Future Land Use Plan as being appropriate for growth and development. These areas are generally in clusters or adjacent to existing municipalities.

Madison area to Madison Lakes

Development is planned for the area from the southern extent of Madison’s city limits near I-20 south to include the planned Madison Lakes mixed-use community. This area of development emphasis includes industrial land use adjacent to I-20, commercial land use near SR83 and 441, and residential/mixed-use extending through the Madison Lakes planned community.

Rutledge area to Stanton Springs

Residential land use and some commercial land use is planned for the areas south of the Rutledge city limits and south of I-20 near the eastern edge of the planned Stanton Springs development. Growth is anticipated here due to the influence of the Stanton Springs development and the proximity of the Rutledge area to I-20 and metro Atlanta.

Flat Rock Community

The Flat Rock Community area between Madison and Bostwick is expected to continue to develop into a residential cluster with a small amount of local-serving commercial land use. Water infrastructure between Madison and Bostwick may offer increased potential for higher density development in this area.

Infrastructure Needs

By planning for clustered development in municipalities and communities, the broad extension of urban infrastructure will be unnecessary in the planning horizon. Strategic infrastructure expansions should provide expanded industrial and commercial areas with adequate services. Infrastructure should also be extended to planned residential areas near municipalities where the capacity exists to do so. For residential and mixed-use development farther from municipalities, it is advisable to consider private systems for community water and sewer.

Sensitive Environments and Preservation

In accordance with the GreenPrint plan for long-term protection of Morgan County's environmental resources, sensitive environmental and historic resources must be protected by future land use planning. County wetlands and floodplain areas are recommended for preservation as undeveloped open space, groundwater recharge areas and water supply watersheds should not be intensely developed so as to contribute to pollution, and evidence of Morgan County's rich historic and agriculture heritage should be preserved in the landscape by all means possible.

Strategies

As alluded to in previous sections, numerous strategies must be explored and considered for their potential contribution to good land use and development practices in Morgan County. A very low allowable net density of residential land use should be maintained across the rural landscape of the County. Conservation Subdivision regulations that can lead to environmentally sensitive development and open space preservation should be employed. And financial incentives for open space preservation such as Transferable Development Rights and a property tax structure that is favorable to farmers and forestry should be made available in the near term.

6.6 City of Bostwick Future Land Use

Future Land Use and Development

Bostwick has maintained a majority of its land use in agriculture, and agriculture is projected to continue to be a major land use within the city for the next twenty years. While the population projection-driven future land use needs projections suggest a need for less than 200 acres of new residential development over the next twenty years, the Future Land Use Plan includes more than 200 acres of new residential land use in the city, concentrating around the historic center of Bostwick. This planned new residential development should be low to moderate density single-family or duplex residential and should be supported by small-scaled commercial retail and services. Please see Map 6.7 for the Bostwick Future Land Use plan.

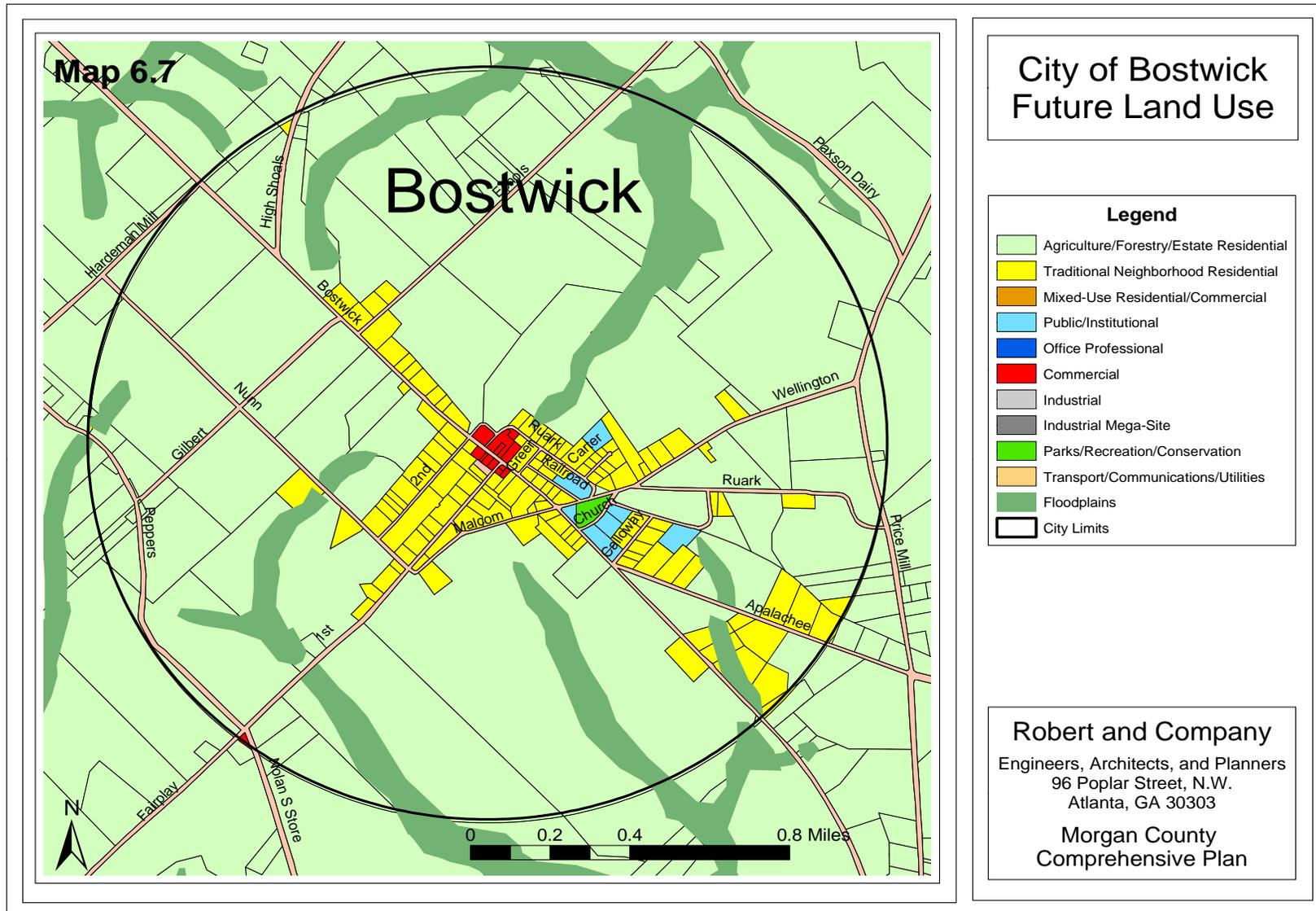
Infrastructure Needs

In order to grow its population, Bostwick must provide municipal-level services to new development. The extent to which Bostwick can grow will be strongly related to the extent to which the city upgrades and expands infrastructure. Growth in the city and associated infrastructure expansion should be staged over the long term due to financial constraints and the undesirable effects of sudden growth spurts.

Sensitive Environments and Preservation

Where possible, agriculture lands in Bostwick with prime agricultural soils should not be converted to residential land use. Floodplain areas in Bostwick should also be preserved as undeveloped.

Map 6.7 City of Bostwick Future Land Use



6.7 Town of Buckhead Future Land Use

Future Land Use and Development

Projection of future land use needs in the Town of Buckhead that are based on established population projections suggest that approximately 72 acres of new residential land will be needed over the twenty-year planning period. In-fill development is planned to meet this need and development of vacant and, in some cases, agriculture land is also recommended. Please see Map 6.8 for the Buckhead Future Land Use plan.

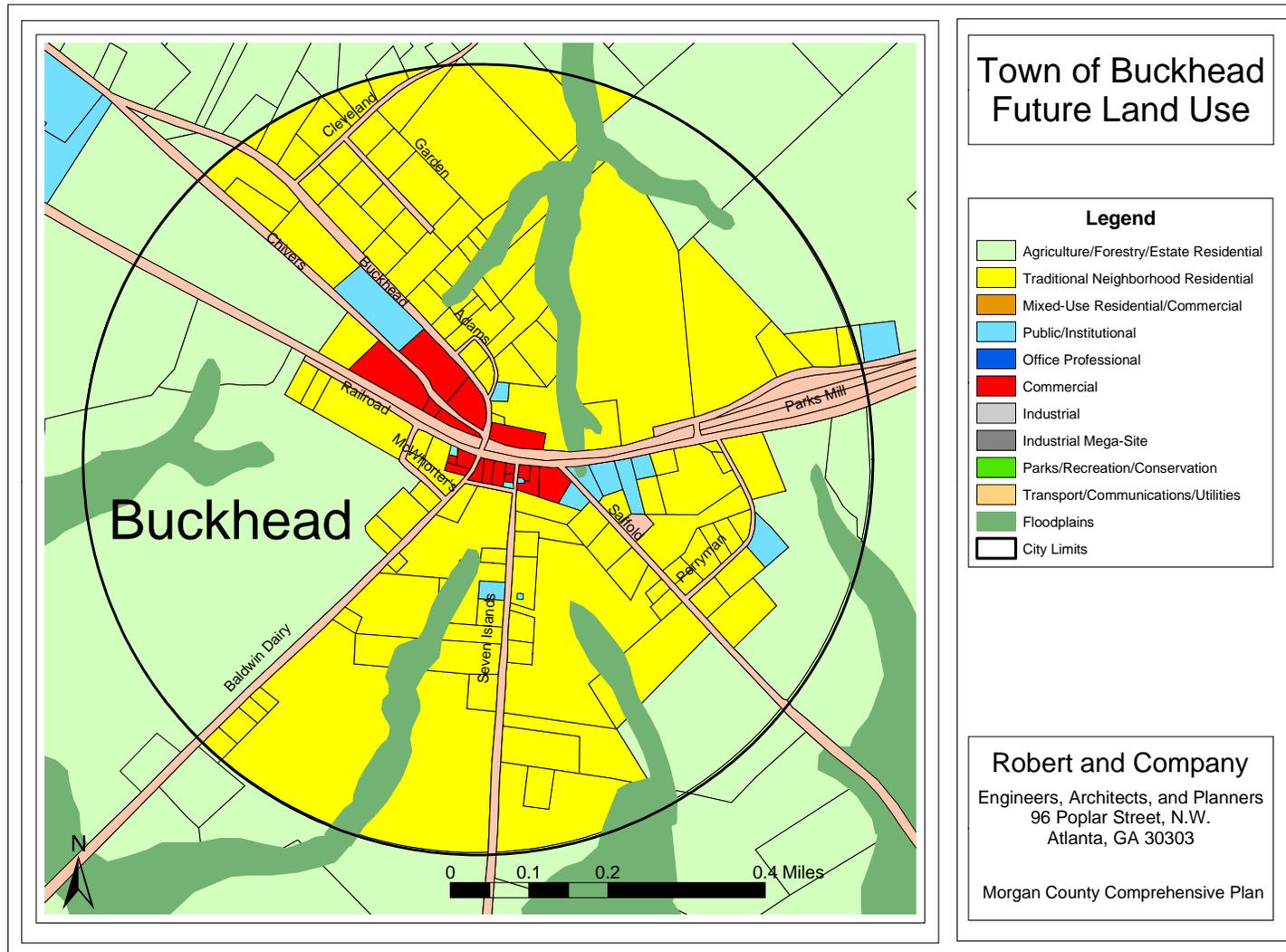
Infrastructure

Due to Buckhead's proximity to I-20 and the Lake Oconee area, there is a possibility for the city to exceed its projected growth rate if infrastructure is developed and expanded to support growth. The anticipated direction of future growth in Buckhead is towards I-20, though the city does not anticipate crossing I-20 or providing infrastructure across I-20 in the foreseeable future.

Sensitive Environments and Preservation

There are identified floodplain areas that extend into Buckhead from the north and south. Though the majority of the land in Buckhead is high ground and appropriate for development, these areas should be restricted from development.

Map 6.8 Town of Buckhead Future Land Use



6.8 City of Madison Future Land Use

Madison is the County Seat and is by far the largest and, in terms of land use, the most diverse municipality in Morgan County. This is due to the long history of prosperity in Madison and the fact that Madison has a well-developed infrastructure system of roads, water, sewer and community services. In teaming with Morgan County, Madison has the potential to compete with larger communities from an economic development standpoint, and Madison enjoys a healthy tourist industry as a result of the numerous well-preserved historic resources in the city. Please see Map 6.9 for the Madison Future Land Use plan.

Future Land Use and Development

Future land use needs projections for Madison suggest that the city should increase residential land use by approximately 60%, or 610 acres. Infill development can accommodate some of this need, but to fully meet the need and plan for long term growth, it will be necessary for agricultural land within the city to be converted to Traditional Neighborhood Residential or Mixed-Use land use.

Commercial and Industrial land use needs are also projected to increase in Madison, and by similar percentages. Some additional Office/Professional and Commercial land use may be added near Madison's downtown where there is a move to expand downtown to the northwest with a major new park project. Much of the future need for commercial and industrial land will be met in the extended area of the city near I-20, however. By expanding its supply of industrial land that is available for development and served by infrastructure, Madison can continue to compete for high-quality industries and companies that will be attracted by quality of life factors.

Growth Areas

A minimal amount of growth can be accommodated by infill development of the historic areas of Madison. Significant new growth areas are identified in the Future Land Use Map that are within and/or adjacent to Madison's city limits and are either served by or accessible to Madison's infrastructure. It is recommended that major new developments that will accommodate growth in the Madison area be mixed-use communities designed in a traditional neighborhood development manner that is in keeping with the character and environmental quality of Madison. These new community nodes in and adjacent to the city are to the southeast of the city limits inside the 441 bypass, to the east of 441 near the beginning of the bypass, and to the west of Madison's industrial parks on the north and south sides of I-20. These areas, in the context of a Transferable Development Rights program, would be ideal as identified receiving areas capable of accommodating greater densities of residential development.

Infrastructure Needs

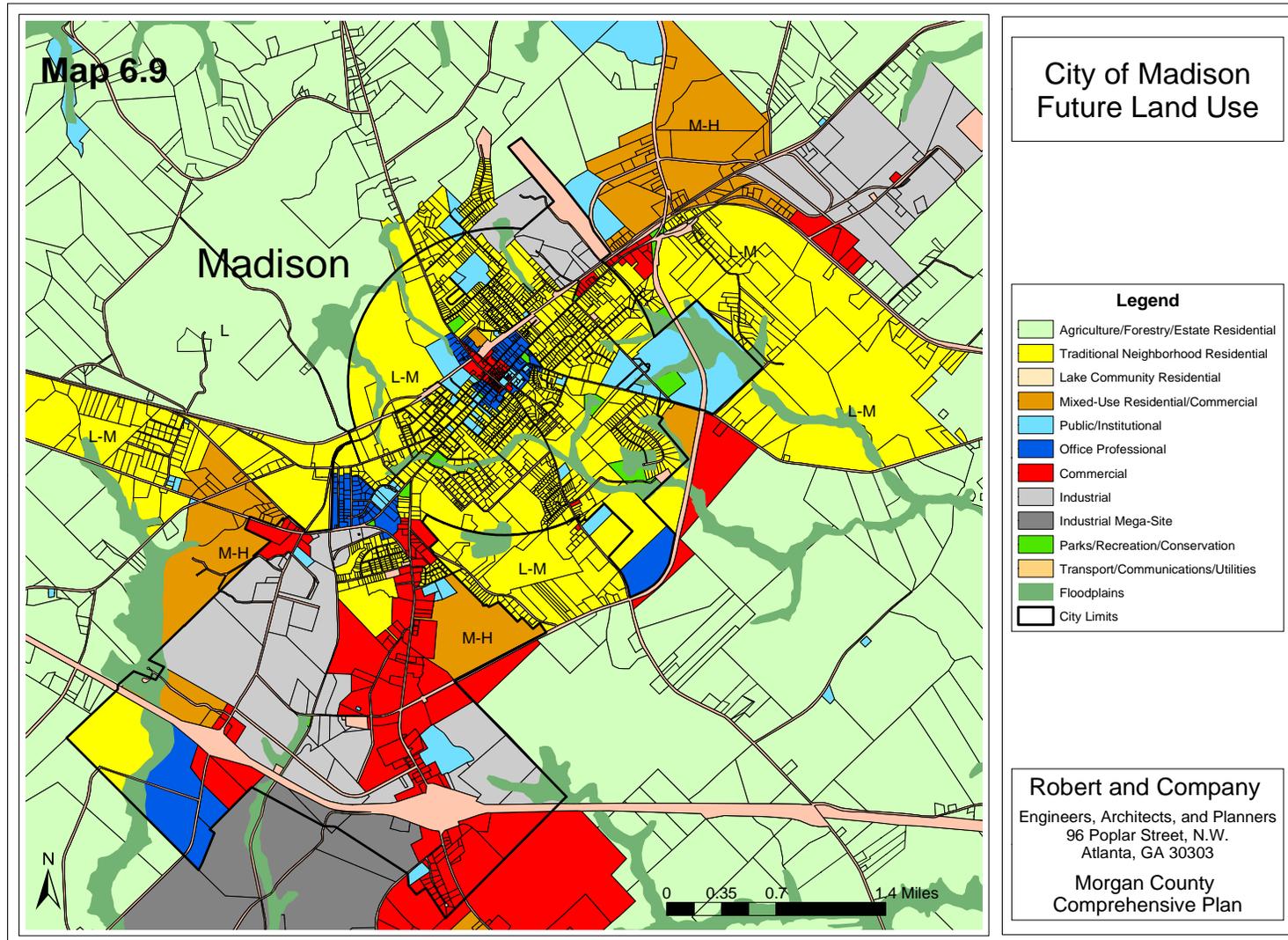
Madison is currently in the process of assessing and upgrading infrastructure to meet growing demands for service within and outside of the city's limits. As the only water provider with a source that is not groundwater wells, Madison has extended water supply lines to other municipalities to provide a supplemental water source. While development can follow these infrastructure extensions, it is preferable for Madison's growth to remain

clustered so as to maximize efficiency and to promote open space preservation in the county. The primary emphasis for Madison infrastructure expansion should be to planned commercial and industrial areas near I-20 and the SR83 and 441 exits.

Sensitive Environments and Preservation

Madison has highly sensitive historic and environmental resources. The historic downtown district and other historic properties throughout the city help to define a character that is widely recognized and that attracts significant tourism activity. To preserve this cultural heritage and the economic benefit that accompanies it, Madison must continue to actively preserve historic and cultural resources. Additionally, the preservation of parks and open spaces in the city is important, particularly in the areas where floodplains are present.

Map 6.9 City of Madison Future Land Use



6.9 City of Rutledge Future Land Use

Rutledge, though much smaller and less developed than Madison, has some of the same character and quality as a small town community and tourist destination. The fact that Rutledge is situated adjacent to Hard Labor Creek State Park adds to the quality of life for Rutledge residents and also brings tourists to the town that might otherwise pass by. Please see Map 6.10 for the Rutledge Future Lane Use plan.

Future Land Use and Development

Projected future land use needs for Rutledge include the need to increase residential land by approximately 60% or 225 acres. This projected level of need, based on past trends of growth in Rutledge, is likely significantly below the actual level of demand for growth that Rutledge will experience over the next twenty years. Excess land in and adjacent to Rutledge on the south side (towards I-20) is planned for Village/Community Residential land use in order to accommodate this anticipated demand. Additional commercial land use is also planned for near the town center along with Mixed-Use Residential/Commercial land use recommendations intended to enhance the village quality of Rutledge.

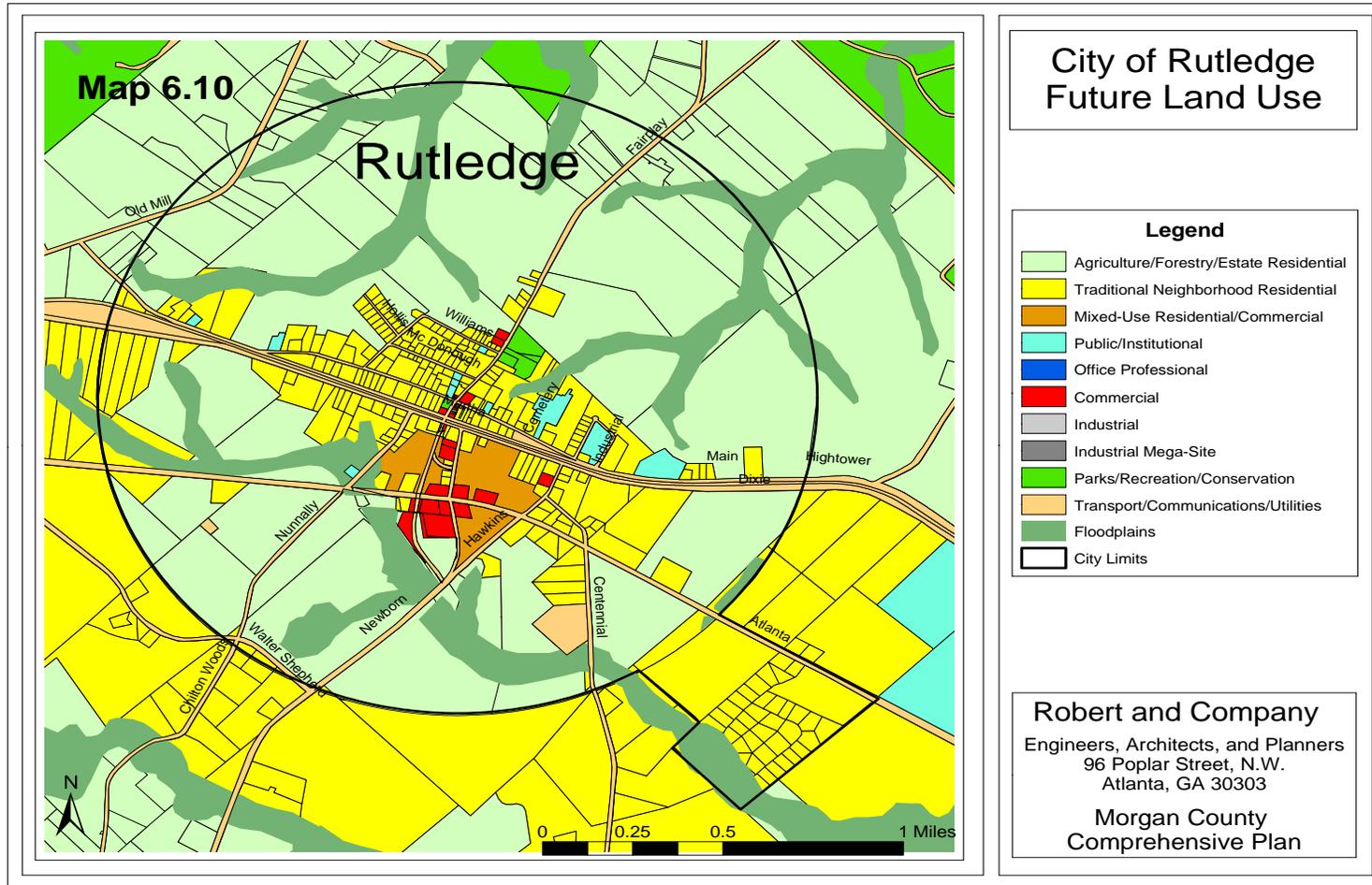
Infrastructure Needs

While poised for growth in terms of location, Rutledge is not prepared for growth from an infrastructure standpoint. Significant improvements to Rutledge's water and wastewater systems are needed in order to accommodate new customers. Until this problem is solved, the potential for development in Rutledge and adjacent areas will be limited.

Sensitive Environments and Preservation

Floodplains and agricultural lands are found within the Rutledge city limits, particularly in the northern half of the city. Preservation is recommended for these areas, and the direction of growth is recommended to be southwards in order to protect the open landscape and forests that lie at the Rutledge edge of Hard Labor Creek State Park.

Map 6.10 City of Rutledge Future Land Use



6.10 Land Use Goals and Policies

Goal 1.0 Promote orderly and high-quality growth and development based on physical, social, and economic needs; environmental and historic protection considerations; and the ability of the tax base and public facilities/services to support such growth and development.

Objective 1.1 Plan for more intensive growth to occur around existing infrastructure and in designated growth areas when new infrastructure is supplied, in order to minimize infrastructure costs and the adverse effects of sprawl.

Objective 1.2 Maintain a controlled pace of growth that will not outpace a jurisdiction's ability to provide community facilities and services (e.g. fire, police, water, sewer, transportation systems and recreation).

Objective 1.3 Promote and encourage developments of traditional neighborhood design and scale in areas of the county identified as centers for new growth.

Objective 1.4 Insure that the existing character of each jurisdiction is given strong consideration when determining appropriate type and design characteristics of future developments in the area to assure that changes do not severely disrupt the quality of life currently enjoyed by community members.

Objective 1.5 Preserve unique and historically significant communities, structures and places whenever possible and encourage adaptive reuse of historic structures and properties in order to maintain their long term viability.

Policy 1.5.1 Encourage the use of public and private actions to protect sites and districts on the National Register of Historic Places and/or those which have local designation.

Policy 1.5.2 Develop or improve and use, design guidelines to insure that the inherent aesthetic character of each jurisdiction is preserved.

Objective 1.6 Utilize the variety of growth management techniques available and appropriate to Morgan County and its jurisdictions to achieve the goals set forth by the Future Land Use Element.

Policy 1.6.1 Explore the potential for and adopt as appropriate ordinances allowing for the use of cluster zoning, floating zones, incentive zoning, flexible zoning, and other applicable growth management tools.

Policy 1.6.2 Require aggregation rules to insure that new development is not able to bypass land use and zoning regulation by separating out smaller parcels exempt from a particular regulation.

Objective 1.7 As and where appropriate establish locations in the unincorporated areas of the county where more dense mixed-use developments will be allowed under specific development guidelines.

Policy 1.7.1 Establish criteria by which a developer can create a mixed use development in a location in the unincorporated county that has no previously been designated for such growth but is an appropriate distance from any existing urban service districts and/or previously designated mixed use development areas

Policy 1.7.2 Develop and adopt regulations and design guidelines to guide development of all new mixed use developments. Such regulations should be designed drawing on neo-traditional planning principals to seek avoid the drawbacks typically associated with growth and more recent urban/suburban development.

Goal 2.0 Establish a rational land use distribution pattern that emphasizes land use compatibility; safe, efficient and sustainable development; and preservation of the integrity of existing land uses.

Objective 2.1 Ensure appropriate transitions between incompatible land uses.

Policy 2.1.1 Provide transitional land uses and buffer areas to separate incompatible land uses and protect environmentally sensitive areas.

Objective 2.2 Insure new residential development provides neighborhoods and communities that are safe, affordable, efficient (in terms of land consumption and traffic flow) and attractive to all residents.

Policy 2.2.1 Provide for the development of a variety of residential dwelling types as to provide housing options for all income groups in the County and its municipalities.

Policy 2.2.1.1. Promote the mixing of housing types in residential development areas to prevent the segregation of the population into single income enclaves.

Policy 2.2.2 Maintain a healthy living environment and high quality of life in all neighborhoods regardless of the income level.

Policy 2.2.3 Enforce and modify as necessary to meet Objective 1.3 applicable standards of construction and design in order to maintain quality, consistency, and integrity of the neighborhoods.

Policy 2.2.4 Encourage the location of residential development within master planned subdivisions or as in-fill in pre-existing residential nodes.

Policy 2.2.5 Promote the development of residential areas in a manner that is efficient and includes environmentally sound design elements and land use patterns such as an interconnected street network, a mixture of land uses (residential, service commercial, office, recreation), and designated common greenspace.

Policy 2.2.6 Ensure that manufactured housing development is consistent and compatible with surrounding land uses.

Policy 2.2.7 Encourage compact residential development to minimize community infrastructure costs and maximize conservation of residential open space.

Policy 2.2.8 Establish density bonuses for providing affordable housing.

Policy 2.2.9 Explore establishing requirements for the set-aside of affordable housing unit in new residential developments.

Policy 2.3 Plan for commercial development to occur in compact nodes near major transportation routes (e.g., I-20, U.S. 278, and U.S. 441, SR 83) and at the intersections of major county roads where appropriate.

Policy 2.3.1 Restrict the number of curb cuts and access points onto major thoroughfares so as to maintain efficient traffic flow on the roads.

Policy 2.3.2 Maintain an appropriate amount of commercially zoned land within the county to encourage a diversity of commercial developments servicing the regional, community and neighborhood levels.

Policy 2.3.3 To help reduce traffic on collector and arterial roadways, require direct roadway and pedestrian access between commercial developments and any adjacent residential, office/professional, institutional; and when appropriate, industrial areas.

Policy 2.3.4 Promote the co-location of appropriate commercial developments with office/professional, industrial, and institutional land uses to help reduce traffic on County roadways.

Policy 2.3.5 In rural areas of the County, limit neighborhood commercial areas of less than five acres at a roadway intersections.

Policy 2.3.6 Develop and institute regulations to mitigate the effects of empty “big box” commercial buildings.

Policy 2.3.7 Develop and enforce design guidelines for new commercial development that require neo-traditional design elements and the preservation of green and open spaces in all new developments.

Objective 2.4 Provide adequate land for industrial development to be located in planned industrial parks and districts which provide appropriate infrastructure and services (water, sewer, highway access, etc.) and are located in areas so recommended by the Future Land Use Plan.

Policy 2.4.1 Maintain an appropriate amount of land zoned for industrial development within the county to encourage a diversity of industrial developments servicing the national, state, regional, and community levels.

Policy 2.4.2 Restrict industrial and commercial uses with nuisance characteristics to those areas removed from residential development and scenic roads.

Policy 2.4.3 Develop guidelines for transitional areas and buffering that require the areas to be proportionally related to the size and intensity of the proposed industrial development.

Policy 2.4.4 Restrict industrial uses having potential environmental impacts to areas with reasonably level land outside of flood prone and other environmentally sensitive areas.

Policy 2.4.5 Locate industrial sites in existing or proposed industrial areas that are served by major roads and, when appropriate, have rail access.

Objective 2.5 Appropriately provide for and locate office/professional and institutional land uses so as to be compatible and consistent with the scale and design of directly adjacent land uses and the community as a whole.

Policy 2.5.1 Plan for and encourage the development of appropriate office/professional and institutional land uses adjacent to commercial or industrial land use areas while also being convenient to residential areas.

Policy 2.5.2 Notwithstanding the preceding, whenever possible include professional and institutional in neo-traditional mixed use areas provided their scale is appropriate.

Policy 2.5.3 Exclude all larger scale professional and institutional (to include active recreation intensive parks) from residential areas even as a conditional use.

Policy 2.5.4 Require direct road and pedestrian access among residential, office/professional and institutional areas to reduce traffic on collector and arterial roadways used to reach the developments.

Objective 2.6 Require all new developments of any type of land use be developed where all appropriate infrastructure is available or require development to bear the costs of providing additional needed infrastructure.

Goal 3.0 Minimize the adverse effect of traffic and parking on the quality of life, environment, and visual attractiveness of Morgan County and its communities.

Objective 3.1 Where appropriate promote a distributed network (grid pattern) rather than a heriarchical pattern of road development to increase roadway efficiency and reduce traffic congestion.

Policy 3.1.1 Create development guidelines that establish size thresholds for requiring new developments of any type to provide access and egress points on multiple roadways.

Policy 3.1.2 Require all residential, industrial, commercial, office/professional, and institutional land developments to tie into existing adjacent public roadways and to provide access points to planned public roads.

Policy 3.1.3 Require commercial and institutional development adjacent to residential areas to provide convenient pedestrian and vehicular access in order to help reduce traffic impacts on collector and arterial roadways.

Policy 3.1.4 In order to reduce traffic congestion, explore the development of bypass and connector roads to link major roadways outside of the County's larger population centers, rather than the current system of routing all traffic through the centers.

Policy 3.1.5 Allow for reduced street widths and right of way requirements if streets within residential, commercial, office/professional, institutional and industrial developments are designed as a distributed network (grid system).

Objective 3.2 Insure that land use decisions and regulations optimize the traffic and pedestrian efficiency, attractiveness, and safety of collector and arterial roadways and sidewalks.

Policy 3.2.1 Limit curb cuts on arterial and major collector roads through the requirement of shared driveways, larger frontage requirements, frontage roads and other appropriate means.

Policy 3.2.2 Insure the efficiency of bypass roads by limiting access and egress points to the intersections of the bypass with existing roads and/or new roads that are distanced from one another sufficiently to limit traffic congestion.

Policy 3.2.3 Explore, and as appropriate, develop the concept of commercial "parks," similar to industrial parks, where "big box" developments can occur without unnecessary sprawl and curb cuts along major thoroughfares.

Policy 3.2.4 Establish regulatory requirements for linking the road networks of adjacent developments.

Policy 3.2.5 Develop standards for the appropriate width and landscaping of sidewalk setbacks, which are consistent with the size and traffic loads of adjacent roads, as to enhance pedestrian comfort and safety.

Policy 3.2.6 Encourage medians for all roads four lanes or wider with such medians being landscaped when roads approach of more densely developed areas, e.g., incorporated areas, industrial or commercial parks, transitions or buffering between land uses.

Policy 3.2.6.1 Exception to the median requirements may be allowed in cases where roads are widened from two to four lanes in previously developed areas that are physically constrained from being able to comply with such a requirement.

Objective 3.3 Implement appropriate parking design requirements and limits to improve the attractiveness of corridors and streets throughout the County and its communities.

Policy 3.3.1 Base parking space requirements on standards other than limited occasion peak demand.

Policy 3.3.2 Encourage joint-use parking when there are several establishments in the same street, complex, or development.

Policy 3.3.3 With the exception of available on-street parking, require most parking to be at the side or rear of institutional, office/professional, commercial, and industrial establishments visible from public roads.

Policy 3.3.4 Establish size limits for single parking areas within commercial and residential nodes and explore the use of parking garages when additional spaces are desirable and appropriate at specific sites.

Policy 3.3.5 Enforce, and strengthen as appropriate, landscaping and buffering requirements for parking areas to insure they meet intended safety and aesthetic objectives.

Objective 3.4 Administer the public road building, maintenance and improvement programs in a manner that manages, but does not encourage, growth.

Policy 3.4.1 Pave unpaved roads when either the majority of adjacent property owners desire it and the road is used enough to justify the public expenditure or when paving is necessary for the health, safety, and welfare of the county's citizens.

Policy 3.4.2 When roads are expanded beyond two lanes, make every effort possible to maintain the route of the current roadway and preserve all trees possible along edges and median while maintaining the safety of the roadway.

Policy 3.4.3 Develop development guidelines that restrict the rezoning of land to ensure that the construction of new roadways shall not suffice as the sole reason to allow greater intensity of development in a area than that which is permitted prior to roadway construction.

Policy 3.4.4 Enforce consistent frontage requirements for all new public and private roadways

Policy 3.4.5 Insure that new construction is appropriately set back from roads that have a high potential for being widened in the future.

Goal 4.0 Utilize land use planning and regulations to protect Morgan County's water resources in order to meet the current and future needs of the County's residents, economy, and natural environment. (also see Natural and Cultural Resources 1.0 and 2.0)

Objective 4.1 Protect Morgan County's water resources by regulating development and other activities in water supply watersheds and near all lakes, ponds, rivers, streams, wetlands, floodplains, and groundwater recharge areas.

Policy 4.1.1 Work with adjacent counties to restrict any development around Lake Oconee and the Apalachee River that will threaten the quality of the water, shoreline, or floodplain vegetation.

Policy 4.1.2 Prevent inappropriate development within water supply watersheds, floodplains, wetlands, or groundwater recharge areas by meeting or exceeding applicable standards set by the Georgia Department of Natural Resources.

Policy 4.1.3 Strictly enforce all local, State, and Federal regulations that limit and govern development and other activities adjacent to water bodies.

Policy 4.1.4 Explore the establishment of an environmental review district for those areas in the County within one mile of Hard Labor Creek, Sandy Creek and the Apalachee River where an environmental impact assessment demonstrating that only acceptable alterations to the environment will occur must be submitted for all potential development.

Objective 4.2 Insure that the supply of water is adequate to meet the County's needs and projected future demands for growth and development.

Policy 4.2.1 Except for incorporated areas served by public water and sewer, limit the type and degree of development in identified groundwater recharge areas, to include a residential restriction of no more than one house per two acres.

Policy 4.2.2 Delineate water short areas of the County and limit development in these areas and immediately adjacent areas to that which can demonstrate water self-sufficiency.

Policy 4.2.2.1 Limit residential development to no more than one unit per five acres in areas identified as having low water yields that are not served by public water and sewer.

Policy 4.2.2.2 Require proof of adequate water before issuance of building permits in these areas.

Policy 4.2.2.3 Work with the Georgia Environmental Protection Division to develop “safe yield” data for all hydrologic conditions in the County and limit withdrawals to established levels.

Policy 4.2.3 Do not extend public systems to new locations unless they have been identified as desired higher density development areas in the Future Land Use Plan.

Policy 4.2.3 Protect those watersheds that are critical to insuring the supply of water to the County’s various public water systems.

Policy 4.2.4 Require all new developments to be engineered so that they hold the first inch of rainfall on site and that storm water runoff at build-out is not greater than that experienced prior to the development.

Objective 4.3 Protect the quality of the County’s water resources and those water dependent habitats that are critical for the survival of fish and wildlife.

Policy 4.3.1 Work to insure compliance with all erosion and sedimentation regulations controls.

Policy 4.3.2 Limit the intensity and types of development where runoff or emissions are found to have the potential to adversely affect surface or groundwater resources.

Policy 4.3.3 Require new development to manage storm water runoff so that contaminants are not introduced into the County’s water bodies (surface and subsurface).

Policy 4.3.4 Implement a zero wetlands loss policy except in the case of projects essential to the health, safety, and welfare of the county’s residents when alternative sites are not available and for grandfathered building lots. When

wetlands must be disturbed, require their replacement within the county at an appropriate ratio to the loss.

Objective 4.4 Protect property and structures from the effects of flooding.

Policy 4.4.1 Incorporate flood plain and runoff management considerations in land use planning and zoning regulations (e.g., see Policy 4.2.4 above)

Policy 4.4.2 Continue to participate in the Federal Flood Insurance Program.

Policy 4.4.2 Refine maps that define areas considered at risk for flooding used in the Federal Flood Insurance Program to insure that development requirements are appropriate to the hazard.

Objective 4.5 Work with the State to protect the water rights of county property owners so that they are not incentivized to develop their land more quickly in order to protect its value.

Policy 4.5.1 Prevent water withdrawals related to development on one site from adversely affecting water availability on adjacent sites.

Goal 5.0 Permanently preserve open space and green space throughout Morgan County in order to maintain a sense of rural character, provide passive recreational opportunities, preserve environmental quality, and encourage farming, livestock raising, dairying, forestry, and other agricultural activities that are environmentally compatible. (also see Natural and Cultural Resources - Green/Open Space Policy 1.0)

Policy 5.1 Meet or exceed State of Georgia Greenspace goals by permanently protecting more than 20% of the county's land area in farmland, forests, natural areas or parks. As fiscally feasible, greenspaces should be publicly owned or have public access.

Policy 5.1.1 Target to permanently protect at least 10% of land in towns, cities, and areas designated for higher density growth and 25% of land in rural areas as green or open space; including agricultural and forestry uses.

Policy 5.1.2 Utilize the completed GreenPrint Plan as a guide for a county-wide environmental protection program, in the development of and changes to the county's land use plan, and as a factor in analyzing environmental impacts.

Policy 5.1.3 Require all new development to contribute to the permanent protection of greenspace and conservation of open-space in an appropriate manner, e.g., on-site provision, purchase of development rights, payments to a greenspace fund. When appropriate, land conserved on-site should be available for public use. (Same as Natural and Cultural Resources - Green/Open Space Policy 1.5)

Policy 5.1.4 Establish conservation subdivisions as the required development model for Morgan County and when appropriate, its municipalities. (Same as Natural and Cultural Resources - Green/Open Space Policy 1.6)

Policy 5.1.4.1 Modify regulations to insure that density bonuses are only received if land that would not otherwise have been protected is now preserved. (Same as Natural and Cultural Resources - Green/Open Space Policy 1.6)

Policy 5.1.4.2 Insure that there is a permanent program in place for the perpetual management and protection of lands set aside for conservation. (Same as Natural and Cultural Resources - Green/Open Space Policy 1.6)

Policy 5.1.5 Make available and provide incentives for the use of innovative tools such as conservation subdivisions, conservation easements, purchasable development rights and transferable development rights (TDRs), and other programs that can help protect greenspace, scenic roads, and environmentally important areas to the extent possible under State law. (same as Natural and Cultural Resources - Green/Open Space Policy 1.2)

Policy 5.1.6.1 Work with local legislative delegation to improve State legislation allowing the use of transfer of development rights in Morgan County.

Policy 5.1.6.2 Identify appropriate receiving and sending areas for development rights within the County and its cities.

Policy 5.1.7 Insure that suitable public and/or private entities that can receive, manage, and/or monitor development rights and easement programs in the County and its municipalities exist and will continue to exist in the future. (same as Natural and Cultural Resources - Green/Open Space Policy 1.7)

5.1.8 Ensure that new development adjacent to agricultural land does not impinge on the right and ability to continue agricultural activities so long as best management practices are employed.

Objective 5.2 Manage future land use and development activity to minimize negative impacts on the natural environment.

Policy 5.2.1 Require the submission of resource protection/management plans before the undertaking of development activities that will significantly disturb environmentally sensitive areas.

Policy 5.2.2 Protect areas of natural drainage by preventing their filling, obstruction, or destruction.

Objective 5.3 Protect the view-sheds along important corridors and gateways identified in the Future Land Use Plan within the County and its cities. (same as Natural and Cultural Resources - Green/Open Space Policy 2.0)

Policy 5.3.1 Identify and formally designate important gateways and scenic roads to include through routes across the County and a scenic linkage that ties together all the County's historic communities. (Same as Natural and Cultural Resources - Green/Open Space Policy 2.1 and policy statement added to Community Facilities- Transportation 1.19)

Policy 5.3.2 Provide incentives for those who wish to permanently protect view-sheds along scenic roads. (reworded also the same as Natural and Cultural Resources - Green/Open Space Policy 2.3)

Policy 5.3.3 Work to acquire fee simple title or development rights to key gateways into the County and its cities as a means of protecting view-sheds.

Policy 5.3.4 Adopt appropriate corridor/gateway regulations and guidelines for setbacks, landscaping, tree removal, curb cuts, etc. (Same as Natural and Cultural Resources - Green/Open Space Policy 2.4)

Policy 5.3.5 Utilize the development rights program to protect scenic roads and gateways and their view-sheds. (Same as Natural and Cultural Resources - Green/Open Space Policy 2.50)

Policy 5.3.6 Explore the adoption of appropriate setbacks and vegetative buffers for timber harvesting and new land intensive agriculture.

Objective 5.4 Link important greenspaces in the County. (Same as Natural and Cultural Resources - Green/Open Space Policy 3.0)

Policy 5.4.1 Work with the Georgia Department of Natural Resources to identify those habitats that should be linked in order to insure their environmental health and survival of the species that reside therein. (same as Natural and Cultural Resources - Green/Open Space Policy 3.1)

Policy 5.4.2 Using these identified habitats, wetlands systems that cannot be developed, existing/proposed public lands, and other protected lands, design a county/cities-wide system of greenways that not only meets environmental objectives but also may provide areas for recreation. (same as Natural and Cultural Resources - Green/Open Space Policy 3.2)

Policy 5.4.3 Insure, whenever reasonably possible, that developments link their conservation lands to those protected green or open spaces adjacent to the development. (Same as Natural and Cultural Resources - Green/Open Space Policy 3.4)

Objective 5.5 Work to protect the tree cover in Morgan County. (Same as Natural and Cultural Resources - Green/Open Space Policy 8.0)

Policy 5.5.1 Adopt (or revise as appropriate) County and municipal ordinances that prevent clear-cutting prior to development, retain certain types and/or quantities of trees and specify appropriate canopy levels of either existing or planted trees at the completion of the project. (same as Natural and Cultural Resources - Green/Open Space Policy 8.2)

Policy 5.5.2 Develop a program and incentives to protect the significant hardwood forests still remaining in the County. (Same as Natural and Cultural Resources - Green/Open Space Policy 8.3)