

LAND USE AND TRANSPORTATION POLICY PLAN

PUTNAM COUNTY, TENNESSEE

2004-2024

**PREPARED BY THE PUTNAM COUNTY
REGIONAL PLANNING COMMISSION**

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**ASSISTED BY THE
TENNESSEE DEPARTMENT OF ECONOMIC
AND COMMUNITY DEVELOPMENT
UPPER CUMBERLAND REGION
LOCAL PLANNING ASSISTANCE OFFICE**

2004

**RESOLUTION OF THE
PUTNAM COUNTY REGIONAL PLANNING COMMISSION**

**A RESOLUTION TO ADOPT THE PUTNAM COUNTY LAND USE AND
TRANSPORTATION POLICY PLAN, 2004-2024**

WHEREAS, recognizing that it is the function and duty of a regional planning commission to make and adopt a general plan for the physical development of the municipality, including outside of the corporate limits; and

WHEREAS, the Putnam County Regional Planning Commission has completed a study and prepared a general plan for the purpose of guiding and accomplishing a coordinated, adjusted, efficient and economically sound means of development for Putnam County; and

WHEREAS, the **Putnam County Land Use and Transportation Policy Plan, 2004-2024**, with accompanying maps, charts, and descriptive matter, will best promote the health, safety, morals, order, convenience, prosperity, and welfare of the inhabitants, as well as efficiency and economy in the process of development, in accordance with present and future needs and resources; and

NOW, THEREFORE, BE IT RESOLVED BY THE PUTNAM COUNTY REGIONAL PLANNING COMMISSION that pursuant to Section 13-4-202 of the **Tennessee Code**, the **Putnam County Land Use and Transportation Policy Plan, 2004-2024** is hereby adopted.

BE IT FURTHER RESOLVED that copies of said plan be subsequently certified to the legislative body of Putnam County.

APPROVED:

Secretary, Putnam County Regional
Planning Commission

Date

TABLE OF CONTENTS

	PAGE
CHAPTER 1	
INTRODUCTION	1
Purpose of Plan	1
Scope of Plan	1
Community Goals, Process and Methodologies	2
CHAPTER 2	
BACKGROUND FOR PLANNING	3
Introduction.....	3
Location and Size.....	3
History.....	3
Governmental Structure.....	5
CHAPTER 3	
NATURAL FACTORS AFFECTING DEVELOPMENT.....	6
Introduction.....	6
Climate.....	6
Air Quality and Water Resources	6
Topography	8
Drainage & Flooding	9
Soil Associations.....	12
Summary of Findings.....	15
CHAPTER 4	
SOCIO-ECONOMIC FACTORS AFFECTING DEVELOPMENT	16
Introduction.....	16
Population	16
Growth Distribution.....	20
Migration.....	20
Employment.....	21
CHAPTER 5	
EXISTING AND PROPOSED LAND USE AND TRANSPORTATION SYSTEM.....	22
Introduction.....	22
Existing Land Use Inventory Methods	22
Land Use Categories	22
Analysis of Existing and Proposed Land Use Patterns	26
Forestry	26
Agricultural	26
Residential.....	28
Commercial.....	29
Industrial	29

Public and Semi-Public	29
Utilities.....	29
Vacant, Developable	30
Existing and Proposed Transportation System	31
Thoroughfare Classification System.....	31
Existing Road Conditions	35
Road System Findings	37
Air/Rail/Port/Mass Transit Facilities	38
Mass Transit.....	38
Comprehensive Transportation Plan.....	38

CHAPTER 6

THE DEVELOPMENT PLAN	40
Introduction.....	40
Major Assumptions, Factors, Issues and Trends	40
Development Goals.....	42
Objections and Development Policies	43
General Development and Growth Management	43
Residential.....	46
Commercial.....	47
Industrial	48
Public and Semi-Public.....	49
Utilities.....	50
Open Space Land	52
Transportation	53

CHAPTER 7

PLAN IMPLEMENTATION	55
Introduction.....	55
Methods for Implementation.....	55
Planning Commission Review.....	55
Zoning.....	55
Subdivision Regulations	56
Codes Enforcement.....	56
Public Improvement Program and Capital Budget	56
Citizen Participation.....	57
Local Leadership.....	57
Implementation Schedule.....	57

CHAPTER 8

SUMMARY OF PLAN RECOMMENDATIONS.....	58
The Future Land Use/Concept Development Plan	58
Future Land Use Classifications	60

LIST OF TABLES

	PAGE
Table 1	
Soil Unit Limitations, Putnam County, Tennessee.....	14
Table 2	
Population Characteristics and Projections for Incorporated Places, Putnam County, the Upper Cumberland Region and Tennessee	16
Table 3	
Household Characteristics, Putnam County, 1960-2000	18
Table 4	
Number of Structures per Land Use Category outside Urban Growth Areas, Putnam County, Tennessee.....	23
Table 5	
Existing and Projected Municipal Acreage as a Percent of Total Incorporated and Gross Acreage in Putnam County in 1998 and 2020.....	23
Table 6	
Estimated Land Uses by Acreage and Percentage of Total Land Area in Putnam County including Municipalities in 2000	27

LIST OF GRAPHS

Graph 1	
Putnam County Population Projections to 2020	18
Graph 2	
Putnam County Age Distribution 1980-2000	19
Graph 3	
Putnam County Net In-migration 1960-2000	21

LIST OF ILLUSTRATIONS

	PAGE
1. Regional Setting.....	4
2. General Soils Map.....	7
3. Topographic Profile with Floodplains	10
4. Natural Factors Affecting Development.....	11
5. Population Growth Pattern by Census Tracts	17
6. Existing Land Use Pattern	24
7. Existing Water Lines.....	25
8. Major Thoroughfare Plan.....	32
9. Average Daily Traffic Counts.....	34
10. Existing Road Conditions	36
11. Public Chapter 1101 Growth Plan	41
12. Development Concept Plan.....	59

CHAPTER 1 INTRODUCTION

PURPOSE OF PLAN

The purpose of this document is to provide Putnam County, Tennessee, with a policy plan for decisions regarding future land use and transportation. A Land Use and Transportation Policy Plan should have as its purpose the producing of information, the formulation of an overall development plan, and the identification methods for the implementation of such a plan. The objective of such a plan as outlined in Section 13-3-302 of the Tennessee Code Annotated is to serve as a guide in "accomplishing a coordinated, adjusted, efficient and economic development of the region which will, in accordance with present and future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and welfare of the inhabitants, as well as efficiency and economy in the process of development including, among other things, such distribution of population and the uses of the land for urbanization, trade, industry, habitation, recreation, agriculture, forestry and other uses as will tend to create conditions favorable to transportation, health, safety, civic activities and educational and cultural opportunities, reduce the wastes of financial and human resources."

The Putnam County Land Use and Transportation Policy Plan covers a 20-year planning period from 2004-2024. The information presented in this plan can be used as a framework to guide local officials, community leaders and others as they make decisions which affect the future growth and development of Putnam County. The plan is not intended to supercede the responsibility or authority of local officials and department heads. Instead, it is designed to give the public and private sectors a basis to constructively use the interdependencies which exist between the various elements and organizations in the community. The development goals and objectives and the implementation strategies presented in this plan should be periodically reviewed and updated as necessary to reflect more recent data and unanticipated occurrences or trends.

SCOPE OF PLAN

This Land Use and Transportation Policy Plan is designed to formulate a coordinated, long-term development program for Putnam County and its municipalities. This plan recognizes the importance of Cookeville, the county seat and largest city in the area, and fully expects its growth to greatly affect particularly the central portion of the county. The Towns of Algood, Baxter and Monterey are recognized as centers for development and providers for urban services. Each of these municipalities have or will have plans which will provide more detailed plans for their expected growth.

The preparation of this plan requires the gathering and analysis of a vast amount of data. History, governmental structure, natural factors and socio-economic structures are examined herein. These are studied to determine how they have and will continue to affect land use and transportation facilities. Existing land use and transportation facilities are analyzed to identify characteristics, relationships, patterns and trends. From these observations, needs and issues relative to land use and transportation in Putnam County are identified.

This information along with future expected needs will result in the formulation of a Land Use and Transportation Policy Plan. Planning being a local process, a compilation of community goals, objectives and policies (strategies) will be developed. These goals and policies when balanced with the existing patterns and conditions should result in the development of a plan which visually illustrates the goals, objectives and policies. In order to achieve these goals and objectives, methods and tools for plan implementation will be presented.

COMMUNITY GOALS, PROCESS AND METHODOLOGIES

The policy plan is a result of citizen and departmental participation. Policies and goals must be tempered within the parameters of what is possible given the restraints of budgets, the environment and the public's willingness to participate. Education is of course paramount to making sound and attainable goals. Methodologies included in this plan were surveys, presentations, interviews and study groups.

CHAPTER 2 BACKGROUND FOR PLANNING

INTRODUCTION

Background information relates to community planning in that a certain amount of background information gathered, evaluated and presented will relate directly to a community's propensity to grow and prosper. The size and location of a community enable the planner to categorize potential growth factors. Information on a community's early settlement and political history often reveals the atmosphere in which the task of planning will occur. Background data for Putnam County is presented in this chapter.

LOCATION AND SIZE

Putnam County is in northeastern Middle Tennessee. It is bordered on the north by Jackson and Overton Counties, on the east by Cumberland and Fentress Counties, on the south by White and DeKalb Counties and on the west by Smith County. The county is approximately 40 miles east to west and only 14 miles north to south at its widest point. The total land area of the county is estimated at 259,840 acres or 406 square miles. Cookeville, the county seat, is about 80 miles east of Nashville and 100 miles west of Knoxville along Interstate Highway 40.

Putnam County's county seat, the City of Cookeville, is located midway in the county east to west and is at the intersection of Interstate 40 and State Route 111. Cookeville has emerged as the "hub" city of the Upper Cumberland Region. The central portion of the county including Cookeville and Algood contain the major retail and employment centers in the area.

Cookeville's prominence is probably a direct result of its location along the major transportation routes of Interstate 40 and State Route 111. U.S. Highway 70N also parallels I-40 east to west with State Routes 111, 135 and 136 providing north/south routes.

HISTORY

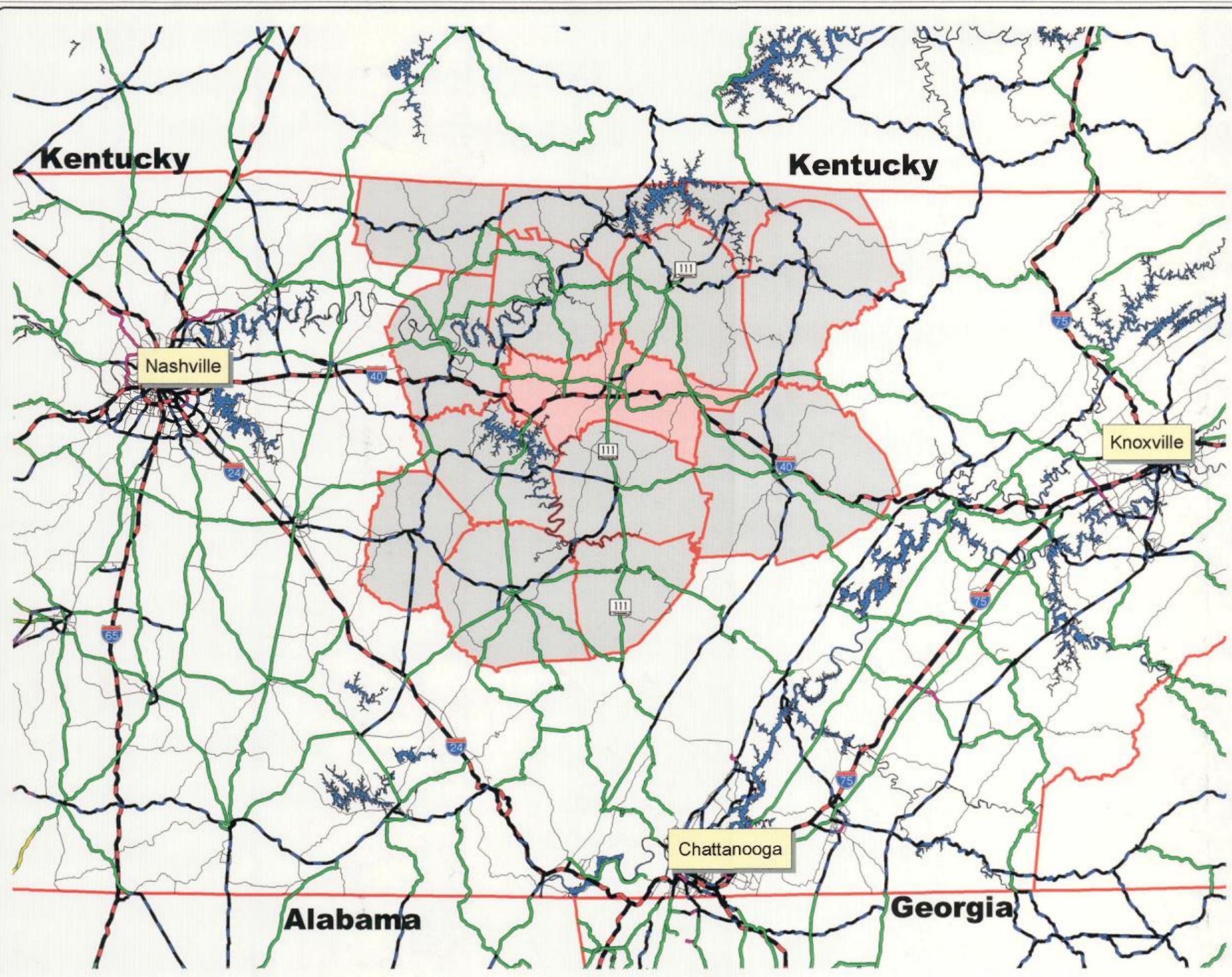
Putnam County, like most of East and Middle Tennessee, was settled by Revolutionary War soldiers and their descendants. English and Scotch/Irish descendants predominated the settlers in this area, and most came by way of Virginia and North Carolina. The County was established in 1842 from parts of White, Overton, Jackson, Smith and DeKalb Counties and named in honor of Major General Israel Putnam.

In 1844 an injunction restrained the county and circuit court officer from performing their official duties, but in 1854 the county was re-established through the effort of Major Richard F. Cooke. In his honor the county seat was named Cookeville.¹

¹ Siler, Tennessee Towns from Adamsville to Yorkville, Knoxville, East Tennessee Historical Society, 1985, p. 18.

Illustration 1
Regional Setting

Putnam County
Tennessee



LEGEND

- Primary Thoroughfares
 - Interstate
 - Principal Arterial
 - Minor Arterial
 - Urban Freeway
 - Collector Roads
- Water Bodies
- Putnam County
- Upper Cumberland Counties
- State Boundary



March, 2004

STATE OF TENNESSEE

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 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.

GOVERNMENTAL STRUCTURE

The purpose of this section is to provide a general examination of the governmental structure of Putnam County, to briefly describe its functions and to assess its potential influence on future development.

Putnam County is governed by a 24 member Board of County Commissioners and elected chief executive officer, the county executive. The legislative body is divided into two committees of 12 members each: planning and fiscal review. These committees meet prior to the monthly meeting and provide recommendations to agenda items. Planning committee reviews items of a non fiscal nature and general government functions including road acceptance. Fiscal review items which will require allocation of county funds.

Various other standing and task oriented committees review and advise various departments including roads and solid waste. The County Executive's office serves as head of general government functions including solid waste, emergency services, maintenance, planning and fire protection.

Elected offices include sheriff, highway superintendent, tax assessor, trustee, circuit court clerk. Register of Deeds and county clerk operate their offices independently and receive funding from either fees, state shared revenues or local tax revenues allocated by the county commission.

Education is directed by a local six-member, popularly elected school board which then hires a superintendent as chief executive officer. The county commission must levy taxes and provide funds for education administered by the board and superintendent.

CHAPTER 3 NATURAL FACTORS AFFECTING DEVELOPMENT

INTRODUCTION

The factors which are often most influential and the most difficult to change are the ones which occur naturally. The climate, air and water quality, topography, drainage and flooding, and soils are significant natural factors affecting development.

Failure to recognize these factors and design accordingly can be extremely costly to property owners as well as the entire community. Natural factors will be paramount and the basis for most plans. The type and limits of land use will be responsive to these conditions. Through increased knowledge of these natural factors, a wiser use of the available resources will result in avoiding costly mistakes. The purpose of this chapter is to review and evaluate these natural factors and their influence on land use patterns in Putnam County. Illustration 4 presents natural factors affecting development.

Climate

The climate of Putnam County is described as humid, subtropical characterized by mild winters and warm summers. Although well inland, Putnam County lies in the path of cold air moving southeast out of Canada and warm moist air moving northeast from the Gulf of Mexico. These alternating currents frequently bring sharp daily changes and are chiefly responsible for seasonal variations and four distinct seasons.

There is normally an abundant amount of rainfall in Putnam County. Normal rainfall for the Caney Fork River basin within which Putnam County lies is 53.5 inches according to the United States Weather Bureau. Precipitation is usually heaviest in the late winter and early spring as a result of frequent low pressure systems. Primary weather disasters are the result of tornadoes which occur in the spring and summer on occasions. Moderate flooding occurs along streams and is usually narrow and riverine in nature. There are very few structures affected by flooding in Putnam County.

Putnam County is subject to locally heavy storms in which as much as five inches of rainfall may occur. Precipitation is usually lightest in late summer and early fall with October typically being the driest month of the year.

The mean annual temperature of the area is 58.5 degrees Fahrenheit and the average relative humidity is 70 percent. Extremes in temperature are uncommon, seldom above 100 degrees or below -5 degrees Fahrenheit. There are variations in relative humidity with the highest daily averages in winter and the lowest in early fall. Although winters are not severe they are often wet and outside work may be hampered around construction sites. The first fall frost usually occurs in mid October and the last around April 15.

Air Quality and Water Resources

There are no known sources of significant air pollution in the county. A monitoring station in the Buck Mountain area is maintained by the State of Tennessee, Department of Environment and Conservation. An abundance of open space and a lack of highly urbanized areas is conducive to the maintenance of the purity of the air.

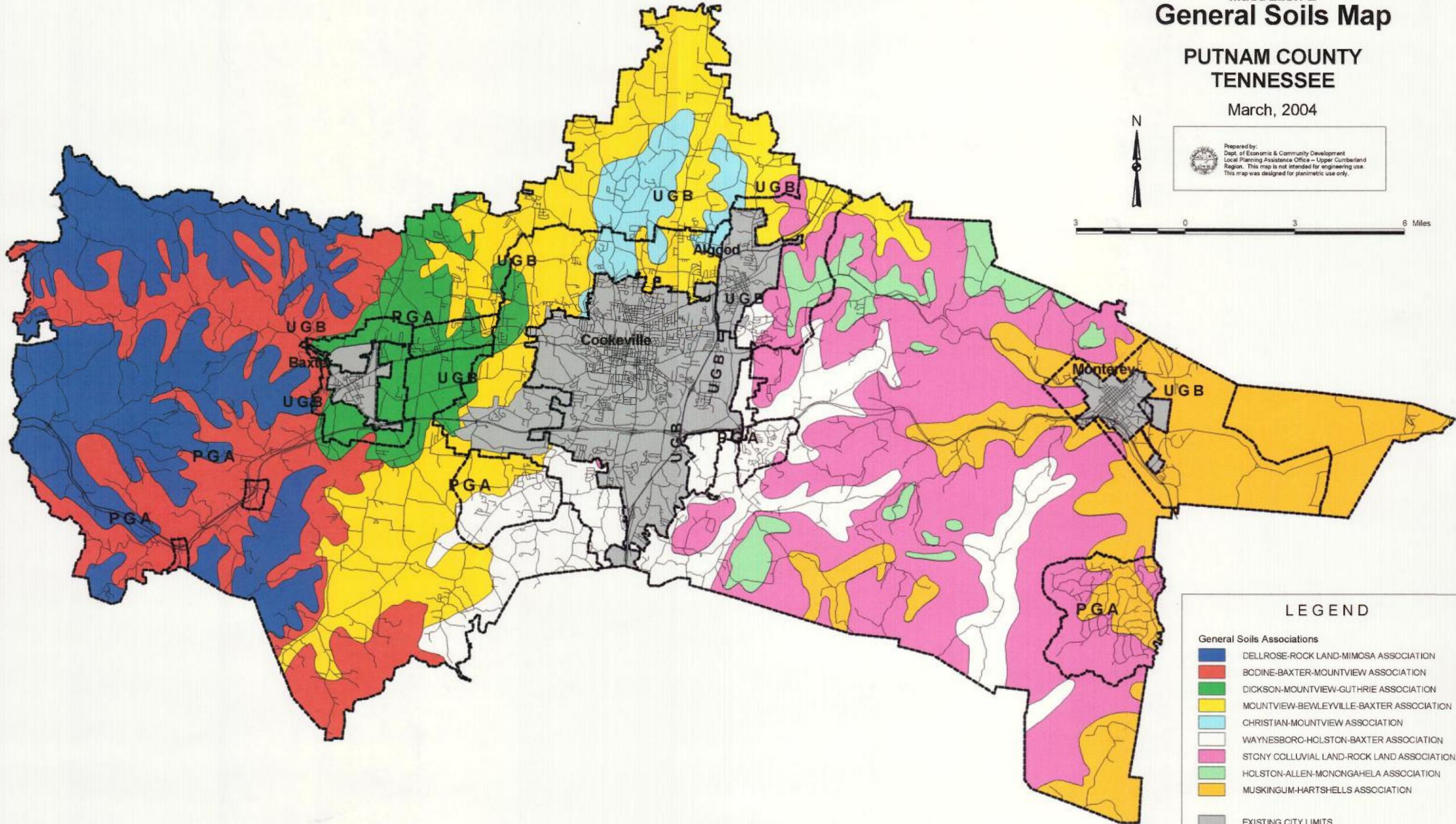
The primary source of water for Putnam County is Center Hill Lake via the City of Cookeville water treatment facility. This facility provides water to the Towns of Algood, Baxter and Cookeville as well as

Illustration 2
General Soils Map

**PUTNAM COUNTY
 TENNESSEE**

March, 2004

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 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
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LEGEND

General Soils Associations

- DELLROSE-ROCK LAND-MIMOSA ASSOCIATION
- BODINE-BAXTER-MOUNTVIEW ASSOCIATION
- DICKSON-MOUNTVIEW-GUTHRIE ASSOCIATION
- MOUNTVIEW-BEWLEYVILLE-BAXTER ASSOCIATION
- CHRISTIAN-MOUNTVIEW ASSOCIATION
- WAYNESBORO-HOLSTON-BAXTER ASSOCIATION
- STONY COLLUVIAL LAND-ROCK LAND ASSOCIATION
- HOLSTON-ALLEN-MONONGAHELA ASSOCIATION
- MUSKINGUM-HARTSHELLS ASSOCIATION

EXISTING CITY LIMITS

PUBLIC CHAPTER 1101 BOUNDARIES

several utility districts serving the majority of the rural areas. The Town of Monterey also operates a treatment facility and serves that town as well as eastern Putnam County.

Illustration 7 presents the various public water lines traversing Putnam County. The Towns of Baxter, Cookeville--also servicing Algood, and Monterey, have National Pollutant Discharge Elimination System (NPDES) permits for discharging their treated wastewater. Currently all systems are in compliance with appropriate guidelines and there are no moratoriums due to water and wastewater treatment problems.

Topography

Putnam County is situated in two of Tennessee's physiographic provinces and is on the edge of another. The eastern one-fourth of the county including the Town of Monterey, is part of the Cumberland Plateau and its escarpment. The Cumberland Plateau is an undulating terrain ranging from nearly level areas to areas of small, deeply cut valleys and gorges. Its elevation is about 1,800 to 2,000 feet above sea level, or around 800 feet higher than the Highland Rim tableland. It is mostly drained to the north by East Fork of Obey River, and to the south by Calfkiller and Caney Fork Rivers, all within the Cumberland River Basin. The Plateau escarpment is a rugged slope of steep ridges and deeply-cut valleys. Drainage off the escarpment flows into Calfkiller and Falling Water Rivers, with both also a part of the Cumberland River Basin.

The eastern part of the Highland Rim province covers much of central Putnam County. It is a rolling tableland ranging from 950 to 1,100 feet in elevation. A karst topography of sinkholes, caves and disappearing streams is fairly common where soluble limestone underlies the tableland, as well as the lower slopes of the Cumberland Plateau Escarpment. Drainage of the Rim tableland flows generally westward into tributaries of Spring Creek and Falling Water River. Along the western edge of the county are the lowland valleys and ridges of the State's Central Basin Province. Elevations in this part of the county are 500 to 600 feet, or about 500 feet lower than the Highland Rim. Drainage flows into Caney Fork River, a large stream joining Cumberland River in adjacent Smith County.

There is a direct relationship between degree of slope and development capability. The steeper the slope the more problems that must be addressed to facilitate sound development. Steep slopes create large cuts and fills which are scars on the landscape when roads and parking areas are developed. During construction, steep slopes present serious erosion problems which may continue after development has taken place, if proper mitigation measures are not installed. The extra run-off that is created when these areas are developed can adversely affect property at lower elevations with sediment and flooding. Development cost increases to the point that it may be prohibitive, and even if these initial costs are overcome, the cost borne by the county to maintain services will be substantially higher in areas of steep slopes. Because of the swift movement of runoff, roads will be constantly undermined and repairs more difficult and expensive. Maintaining water pressure is more difficult due to the varying elevations. Soils suitable for subsurface sewer disposal fields are often scarce and public sanitary sewer is cost prohibitive in most of these areas. For these reasons, it is strongly recommended that development be discouraged on slopes exceeding 25%. Slopes exceeding 25% are of no value for agricultural row cropping and of marginal value for pasture. Consequently, for these extreme slopes the agricultural value lies in the production of timber using selective cutting techniques. Timber stands on steep slopes prevent erosion and protect the watershed area from excessive and damaging runoff. These areas provide scenic vistas and magnificent views which characterize the area for its beauty.

Slopes between 15 and 25% also offer severe limitations for various types of suburban development. These areas can, however, accommodate limited development with careful mitigation measures. Intensive urban types of development are definitely limited due to the erosion and runoff potential thereof and the cost to maintain facilities once constructed such as roads. These areas are more suited to the

agricultural uses of pastureland, livestock, hay cropping and forestry production than the road work, driveways and parking areas needed by residential development. Farm units, rural, low-density residential dwellings, and their associated outbuildings can also be accommodated within this range of topographic slopes.

Slopes of less than 15% can accommodate more intense residential and light commercial types of development with care taken to adequately construct and maintain supporting public facilities. It is however recommended that intense commercial and industrial development be directed to areas of 5% slope or less, due to the need for large, level foundations, parking areas and access roads. These areas are more easily developed and infrastructure can be more easily maintained. These areas are also more suited for intense types of agricultural cropping. As is expected, there is a definite correlation between the propensity of various soils associations to satisfactorily accommodate and sustain development at suburban and urban intensities with the topographic characteristics of the land. Though not conclusively there is a definite tendency for areas containing extreme topographic slopes to also contain soil associations that poorly accommodate such types of development in terms of slippage, shrink-swell potential, poor permeability, etc. Illustration 2 which depicts the various soils associations in Putnam County should be analyzed in conjunction with Table 1 which depicts the intrinsic limitations inherent in each of these soils associations to various types of development. Accordingly, Illustration 3 conveys the topographic constraints to development as present themselves to us in Putnam County. Topographic slopes cited as being severe on this illustration signify slopes of 15% and above.

Table 4 summarizes the degree of developmental limitations posed by soils, topographic slopes, and flooding within the county. As can be seen therein, the central portion of Putnam County, running north to south, contains the largest amount of land that is highly suitable for development. Also, as the City of Cookeville, as well as the Towns of Algood and Baxter are located within this area and are providing services therein, this is certainly where a large majority of Putnam County's growth will occur.

Drainage/Flooding

Putnam County lies entirely in the Cumberland River Drainage Basin. The area's drainage pattern is riverine and usually well defined. Areas to the south are drained by the tributaries of the Caney Fork River including the Calfkiller River, the Falling Water River fed by the Pigeon Roost Creek, Hudgens Creek, Cane Creek, and Mine Lick Creek. Areas to the north are drained by Spring Creek, Blackburn Fork, Martin's Creek, and Big and Little Indian Creek. Sinkholes are prevalent in the Highland Rim and often principal drainage structures.

Given the often steep terrain, streams rise rapidly during periods of heavy rain, and often present dangerously swift but narrow floodplains. Severe flooding causing loss of life or property is rare in Putnam County. Minor floods appear annually, usually in late winter or early spring. The principal method of reducing loss to property is floodplain management.

Putnam County is a participant in the National Flood Insurance Program. This program identifies floodprone areas, and with the community agreeing to restrict floodprone development, provides for the purchase of flood insurance by area residents. Putnam County's floodable areas are identified on the Flood Hazard Boundary Maps for Putnam County, Tennessee, Unincorporated Areas, Community Number 470149B, dated October 1977, as prepared by the Federal Emergency Management Agency.

These maps depict 100 year floodplains (one percent chance of occurrence in any single year) which serves as the basis for floodplain management practices. The lack of elevation benchmarks creates difficulties in determining exact floodplain elevations.

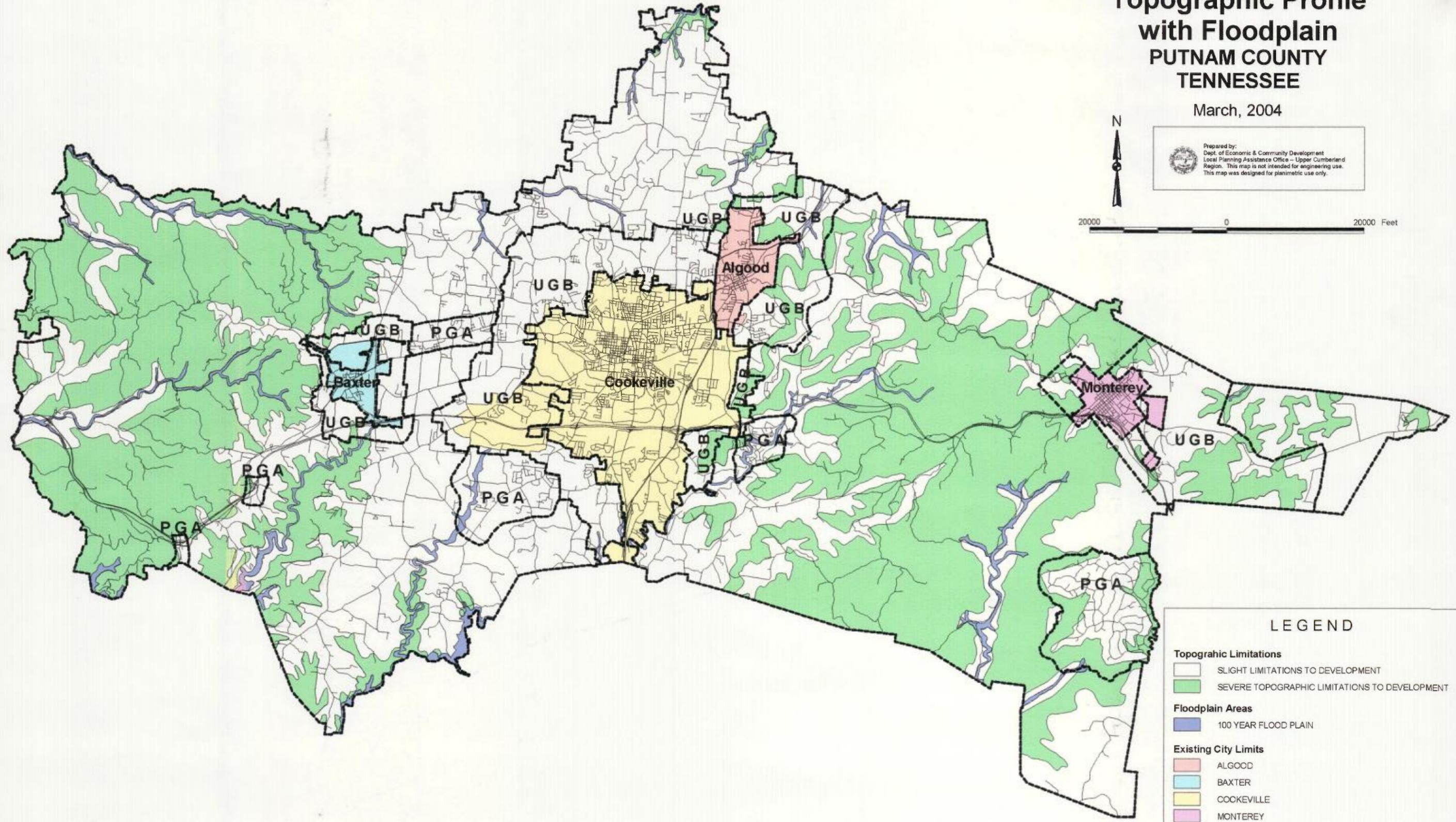
Illustration 3
**Topographic Profile
 with Floodplain**
**PUTNAM COUNTY
 TENNESSEE**

March, 2004



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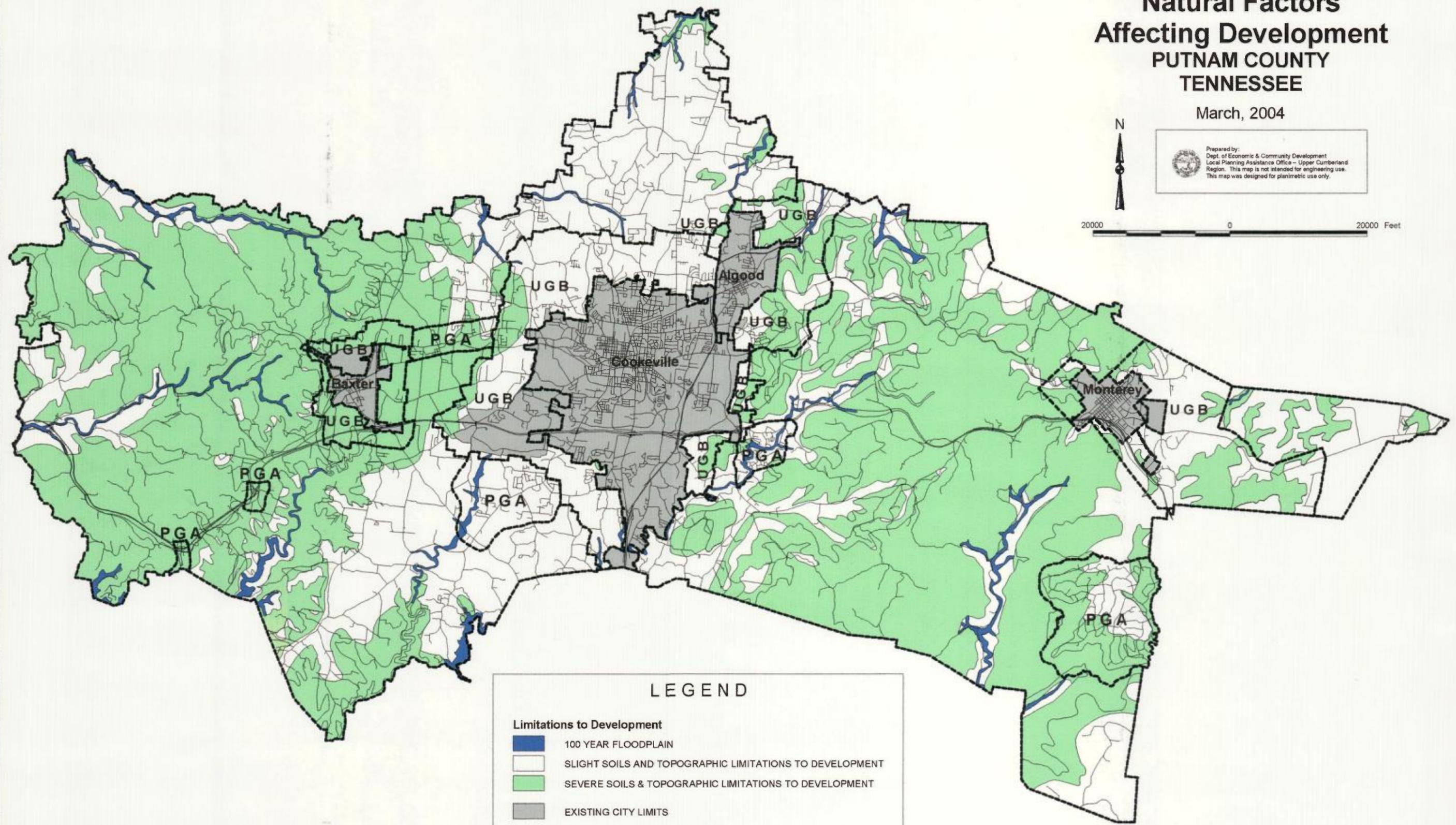
- Topographic Limitations**
- SLIGHT LIMITATIONS TO DEVELOPMENT
 - SEVERE TOPOGRAPHIC LIMITATIONS TO DEVELOPMENT
- Floodplain Areas**
- 100 YEAR FLOOD PLAIN
- Existing City Limits**
- ALGOOD
 - BAXTER
 - COOKEVILLE
 - MONTEREY
- Public Chapter 1101 Boundaries**
- PUBLIC CHAPTER 1101 BOUNDARIES

Illustration 4
**Natural Factors
 Affecting Development**
**PUTNAM COUNTY
 TENNESSEE**

March, 2004



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- Limitations to Development**
-  100 YEAR FLOODPLAIN
 -  SLIGHT SOILS AND TOPOGRAPHIC LIMITATIONS TO DEVELOPMENT
 -  SEVERE SOILS & TOPOGRAPHIC LIMITATIONS TO DEVELOPMENT
 -  EXISTING CITY LIMITS
 -  PUBLIC CHAPTER 1101 BOUNDARIES

Development in the identified flood hazard areas is regulated by the Putnam County Floodplain Ordinance. This Ordinance requires that structures located in identified flood hazard areas be elevated or floodproofed to reduce the potential for flood damage. In addition these regulations prohibit encroachment into designated floodplains. Subdivision development standards afford a review of lands to be developed for residential lots. All lots are required to have a site safe from flooding with all roads and utilities being developed outside identified floodable areas.

Soil Associations

The soil associations on Table 1 depict the general soil associations that occur in Putnam County. This map does not provide detailed information relative to specific tracts of land or show the specific kinds of soil at any particular place. In fact, it is possible to find areas within each association that are totally different in capability than the generalized definition of capability for each association. Consequently, this type of analysis and the capability charts while being sufficient for generalized planning purposes, are not designed for detailed site planning.

The following is a brief description of the major soil associations in Putnam County:

- (1) The Delrose-Rockland-Mimosa Association is a cherty, rocky soil underlain by phosphatic limestone on rolling to steep terrain. It covers about 13% of the county on the extreme western edge.
- (2) About 12% of the county is covered by the Bodine-Baxter-Mountview Association. Soils are on narrow ridge crests. They are steep, shallow, cherty soils that are underlain by very cherty limestone.
- (3) The Dickson-Mountview-Guthrie Association covers only about 5% of the county on the Highland Rim around Baxter and Double Springs. It is light-colored soil on broad gently sloping uplands, formed in loess underlain by cherty limestone.
- (4) More dissected and steeper than the previous soil, the Mountview-Bewleyville-Baxter Association covers about 16% of the county. It is underlain by cherty limestone on rolling and hilly terrain.
- (5) The soils of the Christian-Mountview Association are rolling to steep, cherty, sandy soils on uplands, underlain by sandy and shaley limestone. They cover about 5% of the county and are located north of Cookeville in two separate sections on the Blackburn Fork and Bear Creek tributaries.
- (6) The Waynesboro-Holston-Baxter Association is undulating to hilly soils on high terraces derived from limestone materials. This association covers 14% of the county, located extensively on the Highland Rim and some in the valley of the Calfkiller River on the Cumberland Plateau escarpment.
- (7) Most of the Cumberland Plateau escarpment is covered by Stony Colluvial Land-Rock Land Association. This is steep, rocky and stony land. It covers about 18% of the county.
- (8) The Holston-Allen-Monogahela Association is located on small isolated benches on the side of the Cumberland Plateau escarpment. It covers approximately 4% of the county. It is undulating to rolling, well-drained to moderately well-drained in old alluvium derived from sandstone.

- (9) The top of the Cumberland Plateau in Putnam County is Muskingum-Hartsells Association. This association is well-drained to excessively well-drained, underlain by shale on rolling to steep high plateaus. It covers about 13% of the county.

Soil capabilities alone can tell a great deal about the development capabilities of an area. Slope, underlying bedrock, and hydrologic conditions are all determinants in soil measurement. For this section of the chapter, two information sources were used for acquiring soil data: (1) Soil Conservation Service (SCS), United States Department of Agriculture, and Tennessee Agricultural Experiment Station's *Soil Survey, Putnam County, Tennessee*, Series 1960, No. 5, November 1963; together with its supplement, *Soil Interpretations, Putnam County, Tennessee*; and (2) Mr. Mike Richardson, Putnam County Natural Resource Conservationist.

This section will look at the engineering capabilities of the soils. The table and map in this section are formulated on the basis of economic value in relation to engineering soil capabilities.

Engineering capability refers to the soil's ability to physically support various kinds of land uses such as homes, schools, roads, parks, large buildings, recreation areas, and water and sewer facilities. Soil properties such as load bearing strength, shrink-swell potential, amount of stones and rocks, percolation, slope gradient, plasticity, and flood potential, all determine the engineering capability of the soil. By using these measurements of capability, the development potential of the various soil associations may be ascertained.

Each soil association was evaluated according to its limitation or suitability for a specific use as specified by the terminology as defined in *Soil Survey for Putnam County*:

Soil Limitation	Approx. Equivalent in Terms of Suitability	Definition
None	Excellent	No significant limitations.
Slight	Good	Nearly all of the soil properties are favorable for the intended use. Any unfavorable properties are relatively easy to overcome.
Moderate	Fair	The properties of the soil are only reasonably favorable for the intended use. The unfavorable properties may be overcome through correct planning, careful design, or good management.
Severe	Poor	The properties of the soil are unfavorable for the intended use. Adapting the soil to the intended use can be accomplished only with difficulty and considerable expense.

The following tables and maps summarize the properties of each soil association, but it should be remembered that these are generalized depictions of soils and soil properties. Also included in many of these associations are other minor soils that may or may not be like the dominant soils. The generalized soil map is used to provide information on the general resource areas of the county for planning purposes.

TABLE 1
SOIL UNIT LIMITATIONS
PUTNAM COUNTY, TENNESSEE

SOIL UNIT	DEGREE OF LIMITATION	AGRICUL. % AREA	TRANSPOR. % AREA	INDUS. % AREA	RESIDENTIAL		RECREATIONAL		WATER MNGT. & RUNOFF CHARAC. % AREA
					WITH SEPTIC TANK % AREA	WITH CENTRAL SEWERAGE % AREA	DEVELOPED % AREA	NATURAL % AREA	
Delrose Rockland Mimosa	Slight Moderate Severe	25% 25% 50% steep/rocky	100% steep/rocky	10% 90% steep/rocky	10% 90% steep/rocky	10% 90% steep/rocky	10% 90% steep/rocky	90% 10% rocky	100% steep/rocky
Bodine Baxter Mountview	Slight Moderate Severe	65% 10% steep/cherty 25% steep/cherty	65% 10% steep/cherty 25% steep/cherty	20% 10% steep/cherty 70% steep/cherty	20% 15% steep/cherty 65% steep/cherty	20% 10% steep/cherty 70% steep/cherty	20% 80% steep/cherty	100%	10% steep 90% steep/erosion
Dickson Mountview Guthrie	Slight Moderate Severe	70% 10% 20% wet	90% 10% 20% wet	85% 15% 235	45% 55% percolation	85% 15% wet	80% 5% wet 15% wet	90% 10% wet	75% 20% wet 5% wet
Mountview Bewleyville Baxter	Slight Moderate Severe	75% 15% steep 10% steep/fldng.	90% 5% steep 5% steep/flooding	75% 5% steep 20% steep/fldng.	70% 5% steep 25% steep/percola.	75% 5% steep 20% steep/fldng.	75% 5% steep 20% steep	100%	75% 20% steep 5% steep
Christian Mountview	Slight Moderate Severe	85% 10% steep 5% steep/flooding	90% 5% steep 5% steep/flooding	55% 10% steep 35% steep/fldng.	55% 10% steep 35% steep/fldng.	55% 10% steep 35% steep/fldng.	55% 10% steep 35% steep/fldng.	100%	75% 20% steep 5% steep
Waynesboro Holston Baxter	Slight Moderate Severe	85% 10% steep 5% steep/flooding	90% 5% steep 5% steep/flooding	75% 5% steep 20% steep/fldng.	75% 5% steep 20% steep/fldng.	75% 5% steep 20% steep/fldng.	75% 5% steep 20% steep/fldng.	100%	75% 20% steep 5% steep
Stony Colluvial Rockland	Slight Moderate Severe	15% steep/rocky 85% steep/rocky	100% steep/rocky	100% steep/rocky	5% steep/rocky 95% steep/rocky	5% steep/rocky 95% steep/rocky	5% steep/rocky 95% steep/rocky	30% steep/rocky 70% steep/rocky	15% steep/rocky 85% steep
Holston Allen Monogahela	Slight Moderate Severe	70% 10% steep 20% wet	95% 5% steep	70% 5% steep 25% wet/steep	70% 5% steep 25% wet percola.	70% 5% steep 25% wet/steep	70% 5% steep 25% wet/steep	100%	75% 20% steep 5% steep
Muskingum Hartsells	Slight Moderate Severe	75% 20% rocky 5% steep/rocky	95% 5% steep	45% 55% steep/rocky	40% 60% steep/rocky	45% steep 55% steep/rocky	45% 55% steep/rocky	75% 25% steep/rocky	60% 30% steep 10% steep

Source: Natural Resource Conservation Service

SUMMARY OF FINDINGS

The current land use pattern in Putnam County has and will continue to be greatly influenced by natural factors. Topography and soils are paramount. The western portion of Putnam County is severely limited for any type of intense development. It is expected that agriculture and primary pasture, and timber production will and should continue to be the primary land uses. These along with single family residential dwellings served by septic tanks on large lots or mini-farms will be the extent of development. The Baxter area has less restrictive topography in terms of slope, however, soils with a perched water table, (Sango and Guthrie) are severely restricted due to drainage. The Dickson soil type occupies much of the landscape in this area and it too is restricted to intense development on sewer, due to a fragipan which limits development on septic tanks. The central portion of the county running from northeast to southwest is most suited for development. Both Cookeville and Algood are located in this topographic region. The topography often limits development to single family residential or agricultural uses, but other factors such as soil ratings for septic systems are usually favorable for lots of one-half acre or larger. Intense urban development or industrial uses usually require modification of the landscape by grading. East of Cookeville and Algood, the topography again limits development to agricultural and timber production. Monterey and areas east have less topographic restrictions but are again limited due to sand stone outcrops at or near the surface.

Within the unincorporated areas of Putnam County, new residential growth will continue to be mainly single family residential on individual lots in areas where soils are suitable for septic systems.

Some local commercial development can be accommodated at interchanges and along highways. Intense commercial and industrial development will be limited to the municipalities where public sewer is available.

CHAPTER 4
SOCIO-ECONOMIC FACTORS AFFECTING DEVELOPMENT

INTRODUCTION

This chapter will present a brief summary of population and employment trends pertinent to the preparation of the Land Use and Transportation Plan for Putnam County. Strategies for community development, projections of land use needs, discussions of land use issues and the relevance of the land use plan to future planning documents, will be discussed. This information when reviewed should provide insight into future trends and facilitate the generation of reasonably accurate forecasts.

POPULATION

According to U.S. Census information, Putnam County has continually grown (as shown in Table 2 and Graph 1) from 16,890 persons in 1900 to 62,315 in 2000 excepting the decade from 1950 to 1960, a period of slight out-migration for Putnam County. During this period, many Upper Cumberland counties experienced out-migration of persons seeking better employment opportunities to the north in the automotive industry. It is interesting to note that during this decade, Putnam County established a Chamber of Commerce and began an active and successful effort to attract jobs to this county. This out-migration, less than 700 persons, was small and lasted only one decade thanks to this and other efforts. Also of interest to note was that during the next decade (1960-1970), Interstate 40 was constructed through Putnam County, bisecting the county east to west and providing transportation opportunities to open the area for economic development. Growth has been constant since then with the next largest growth period being the 1990's.

Table 2, Population Projections to 2024, reflects an anticipated growth to 72,535 persons by the year 2010, and an increase to 88,287 persons by the year 2024. This rate is depicted in Graph 2. These figures represent a growth rate of 10.8 percent and 12.3 percent for the next twenty years.

This growth rate for the county is accompanied by anticipated growth for all the incorporated municipalities. Cookeville, the county seat and largest city in the county, is projected to continue to grow at a rate similar to the county, and is expected to constantly contain approximately 40% of the county's population. All these figures are based on the assumption that the county will continue to be attractive as a place to live, work and retire. National trends as well as regional ones indicate Putnam County will continue to be attractive on all counts.

TABLE 2
POPULATION CHARACTERISTICS AND PROJECTIONS FOR INCORPORATED PLACES,
PUTNAM COUNTY, THE UPPER CUMBERLAND REGION, AND TENNESSEE

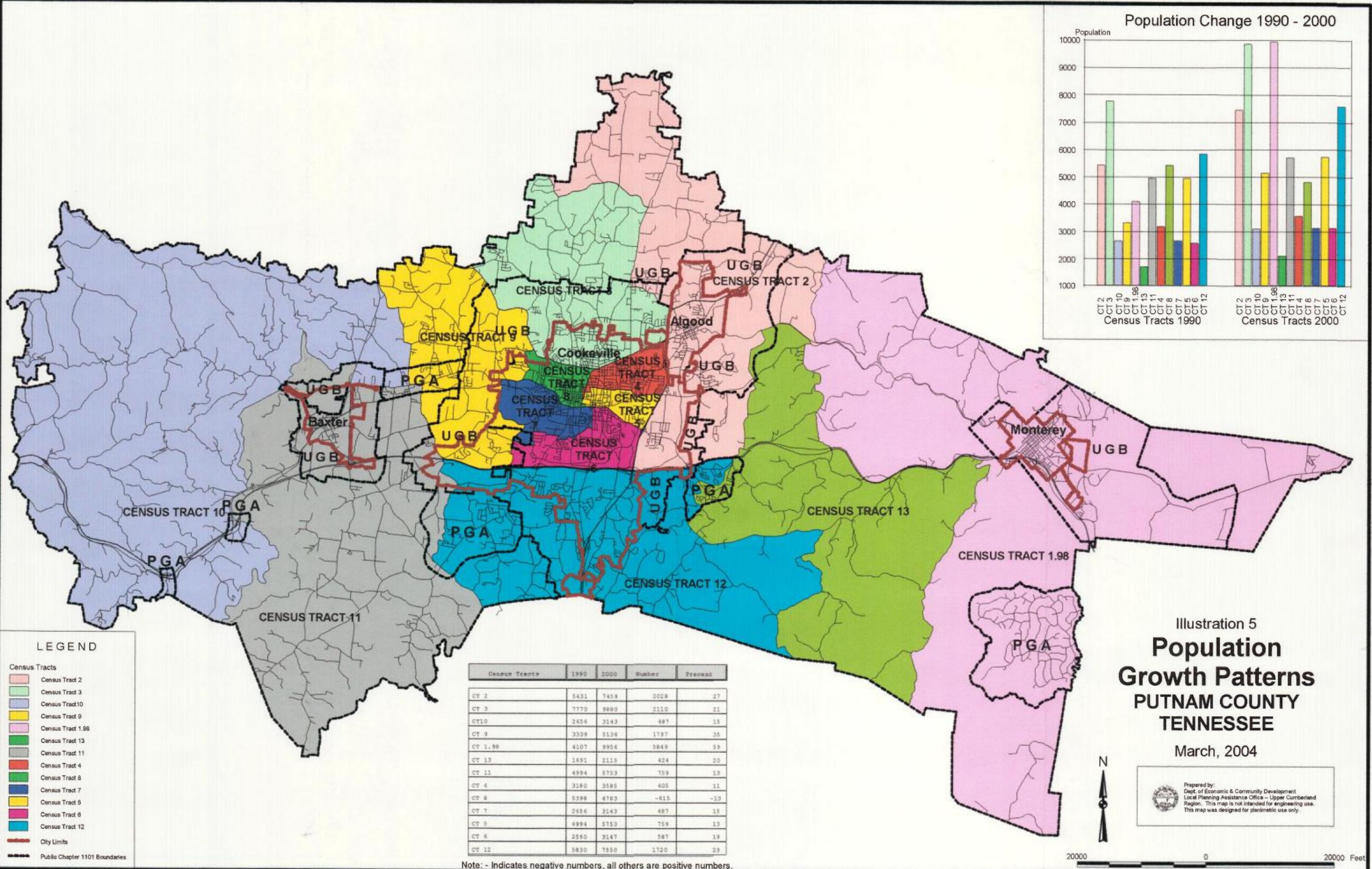
Incorporated Place/County/Region/State	1990	% Change 1990-2000	Census 2000	% Change 2000-2010	Projected 2010	% Change 2010-2020	Projected 2020	Projected 2024
Algood	2,399	22.6	2,942	25	3,653	15	4,194	4,410
Baxter	1,289	-0.8	1,279	5	1,343	5	1,410	1,480
Cookeville	21,744	1.5	25,000	11	27,522**	11	30,056**	34,432
Putnam Co.	51,373	21.3	62,315	16.4	72,535*	15.1	83,488*	88,364***
Cookeville as % of county	42		40		41		39	39
UCR	252,301	20.9	304,998	10	355,497	10	391,047	394,957
Tennessee	4,877,105	16.7	5,689,283	6.6	6,062,695	8.8	6,593,194	7,173,395

*Putnam County projection based on U.T. projection corrected for % error on 2000 census and projected forward at 3.1%.

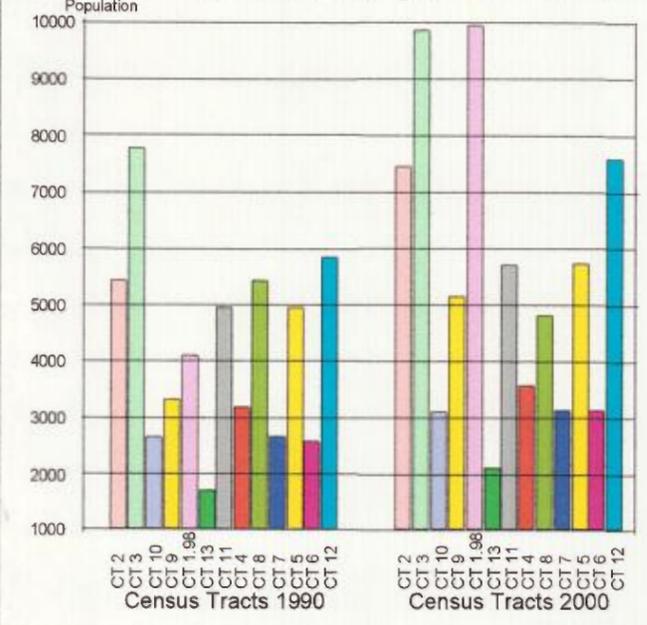
**Cookeville projection based on 11% change, and it continuing to contain approximately 40% of the county population.

***Extrapolated from U.T. revised 2025 projection; resulting in 1.46% growth rate from 2020.

SOURCE: U.T. Center for Business and Economic Research, modified by the Local Planning Assistance Office.



Population Change 1990 - 2000



LEGEND

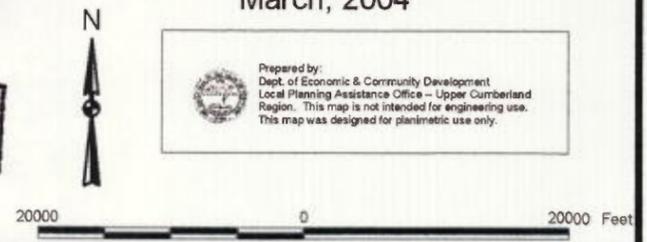
- Census Tracts
- Census Tract 2
- Census Tract 3
- Census Tract 10
- Census Tract 9
- Census Tract 1.98
- Census Tract 13
- Census Tract 11
- Census Tract 4
- Census Tract 8
- Census Tract 7
- Census Tract 5
- Census Tract 6
- Census Tract 12
- City Limits
- Public Chapter 1101 Boundaries

Census Tracts	1990	2000	Number	Percent
CT 2	5431	7459	3028	27
CT 3	7770	9880	2110	21
CT 10	2656	3143	487	15
CT 9	3339	5136	1797	35
CT 1.98	4107	9956	5849	59
CT 13	1691	2119	424	20
CT 11	4994	5753	759	13
CT 4	3180	3583	405	11
CT 8	5398	4783	-615	-13
CT 7	2656	3143	487	15
CT 5	4994	5753	759	13
CT 6	2560	3147	587	19
CT 12	5830	7550	1720	29

Note: - Indicates negative numbers, all others are positive numbers.

Illustration 5
Population Growth Patterns
PUTNAM COUNTY
TENNESSEE
 March, 2004

Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.



GRAPH 1

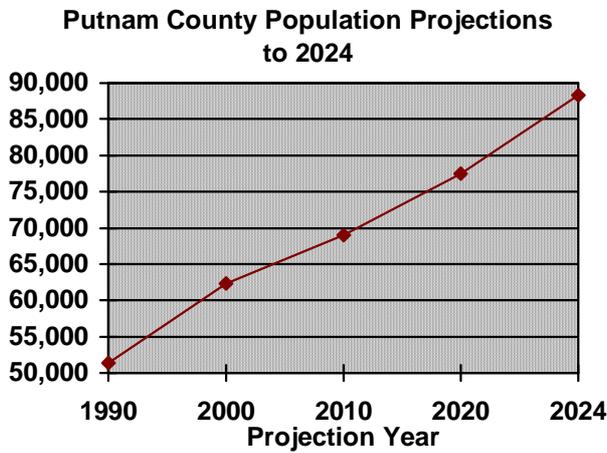


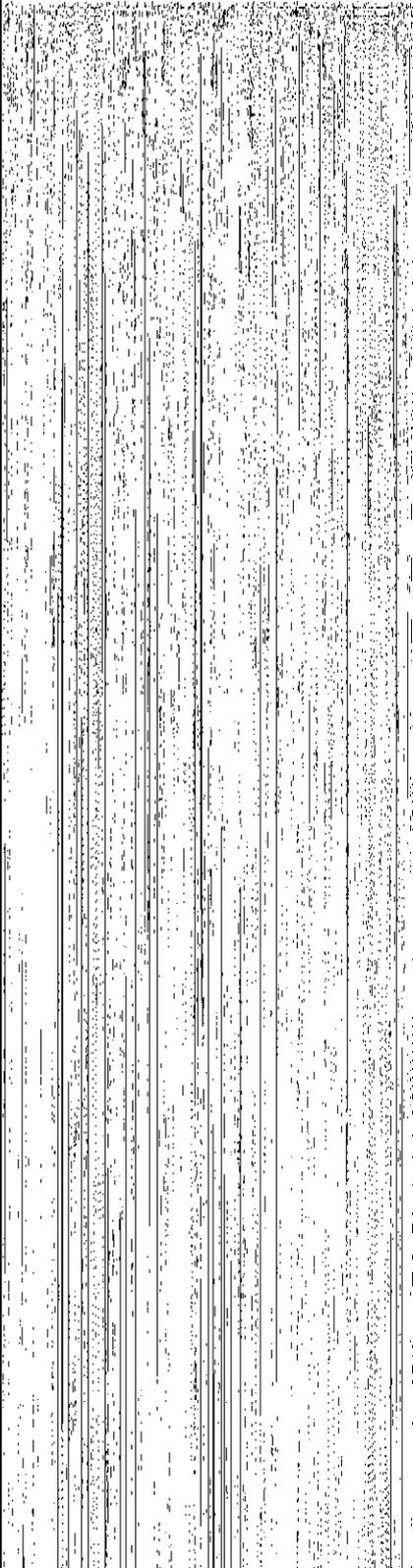
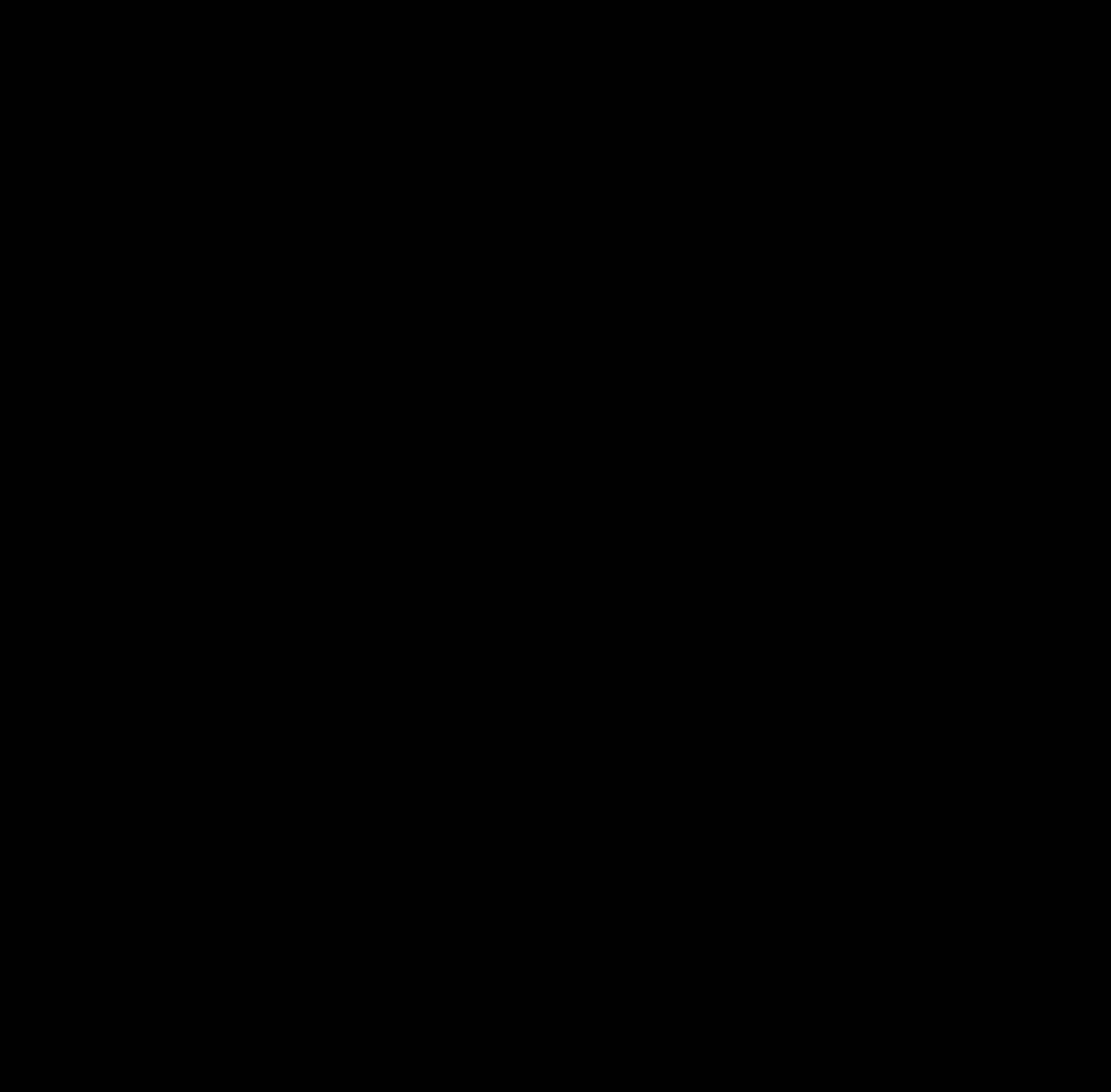
TABLE 3

**HOUSEHOLD CHARACTERISTICS
PUTNAM COUNTY 1960-2000**

YEAR	TOTAL HOUSEHOLDS	PERSONS PER HOUSEHOLD
1960	8,124	3.41
1970	11,047	2.98
1980	16,876	2.65
1990	19,753	2.45
2000	24,865	2.40

Putnam County's household characteristics continue to show an increase in the total number of households as population increases. However, the number of persons per household has steadily decreased from 3.41 in 1960 to 2.4 in 2000. This decrease was slight when compared to the 1990 figure of 2.45 persons per household. This reflects an aging population with a larger percentage in non-childbearing years. Also contributing to this small family size is university population often housed as single person households. The decreases in number of persons of 1 person per household from 1960 to 2000 reflects the nationwide trend of smaller family size.

Other characteristics of the population indicate the median age has increased from 32.3 years in 1990 to 34.4 years in 2000. Graph 2, Putnam County Age, Sex Distribution indicates age groups as a portion of the total population as can be seen there has been a dramatic increase in the age 5-24 cohort of the population indicating an increased school age population. The other category with an above normal increase is the 45-64 year age group as the baby boomers reach this age. The over 65 age group has shown an increase but the percentage of the population increase is not significant. However, as the 45-64



age category survive to this category within the next decade, it is expected to precipitate a need for increased services primarily medical and care for the elderly.

Putnam County--Growth Distribution

Comparison of 1990 and 2000 census block numbering areas indicate, as per previous planning documents, that the central portion of Putnam County running north to south continues to show dramatic population increases. Of particular note is Area 9 wherein a 53.8% increase in population is shown (see Illustration 7.) Several residential subdivisions have recently been developed within this area. Just north of Cookeville, Area 3 experienced a 27.2% gain during the last decade, posting the largest numerical increase of 2,110 persons. The Algood area continues to be an attractive area. It gained 37.3% or 2028 persons between 1990 and 2000. Area 12 south of I-40 also continues to grow at a rapid rate of 29.5% or 1720 persons.

This positive growth pattern can be attributed to the availability of good roads and public water, sufficient to support development. Also, the attractiveness of being close to the City of Cookeville for shopping and employment plays a role in this pattern. Also noteworthy is the increase in population in the extreme western and eastern ends of Putnam County. Although these areas are not suitable for extensive development due to their severe topography and their relative lack of public water, some growth has occurred as persons migrate into these areas to purchase farms or small acreage tracts as home sites.

It is expected that the central portion of the county will continue to develop at a faster rate than all other areas within the county, based on its topography, facilities, and proximity to services.

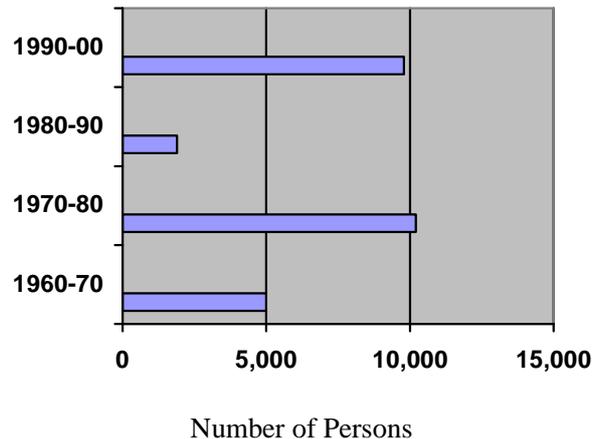
Migration

Migration measures the movement of persons into or out of an area. The decades since 1960 have charted a net migration into Putnam County. During the period from 1970 to 1980 the county had an in-migration of over 10,200 persons. Migration accounted for 84% of the population gain from 1970 to 1980. During the decade from 1980 to 1990, the net in-migration to the county dropped to just over 1,900 persons or 53% of the total population increase. From 1990 to 2000, some 9,800 persons in-migrated, which accounted for almost 90% of the population increase of approximately 11,000 persons.

This percentage exceeded the net migration rate for the Upper Cumberland Region and the State of Tennessee during this period. Two major factors contribute to this trend. The area is becoming recognized as a national and regional retirement center, and perhaps more importantly as an economic development center based on the employment and availability of goods and services.

GRAPH 3

PUTNAM COUNTY NET IN-MIGRATION 1960-2000



EMPLOYMENT

Employment in Putnam County has changed dramatically in the past five decades. Employment has risen from 8,962 in 1950 to 32,310 in 2000. More recent trends show total employment increasing from 24,530 to the present 32,310, an increase of 31.7% which far exceeds corresponding rates of 24.9% for the state of Tennessee and 20.1% for the nation. This 31.7% increase in employment exceeds the population growth rate of 21.3% during the same period of time. This would point to an increase in net commuting into the county for work. This supports the fact that Putnam County is increasing its role as an employment and trade center for the Upper Cumberland Region. As employees continue to migrate into the county for employment, the tax base is broadened and a more extensive and diverse economy is created.

During the past decade, manufacturing employment increased from 8,760 to 9,440. This increase of 7.8% is better than the decline of 2.3% experienced in Tennessee as a whole and 3.3% for the nation during this time period. These state and national trends indicate that manufacturing jobs are not the basis for economic growth they have been. As a percentage of total payroll employment, manufacturing declined nationally from 17.4% to 14% during the decade. For Tennessee, the decrease was from 23.7% to 18.6%. For Putnam County, the decline was from 37.7% to 29.2%. This would indicate that Putnam County remains manufacturing intensive relative to other areas of employment distribution.

CHAPTER 5
EXISTING AND PROPOSED LAND USE AND TRANSPORTATION SYSTEM

INTRODUCTION

Prior to the preparation of a land use plan, a comprehensive survey and inventory of existing land uses should be completed. This information coupled with existing infrastructure, natural factors affecting development, population and economic factors is vital in determining what areas are best suited for, and most likely to, develop into the various land uses and transportation facilities. Also, a thorough analysis of existing land use will enable more accurate forecasting of future land use needs.

Trends in land use have generally followed those projected in former plans. Existing land use inventories for the 1978 Putnam County Land Use and Transportation and the land use inventory completed in 1997 indicate the central portion of Putnam County, north to south, has consistently and continually led other sections in the development of property for uses other than agricultural or forestry.

Existing Land Use Inventory Methods

During the spring of 2001, planning staff reviewed property tax records, property addressing, and conducted a field survey to update and verify results to determine existing land uses in Putnam County. The results of this survey are depicted on Illustration 6 Existing Land Use.

LAND USE CATEGORIES

Each parcel has been assigned a general land use category for analysis in this study. The land use categories are as follows:

Agricultural: Land on which the production crops or the raising of livestock is carried out. This category also includes set aside acreage or some currently non-productive farmland.

Forestry: Lands currently in forest cover including hardwood and conifer, primarily pine.

Residential: Land on which one or more dwelling units are located. This includes single family and multi family residences, mobile homes, and public housing.

Commercial/Private Services: Land on which retail and wholesale trade activities occur including vacant floor space. Also, land on which an array of private firms providing special services are located. This includes hospitals, churches, cemeteries, professional offices, banks, personal services, repair services, etc.

Industrial: Land on which activities of processing or fabricating raw materials, or producing commodities takes place, including manufacturing uses.

Public and Semi-Public: Land on which educational facilities, and all federal, state, and local government uses are located. This category also includes land on which museums, libraries, parks and similar uses are located.

Utilities: Land occupied by the offices, equipment, and storage facilities of various utility providers.

TABLE 4
NUMBER OF STRUCTURES PER LAND USE CATEGORY
OUTSIDE URBAN GROWTH AREAS
PUTNAM COUNTY, TENNESSEE

USE	NUMBER OF STRUCTURES
Residential	9,154
Commercial	85
Industrial	20
Public/Semi-Public	84
Utilities	15
Vacant, developable lots	2,088

TABLE 5
EXISTING AND PROJECTED MUNICIPAL ACREAGE
AS A PERCENT OF TOTAL INCORPORATED AND GROSS ACREAGE
IN PUTNAM COUNTY IN 1998 AND 2020

TOWN OR CITY	1998 ACRES	% OF TOTAL 1998	PROJECTED ACRES 2020	% OF TOTAL 2020
Algood	2,532	1%	8,063	3%
Baxter	1,290	.50%	5,033	2%
Cookeville	14,050	5.4%	32,550	12.5%
Monterey	1,964	.76%	9,400	3.6%
TOTAL	19,836	7.66%	55,046	21.2%
TOTAL PUTNAM COUNTY UNINCORPORATED	240,004	92.34%	204,794	78.9%

TOTAL ACRES PUTNAM COUNTY--259,840

Source: Tennessee Department of Economic and Community Development, Local Planning Assistance Office, Upper Cumberland Region.

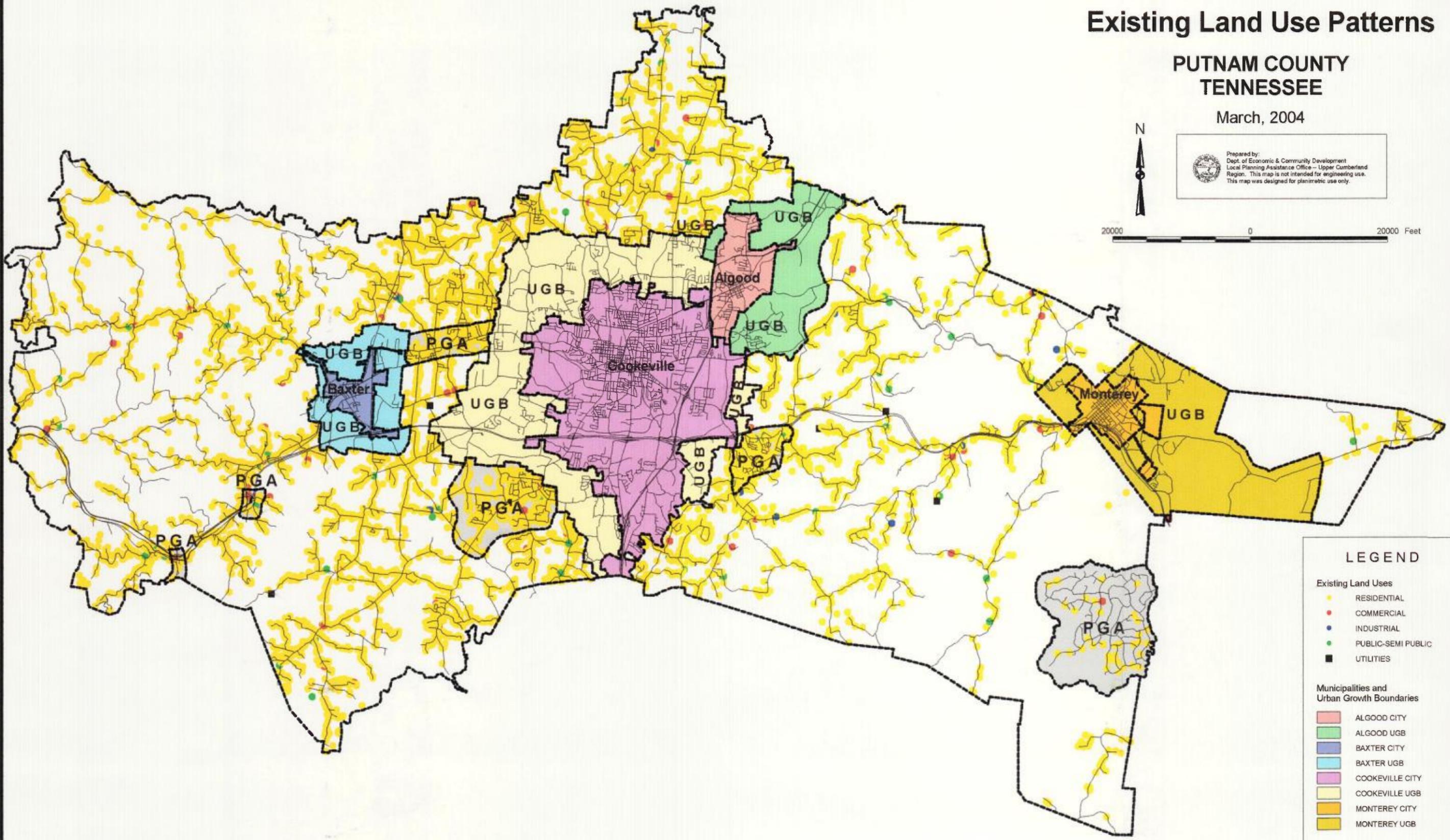
Existing Land Use Patterns

PUTNAM COUNTY TENNESSEE

March, 2004



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Region. This map is not intended for engineering use.
This map was designed for planimetric use only.



LEGEND

- Existing Land Uses
 - RESIDENTIAL (Yellow dot)
 - COMMERCIAL (Red dot)
 - INDUSTRIAL (Blue dot)
 - PUBLIC-SEMI PUBLIC (Green dot)
 - UTILITIES (Black square)
- Municipalities and Urban Growth Boundaries
 - ALGOOD CITY (Pink)
 - ALGOOD UGB (Light Green)
 - BAXTER CITY (Blue)
 - BAXTER UGB (Light Blue)
 - COOKEVILLE CITY (Purple)
 - COOKEVILLE UGB (Light Yellow)
 - MONTEREY CITY (Orange)
 - MONTEREY UGB (Yellow)
 - PLANNED GROWTH AREAS (Light Grey)

Illustration 7

Existing Water Lines

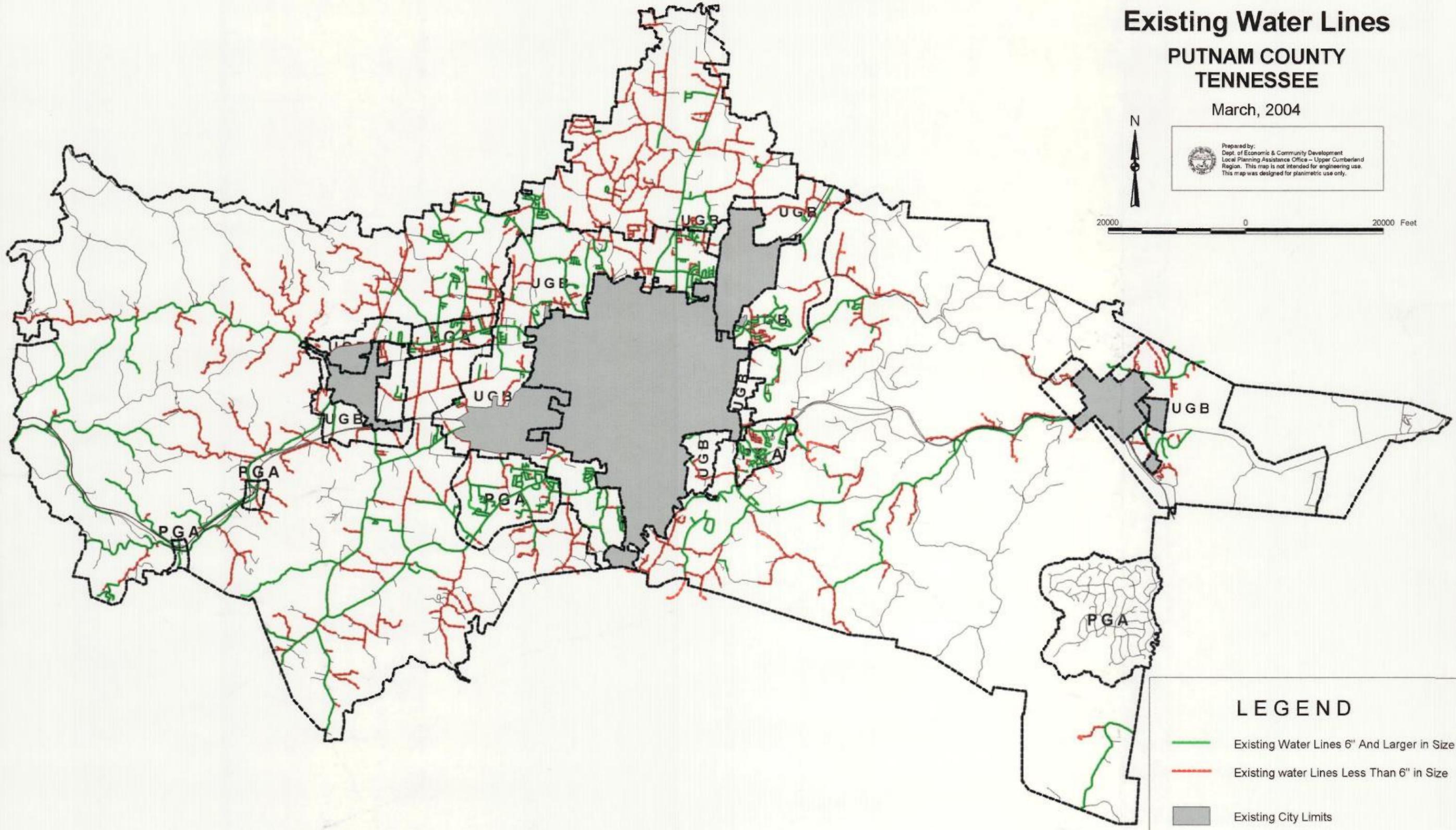
PUTNAM COUNTY TENNESSEE

March, 2004



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20000 0 20000 Feet



LEGEND

-  Existing Water Lines 6" And Larger in Size
-  Existing water Lines Less Than 6" in Size
-  Existing City Limits
-  Public Chapter 1101 Boundaries

Vacant, Developable: Vacant lots adjacent to public roads, capable of being serviced by a public water system.

ANALYSIS OF EXISTING AND PROPOSED LAND USE PATTERN

Forestry

As can be seen from Table 6 the predominant land use in Putnam County remains forest land. Recent estimates indicate there are approximately 138,000 acres of forest land in Putnam County. This amounts to 53% of the total area of 259,840 acres. These forests are primarily hardwood. This acreage is concentrated in areas of steep slopes west of Baxter as the topography drops off into the Nashville Basin, and in the Eastern portion of the county as the Highland Rim climbs onto the Plateau, and throughout the Calfkiller Valley. Forest and forest products remain an integral part of the landscape and continue to contribute greatly to the local economy. Numerous milling operations depend on this resource for raw material, and careful logging and approved management practices should continue to be employed to manage this resource wisely, ensure stability of the slopes involved, as well as maximize long term productivity. It is expected that these forested areas will remain privately held throughout the planning period.

Agricultural

Agricultural lands excluding forest comprise an estimated 90,000 acres of the Putnam County landscape. The largest percentage of this area is in grassland, either pasture or hay, which supports local beef cattle; primarily the cow/calf operations industry. Recent figures indicate that, of the \$14,000,000 in cash receipts for farm products in 1996/97, sixty-five percent (65%) of the total marketed products were livestock, compared to thirty-five percent (35%) for crops.*

A smaller and smaller portion of land dedicated to agriculture is currently considered to be cropland, now estimated at some 5,000 acres. This acreage includes tobacco as a main cash crop along with a small amount of corn, soybeans, and small grains.

Agricultural and forested lands currently comprise approximately 90% of the landscape of Putnam County. These areas of privately held green space are an important resource, contributing greatly to the quality of life as we know it in Putnam County. These areas are expected to be reduced throughout the planning period, as land is developed for residential homesites and more intense uses. Recent planning commission activity indicates that some 400 single-family lots have been developed annually for the past several years. In addition, these several single-family homesites are developed on larger individual tracts, and the number of mobile homes installed continues to exceed "stick" built construction. Given these numbers, it is estimated that some 700 new homes of all types are established in the rural, unincorporated areas of Putnam County each year. This number coupled with an average lot size of one-half acre indicates a need for approximately three-hundred fifty acres of developable land for conversion to residential use annually. This figure results in a projected need of 7,000 acres of residential land during the 20-year planning period. Such land will undoubtedly come from the agricultural lands which have the fewest natural constraints for development, situated where utilities are sufficient to support these developments. All of the above are of course dependent on the availability of land in the market place.

• Source: Tennessee Statistical Abstract 2000, Center for Business and Economic Research, UT Knoxville.

TABLE 6
 ESTIMATED LAND USES BY ACREAGE AND
 PERCENTAGE OF TOTAL LAND AREA IN PUTNAM COUNTY
 INCLUDING MUNICIPALITIES IN 2000

	ACRES	PERCENT
Cropland	5,000	2%
Grassland	84,840	33%
Woodland	138,000	53%
Residential	15,000	6%
		Cookeville 4,178
		Algood 873
		Baxter 407
		Monterey 554
		Unincorporated 8,988
Commercial	3,500	1.3%
Industrial	2,000	.77%
Public/Recreational/Cultural	7,000	2.7%
Water Areas	2,500	.97%
Vacant	2,000	.77%
TOTAL	259,840	

SOURCE: USDA, Natural Resources Conservation Service, Putnam County
 Putnam County Soil Conservation District

Residential

Within the unincorporated areas of the county approximately 15,000 acres or 6% of the total area of the county is committed to residential uses. This acreage accommodates 31,708 persons, representing an average density of approximately one person per one-half acre of land. As expected, residential is the third largest land use category behind the forestry and agricultural categories. Single-family detached dwellings is by far the predominant form of residential land use in Putnam County.

Residential development is scattered throughout the county with primarily single lot development occurring primarily along existing county roads where utilities are available. Extreme topography in the western and eastern ends of the county coupled with a lack of existing utilities, primarily public water, has direly limited the number of residential subdivisions in these areas. The exception being the Cumberland Cove development of several thousand acres located south of the Town of Monterey on the Plateau. This development occurred in the 1980's, and to date only 50 homes have been constructed in the development.

The central portion of Putnam County is dotted with substantial residential subdivision development. The majority of this development has occurred since subdivision standards were adopted in 1973, containing 6" water lines, fire hydrants and paved streets. All of this development has utilized septic tanks and leachfields for sewer service. Soil testing prior to plat approval has kept system failures at a minimum on lot sizes of 20,000 square feet and larger.

The central portion of Putnam County contains the communities of Algood, Baxter and Cookeville, each of which have developed urban growth boundary areas in accordance with recent state requirements. In accordance with these potential annexation areas, Algood currently contains 2,532 acres with a growth area of 8,000 acres projected to 2020. The Town of Baxter currently contains 1,290 acres which is projected to expand to 5,033 acres by 2020. The Town of Monterey, however, which is located in the eastern portion of the county, is not expected to be affected by the anticipated growth in the central portion of the county. The corporate limits of Monterey currently occupy approximately 1964 acres. Its urban growth boundary area is accordingly projected to contain a rather ambitious projection of 9,400 acres by 2020.

The City of Cookeville is expected to be a major factor in the future land use pattern in Putnam County. Its size and location along with its regional economic scope and context will undoubtedly affect future land use patterns within the unincorporated central portion of Putnam County. Also the Towns of Algood, which currently adjoins Cookeville along St. Route 111, and Baxter, a few miles to the west along Interstate 40 and U.S. 70 north (State Route 24) will continue to expand as "bedroom communities" to the City of Cookeville.

The City of Cookeville listed a total land area of 14,050 acres in its comprehensive land use plan prepared in 1999. Since that publication, several annexations have occurred into their urban growth area. The urban growth for Cookeville in 2001 contained some 23,980 acres, which was inventoried and land used during the preparation of the Cookeville Comprehensive Land Use and Transportation Plan. Concomitantly, this unincorporated area contained 15,563 acres of vacant land and 8,417 acres of land devoted to development in 2001.

Land area situated outside municipal urban growth areas amounts to some 204,794 acres, or 78.9% of the total land areas. Therefore, a majority of the total amount of land in Putnam County will remain within the county's planning jurisdiction. The primary developed land use within this area is residential with some 9,154 residential structures being located outside designated urban growth boundaries. These are primarily single-family residential structures located in subdivisions or as homesites along existing roads.

Assuming a household size of 2.4 persons per household as per 2000 census figures, the current population of this area would be approximately 22,000 persons. As seen from this data, there is a substantial land area and population to plan for outside established growth boundaries. Again, this development is concentrated in the central portion of Putnam County where density is expected to increase throughout the planning period. Also noted within this land use inventory was vacant developed lots. Approximately 2,088 of those exist where roads and utilities have been installed.

Commercial

A majority of the various commercial structures within the county are scattered along interchanges and at road junctions, with 85 commercial uses being identified outside established urban growth boundaries. As depicted in Table 6, there are currently 3,500 total acres occupied by commercial sales and services operations throughout Putnam County, including its municipalities and their designated urban growth boundaries. While it is projected that there will be a sizeable increase in the number of commercial businesses in the county between 2000 and 2020, commensurate with an anticipated population growth rate therein of over 20 percent, it is likely that very little additional commercial growth will occur outside the urban growth boundaries of the cities of Cookeville, Monterey, Baxter, and Algood. Accordingly, it is expected that commercial enterprises outside these potential annexation areas will mainly include uses pertaining to highway service oriented convenience markets and their automotive accessory uses.

Industrial

In 2000 there were 20 industrial land uses situated outside of municipal urban growth boundaries. Many of these were involved in the fabrication and processing of raw materials, a majority of these being saw mills. Also, as shown in Table 6, there were approximately 2000 acres of land utilized by industrial land uses, including such uses located within the corporate limits of municipalities and their urban growth boundaries. It is anticipated that additional acreage to be allocated to industrial facilities beyond designated urban growth boundaries to the year 2020 will be negligible.

Public and Semi-Public

Public and semi-public land uses include all federal, state, and local governmental uses, educational facilities, fire departments, public recreational facilities, public libraries, social, civic, and fraternal associations, and religious institutions. As depicted in Table 4, there are currently 84 structures containing public and semi-public activities situated outside of designated urban growth boundaries. There are concomitantly approximately 7,000 total acres devoted to various types of public and semi-public uses in Putnam County, inclusive of its municipalities and their urban growth boundaries. By the end of the planning period, it is expected that additional post offices, fire stations, and emergency services stations will be constructed within the rural portions of the county.

Utilities

This land use category primarily includes the offices, equipment, and storage facilities that are attendant to the provision of public water, natural gas, electric, telephone, and cellular phone services, as well as sewage disposal package plants. Table 4 indicates that there are approximately 15 major utilities related types of land use within Putnam County, not including similar uses situated within designated urban growth boundaries. Accordingly, there are 10 different established utility districts supplying public water into the rural areas of Putnam County. A review of the water systems currently functioning within the county clearly indicates that a large portion of Putnam County is being provided potable water, with the exception of several large areas within the eastern section of the county. This poses little obstruction to the county's subsequent growth potential, as most of these unserved areas are most suitable for

agricultural and forestry uses due to the extreme topographic relief therein. In summary, utilities pose little problem for the expansion of rural and low density residential developments throughout the coming years, aside from the upgrading of a number of these water lines to provide adequate fire protection.

Vacant, Developable

Developable vacant land as defined herein includes vacant lots adjacent to public roads that are currently capable of being served by a public water line. Table 4 indicates that there are approximately 2,088 developable, vacant lots located outside of designated urban growth boundaries in Putnam County. Moreover, according to a survey taken by the Putnam County Natural Resources Conservation Service staff as depicted in Table 6, there were some 2000 acres of vacant land in Putnam County in 2000 that were readily available for development purposes. This implies that the average platted size of vacant, developable lots is currently 1 acre. Now, assuming that the projected rate of growth for rural portions of Putnam County as shown in Table 2 is reasonable, and that the number of persons per household as documented by the U.S. Census Department in 2000 remains constant, a projection of the demand for single family lots can be estimated. Utilizing the number of residential structures as depicted in Table 4 and an average current projected lot size throughout the county of 1 acre, not including such lots within designated urban growth boundaries, an anticipated demand for 450 additional dwelling units on 450 acres of land is derived. When compared to the 2,088 developable vacant lots cited above, it is clear that there is no current shortage of readily developable lots within the rural areas of the county. With an ample supply of developable property in conjunction with an expansive water supply system, the rural portions of Putnam County should be more than adequate to supply the requirements that result from the growth of residential housing units through the year 2020.

EXISTING AND PROPOSED TRANSPORTATION SYSTEM

Putnam County's transportation system is a vital service function and is of paramount importance when listing infrastructure. The transportation system forms the framework upon which a county is built. The proper circulation of traffic on this system is a prerequisite to economic activity and general community development.

At present, Putnam County relies almost entirely on land based transportation, primarily highways. Rail service is provided to and from Nashville by the Nashville and Eastern Rail Line which serves Baxter, Cookeville, and Algood, with a non-service line extending to Monterey.

Most accepted transportation plans utilize a hierarchical classification system in order to rate and/or describe the existing transportation network. This classification system relates to the use, design, and traffic volumes characterizing Putnam County's current transportation network.

Thoroughfare Classification System

The primary or designed use of a thoroughfare varies from that of providing uninterrupted movement of high-speed traffic to providing access to residential and agricultural properties. The following classification system has been developed to segregate these uses and to denote the function served. These classifications which are shown on Illustration 8 include: (1) interstate highway, (2) arterial highway, (3) major collectors (4) minor collectors and (5) local streets. This illustration depicts the Major Thoroughfare Plan for Putnam County which is essentially a long-range conceptual rendering of the essential thoroughfare improvements that must be made in terms of location, rights-of-way, and surface characteristics. It is anticipated that such improvements will be required to adequately carry the proposed traffic flow generated by various types of land use within the county in 2020.

A description and analysis of the thoroughfare classification system utilized in this plan is as follows:

Interstate Highways: Access controlled roadways connecting major population centers that are devoted to serving high traffic volumes and long distance trips. Putnam County is fortunate to have Interstate 40 which bisects the county west to east and serves the municipalities of Baxter, Cookeville, Algood (via Highway 111) and Monterey.

Arterial Highways: Roadways which link population centers, but often lack controlled access and traffic flow separation. Usually these are numbered U.S. and State Highways. U.S. Highway 70N, running west to east through the county, and running north to south include State Highways 56, 135, 136 and 290. Highway 111 is constructed to interstate standards and is a partially limited access arterial.

Major Collectors: Roadways that link arterials and collect traffic from minor streets, move traffic to employment and shopping centers, and distribute traffic onto minor streets. These links also provide direct access to major traffic generators. State Routes 96, 141 and 280 in the western end of the county, and Highways 84, 164 and 62 in the eastern end fall into this category, along with several county roads including Buffalo Valley Road, Old Baxter Road, Pippen Road, County Farm Road, Baxter Road to Boatdock Road, Cookeville Boatdock Road, Hawkins Crawford/Plunk Whitson Road, West Cemetery Road, Mine Lick Creek Road, Ditty Road, Bunker Hill Road, Old Sparta Highway, Buck Mountain Road, Poplar Grove Road, Brotherton Mountain, Woodcliff Road, Miranda Road and Hanging Limb Road. The traffic counts on these roads are increasing, and many have been constructed years ago utilizing inadequate design standards. These factors often present dangerous situations. For the most part, the expense to

Illustration 8

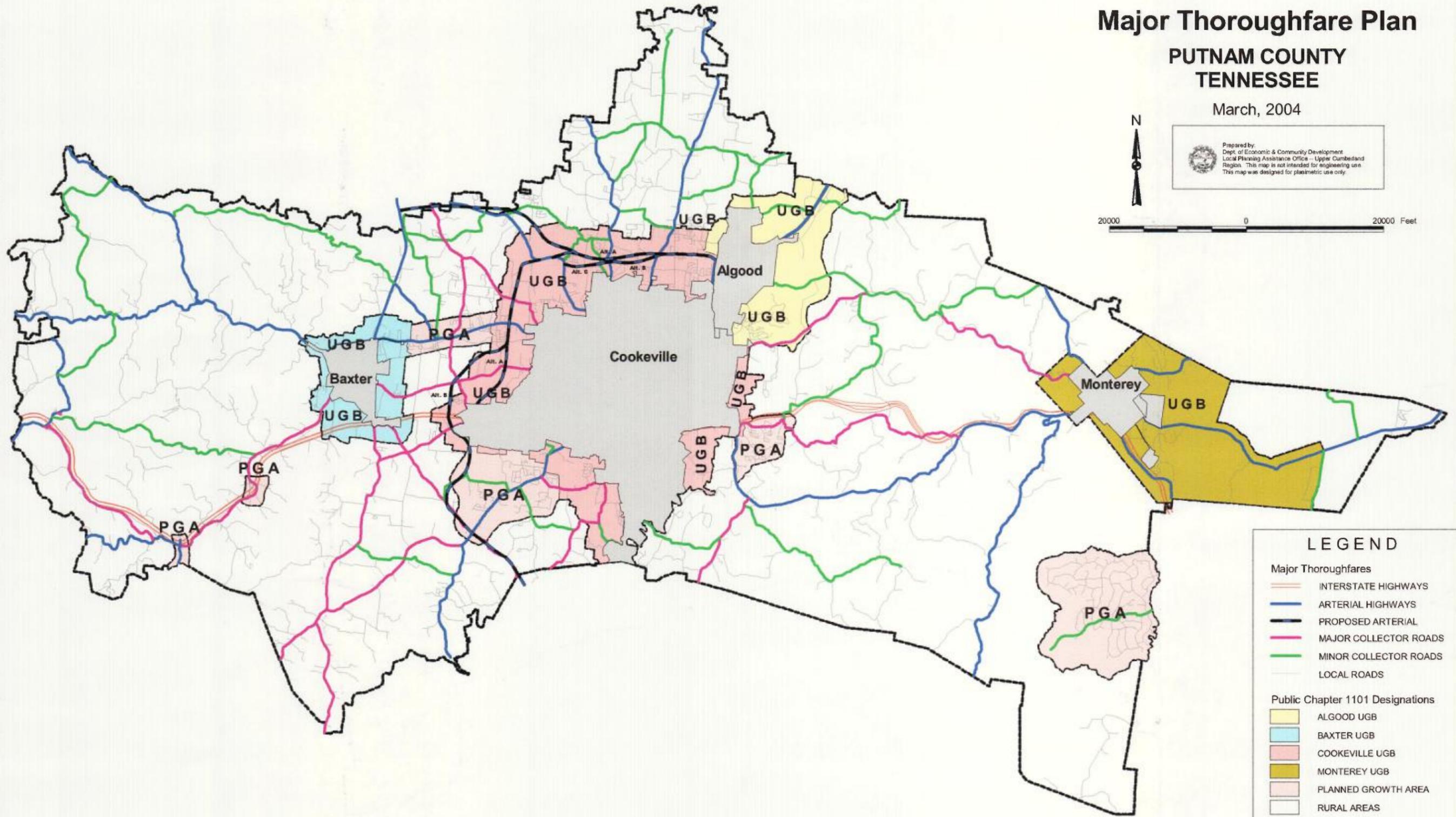
Major Thoroughfare Plan PUTNAM COUNTY TENNESSEE

March, 2004

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Dept. of Economic & Community Development
Local Planning Assistance Office - Upper Cumberland
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LEGEND

Major Thoroughfares

- INTERSTATE HIGHWAYS
- ARTERIAL HIGHWAYS
- PROPOSED ARTERIAL
- MAJOR COLLECTOR ROADS
- MINOR COLLECTOR ROADS
- LOCAL ROADS

Public Chapter 1101 Designations

- ALGOOD UGB
- BAXTER UGB
- COOKEVILLE UGB
- MONTEREY UGB
- PLANNED GROWTH AREA
- RURAL AREAS
- Existing City Limits

upgrade these roads lies with the local government, with all or most of these being classified as state aid roads. These state aid roads allow for state shared funds for paving and some safety measures including shoulders and guard rails. This category will require additional efforts locally to upgrade to the minimum acceptable standards especially as pertains to adhering to maximum traffic capacities. A majority of such roads are currently paved with hot mix to at least 18 feet in width. They generally have delineated centerlines and gravel shoulders.

Minor Collectors: Roadways that link and provide access to and between major collectors, local roads, and minor streets. Ideally these are internal to or abutting residential neighborhoods. The maintenance of these roads is entirely the responsibility of the Putnam County Highway Department. Most are paved with hot mix and contain defined centerlines and shoulders.

Local Roads/Minor Streets: Roadways that have as their primary function to provide access to individual properties. Most often minor streets or local roads have a limited traffic carrying capacity. They usually extend short distances and primarily serve residential and farm uses. These roadways are primarily of tar and chip or asphalt construction. At present there are some 50 miles of gravel roads remaining in the county.

For long-range planning purposes, the minimum rights-of-way for these classifications that should be dedicated or reserved and are as follows:

Interstate Highways: as required by the Tennessee Department of Transportation

Arterial Highways: eighty (80) to one-hundred (100) feet

Major Collectors: no less than eighty (80) feet

Minor Collectors: no less than sixty (60) feet

Local Roads: no less than fifty (50) feet

Traffic Circulation Patterns--Most local traffic patterns focus on movement of traffic from living areas to working, shopping, and education facilities. Putnam County's west to east patterns heavily involve Interstate 40, and U.S. Highway 70N, (State Route 24.) A comparison of traffic in 1989 and 1999 on Interstate 40 near Cookeville shows an increase from 25,000 ADT to 38,720 or 13,720 vehicles, which amounts to a 54% increase in 10 years. U.S. Highway 70 has shown moderate increases, as has Highways 141 and 96 in the western end of Putnam County. To the east of Cookeville, Highway 70 has shown a marked increase in some areas. The traffic on Buck Mountain Road east of Cookeville has also increased from 1140 vehicles in 1989 to 1670 vehicles in 1999, with Brotherton Road increasing from 310 vehicles to 560 vehicles between 1989 to 1999.

An increase is evident in all north/south roads leading to and from the Cookeville area. The most evident is State Route 290 from Cookeville to the Jackson County line, which increased from 1610 vehicles in 1989 to 3690 vehicles in 1999. Locally, Phippen Road as well has seen an increase from 690 to 2350 vehicles per day, and local counts show there are approximately 4,000 vehicles per day on portions of Phippen Road.

Highway 111 has shown an increase south of Cookeville from 7900 vehicles in 1989 to 13,220 vehicles in 1999. Just east of Cookeville, at Algood, the increase has also been dramatic, going from 7,930 vehicles in 1989 to 15,400 in 1999. Essentially, the traffic has at least doubled at all points along Highway 111 in Putnam County. Cookeville and central Putnam County's recent growth, increased employment, and regional shopping opportunities are contributing factors in these increases. Improvements to this road extending to the south and north have also helped to establish as a major north/south corridor.

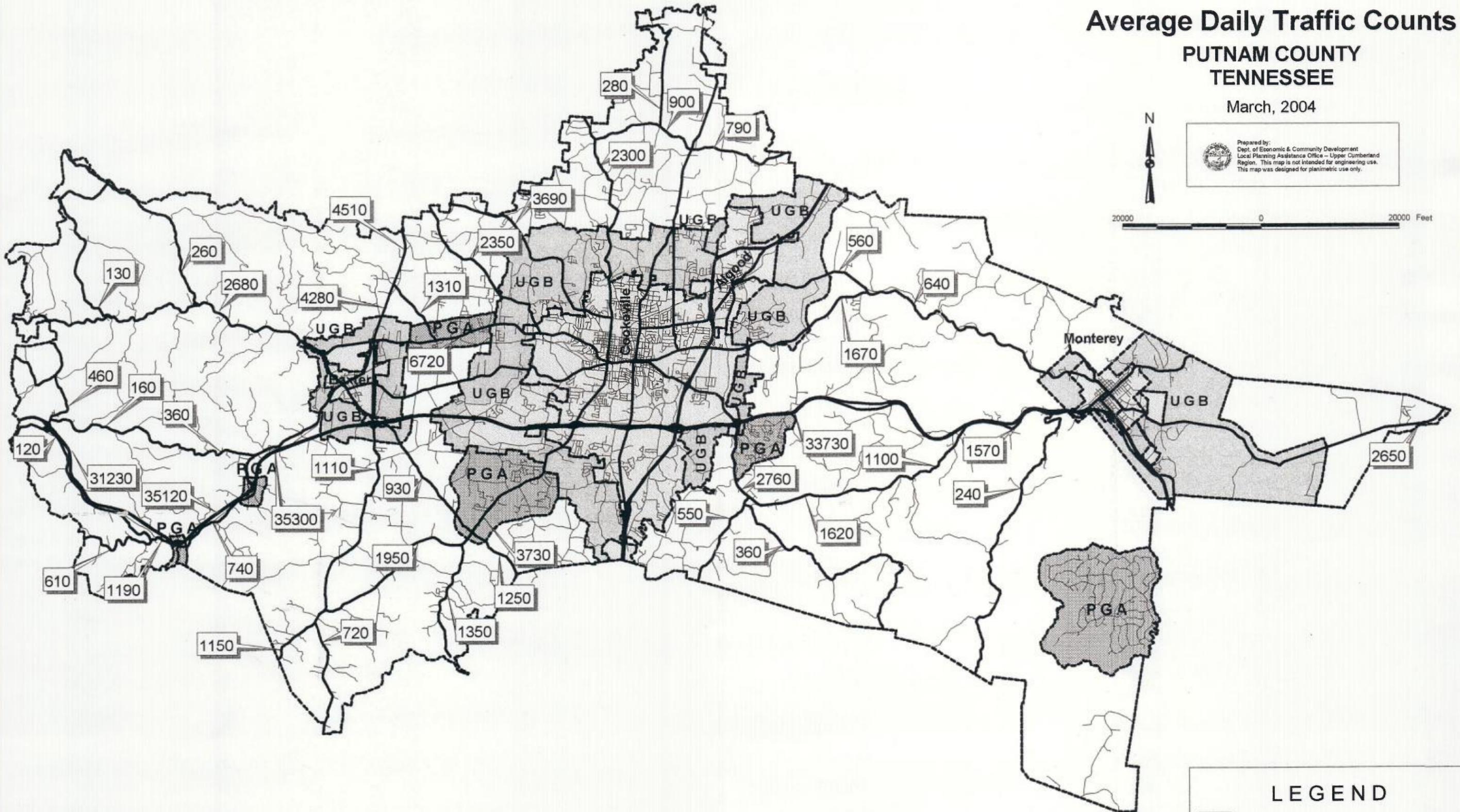
Average Daily Traffic Counts PUTNAM COUNTY TENNESSEE

March, 2004

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000 — 2002 ADT Counts

During the last decade, average daily traffic volumes have increased in all cases. Illustration 9 portrays 2002 average daily traffic counts at various traffic stations in Putnam County. This is a trend which is expected to continue as Cookeville and the Middle Tennessee area continues to increase in population, employment, and the expansion of shopping facilities. Average daily traffic volumes should be considered in any thoroughfare improvement plan. However, it should be noted that the amount of traffic carried on a particular corridor can be influenced by several factors including the condition of the thoroughfare, the intensity and type of adjacent land development, fluctuation in population, and the advent of new and/or alternate routes. Changes in these and other factors can substantially affect the utilization of a particular thoroughfare.

Existing Road Conditions

Illustration 10 depicts the existing condition of county roads in Putnam County. These conditions were documented in a road inventory in 1998 and are annually updated each fall following the road-working season, prior to the publication and adoption of a new road list each January.

For classification purposes, the roads have been grouped into four categories and were given corresponding condition ratings as follows:

Asphalt--hot mix, asphaltic concrete--good
Tar & chip--double bituminous--good, fair
Gravel--poor
Undeveloped--poor

Asphalt--Asphalt/hot mix roads are paved by contract. Currently, approximately 30 to 40 miles of tar and chip roads are converted to or paved over with hot mix annually. These roads will need to be resurfaced every 10 to 15 years depending on traffic. Salting and severe winters (freezing and thawing) along with heavy truck traffic are these roads' worst enemies. As these roads begin to have pavement breakage, they are scheduled for repaving. Gravel shoulders are added along with centerlines and edge striping. Past experience has shown that striping adds to the safety and driveability of these roads, especially at night and in adverse conditions. As of January, 2001, Putnam County had 331 miles of hot mix roads. Current subdivision standards require that all new roads taken into the system have asphalt surfaces.

Tar & chip--Tar & chip (double bituminous treated) roads are prepared and paved by the county. Putnam County currently converts some 30 to 40 miles of gravel roads to tar and chip annually. These roads are also repaved, or resealed as tar and chip roads as needed. Tar and chip makes an excellent surface for low volume, light weight traffic. Major drawbacks to this type of road are that snow removal and salting greatly shorten their life, as does heavy truck traffic. Thus, routes scheduled for snow removal are and should be converted to hot mix as soon as possible. It is not practical, due to the current budget, however, to convert all tar and chip roads to hot mix, nor is necessary. Tar and chip will continue to constitute a large portion of the roads in Putnam County. As of January, 2001, Putnam County had 339 miles of tar and chip roads.

Gravel--The category of gravel roads is scheduled to be eliminated essentially by and during the 2002-2003 seasons. These roads generally serve a low volume of traffic, are relatively narrow in width, and service individual properties. Gravel roads are high maintenance roads requiring several gradings and additional stone annually. Once the remaining 55 miles of gravel roads are converted to tar and chip, the machinery and labor required for constant maintenance can be redirected to the maintenance of tar and chip and asphalt roads. The amount of gravel required annually will also be reduced significantly.

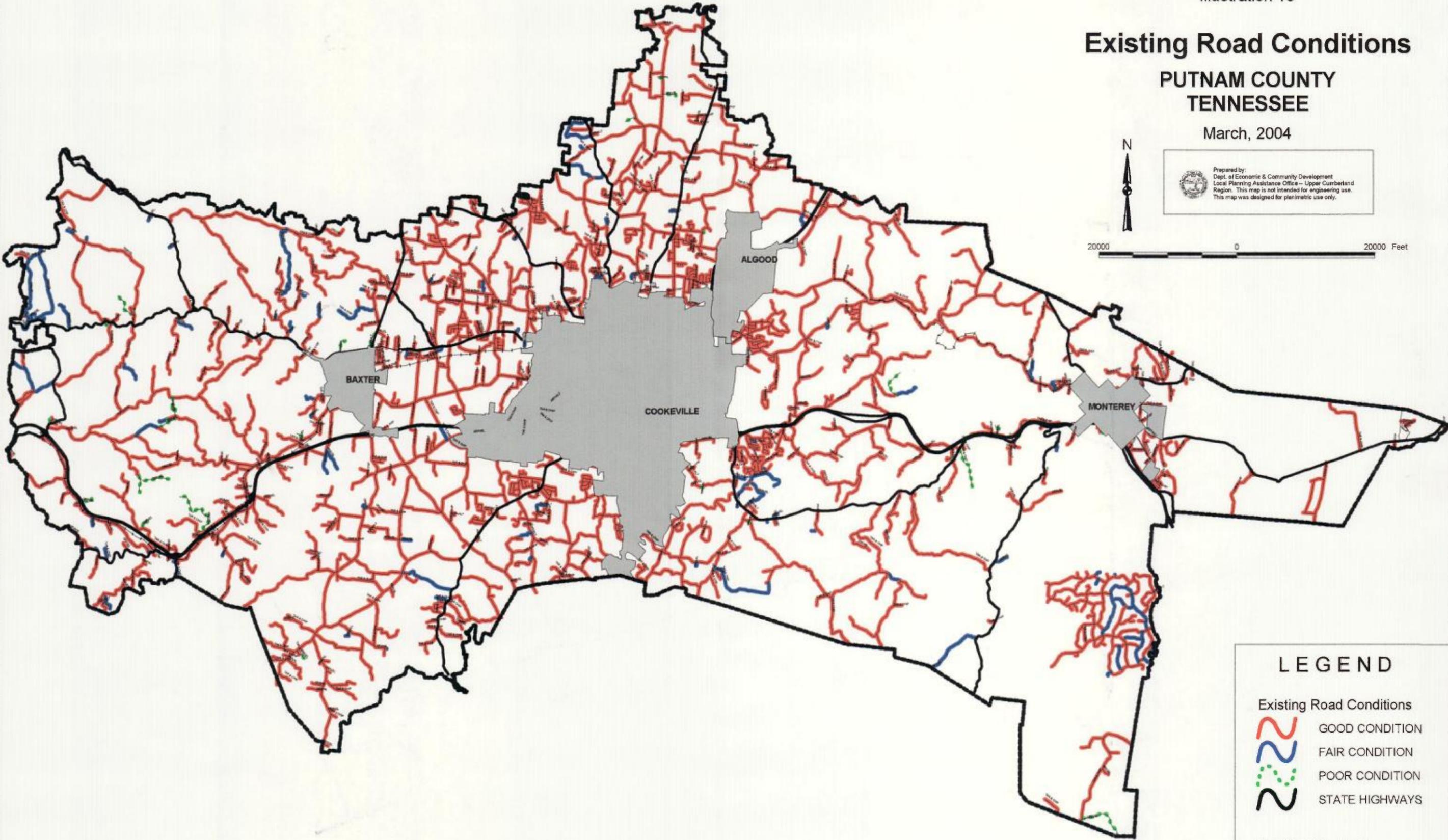
Existing Road Conditions PUTNAM COUNTY TENNESSEE

March, 2004

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LEGEND

- Existing Road Conditions
 - GOOD CONDITION (Red line)
 - FAIR CONDITION (Blue line)
 - POOR CONDITION (Green line)
 - STATE HIGHWAYS (Black line)

- Existing City Limits
 - EXISTING CITY LIMITS (Gray shaded area)

Undeveloped--Putnam County has only approximately four miles of roads in this category. These roads are usually old roads serving a limited number of properties not requiring regular maintenance.

ROAD SYSTEM FINDINGS

Current inventory lists Putnam County with 1052 different roads totaling approximately 730 miles. Of this total, approximately 330 miles or 45% are hot mix-asphalt paved roads, with all but subdivision roads having striping and gravel shoulders. Most of these roads are in good condition. Approximately 340 miles or 46% of the Putnam County roads are tar and chip surfaced. A large majority of these are in good condition, the remaining roads being in fair condition. Gravel roads represent less than 1% of Putnam County's roads or 55 miles. This classification is scheduled to be eliminated by the addition of tar and chip surface within 2 years. Illustration 10 depicts the conditions of roads in Putnam County in 2002.

AIR/RAIL/PORT/MASS TRANSIT FACILITIES

Putnam County is serviced by the Upper Cumberland Regional Airport located south of Cookeville near the White County/Putnam County line. This airport is jointly owned by White County and Putnam County and the cities of Cookeville and Sparta. All facilities for private flying including air taxi, charter service, and air freight service, as well as fuel and maintenance services are available through a fix based operator. Facilities have recently been updated to provide a 6000-foot runway with instrument landing system.

This airport has a strategic location adjacent to State Route 111, five minutes from Interstate Highway 40. It serves the general aviation needs of both counties and the associated businesses and industries therein. The Nashville International Airport, 70 miles to the west on I-40, also provides commercial air services to the area.

Putnam County is serviced by the Nashville and Eastern Railroad. Existing rail service runs 110 miles from Riverfront Park Station in downtown Nashville, to Monterey, Tennessee, near Interstate Highway 40. This rail line as currently operated terminates in Algood, Tennessee, near mile marker 95. The existing main line of the Nashville and Eastern Railroad between Nashville and Cookeville is being operated as a Class II FRA, at a limit of 25 m.p.h. for freight trains. The line from Algood to Monterey is not in service at this time.

Currently a study is underway to consider the possible linking of the Nashville and Eastern rail line with the CSX line to Knoxville, with the proposed construction of 54 additional miles of rail between Monterey and Oliver Springs, Tennessee. The design speed for the proposed track is 100 m.p.h.

There are no navigable waterways located in Putnam County. The nearest port is the Port of Gainesboro located on the Cumberland River in Jackson County, Tennessee, 15 miles north of Cookeville.

Mass Transit

Neither Putnam County nor any of its municipalities currently operate or have available any intercity or county mass transit systems. The automobile is the preferred method of transportation. There are currently senior citizen buses provided county-wide through the Rural Transportation Program. Taxi service is provided locally by several private companies. The area is serviced by Greyhound bus service, with a terminal on Parkway Drive off South Jefferson Avenue in Cookeville. Also, transportation to and from the Nashville Airport is provided by a local limousine service.

COMPREHENSIVE TRANSPORTATION PLAN

The future transportation system in Putnam County will be the product of a cooperative effort between state and local officials. Cookeville, being a hub of commercial and industrial activity, will need many transportation improvements in the coming years. The reader is hereby referenced to the Cookeville Comprehensive Future Land Use Plan, completed in 2000 by the city's planning staff. Outlined therein are improvements and new projects which will greatly affect the county's transportation system in future years.

Other factors affecting the transportation system include the existing street and road pattern, major impediments to traffic, the existing and proposed location of major traffic generators, growth trends, the construction of new thoroughfares, the location and pattern of future development, public facilities planning, land use controls, as well as adopted policy guidelines and development standards. The

implementation of the revised Major Thoroughfare Plan depicted herein in Illustration 8 in conjunction with the implementation of a Road Improvements Plan can provide the county with the direction and timing required for the development of a highly functional future transportation system.

The Putnam County Highway Department and planning staff have developed plans for several road and bridge improvement projects to be completed within the coming five years. These improvement projects involve the complete reconstruction of portions of some roads, as well as road work in conjunction with various bridge replacement and intersection improvements. Conversion of tar and chip roads to asphalt roads and the repaving of asphalt roads along with the tar and chipping of the remaining gravel roads is not listed herein, as this is an on-going process with approximately 40 miles of each type of paving expected to be completed each successive year.

A prioritized listing of these road related improvements projects is as follows:

1. Highway 136 – Road improvements, including widening and shoulders from the Cookeville city limits north to the Putnam County/Overton County boundary.
2. Highway 70 – Turn Lane from Cookeville City Limits west to Highway 56 intersection.
3. Highway 135 – Road improvements, including widening and shoulders from Cookeville city limits north to the Putnam County/Jackson County boundary.
4. Ditty Road/Baxter Road intersection – Dangerous intersection, study to improve on existing Y intersection.
5. Ditty Road/Moss Road intersection – Dangerous curve and hill, improvements to eliminate dangerous curve and hill.
6. Ditty Road/Mine Lick Creek Road – Dangerous intersection.
7. County Farm Road/Pippen Road and Benton Young Road – Intersection improvements.
8. McBroom Branch Road – Guard rail needed.
9. Highway 96 – Road improvements, including widening and shoulders from Highway 70 intersection to Jackson County boundary.
10. Shipley Road – Drainage improvements needed, including a box culvert.
11. Elmore Town Road – Bridge construction or box culvert needed.
12. Burgess Falls Road/West Cemetery Road intersection – Turn lane needed.
13. Highway 290 (Gainesboro Grade)/County Farm Road intersection - Turn lane needed.
14. Rocky Point Road/Poplar Grove Road Bridge – Bridge repair, replacement.
15. I-40 – East of Cookeville, additional east and west bound lanes constructed for truck traffic ascent/descent in elevation for the Cumberland Plateau.

Accordingly, the Tennessee Department of Transportation has offered the following projects for improvements to the state highway system in Putnam County:

- ❖ State Route 136 from 10th Street to Date Ln.--2.1 miles widen to 5 lanes/3 lanes
- ❖ Interchange lighting I-40 at State Route 111
- ❖ State Route 135 from Winston Drive to 5 lane section north of I-40--widen to 5 lanes
- ❖ State Route 135 bridge over east prong--Blackburn Fork Creek
- ❖ State Route 24, East Spring Street at Maple Avenue--Broad Street at Maple Avenue--signalization and turn lanes

Additional state projects under consideration by the Tennessee Department of Transportation include:

- ❖ State Route 451 from State Route 111 to State Route 56--north of Cookeville currently undergoing initial environmental review
- ❖ Interchange at I-40 or near Mine Lick Road, Hawkins Crawford Road

CHAPTER 6 THE DEVELOPMENT PLAN

INTRODUCTION

The Development Plan or Land Use Plan should present methods by which Putnam County will be able to guide and provide for its expected growth and development throughout the planning period. The development plan should serve as a general guide, amendable from time to time, as events or circumstances present need for change. It is derived from an analysis of past events affecting development, governmental structure, natural factors, socio-economic factors, existing land use and existing transportation system. It is also based on several major assumptions, factors, issues and trends derived from the best available data.

Generalized community goals as cited in this chapter express widely perceived ideals that should guide all that subsequently occurs within the county. Accordingly, developmental objectives are also listed that enumerate various means through which these envisioned goals can be furthered. Finally, quantifiable policies or activities are delineated to supply clearly defined developmental tasks that when pursued will lead to the achievement of all desired program objectives. These goals, objectives, and policies are reflected in the Putnam County Growth Plan, the Major Thoroughfare Plan Map for Putnam County, and the Development Plan Concept Illustration. It is anticipated that the specific policies outlined herein will be utilized to provide definite guidance in the "day-to-day" administration of local land use controls, i.e., zoning and subdivision regulations, as well as in the preparation and implementation of a public improvements program and capital budget for Putnam County.

Illustration 10 depicts the growth boundaries established throughout Putnam County, as an element of the Putnam County Growth Plan adopted in 2001. This plan was prepared under the auspices of Public Chapter 1101 which was enacted by the Tennessee General Assembly in 1998. The primary intent of this legislation is to more propitiously manage and control urban expansion in Tennessee via the processes of incorporation and annexation. Within these established urban growth boundaries, the respective municipalities are expected to efficiently and effectively provide various necessary urban services, as well as to control and manage urban expansion over a twenty year period of time. Accordingly, planned growth areas, that are not readily subject to subsequent incorporation have also been designated within the county to establish areas wherein moderate to high density developments are likely to occur. As Public Chapter 1101 mandates that all local land use decisions be consistent with adopted county growth plans, every effort has been made to draft developmental policies in conjunction with a long range developmental concept plan that furthers adopted growth planning objectives. Concomitantly, comprehensive planning within the established urban growth boundaries of the communities of Cookeville, Algood, Monterey, and Baxter are not considered within the scope of this development plan, as these areas are in effect the long range planning regions of these municipalities.

Major Assumptions, Factors, Issues and Trends

The major assumptions, factors, issues and trends identified in the preparation of this plan are presented below. These form the basis for the goals, objectives, and policies that follow.

1. Local county, city and town governments will continue to support economic and community development and the county and its municipalities will continue to support strong planning programs.
2. Natural factors, primarily topography and soil conditions will continue to limit development in some areas and naturally direct it to more naturally suited areas.

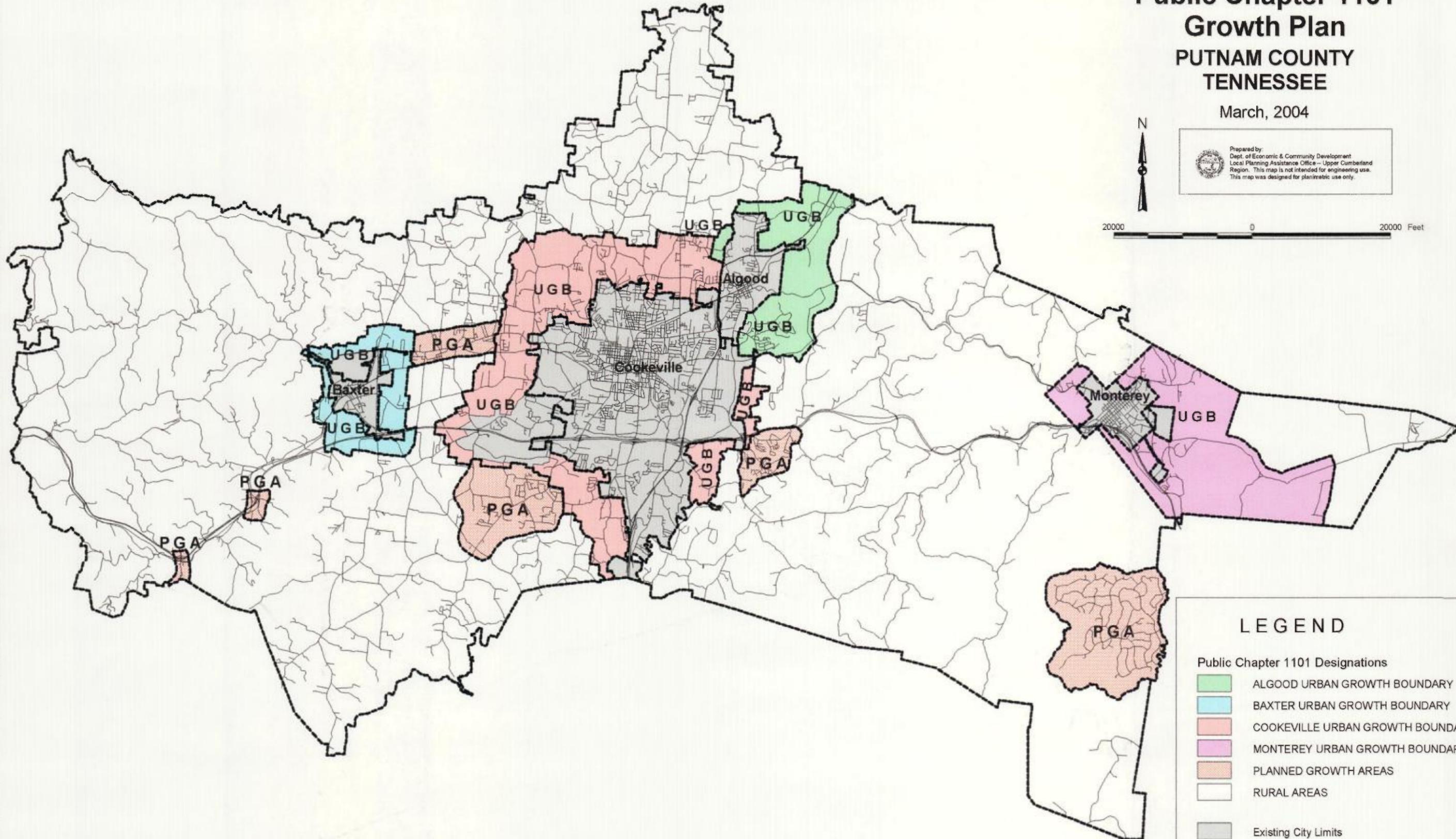
Illustration 11
**Public Chapter 1101
 Growth Plan
 PUTNAM COUNTY
 TENNESSEE**

March, 2004



Prepared by
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.

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LEGEND

- Public Chapter 1101 Designations
- ALGOOD URBAN GROWTH BOUNDARY
 - BAXTER URBAN GROWTH BOUNDARY
 - COOKEVILLE URBAN GROWTH BOUNDARY
 - MONTEREY URBAN GROWTH BOUNDARY
 - PLANNED GROWTH AREAS
 - RURAL AREAS
 - Existing City Limits
 - Transportation Routes

3. Continued moderate to rapid population growth is expected especially in the central portion of the county in and around Cookeville.
4. The rural portions of the county are expected to continue to develop primarily as homesites where the land is suitably developed and adequate utilities are available.
5. Municipalities will be depended on to provide services for more intense and heavier uses such as commercial and industrial, therefore, these uses should be encouraged to locate therein or adjacent to.
6. Manufacturing, retail, and public and private services are projected to be the primary sources of employment for county residents.
7. Putnam County will remain attractive as a retirement location thus in-migration is expected to continue.
8. Cookeville/Putnam County will continue to be a regional center for employment, services and retail trade.
9. Putnam County's location and highway transportation network, I-40 and State Route 111, will continue to influence economic development.
10. The primary transportation problems are the lack of continuous east/west routes north and south of Interstate 40 and local collector routes which are becoming inadequate due to increased traffic.
11. Utilities will continue to be upgraded to furnish expected development.
12. Putnam County has sufficient developable land available to accommodate the future land use needs.

DEVELOPMENT GOALS

In order to adequately plan and allocate for its future land use, it is necessary that a county establish general development goals. In the context of a future land use plan, a goal is a general statement from which desired objectives in the areas of land development, transportation, and service delivery may be derived. The overall goal of this land use plan for Putnam County is to provide a quality living and working environment for all county residents.

The following goals are general statements that the Putnam County Planning Commission believes are representative of the desires of the citizens regarding the future development of the County.

1. That it is essential to preserve, protect and enhance the quality of life in Putnam County while encouraging a more harmonious and higher standard of development.
2. That it is essential to maintain the environment and preserve the natural beauty of the County.
3. That it is essential to provide for adequate housing to meet the needs of all residents while ensuring that all residential developments provide pleasant and harmonious living environments, are served by an adequate transportation system and infrastructure, and are properly related to other county land uses.
4. That it is essential to retain and expand the industrial development base to provide for the essential employment of needs of the County and its municipalities.
5. That it is essential to promote and support those activities that are designed to maintain the County as an important public and private service center for the Upper Cumberland Region.

6. That it is essential to provide adequate and efficient public facilities and services, and to provide a diversity of cultural and recreational opportunities.
7. That it is essential to promote the provision of utility services which meet and anticipate the needs of the County.
8. That it is essential to provide an efficient and effective transportation system with appropriate linkages and capacities.
9. That it is essential to encourage the development of open land which has few natural limitations and restrictions, and which has the necessary infrastructure.

OBJECTIVES AND DEVELOPMENT POLICIES

Both objectives and policies are utilized to achieve the goals established in this plan. Objectives are more specific, measurable statements of the desired goals. Policies represent highly defined courses of action and/or specific techniques that may be employed to indicate how the goals and objectives of the plan will be realized.

The objectives and policies contained in this document represent the official public policy guidelines concerning land use and transportation matters for decision-making by Putnam County. The policies are presented as guidelines to be followed by developers, builders, neighborhood groups, civic organizations, and other private and public interests engaged in and concerned about growth and development in the County. The policies are also presented so that interested individuals and groups can better anticipate the County's decisions on future matters.

In the following section, general growth management objectives and policies are presented. This section is followed by objectives and policies for each of the specified land use categories.

GENERAL DEVELOPMENT AND GROWTH MANAGEMENT

Growth has always been viewed as an inherent component of counties. Most counties understand that growth is necessary for long-term viability, and most encourage growth to varying extents. However in more and more counties, the cost and benefits of continued growth have emerged as public issues. There is often hesitation over accommodating further development with its consequences of greater numbers and higher densities of residents, economic expansion, rapid consumption of land, and an alteration of the natural environment.

Putnam County fully anticipates growth, and understands its importance as a part of those forces that beneficially affect the County's quality of life. At the other end of the spectrum, the policy of growth at any cost has long-term detrimental impacts and is not supported by the County. The approach taken by Putnam County will be that of managed growth. To guide general growth and development, the following objectives and policies are adopted.

- A. Objective – Assure the protection and integrity of the natural environment, by implementing measures to minimize the adverse impacts of development to soils, slopes, vegetation, wetlands, and other natural features.

Policies

1. Ensure that areas less suitable for development, due to the limitation of certain natural factors, are developed only when appropriate remedial measures are taken.
2. Decisions on development proposals should be based on an analysis of soils, slope, depth to bedrock, and location relative to floodable areas.
3. Where the condition of the land is in doubt, and it appears that an unsuitable condition might exist, the developer shall be responsible for undertaking the necessary studies to prove the feasibility of the land to support the proposed development.
4. All development proposals should be assessed for the appropriateness of engineering designs and installation.
5. In each drainage basin, the effect of future development on drainage and flooding should assist in the formulation of land use decisions within that basin.
6. Areas located in a designated floodplain should be developed only in conformance with the Natural Flood Insurance Program requirements.
7. Major natural drainageways, which are a part of the natural system of dispensing normal flood run-off, shall not be altered unless such alteration is in accordance with the provisions of Putnam County's Floodplain Zoning Resolution, and appropriate state and federal regulations.
8. Ground water shall be protected by restricting the use of septic tanks to appropriate soil types and rock formations.
9. Development proposals involving soil disturbance shall be in conformance with appropriate sediment and erosion control measures.
10. Areas of excessive slope, containing slopes in excess of 25 percent, should be conserved as open space or remain in productive forest.
11. Areas with slopes in excess of 14 percent should only be developed where engineering documentation is available to prove that no adverse affects will occur to housing construction, road stability, drainage, and erosion.
12. Mature vegetation, particularly trees, should be protected, and replanting should be required where existing vegetation is removed or disturbed during construction.
13. Vegetation should be used as an alternative to man-made devices for buffering, insulation, erosion control, and water quality protection, whenever practical.
14. The County should develop appropriate criteria or measures to protect environmentally sensitive lands and other valuable areas.
15. All future land use decisions made in the unincorporated portions of the county should be in conformance with the Development Concept Plan and policies cited within this document, as well as with the findings of the Putnam County Growth Plan.

- B. Objective – Public services should be made available within the county commensurate with the infrastructure demands associated with various types and densities of development.

Policies

1. All new development, whether public or private shall have appropriate infrastructure which shall be properly installed at the expense of the developer.
 2. Development Plan policies as cited herein should be used as tools to direct or discourage development in specific portions of the county.
 3. The availability and capacity of existing services and utilities should be used as a criteria in determining the location of higher intensity types of uses, i.e. commercial, industrial and multi-family residential uses, and mobile home parks.
 4. To aid developers in determining those areas that are most conducive to development, status reports on the infrastructure system should be routinely prepared.
 5. Developments with requirements beyond existing levels of law enforcement and fire protective services, parks and recreation facilities, and utilities shall only be allowed to develop when such services can be adequately provided and maintained.
 6. Inventories of existing public and private recreational facilities and community facilities should be used as input for planning future facilities and prioritizing the upgrading of existing recreation areas.
 7. Appropriate infill development should be encouraged to enhance existing development and to make a more efficient and cost effective use of existing services and utilities, whenever possible.
- C. Objective – The protection and enhancement of present and future livability is paramount to the maintenance of a superior quality of life within the county.

Policies

1. The County should establish livability standards or criteria for assessing the impacts of various types of development projects on its residents. For growth management these standards or criteria should assess:
 - a. Environmental impacts such as water quality degradation, destruction of wetlands, etc.
 - b. Social impacts such as public safety, availability of community services, etc.
 - c. Economical and fiscal impacts such as budget constraints, job creation or loss, etc.
 - d. Impacts to transportation systems and public services and facilities, such as traffic volumes, water production, and treatment capacities, etc.
2. Land use and site planning should be utilized to promote pleasant, functional, and understandable relationships between various categories of land use.

3. Planning for county facilities and services should be based on the principal of maintaining or increasing the current levels of service provision.
4. National and regional community facilities standards should be utilized to determine the adequacy of various county facilities and services accepted.
5. County development should concentrate on ways to encourage young people to remain in Putnam County to live and work.

RESIDENTIAL

In order to ensure the most appropriate development of existing and future residential areas in Putnam County, the following developmental objectives and policies are adopted:

- A. Objective – Provide for a variety of housing types and densities for a wide-range of family incomes, sizes, and lifestyles, while protecting and maintaining the quality of life and property values in existing residential areas.

Policies

1. The County should promote the location of new residential developments in environmentally safe and pleasing areas.
 2. The County should allow for a broad range of housing types including single-family structures, two family structures, multi-family developments, and mobile homes located on individual lots and in mobile home parks.
 3. Residential developments of varying types and densities should be permitted only in locations which are compatible with surrounding residential densities.
 4. Land use controls should be used to foster a variety of housing types compatible with the natural landscape.
 5. The County should encourage and concentrate high intensity types of development in the municipalities, and along major traffic corridors, with access to retail businesses, cultural activities, schools, and parks.
 6. The County should encourage low-density housing along roads adjacent to agricultural areas, which are buffered from excessive noise, traffic, and conflicting development.
 7. The county should encourage only low-density housing to locate in rural, agricultural areas.
 8. In response to erosion and drainage considerations, steep hillside developments with slopes of 15 percent or greater should be developed at densities of no more than 1 dwelling unit per acre to minimize negative impacts, regardless of the servicing infrastructure.
 9. The County should encourage the rehabilitation of existing residential areas.
 10. The County should encourage sound development in suitable areas by maintaining and improving transportation facilities.
 11. New residential developments should be designed to encourage the neighborhood concept and should be situated to be readily accessible to various types of emergency services vehicles.
- A. Objective – Ensure that all new residential developments meet appropriate planning and design standards and guidelines.

Policies

1. All residential subdivisions should be designed in compliance with appropriate site development standards, as cited in the county's adopted land use controls.
2. New residential developments should only be allowed in those areas where there is adequate fire flow and water pressure, and servicing fire hydrants to support such developments.
3. New residential developments should be designed so as to enhance the aesthetics of nearby pre-existing subdivisions.
4. Residential developments occurring in floodprone areas should comply with all adopted flood hazard prevention requirements.

COMMERCIAL

There are three general divisions of commercial and private service activities in Putnam County. These include: the commercial and private service activities located within the municipalities, those located along the major highways often near the municipalities, and those that are situated in the more rural areas of the County. These commercial activities should be protected and enhanced in order to strengthen the economy of the entire County. In order to guide the continuation and expansion of these essential activities, the following objectives and policies are adopted:

- A. Objective – Appropriate measures should be taken to ensure that Putnam County and its municipalities remain a regional hub for commercial and private service land uses in the central portion of the Upper Cumberland Region.

Policies

1. Future commercial developments and redevelopments shall be in compliance with the adopted Development Concept Plan as cited herein.
2. In cooperation with the municipalities and Chamber of Commerce, the County should strive to recruit and retain business and service enterprises that fulfill local market demands.
3. The County should promote the municipalities as primary focal points for commercial and private service activity.

- B. Objective – Ensure that new commercial developments meet appropriate planning and design standards and guidelines.

Policies

1. All commercial development should be designed in compliance with appropriate site development standards as specified in the Zoning Resolution for the county.

2. Commercial development should be approved only in those areas where public water and sewer facilities are available and adequate to support such development.
3. Commercial development should be designed so as to minimize potential negative impacts to the existing transportation system.
4. Strip commercial developments should be discouraged in favor of cluster developments with limited entrance and exit points.
5. Commercial uses which are high intensity traffic generators should be located on major collector or arterial status roads.
6. All new commercial shopping centers should be located on frontage or access roads with controlled ingress or egress points.
7. All commercial and private service developments shall be provided with adequate access aisles and an adequate number of off-street parking spaces, as recommended by the Institute of Transportation Engineers, or in the Zoning Resolution of the county.
8. Commercial developments should be designed so as to minimize negative impacts to residential developments via planted buffers and/or berms in order to enhance the aesthetics and property values of such developments.
9. A limited number of crossroad commercial areas should be provided only at or near the intersection of collector streets, at locations served by public water, to make convenience goods and services reasonably available to residential neighborhoods.

INDUSTRIAL

The municipalities are projected to remain the primary locations for manufacturing and industrial uses. There is a need of additional land for industrial uses in the incorporated portion of the County as the municipalities are limited for future industrial expansion. Efforts should also be taken to ensure that existing industries are retained and that suitable land is made available to accommodate the potential expansion of these industries.

In order to guide the continuation and expansion of the County's industrial activities, the following objectives and policies are adopted:

- A. Objective – It is essential that the county retain and maintain its existing industrial base.

Policies

1. The County should support all practical efforts, both public and private, to maintain and improve existing industrial site locations.
2. Existing industrial sites should be provided adequate transportation, electric and digital services, as well as water and sewer services, with additional services being provided as needed.
3. The County Commission and Planning Commission should support appropriate highway and road improvements at locations suitable for the expansion of the County's existing industrial base.

4. Public officials should cooperate with the Putnam County Industrial Board and the Chamber of Commerce in their efforts to attract industrial prospects to the area, and to retain and promote the expansion of existing industries.
 5. Proposed industrial land uses, anticipated or suspected to have negative impacts on the local populace, natural environment, or the economic potential of the County, shall be discouraged from locating in the County unless adequate measures to alleviate such impacts are instituted by the prospect and approved by the county.
- B. Objective – Appropriate standards and guidelines should be effectuated to generate new industrial development within the county.

Policies

1. All new industrial developments should be designed in compliance with appropriate planning and site design development standards.
2. Industrial uses should locate near major highways and roads that offer the access needed by the industry. Such uses should not be allowed to create demands that exceed the capacity of the existing road network.
3. Industrial development should locate only in those areas where adequate infrastructure, such as water, sewer and transportation facilities already exist.
4. If at all possible, landscaping or other type of screening should be provided between industrial uses and other land uses to reduce the potential conflicts between such uses.

PUBLIC AND SEMI-PUBLIC

Even though public and semi-public facilities use only a small part of the County's area, they are crucial to the well-being of the county. The location of these uses is dictated by the county's land use development pattern. They should enhance the County's appearance, yet at the same time cause the least possible conflict with adjacent land uses. During the site design process for public and semi-public facilities, attention should be paid to the location of buildings in relation to service and parking areas, the relationship of buildings to existing and proposed highways and roads, and the natural beauty of the surrounding landscape. The objectives and policies to be used as guidelines for public and semi-public uses are as follows:

- A. Objective – Provide adequate and efficient public services and facilities which meet accepted national and regional planning standards and guidelines.

Policies

1. The County should prepare and adopt an abbreviated Community Facilities Study based on accepted national and regional planning standards and locational criteria, in order to determine the adequacy or level of service provision of existing facilities and services.
2. Public facilities and services should be improved and expanded in accordance with an adopted Public Improvements Program and Capital Budget.

B. Objective – Provide a diversity of quality cultural and recreational opportunities.

Policies

1. Decisions concerning the provision of recreational facilities should be guided by accepted national and regional planning standards.
2. The County should promote the joint use of educational and recreational facilities.
3. The County should enhance the opportunities for passive recreation through the formation of a greenway system which includes hiking and biking trails.
4. Regional parks, playfields, and pocket parks should be developed and appropriately located within the County.
5. The County should encourage the development of public recreation land through coordination with federal, state, and local officials.
6. The County should promote efforts to document, preserve, and protect historic sites and structures.
7. The County should recognize the cultural contributions of religious, ethnic, and educational institutions, and coordinate their efforts with publicly supported cultural institutions, events, and performances.
8. The County should support and encourage the promotion of various types of cultural festivals in order to bring the arts to the public.

UTILITIES

Land development without the extension of adequate utilities fosters a number of significant health and safety problems, and is costly to the general public. In order to achieve proper development and efficiently expend public funds, it is extremely important to coordinate the extension of utilities with the County's Concept Development Plan. Therefore, the following objectives and policies should be adopted by all agencies responsible for the operation or extension of public utilities:

A. Objective - Provide adequate and efficient public utility facilities to as many county citizens as is possible.

Policies

1. To meet future needs and provide for future growth, long range plans for expansion and enhancement of public utility facilities should be encouraged by each of the responsible agencies.
2. All new developments of .5 dwelling unit (1 unit per 2 acres) or more per acre should have adequate water lines capable of providing fire protection, which shall be properly installed at the expense of the developer.

3. All new developments of more than 2 dwelling units per acre or more should be served by public sewers.
4. The County should ensure that the water, electric, and natural gas systems serving the unincorporated areas are adequate to meet current and future needs.
5. The health of residents shall be protected through the production of State approved potable water.

B. Objective - Provide appropriate locational and design standards and guidelines for utility facility improvements and extensions.

Policies

1. Adequate utilities should be extended into various areas of the county on a priority basis, with such extensions meeting optimum health and safety standards.
2. Water lines of no less than 6" in size and location shall be required in all new developments and redevelopments.
3. Stormwater management plans should be prepared for all new developments and redevelopments.
4. The use of underground electrical, telephone and cable television utilities should be encouraged in new residential developments, whenever feasible.
5. The location of utility structures for storage of equipment, pump stations or similar structures should be adequately buffered and landscaped, so as not to detract from the surrounding area.
6. The water distribution system should be periodically evaluated to ensure that water lines are of adequate size to provide adequate pressure for fire fighting, and that a suitable number of fire hydrants are present in all developed areas.
7. The County should require appropriate maintenance and repair of any privately controlled drainage facilities or appurtenances which tie into any portion of the public or other existing natural drainage systems. On-site maintenance contracts for private retention and detention panels should be required as a part of the subdivision review process.

OPEN SPACE LAND

Most of the land in the unincorporated areas of Putnam County is designated as open space. As the county grows, a significant amount of this land will be pressed into urban development. Unfortunately, as of the present time, the largest portion of this land either cannot be developed, or is cost prohibitive to develop due to various natural factors. In addition, some of this vacant land is best utilized as open space. To guide the future development of open space land in the County and its projected growth areas, the following objectives and policies are adopted:

- A. Objective - Ensure that adequate open space is provided in the County to enhance its aesthetic quality.

Policies

1. Appropriately located public open spaces and general recreational uses should be provided to serve county residents as well as visitors. These areas should be readily available and designed to serve all age groups.
2. The County should ensure that adequate amounts of open space areas are available for future populations via the establishment of conservation easements, as well as through the reservation of open spaces directed by the Development Concept Plan of the county.
3. Open space should be included as a requirement within cluster development projects and be required within all major subdivision developments.
4. Places of rare natural beauty and areas of historic interest should be preserved and maintained.
5. All publicly-owned land should be examined for its potential open space or recreational use before being sold or disposed of by the County.

- B. Objective - Ensure that appropriate planning and locational standards and guidelines are followed for the development of open land and for the provisions of open space.

Policies

1. Support and approval of development proposals that result in the conversion of prime farmlands should be reserved for those developments consistent with the Development Concept Plan and be required for growth and development.
2. Areas of excessive slope should be conserved as open space, if development would cause significant soil and/or water degradation, or where the terrain possesses special scenic or recreational value.
3. Vegetation should be used as an alternative to man-made devices for buffering, insulation, erosion control, and water quality protection.
4. Filling and excavation in floodplains shall only be allowed subsequent to the filing of development permits, consistent with National Flood Insurance Program Regulations, and allowed only after careful engineering review of appropriate alternatives.
5. Mature vegetation, especially along stream banks should be protected from indiscriminate removal, in order to enhance the aesthetic value of the landscape as well as to control erosion.
6. Consistent with National Flood Insurance Program regulations, the County should regulate any development in areas that have been officially designated as flood hazard areas.

7. The County should strive to ensure the protection and enhancement of wetlands and other environmentally sensitive areas by requiring aquatic resource alteration permits be filed as required by the Tennessee Department of Environment and Conservation when streams or wetlands are disturbed.
8. All property within the county should be protected from undue stormwater runoff and soil erosion through the adoption of a county grading code as well as through the promotion of the Tennessee General NPDES Permit, as applies to all excavation and grading activities of five acres or more.

TRANSPORTATION

The future transportation system in Putnam County and its projected growth areas will be affected by a number of factors. These factors include existing highway and road patterns, impediments to traffic, the location of major traffic generators, growth trends, the construction of new thoroughfares, and the location preferences of new developments. Although the County cannot control all the factors that will influence its future transportation system, it can provide some direction. The following objectives and policies are presented as a guide to achieving an adequate and efficient future transportation system:

- A. Objective - Provide a transportation system that will adequately meet the future needs of the county for growth and development.

Policies

1. All new development, whether public or private, should have an adequate transportation system, as stipulated within the county's subdivision regulations which should be properly installed at the expense of the developer.
2. All new highways and roads should be located in a manner that will minimize disruption to residential areas or open space-recreational areas.
3. All segments of the transportation system should be designed and located to meet future as well as present demands and reflect the rights-of-way and locational requirements of the county's official major thoroughfare plan.
4. Wherever possible, off-street parking shall be required for existing land uses. All new land uses shall be required to provide off-street parking as cited in the county zoning resolution.
5. Roads should be upgraded or improved through the implementation of a road improvements priority program.

- B. Objective - Provide appropriate planning and design standards and guidelines for the construction of new roads and other transportation facilities.

Policies

1. Highways and roads should be related to the topography and designed to minimize the points of traffic conflict and turning movements.

2. All new highways and roads shall be designed to incorporate storm water drainage systems that are adequate in size to handle the runoff from anticipated developments within the immediate area.
3. All highways and roads shall be designed so as to provide the least interference to natural drainage ways.
4. All new highways and roads shall be designed and located in a manner that offers the maximum protection from potential flood hazards and erosion damages.
5. New roads should be designed to incorporate appropriate landscaping to heighten the aesthetic and functional appeal both to motorist and surrounding residents.
6. Road signage and other safety features which are in accordance with the Tennessee Department of Highways Standard Specifications, should be required at the time of development.
7. All subdivision developments containing between 100 and 300 dwelling units (carrying 1000 to 3000 average daily vehicles) should be served by a public street(s) constructed to a collector street standard, as enumerated within the county's subdivision regulations.
8. All public streets serving new subdivisions should be designed according to the specifications cited within the county's subdivision regulations.
9. All new highways and streets shall be constructed to an elevation of no less than the regulatory base flood elevation (the 100 year flood).

CHAPTER 7 PLAN IMPLEMENTATION

INTRODUCTION

In order for this plan to be effective, it is important that certain enforcement measures be undertaken to assure its implementation. Several methods for implementation of the objectives and policies developed in this plan are reviewed in this chapter. Some of the methods for implementation are already being utilized by Putnam County. The planning commission and the county legislative body may, however, need to examine the effectiveness of current practices or regulations in achieving the stated objectives and policies. Where the identified methods are currently not sufficient, the County should consider taking the appropriate steps to make the necessary changes.

METHODS FOR IMPLEMENTATION

There have been six methods of plan implementation identified for Putnam County to utilize in the execution of this plan. Each of these are reviewed in this section.

PLANNING COMMISSION PROJECT REVIEW

Under *Tennessee Code Annotated* Section 13-3-104, it is the duty of a regional planning commission, such as Putnam County has, to promote regional cooperation with the municipalities in the County and their planning commissions. This involves coordination of plans for the purpose of promoting adjusted development in the region. A regional planning commission may also advise the county and municipal legislative bodies on public improvements programs, and the financing of such programs.

ZONING

Zoning is a legal mechanism that can assist Putnam County in implementing the guidelines and policies cited within this Land Use and Transportation Policy Plan. A zoning resolution is designed to regulate the type and intensity of land use within a county. It divides a county into specific districts corresponding to the intended use of the land as guided by the policies of the Land Use and Transportation Plan in conjunction with the Concept Development Plan Map. For each district, zoning regulates development characteristics such as the location, height, bulk, and size of buildings and other structures, the percentage of the lot that may be occupied, the minimum size of yards and other open spaces, and the density of population. Zoning can assure the proper location of residential, commercial, industrial, and semi-public uses. It can protect street rights-of-way so that future widening is feasible. It can also prohibit overcrowding of building lots. In addition, zoning can help stabilize property values and can help prevent deterioration of residential areas.

Although it did adopt a floodplain zoning resolution to regulate development in flood hazard areas, Putnam County has yet to adopt county-wide zoning regulations. For the past year, the planning commission has undertaken a study to develop zoning regulations for the County. If adopted by the county legislative body, these zoning regulations should reflect the actual goals of the County as depicted herein, and should be changed whenever necessary in order to continue to accomplish these identified goals.

SUBDIVISION REGULATIONS

Subdivision regulations are another legal mechanism that is typically utilized on the local level of government to carry out the recommendations of the Land Use and Transportation Policy Plan. Like zoning, these regulations control private development. They serve as guidelines for the conversion of raw land into building sites. Subdivision regulations provide the guide by which the planning commission can review all proposed plats of land subdivision in an equitable manner. These controls are necessary if sound, economical development is to be achieved. Through the enforcement of these regulations, the design and quality of subdivisions will be maintained, resulting in better living conditions and greater stability of property values for the individual property owner. Such controls over land subdivision ensure the installation of adequate utilities that may be economically serviced and maintained. These controls are also used in providing a coordinated road network for the County, and to ensure that sufficient open space for recreation and other public services is provided.

Subdivision regulations should reflect the actual goals of Putnam County as listed in this Land Use and Transportation Policy Plan, and should be changed whenever necessary in order to accomplish these identified goals. Subdivision regulations were first adopted by the Putnam County Regional Planning Commission in 1973. These regulations are considered up-to-date.

CODE ENFORCEMENT

There are various types of codes that counties can adopt to ensure that construction standards are sufficient to protect the health and safety of occupants. The Standard Housing Abatement Code is designed to ensure that existing dwellings are safe, sanitary, and fit for human habitation. Other codes such as building, plumbing, electrical, gas, mechanical, and fire codes provide minimum standards for the construction of new buildings and facilities, and the alteration of existing structures and facilities. These codes are uniform in character, and applicable to the county as a whole.

A system of codes functions only if accompanied by an inspection system. Code enforcement ensures the adequacy of new, residential, commercial, and semi-public structures, while also detecting and preventing the deterioration of existing facilities through periodic inspection. By preventing or reducing blight, property values become more stable, and tax bases are protected.

At the present time, Putnam County has adopted county-wide building codes, gas and plumbing codes. They are expected to go into effect January 1, 2002.

PUBLIC IMPROVEMENTS PROGRAM AND CAPITAL BUDGET

A public improvements program and capital budget provide the means through which the local government can effectively undertake a properly planned and programmed approach toward utilizing its financial resources, in the most efficient way possible to meet the service and facility needs of the County. The public improvements program identifies recommendations for capital improvements, estimates their costs, and identifies possible financing alternatives. The capital budget is a method of developing and scheduling specific means of financing the projects identified in the public improvements program.

At the present time, Putnam County does not have a public improvements program and capital budget. However, the County should consider adopting a program and budget in the near future.

CITIZEN PARTICIPATION

Citizen participation is an important factor in determining the success of a land use plan. An informed citizenry, that is willing to work to achieve the goals, objectives, and policies set forth in this Plan, can be a tremendous asset. Citizens can offer support for programs and policies designed to achieve community goals. Successful citizen participation can be achieved through a public education program designed to inform the county residents of the various purposes and reasons for the actions of both the planning commission and the county legislative body. Special efforts should be taken to obtain input from the general public through organizational public meetings, public hearings, and surveys. News articles should also be utilized to educate the public regarding the work activities of the planning commission.

LOCAL LEADERSHIP

The Putnam County legislative body bears most of the responsibility for implementation of this Land Use and Transportation Policy Plan. As the county decision makers, they have the authority to adopt appropriate implementation strategies that will fulfill the goals, objectives, and policies developed in this Plan. It is important that the legislative body maintain a close working relationship with the planning commission, so that the planning process is properly coordinated.

IMPLEMENTATION SCHEDULE

The Putnam County Land Use and Transportation Policy Plan is an advisory document intended to serve as a guide for the development of the County over the next two decades. Modification and amendments to the implementation tools listed above will be necessary, if the goals, objectives, and policies of the Plan are to be achieved. Many of the goals, policies, and objectives for existing programming can be continued by already involved county personnel. For proposed goals, policies, and objectives, county leaders and the legislative body will need to hire additional personnel, and to budget additional funds from the county general fund. Each year on a timely basis, the planning commission should review with the county legislative body the goals, policies, and objectives of the Plan, to determine what should be changed, what has been accomplished, what still remains to be accomplished, and what is no longer seen as being a viable and meaningful necessity for the County.

Development Concept Plan

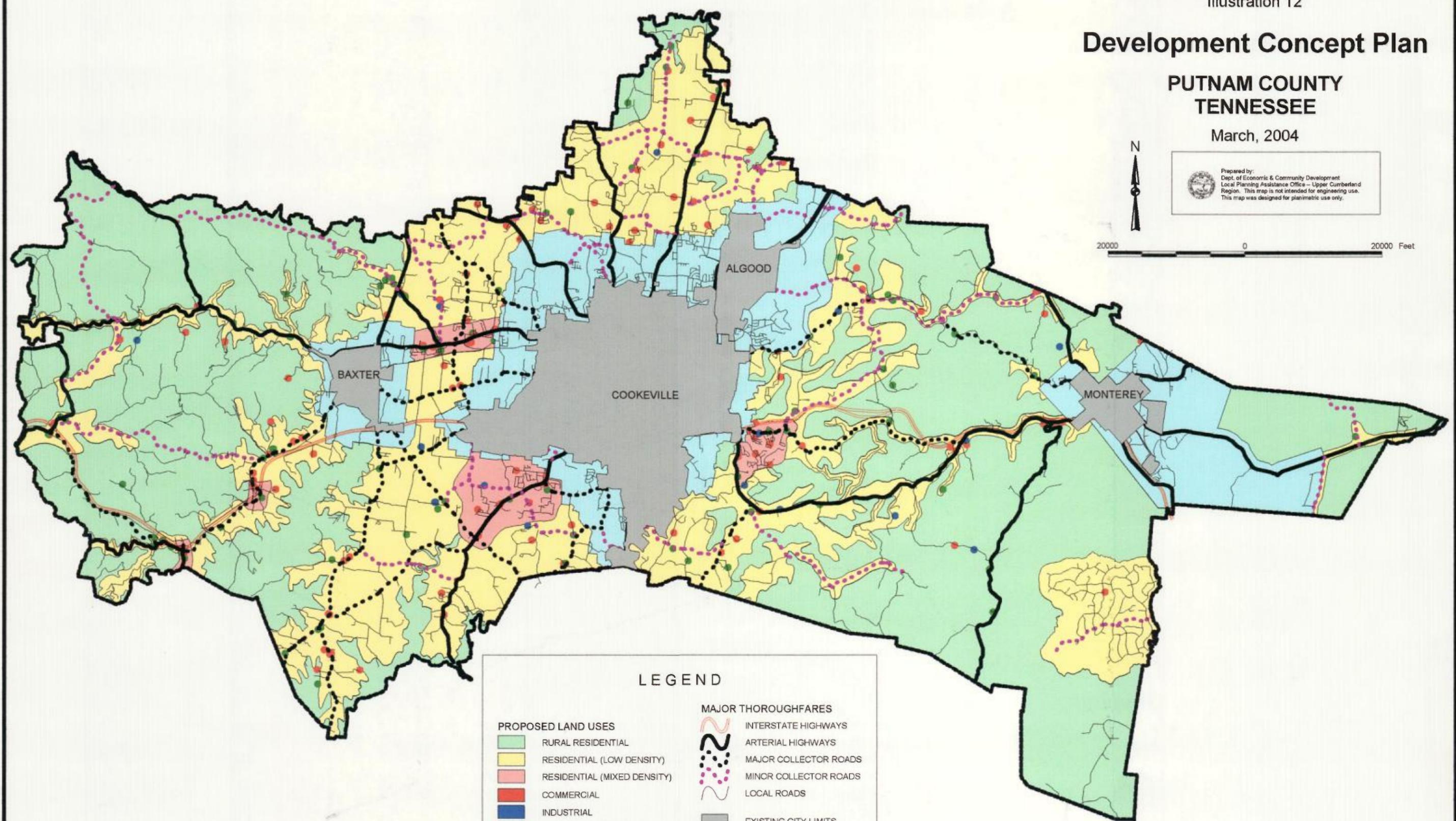
PUTNAM COUNTY TENNESSEE

March, 2004

Prepared by:
Dept. of Economic & Community Development
Local Planning Assistance Office - Upper Cumberland
Region. This map is not intended for engineering use.
This map was designed for planimetric use only.



20000 0 20000 Feet



LEGEND

PROPOSED LAND USES

-  RURAL RESIDENTIAL
-  RESIDENTIAL (LOW DENSITY)
-  RESIDENTIAL (MIXED DENSITY)
-  COMMERCIAL
-  INDUSTRIAL
-  PUBLIC-SEMI PUBLIC

MAJOR THOROUGHFARES

-  INTERSTATE HIGHWAYS
-  ARTERIAL HIGHWAYS
-  MAJOR COLLECTOR ROADS
-  MINOR COLLECTOR ROADS
-  LOCAL ROADS
-  EXISTING CITY LIMITS
-  URBAN GROWTH BOUNDARIES

CHAPTER 8 SUMMARY OF PLAN RECOMMENDATIONS

Based on plan findings and goals for Putnam County, the following summary of plan recommendations is provided. These are to serve as a generalized, non-specific guide to county leaders and others, in making future decisions regarding land use and transportation that are important to the economic and physical development of Putnam County.

Continue to work cooperatively at the local level with the local municipalities, to insure orderly growth and development not only in the county but also within the municipalities.

Implement county-wide zoning, in order to establish and maintain a sensible pattern of land use development, while maintaining property values, and fostering an improved quality of life for all county residents.

Continue to maintain an active planning commission in order to consistently enforce all adopted regulations pertaining to subdivisions and mobile home parks, i.e., subdivision regulations and mobile home parks resolution.

It is recommended that the planning commission institute a review of site plans for commercial, industrial, residential, and public/semi-public developments, as a function of an adopted county zoning resolution.

Encourage all development in the county to be environmentally sound and to preserve the aesthetics of Putnam County.

Implement the Standard Building, Gas and Plumbing Code in order to ensure quality construction throughout the county.

Provide funds from the county budget for personnel, supplies, office space, and other expenses, in order to establish a fully operational County Building Commissioners Office, charged with the administration and enforcement of county-wide zoning and building codes.

THE FUTURE LAND USE/CONCEPT DEVELOPMENT PLAN

The goals, objectives, and policies of the Land Use and Transportation Policy Plan are visually represented in the Concept Development Plan Map. It is based on the same factors from which these goals, objectives, and policies were derived, including natural factors, existing land use patterns, and the existing transportation system. The Concept Development Plan Map reflects a decision-making process culminating in a desired development pattern for the County. It is intended for use in conjunction with cited goals, objectives, and policies, to form a framework to guide future land use decisions. These elements provide the mechanisms for coordinating and promoting different types of development, based on the desires of the County, while conserving and protecting the quality of life and natural environment.

The Concept Development Plan Map for Putnam County and its growth areas was created from a series of overlays, which include the natural factors discussed in Chapter 3, the population and employment projections presented in Chapter 4, the existing land use, utilities, and transportation facilities analyzed in Chapter 5, and the planned growth areas as found in the Putnam County Growth Plan Report which was prepared, adopted and certified pursuant to Tennessee Public Chapter 1101. Although several conceptual land use and spatial patterns could be derived from this overlay process which are reflective of stated

goals, objectives and policies, Illustration 12 represents the County's choice of a conceptual development pattern, based on local needs and desires.

FUTURE LAND USE CLASSIFICATIONS

The spatial patterns of land use depicted on the Concept Development Plan Map are based on several land use classifications. These general land use classifications are defined as follows:

Rural Residential Uses – Includes open space, agricultural land and single-family residential development at a density of one dwelling unit per acre or less.

Low-Density, Residential Uses – Includes single family residential development at a density of between one and two dwelling units per acre.

Mixed-Density Residential Uses – Includes single-family, two family, and multi-family residential developments at a density of between two and eight dwelling units per acre.

Commercial Uses – Includes commercial, public and private service uses.

Industrial Uses – Includes light to medium impact industrial developments, and wholesale and distribution uses.

Public/Semi-Public Uses – Includes community facilities, governmental and quasi-governmental developments, and public and semi-public uses.