State of Tennessee
Department of Economic and Community Development

Local Planning Assistance Office
William Snodgrass/Tennessee Tower Building-10th Floor
312 8th Avenue North
Nashville, Tennessee 37243-0405
615-741-2211

January 31, 2001

The Honorable Robert Dedman
County Executive of Wilson County
Room 104, 228 East Main Street
Lebanon, Tennessee 37087

Dear Mr. Dedman:

The Local Government Planning Advisory Committee at its meeting January 24 approved the Wilson County Growth Plan submitted by the Wilson County Coordinating Committee. Enclosed is one copy of the materials submitted by the Coordinating Committee and a copy of the Local Government Planning Advisory Committee Resolution of Approval.

The Comprehensive Growth Plan law requires that you file your plan with your county register. The Local Government Planning Advisory will also keep a copy of your plan.

If I or the Local Government Planning Advisory Committee may be of additional assistance, please contact me.

Sincerely,

Don Waller
Director

DW/jw

Enclosure

Submittal of County Growth Plan
and
Certificate of Ratification

Whereas, the _____County Coordinating Committee has developed and recommended to the County and municipal legislative bodies of _____ County a Growth Plan which complies with TCA 6-58-106; and

Whereas, the County and municipal legislative bodies have ratified the _____ Growth Plan as required by TCA 6-58-104; and

Whereas, the _____County Coordinating Committee has held the requisite public hearings pursuant to TCA 6-58-104;

Now Therefore, the _____County Coordinating Committee submits to the Local Government Planning ~~Advisory Committee the~~ _____ ~~County Growth Plan for~~ its approval pursuant to TCA 6-58-104.

_____ _____

Chair, County Coordinating Committee **Date**

Resolution of Approval
By The
Local Government Planning Advisory Committee

Whereas, the Wilson County Coordinating Committee has submitted a County Growth Plan for Wilson County and its municipalities; and

Whereas, the Coordinating Committee has certified that the plan has been ratified pursuant to TCA 6-58-104;

Now, Therefore Be It Resolved by the Local Government Planning Advisory Committee that the Wilson County Growth Plan is hereby approved and becomes effective this date.

_____ 1/24/01

Chair, Local Government Planning Advisory Committee **Date**

Submittal of County Growth Plan
And
Certificate of Ratification

Whereas, the Wilson County Coordinating Committee has developed and recommended to the County and municipal legislative bodies of Wilson County a Growth Plan which complies with TCA 6-58-106; and,

Whereas, the County and municipal legislative bodies have ratified the Wilson County Growth Plan as required by TCA 6-58-104; and,

Whereas, the Wilson County Coordinating Committee has held the requisite public hearings pursuant to TCA 6-58-104; and,

Now, therefore, the Wilson County Coordinating Committee submits to the Local Government Planning Advisory Committee the Wilson County Growth Plan for its approval pursuant to TCA 6-58-104.

Jack K Pack
Chair, Wilson County Coordinating Committee

1-24-01
Date

Resolution of Approval
By the
Local Government Planning Advisory Committee

Whereas, the _____County Coordinating Committee has submitted a County Growth Plan for _____County and its municipalities; and,

Whereas, the Coordinating Committee has certified that the plan has been ratified pursuant to TCA 6-58-104; and,

Now, Therefore, Be It Resolved by the Local Government Planning Advisory Committee that the _____ County Growth Plan is hereby approved and becomes effective this date.

_____
Chair, Local Government Planning Advisory Committee

_____
Date

State of Tennessee
Department of Economic and Community Development

Local Planning Assistance Office
William Snodgrass/Tennessee Tower Building-10th Floor
312 8th Avenue North
Nashville, Tennessee 37243-0405
615-741-2211

July 20, 2001

The Honorable Robert Dedman
Wilson County Executive
228 East Main Street, Room 104
Lebanon, TN 37087

Dear Mr. Dedman:

The Local Government Planning Advisory Committee at its June 27 meeting heard a report from its staff regarding drafting errors in the Wilson County Growth Management Plan. Staff advised that no formal action by the Committee was required. Concurring, the Committee accepted by common consent the recommendation that the error be corrected by administrative action.

Please file the enclosed plan which contains your corrections with your county register. You may want to file this letter also. I am keeping a copy of both plans in the archives file of the Committee in the event a comparison is required.

Sincerely,

Don Waller

cc: Rick Gregory
Holly Sears

WILSON COUNTY
PLANNING OFFICE

ROOM 5, WILSON COUNTY COURTHOUSE * LEBANON, TENNESSEE 37087
(615) 449-2836 * FAX (615) 443-6190

June 1, 2001

Mr. Don Waller
Local Government Planning Advisory Committee
Economic and Community Development Department
Local Planning Assistance Office
10th Floor William Snodgrass Tennessee Tower
Nashville, TN 37243-0405

Dear Mr. Waller:

Enclosed is a listing of the text changes that was submitted in error to the Local Government Planning Advisory Committee for the City of Lebanon portion of the Wilson County Growth Management Plan. The recent version submitted to you is the version the Wilson County Coordinating Committee approved on August 14, 2000.

I hope this information is sufficient. Please do not hesitate to contact me if I can be of further assistance. Thank you for your time.

Sincerely,

Holly E. Sears

Holly E. Sears
Wilson County Planning Director

CITY OF LEBANON

DON W. FOX, Mayor

RICK GREGORY, AICP
Planning Director
200 Castle Heights Avenue North
Suite 300
Lebanon, Tennessee 37087
Phone: (615) 444-3647
FAX: (615) 443-2899

200 Castle Heights Avenue North
Suite 100
Lebanon, Tennessee 37087

June 1, 2001

To Whom It May Concern:

The copy of the Lebanon Growth Management Plan submitted to the Local Government Planning Advisory Committee on January 24, 2001 contained some minor text errors. It was an early version of the document and was submitted in error. The changes occur on pages 4, 6, 7, 9, 14, and 24. Following is the list of minor text corrections:

Page 1	No Change
Page 2	No Change
Page 3	No Change
Page 4	**Figure 2.1** – floodplain map replaced with correct map
Page 5	No Change
Page 6	**Figure 2.2** – black and white photocopy replaced with color map
Page 7	**Table 2-2a Vacant Land Analysis** – correct numbers inserted
Page 8	No Change
Page 9	**Section 2.4 Sanitary Sewer** – word "undeserved" deleted
Page 10	No Change
Page 11	No Change
Page 12	No Change
Page 13	No Change
Page 14	Page number corrected
Page 15	No Change
Page 16	No Change
Page 17	No Change
Page 18	No Change
Page 19	No Change
Page 20	No Change
Page 21	No Change
Page 22	No Change
Page 23	No Change
Page 24	Text was modified in **Chapter Five - Conclusions**. Enclosed please find the language as submitted to the LGPAC on January 24, 2001 and the correct language as adopted by the Wilson County Coordinating Committee.

All changes were included in the final document approved by the Wilson County Coordinating Committee.

If you have questions concerning these minor changes, please contact me at your earliest convenience.

Sincerely,

Rick Gregory, AICP

Tennessee General Assembly
Public Chapter 1101

GROWTH MANAGEMENT PLAN

Prepared for
The City of Lebanon

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CHAPTER ONE - INTRODUCTION AND BACKGROUND

1.1 Introduction

Considering the aggressive development trends that are currently being experienced throughout the middle Tennessee area, urban growth is becoming an important community concern for cities such as Lebanon. The urban growth patterns and development decisions that are made today will shape the environment and quality of life experienced in the city of Lebanon in the 21st century. For this reason, more and more communities are promoting smarter urban growth policies to better accommodate this anticipated growth.

1.2 Purpose

Through the Growth Policy Legislation, Public Chapter 1101, adopted by the Tennessee General Assembly in 1998, local communities are provided with the framework and processes to better plan for their future. Under this flexible framework, the City and County governments are able to cooperatively determine their future while preserving and complementing the unique character of their area.

As specified in Tennessee Code Annotated 6-58-106, there are several conditions that must be met in determining urban growth boundaries, planned growth areas, and rural areas. The standard process requires each municipality and county to prepare a report including 1)population growth projections, 2)current and projected costs of core infrastructure, urban services, and public facilities necessary to support future urban growth, and 3)land use suitability analysis for land needed to accommodate additional urban growth, considering land management issues for environmentally sensitive areas. The purpose of this report is to provide the necessary information to support the proposed Urban Growth Boundary of the City of Lebanon.

1.3 Background and Methodology

Wilson County, and particularly the City of Lebanon, is one such area that is currently experiencing a rapid growth movement. With several new large development projects planned in the City, and many more sure to follow due to several proposed transportation and thoroughfare projects, the time to plan the City's future is now. This Executive Summary provides an examination of the City's plan to meet the future public needs and demands for residential, commercial, and industrial growth.

This report is the culmination of a six month process involving extensive research and analysis of existing conditions, and forecasts of future population growth, infrastructure, and public service demands. Through input from City Officials and two public hearings, community involvement played an important role in the completion of this plan. Each of the major phases of the planning process have been segmented in chapter within this report.

1.4 Format of the Report

In August of 1999, Barge, Waggoner, Sumner and Cannon, Inc. was retained by The City of Lebanon to assist in the preparation of an Urban Growth Plan that fulfilled the requirements of Public Chapter 1101 and provided a plan and overall vision for the future growth of the city. This report provides the culmination of extensive planning and engineering analyzes which attempt to inventory and analyze the growth trends anticipated for the City. These analyzes, combined with the public input received in two meetings, helped create an urban growth boundary, plan of services and land use vision for the City of Lebanon as it enters the new millennium.

Chapter One of the report provides this Introduction and Background statement. Chapter Two presents an Inventory and Analysis Phase in which existing conditions were identified, key issues were defined, and thorough analysis of these issues and future growth areas were determined. Chapter Three presents the proposed Urban Growth Boundary and identifies key areas of anticipated urban growth and generalized future land uses. Chapter Four presents the Public Infrastructure and Services Plan, including forecasted needs for water and sewer utilities, fire, police, etc., and recommended strategies for phasing and implementation. Chapter Five summarizes the conclusions reached during the study. Each of these sections will be outlined and discussed in more detail throughout the report.

Finally, it is difficult for any report to document all the data and analyzes researched and performed during the planning process. This report attempts to provide the key conclusions of this process, while at the same time, meeting the minimum requirements of Section 7 of Public Chapter 1101.

CHAPTER TWO - INVENTORY AND ANALYSIS

This section of the report identifies the key demographic, land use and infrastructure items in the City that may impact the future growth and the limits of this growth. Lebanon continues to be a major presence in the Middle Tennessee Area, and the strength of the Nashville area economy and the City's geographic location in the region has and will continue to place the City in an advantageous position to attract future residential and commercial developments. This chapter inventories and analyzes these factors that will shape this future growth.

2.1 Demographics

One of key components of any land use planning effort is an examination of the forecasts of population growth for the study area. Future plans and policies regarding urban growth must be based on realistic estimates of the demands of a future population for new residential and non-residential land uses. According to population projections provided by the University of Tennessee Center for Business and Economic Research and subsequently revised by the Greater Nashville Regional Council, the City's population is expected to nearly double by the year 2020, from 20,460 to 40,587 persons. Appendix A provides an explanation and details of the population forecasts used by the City as required by Public Chapter 1101.

The effects of a population base which doubles in the next 20 years can be dramatic for a city the size of Lebanon. This expanded population base will require new areas of residential and non-residential development, and the question of whether or not the City is positioned for this growth should now be reviewed. Several natural and manmade factors must be considered to accurately determine the answer.

2.2 Land Development Capability and Suitability

As illustrated in Figure 2.1, there are two primary natural factors or conditions which influence future urban growth patterns in the City. The development potential of a particular piece of property can be dramatically altered based on the certain physical characteristics of the land. The predominant natural factor affecting development in the City is the presence of several large areas of flood prone lands. The geological makeup of the City make it particularly susceptible to flooding, thus development in these flood prone areas is not recommended nor is it likely. Additionally, several areas within the City's extraterritorial planning jurisdiction contain moderately and severely sloping lands. Depending on the severity of the slopes, the development potential of these lands can be limited also.

On the whole, however, the natural constraints to development within the City's current limits and adjacent lands are minimal. The total acreage of impacted lands represents only 13% of the total land within the current City limits and extraterritorial planning areas.

2.3 Existing Land Uses

A valuable tool in forecasting the future land use needs and urban boundaries is the examination and analysis of existing land uses. Figure 2.2 illustrates the general nature and location of existing land uses within the City. Table 2-1 summarizes the relationships among the various land use types and the relative percentages of each type against the total acreage.

Table 2-1
Summary of Existing Land Uses

Land Use Category	Total Area (Acres)	% of Total Corporate Area
Residential		
R-1(Single Family)	10,490	60%
R-2(Duplex)	456	3%
Other(Multi-Family)	170	1%
Commercial	1,770	10%
Public-Semi Public	810	4%
Industrial	1,930	11%
Vacant/Undeveloped	1,910	11%
Totals	**17536**	**100%**

A brief description of each land use category and its pattern of development within the City is provided below.

Residential: Like many other cities comparable to Lebanon, residential is the most predominant land use. As in most cities, single family detached housing is the most popular form of housing. Averaging from 2-4 units per acre, the most concentrated areas of single family residential are located on the northern and western portions of the city.

Commercial: The majority of commercial uses are located along the several significant thoroughfares and major roadway corridors across the City. These major corridors include U.S. Highway 231 extending north from I-40, and U.S. Highway 70 extending east and west through the city. These corridors intersect to form the downtown Central Business District and Town Square of the City. In addition to these commercial corridors, other commercial activity exists near existing interstate interchanges.

Industrial: The majority of the industrial activity present in Lebanon occurs in the City's two industrial parks located on the north side of downtown and south of Interstate 40, between the U.S.231 and Highway 70S interchanges. A newly emerging industrial and light manufacturing area is occurring at the Highway 109 interchange with Interstate 40. The recent announcement and location of a Dell Computer facility at the existing Eastgate Business Park will likely spur additional non-residential activity in this area.

Public/Semi-Public: Almost 900 acres within the City devoted to public uses, including Lebanon's parks, hospital, fairgrounds, airport, and other institutional uses, such as Cumberland University.

Vacant/Undeveloped: Approximately 4,384 acres within the corporate limits has remained undeveloped. The majority of this land has been left undeveloped and not farmed.

2.3 Vacant Land Analysis

In order to determine the need for future urban growth areas to accommodate approximately 20,000 new residents in the City over the next 20 years, an evaluation of the existing vacant and undeveloped lands within the current municipal boundaries is warranted. This analysis will help to ensure that the City's future growth areas are "reasonably compact yet sufficiently large" as required by the growth management law.

Table 2-2 outlines two analyses that were completed to determine the potential of existing vacant properties to accommodate the expected future residential growth. Both calculations examine the additional land needed to accommodate future residential growth, only. To be clear, the City will need additional land for other non-residential land uses, but the demand for these areas will be dependent on the creation of new housing within the City. Once the extent of new housing areas is known, then the new non-residential areas can be more easily forecasted.

Table 2-2a
Vacant Land Analysis

Calculation No. 1. - Persons Per Acre Analysis		
• Total Acreage of Vacant Land within City limits:		1,910
• Total Acreage of "undevelopable" vacant land[1]:		1,280
	Net acres of useable, vacant land	630
• Total Acreage of Developed Residential Uses in City		11,115
• Total Population of City (present)		20,460
	Persons per Acre of Residential Development:	1.8
Projected Increase in Population:		20,127
Persons per Acre		1.8
Additional Acres of Residential Development Land Needed		11,182
	Net acres of useable, vacant land:	630
	Residential Development Acreage Shortfall:	**10,552**

[1] "Undevelopable" is defined as acreage which includes floodplains, steep sloping land and non-residential zoned land.

Table 2-2b
Vacant Land Analysis

Calculation No.2 - Anticipated Buildout Potential Analysis		
Breakdown of Zoned, Vacant Residential Land in City[2]		
• Agricultural Zoned ..... 38% of total acreage or	239	acres
• R-1A Zoned ..... 47% of total acreage or	296	acres
• R-1 Zoned ..... 12% of total acreage or	76	acres
• R-2 Zoned or greater ..... 3% of total acreage or	19	acres
Buildout Potential of Each Area[3]		
• Agricultural Zoned ..... 239 acres @ 0.8 unit/acres=	191	units
• R-1A Zoned ..... 296 acres @ 1.8 unit/acres=	533	units
• R-1 Zoned ..... 76 acres @ 3.85 unit/acres=	293	units
• R-2 Zoned or greater ..... 19 acres @ 10.6 unit/acres=	201	units
Total Estimated New Units at Buildout:	1218	units
• Average Number of Persons per Household (per 1990 census)	2.79	
• New Units x persons per Household =persons which can be accommodated in existing vacant land	3,398	
Approximate Shortfall in "housed" population	**16,730**	**people**

Both calculations point out the lack of an adequate inventory of vacant, undeveloped land within the City to accommodate the forecasted need for future residential development areas. Based on the projected population of the City over the planning period, each analysis demonstrates a significant shortfall in vacant land which is zoned and ready for residential development. Even if the City restructured their land development codes to permit greater residential densities on these lands, it is unlikely that these increased densities would accommodate this growth.

Finally, in addition to the land needed to accommodate future residential growth which has been forecasted, available land is required to accommodate the accompanying non-residential land uses that will be necessary to support this new population base. Appendix B provides a summary review of the analyses conducted to determine the general extent and nature of the land needed to accommodate these uses. It is estimated that this new population base will require several hundred acres of additional non-residential development land. Furthermore, these analyses indicate only the "local" demand for new non-residential land (based on new residents requiring retail and personal service outlets). The full extent of non-residential uses for this area should also include a "regional" demand, since Lebanon is increasing serving the broader region with personal services, retail, commercial and employment opportunities. The exact demand for these regional uses is difficult to estimate, but its impact is real. According to the Joint Economic and Community Development Board of Wilson County, the annual demand for available industrial/warehousing acreage in Wilson County has been averaging

[2] Based on current zoning and City's GIS base maps.

[3] Density calculated at maximum density permitted times a gross factor of 85% for streets, utilities, etc.

between 150 and 200 acres per year over the last several years. The JECDB cautioned that this trend may slow down, but based on the recent new projects (ie. Dell Computers facility, Nashville Speedway, etc.) and the addition or improvement of major regional transportation arteries (i.e. I-40, Highway 109, SR 840), it likely that this demand could outpace the demand for "local" services which support new City residents.

2.4 Existing Public Infrastructure

In order to accommodate future urban growth, adequate infrastructure needs to be in place. The following elements of the City's existing public infrastructure were inventoried and analyzed to determine their ability to meet future demands (see Appendix C for additional information).

Water: The City of Lebanon currently provides domestic water service to the areas inside the city limits and a portion of the perimeter areas within the county. With the Cumberland River serving as the system's supply point, water capacity is not a concern. A review of the existing system indicated that the current capacity in the five holding tanks is 9,500,000 gallons. The current treatment facility has a maximum treatment capacity of 12,000,000 gpd and is currently treating an average of 6,800,000 gpd. This capacity currently serves approximately 8,150 customers (see Appendix C), however, there remains several hundred customers within the City that do not have adequate water service. Furthermore, future development will require improvements to the existing system, and the City has responded by proposing a new distribution line from the treatment plant to the west side of the City. Once in place, this line along with new treatment capacity at the plant, will enable the City to provide adequate and dependable fire and domestic water service to their corporate boundaries. Overall, the City's current Capital Improvements Budget has set aside over $11 million over the planning period to provide service to those "pockets" of the City which do not have adequate services and to improve the overall system capacity and distribution to handle future growth (see Table 4.1 of this report).

Additionally, providing water service to those areas within a proposed urban growth area will require the cooperation of several utility districts which hold the rights to provide water service to these areas. These utility districts include: Gladeville Utility District, Wilson County Water District, West Wilson Utility District, and LaGuardo Utility District. Although most of these districts' systems are structured to provide rural water service, preliminary conversations with each district indicates their willingness and capability to provide the necessary improvements to upgrade their service to handle "urban" densities.

Sanitary Sewer: The current sanitary sewer service available to the City and adjacent areas is provided by the Lebanon Wastewater System. This system serves approximately 6,840 customers (see Appendix C), however, there are still newly annexed areas within the City that do not have adequate sewer service. Again, the City has adopted a capital improvements budget that contains almost $11 million for future system improvements and new service to these "pockets" (see Table 4.1 of this report). The existing wastewater treatment facility has

facility has a maximum capacity of 4,720,000 gpd of which the City is currently treating an average of 3,700,000 gpd. In order to accommodate the growth anticipated for this area, the City is more capable than any other municipality in the county to provide these areas with the adequate sewer service. An additional treatment facility is proposed for the western areas of the City within the next 6-10 years. This additional treatment capacity and other proposed system improvements and expansions will adequately support additional growth.

Electric Service: The City of Lebanon currently provides electrical service to almost 7,100 customers in and around the City (see Appendix C). This service, however, does not reach to all areas of the City. Middle Tennessee Electric Membership Cooperative provides electric service to approximately 20% of the City's residents throughout the area with most of these customers located on the edges of the City in newly annexed areas. Currently, the City is investigating the feasibility of outsourcing the provision of electric service to all areas of the City to MTEMC. Although this decision is still pending, the capability of MTEMC and the City's current system will sufficiently support the anticipated growth. As future development occurs, the City's policies will require developer's to provide additional electric service and street lighting, thus eliminating the burden of future growth of the existing system and rate payers.

Gas: Natural gas service within the City is owned and operated by the City of Lebanon. The total number of customers within the city limits is approximately 5,171, with 205 customers within the county. The current maximum storage capacity is 180,000 gallons at Peak Shaving Plant. Adequate service is presently available to serve the anticipated development demands, however, as a result of these demands, a new office facility at Peak Shaving Plant will be needed to manage the future gas system.

Transportation: The existing grid of major state and federal highways in the Lebanon area provides a transportation network for the City that has helped support past growth and will help spur future growth over the next 20 years. The major north south corridors (Highway 109, Highway 231, and Highway 70) have been supplemented by State Route 840. These thoroughfares are complemented by an array of east-west routes (I-40, Highway 70) that provide critical links to the growing Nashville region. Appendix D provides the current thoroughfare plan for Wilson County and shows the new roads planned for various parts of the City.

2.5 Existing Urban Services

In addition to the infrastructure systems throughout the area, adequate public services should also be present in order to support future urban growth. The following public services were inventoried and analyzed to estimate future demands (see Appendix E for additional information).

Police Protection: The present Lebanon Police Department is headquartered in the new

facility located on Tennessee Boulevard. The department consists of 53 full time officers and a total of 18 support personnel. This is a current average of 2.6 officers per each 1,000 population within the community. The department currently responds to in house dispatching, but proposals for a Multi-Jurisdictional dispatch including 911 is underway.

Fire Protection: The present Lebanon Fire Department consists of 36 total firefighters and 3 additional support personnel located in 2 fire stations. This manpower and equipment provide certain portions of the City with an acceptable ISO rating of 5, but several areas of the City fall below the recommended standards set by the International City Managers Association. Two additional stations are proposed for these areas to provide adequate protection.

Parks and Recreation: The Lebanon Parks and Recreation System currently consists of 13 municipal parks and recreational facilities throughout the community. The recreational programs offered by the Department include baseball for all ages, softball for both boys and girls, football, soccer, and more complex recreation centers. In addition to these existing facilities, 3 new softball fields, 1 new baseball and multipurpose field, and the Jimmy Floyd Family Center are all currently under construction.

Solid Waste Management: Residential household garbage collection is provided weekly by the City for 7,200 customers. Thirteen (13) full time employees provide this service utilizing four (4) 25 cubic yard rear loading units and one (1) 9 cubic yard satellite unit.

2.6 Other Factors Affecting Growth

In addition to the key factors such as estimated population increase, current land use trends, public services capabilities and general economic projections, there are several other factors impacting the Lebanon area that will have a dramatic effect on the future growth of the City. Outlined below are factors that a "reasonable and prudent person" would determine to have a significant bearing on the growth boundaries proposed for the City.

Proposed Development Projects: With plans for large development projects such as Dell Computer and the Nashville Speedway currently in the design stages, demand for urban level services in the surrounding areas will increase. These proposed developments will likely anchor a new development surge in the areas near Highway 109, State Route 840 and Interstate 40. The City of Lebanon has already committed to provide sanitary sewer services for the area. To fully capitalize on the area's growth potential and ability to create new jobs and an expanded tax base for all of Wilson County, urban services should be and will be required.

Proposed Major Thoroughfare Projects: Major roadway improvements have perhaps the largest impact on development opportunities. The County-wide widening and southern extension of Highway 109 will have a major impact on the way this area of Wilson County

develops. Additional proposed transportation projects include a new interstate interchange at Franklin Road and Interstate 40 and the potential SR 840 North construction. Furthermore, the widening of Highway 70 from the Davidson County line to Lebanon and the ongoing study and evaluation of possible commuter rail service from Lebanon to Nashville will have a dramatic effect on the capacity of this critical east-west commuter route. Each of these improvements will introduce new opportunities for job growth and improved access to the area's transportation network, both of which are generally regarded as factors influencing future growth.

Market Conditions and the Nashville "Push": In addition to the new developments and roadway projects slated for construction at the City's southwestern edge, the continued growth and development of the Nashville economic market area will have a tremendous impact on Lebanon's future development. The entire Nashville economic market area has grown and developed on the strength of the Nashville area economy, and the forecast for future growth remains strong (see Appendix F). Population growth for the region has increased 21% over the last ten years. Total non-agricultural employment has increased 27 % since 1990, and the region's unemployment rate has remained below 4% for the last 5 years. Lebanon and Wilson County have shared in this growth and prosperity. Population and employment in the County and City have increased at similar rates, and with the prospect of new roadways (SR 840 and Highway 109) and exciting new developments (Speedway and Dell), the City's ability to capture their fair share of the region's growth will be enhanced. A strong demand for various higher density land uses (residential, warehousing, industrial) can be expected on the City's western boundary as the continued urbanization of the greater Nashville area radiates east along Interstate 40 into west Wilson County. If the proper infrastructure required to support the anticipated growth is put in place, it appears to be only a matter of time before the Nashville "push" and urbanization reaches to the State Route 840 and Highway 109 corridor.

These factors, combined with the general increase in population expected based on historical trends, will require more land than that is currently undeveloped within the City. The next chapter of this report will review possible urban growth areas and the infrastructure required to serve them.

CHAPTER THREE – PROPOSED URBAN GROWTH PLAN

3.1 Introduction

After reviewing the population forecasts, adequacy of both natural and manmade features in the City and surrounding areas and determining the other miscellaneous factors that may influence future urban growth in the Lebanon area, this portion of the report provides the proposed urban growth boundary for the City of Lebanon and the generalized future land uses that are anticipated and desired in these areas.

3.2 Proposed Urban Growth Boundary and Generalized Land Use Plan

Figure 3.1 presents a graphic representation of the proposed Urban Growth Boundary (UGB) for the City of Lebanon, as defined by Section 7 of Public Chapter 1101. Recognizing the growth potential of the greater Lebanon area, the lack of sufficient vacant land to accommodate projected residential growth and its accompanying non-residential developments, and after evaluating the utility information from the various providers, it is evident that the City of Lebanon is more capable than any other municipality within the county to provide urban type services needed to facilitate desired growth in these areas.

Figure 3.2 provides a generalized future land use plan for the City of Lebanon throughout the proposed planning period (2000 - 2020). Outlined below is a brief description of the generalized land use categories forecasted for various portions of the City and its UGB.

TABLE 3-1
GENERAL DESCRIPTION AND CHARACTERISTICS OF LAND USE CATEGORIES

	Characteristics		
Land Use Category	***General Nature of Land Uses***	***Overall Density Range***	***Permitted Uses***
Rural Residential	Rural, farming, open space	1 Unit per 3 acres	Single Family Residential, Farming
Low Density Residential	Suburban residential	1 to 4 Units per acre	Single Family Residential
Medium Density Residential	Urban/Suburban mix (residential)	4 to 7 Units per acre	Single Family, Townhomes
High Density Residential	Urban Apartments	8 to 15 Units per acre	Garden Style Apartments
Commercial	Commercial retail uses based on location	0.25 to 0.35 Floor Area Ratio	Retail, Restaurants, Convenience, etc.
Industrial	Light manufacturing uses (assembly)	0.50 to 1.0 Floor Area Ratio	Light Manufacturing, Warehousing, Assembly
Planned Business	Planned Business Park Environment	0.35 to 0.75 Floor Area Ratio	Offices, Warehousing, Light Manufacturing
Public/Semi-Public	Institutional Uses	N/A	Parks, Schools, etc.

3.3 Major Growth Areas within the UGB

Figure 3.2 identifies those areas with the City's UGB that are the "likely site of high density commercial, industrial and/or residential growth" as required by Public Chapter 1101. The major growth areas within the UGB are described in more detail below.

Highway 109/SR 840 South Area: Development of this corridor will be greatly impacted by the presence of Dell Computer and the Nashville Speedway and the emergence of this area as a new growth node in the Nashville area. This area is targeted for intensive non-residential growth patterns centering on the Highway 109 corridor with medium and low density residential uses providing housing for these new employment centers.

Western Fringe Area: Although much of this area is already developed with rural residential uses, the area still contains several large tracts of undeveloped land which would be prone to development pressures if adequate urban facilities and infrastructure was in place. The likely future growth will consist of large tracts subdividing into low/medium density residential.

Northern Fringe Area: This area, located north of U.S. Highway 70 on the western edge of the city, is expected to experience additional residential growth as the population of the city increases. Several large scale residential developments are currently being built in this area, and development is expected to continue based on the City's recent construction of a sewer interceptor line along U.S. 70. These new sanitary sewer facilities may also spur a "planned business" park at the intersection of U.S. 70 and Highway 109.

Highway 231/SR 840 South Area: Transportation improvements and the proposed sanitary sewer extensions in this area will spur growth in this area. The proposed Bartons Creek interceptor sewer line and the Franklin Road interchange at I-40 will prompt future residential development. Due to limited access to SR 840, however, this area is better suited for less intense land uses than the Hwy 109/840 corridor.

SR 840 North Interchange Area: Growth in this area is likely dependent on the completion of SR 840 North. Development opportunities in this interchange area are 15-20 years in the future, but this area has significant development potential once the roadway is completed.

Tucker's Crossroads Area: The limits of eastern growth for the City is expected to be in the Tucker's Crossroads area. Due to its location at an interstate interchange, this area possesses significant growth potential if appropriate services are provided. Ultimately, the growth of the area will likely be driven by a major private project, not by any public improvements intended to promote growth at this eastern edge. Rural residential uses are targeted for most areas, with the potential for a new employment center at the interchange area.

3.4 Environmental Impacts and Resource Management

There are no known forest management or wildlife management areas in the proposed UGB. The likely long term impact on agricultural lands in most of the planned growth areas will be their eventual development into urban uses. The combination of several area transportation improvements (SR 840, Highway 109, Franklin Road interchange) and the continued urbanization of West Wilson County as a result of the "Nashville Push" will intensify the development pressures in these areas. Preservation of the farmlands in these areas through restrictive land use planning guidelines (i.e. Rural Residential land use classification) is possible, but in the absence of a detailed subarea plan for this high growth area, the City prefers that all property owners in the growth corridors be given equal opportunity to develop their properties.

CHAPTER FOUR - PUBLIC INFRASTRUCTURE AND SERVICES PLAN

4.1 Introduction

As required by Public Chapter 1101, it is the duty of the City of Lebanon to "determine and report the current costs and the projected costs of core infrastructure, urban services and public facilities necessary to facilitate full development of resources within the current boundaries of the municipality and to expand such infrastructure, services and facilities throughout the territory under consideration for inclusion within the urban growth boundaries." This section of the report provides cost estimates for providing core services for these areas, and then examines the City's capacity to undertake these improvements over the 20 year planning period.

At this point it is important to note two fundamental principles which provide the basis for the City's UGB and their proposed Infrastructure and Services Plan. First, the City's interpretation of providing core infrastructure is based on the idea that it is the City's duty is to provide the regional or area-wide infrastructure capacities for future development in the UGB. The development of individual land parcels within the City or its UGB will be "developer-driven," meaning that new development will pay for sewer, water or any other utility extensions to or from the regional infrastructure item. Second, the City's plan is one that stresses the planning concept of concurrency. No new development will be permitted without the proper and adequate infrastructure and services already in place or under construction. In this way, the City's infrastructure base is not slowly eroded by developments which add only small demands on the infrastructure network, yet their incremental impact results in a looming infrastructure crisis for the City. These two principles will permit the City to stage their future growth in a manner that is responsive to the private real estate market, while at the same time, recognizing the budget constraints of a growing suburban community.

4.2 Proposed Public Infrastructure and Services Plan

In order to accommodate future development in the current City limits and the UGB, plans for providing infrastructure and public services were established. Future infrastructure needs were established based on proposed land use areas and densities, and public services were estimated using the City's current level of service as a benchmark for future services. This benchmark was also compared against commonly accepted standards for similar communities.

Figure 4.1 and Table 4-1 provide a graphic and tabular summary of the public infrastructure and services plan required for the City's proposed UGB. Figure 4.1 attempts to provide a "locational" perspective to the proposed improvements by indicating the general location of future parks, sewer facilities, police and fire stations and other infrastructure items. Table 4-1 provides a review of the phasing and total financial commitment by the City to the Plan, with each major infrastructure category identified and the costs associated with providing "full resources within the boundaries" and the "costs of core infrastructure" within the UGB. A

Table 4-1
Summary of Infrastructure Improvements

Proposed Improvements	Phase I 0-5 years	Phase II 6-10 years	Phase III 11-15 years	Phase IV 16-20 years	Totals
Existing Municipal Boundaries (Aug. 1999)					
Water	$7,154,000	$1,350,000	$1,250,000	$1,250,000	$11,004,000
Sewer	$3,460,000	$4,631,530	$1,250,000	$1,250,000	$10,591,530
Fire Protection			$1,120,000		$1,120,000
Police Protection			$250,000		$250,000
Subtotals by Phase/Area	$10,614,000	$5,981,530	$3,870,000	$2,500,000	$22,965,530
Hwy 109/ SR 840 South Area					
Sewer	$2,000,000				$2,000,000
Fire Protection			$1,120,000		$1,120,000
Police Protection			$250,000		$250,000
Parks			$1,500,000		$1,500,000
Subtotals by Phase/Area	$2,000,000	$0	$2,870,000	$0	$4,870,000
Hwy 231/ SR 840 South Area					
Sewer		$1,500,000			$1,500,000
Fire Protection			$560,000		$560,000
Police Protection	$250,000				$250,000
Parks			$750,000		$750,000
Subtotals by Phase/Area	$250,000	$1,500,000	$1,310,000	$0	$3,060,000
Tucker's Crossroads Area					
Sewer				$2,200,000	$2,200,000
Fire Protection				$560,000	$560,000
Subtotals by Phase/Area	$0	$0	$0	$2,760,000	$2,760,000
SR 840 North Interchange Area					
Sewer		$1,000,000			$1,000,000
Fire Protection				$560,000	$560,000
Subtotals by Phase/Area	$0	$1,000,000	$0	$560,000	$1,560,000
Northern Fringe Area					
Sewer	$302,000	$3,300,000			$3,602,000
Fire Protection	$560,000				$560,000
Subtotals by Phase/Area	$862,000	$3,300,000	$0	$0	$4,162,000
Western Fringe Area					
Sewer		$1,400,000			$1,400,000
Fire Protection	$560,000				$560,000
Subtotals by Phase/Area	$560,000	$1,400,000	$0	$0	$1,960,000
Total Infrastructure Improvements	**$14,286,000**	**$13,181,530**	**$8,050,000**	**$5,820,000**	**$41,337,530**

4.3 Summary of Future Infrastructure and Service Improvements

Table 4-1 indicates that approximately $41.3 million of new public infrastructure and services will be required over the next 20 years to adequately provide urban services within the City limits and the UGB. Almost $23 million of these improvements is already being budgeted by the City to address current deficiencies or obsolescence in their existing systems within the City. The remaining $18.3 million is forecasted over the 20 year planning period for new area-wide infrastructure, with $3.7 million planned for Years 1-5, $7.2 million planned for Years 6-10, $4.1 million planned for Years 11-16, and $3.3 million planned for Years 16-20.

Currently, the City is spending an average of approximately seven million dollars per year in infrastructure capital improvements over the last five years, thus these proposed infrastructure investments appear to be less daunting. With the City's adherence to the concepts of concurrency and "developer-driven" infrastructure planning and construction, this plan of capital spending is feasible. With growth and development comes an expanded tax and rate-payer base to support these new services; if growth slows so too does the rate at which the City's infrastructure expands.

Outlined below is a brief examination of the major infrastructure items included in each of the growth areas identified in UGB.

Highway 109/SR 840 South Area: Plans for services in this area include the installation of a sanitary sewer force main along Highway 109 extending south to the intersection of State Route 840 to service new growth along this corridor and the proposed Speedway. Anticipated sewerage flows will exceed 3.5 million gallons per day (MGPD), thus a 18" force main and new sewer pump station will be required to collect and distribute this waste to the Eastgate pumping station. Additionally, two new fire stations are recommended and a new community park is forecasted to meet community demands.

Highway 231/ SR 840 South Area: Infrastructure plans for this area include the planned construction of the Bartons Creek sanitary sewer line extension to service areas south of I-40 at the proposed Franklin Road interchange location. This 15" interceptor line is anticipated to handle a daily flow of 1.5 MGPD. An additional fire station, police substation and community park will be needed as residential growth occurs.

Northern Fringe Area: The City's recent sanitary sewer improvement (new interceptor line along Highway 70 and the railroad) has already prompted new development in the area. The major infrastructure item for this area is the planning of an additional City sewer treatment facility to handle the sewage flows anticipated in the new development areas. The City's existing treatment plant currently has an excess capacity of 4.4 million gallons per day, however, with the combination of the wastewater flows from future growth anticipated in this Plan (8.35 MGPD) and the City's planned improvements to service those "pockets" of undeserved areas within the City (0.60 MGPD), this capacity will be exceeded by almost 4.5 million gallons per day over the planning period. This proposed 5 MGPD plant will enable the City to adequately treat and handle future flows from the growth occurring on its southern

and western edges and provide adequate sanitary sewer service to all areas within the current City limits and the proposed UGB. Finally, a new fire station is also proposed for this area to address future needs.

Western Fringe Area: The installation of a 24" sewer force main along Highway 109 (connecting the Eastgate pump station with the proposed treatment plant) is proposed to service development on the City's western fringe, as well as assist in servicing growth areas in the Highway 109/SR 840 corridor. As Highway 109 is widened and improved north from the Interstate, new residential and non-residential growth is anticipated along this corridor. Future wastewater flows are anticipated to reach almost 1.1 MGPD. Additional police and fire stations are proposed to serve the area, as well as a new community park to provide recreational land for new residents.

Tucker's Crossroads Area: Plans to service this area will depend on a large scale development providing substantial financial assistance to the City for sanitary sewer service. The installation of a pump station at the interstate interchange and 8" force main extending west to the existing City sewer line will be required at the time development occurs, and this collection network will be capable of handling approximately 0.75 MGPD. An additional fire station will also be needed due to the location and nature of the development in this area.

SR 840 North Interchange Area: Infrastructure requirements in this area include the installation of a sanitary sewer pump station and 8" force main extending south to the existing city system. Based on the proposed land uses indicated in Figure 3.2 for this area, an anticipated sewer flow of 0.50 MGPD is anticipated. An additional fire station will be needed as development occurs in the later portions of the planning period.

CHAPTER FIVE - CONCLUSIONS

Recognizing the reality that much of the City's past urban growth has been sporadic and piece-meal, this plan attempts to provide a framework for the City to better manage desired growth, avoid overburdening infrastructure systems, and continue to provide adequate public services to all residents of Lebanon. Based on all the factors discussed herein, the proposed Urban Growth Boundary acknowledges the areas of anticipated growth outside the current municipal limits and provides a plan of services to accommodate this growth and development. The plan also recognizes that the City of Lebanon is more capable to adequately accommodate this growth and provide the required infrastructure and public services to these areas than any other municipality in Wilson County.

The primary factors contributing to the City's need for additional land over the next 20 years include:

*** An analysis of the vacant, undeveloped land in the current City limits indicates that there is insufficient acreage available to accommodate the forecasted future residential growth and development in the City. Based on two separate analyses of the available, undeveloped land and the anticipated residential development acreage needs, a shortfall of over 8,000 acres of zoned, available and developable residential land will exist over the planning period. Additionally, if all available land is forecasted for residential uses, the need for accompanying non-residential development would add to this total shortfall of available land by almost 400 acres in the most conservative estimate and by several thousand acres according to current trends observed by the Wilson County Joint Economic and Community Development Board.**

*** Several factors are affecting the City's proposed UGB beyond the standard forecasts of future population growth and the land that will be required to accommodate this forecasted growth. Currently, several areas within the City and at the City's edge are being viewed as "regional" development nodes, most specifically the areas at the City's southwestern edge. The continued urbanization of the Nashville region is now "pushing" into west Wilson County, and if the proper infrastructure is provided, these areas can become the focus of broader "regional" growth and development, beyond just the historical population trends which might otherwise dictate a more "localized" growth scenario for the City of Lebanon. The construction of SR 840 and the proposed extension of Highway 109 will supply the needed transportation infrastructure for this development, and the City of Lebanon is poised to provide the other essential infrastructure items to service this potential growth. Accordingly, the City's proposed UGB indicates those areas at the City's southwestern edge which are suitable for this anticipated regional growth.**

*** The City's capability to provide urban services to these high growth areas through feasible and planned infrastructure improvements is indicated in the proposed Plan of Services (seeTable 4.1). This Plan includes significant capital spending (averaging approximately $2 million per year) for new infrastructure to service the UGB and those areas of the City currently underserved . However, with the City's current annual**

capital spending on infrastructure items averaging almost $7 million per year, the City has demonstrated its capacity to finance and implement these proposed improvements. In the absence of the City providing these services and recommending this UGB, these developments and their accompanying jobs and tax base will likely locate elsewhere in the Nashville region, and the City and all of Wilson County will have lost the opportunity to gain their fair share of the continued prosperity and growth of the overall Nashville area economy.

Finally, after adoption of this Plan and as required by P.C. 1101, the City will concentrate its resources on providing services to those areas within the current municipal boundaries which are underserved and those areas within the UGB which are forecasted for the most immediate growth and development pressure. Variations or amendments to this Plan will only be considered if extraordinary situations or circumstances present themselves to the City.

Appendix A

Population Forecast

ADJUSTMENTS TO LEBANON POPULATION ESTIMATES AND PROJECTIONS

Lebanon's limited sewage treatment capacity and a state moratorium prohibiting new connections to the system during the 1970's and early 1980's resulted in negative population growth for much of that period. However, since the early 1980's the problem was resolved with major system improvements and expansion, resulting in a dramatic turn-around in local growth conditions and trends since that time. The UT-CBER population projections of March 1999 apparently did not fully recognize these changed conditions and, as well, their current population and 2000 base year estimates were well below locally documented figures.

The following, therefore, provides adjusted numbers for current and base year estimates and shows the city's growth rate of the last 10 years as a basis for revised projections to 2020:

1990	Certified Count 1998	Current Estimate	2000 Estimate	Growth 1990 -2000 No.	Growth 1990 -2000 %
15,208	20,460	21,117	21,774	6,566	43.2

In view of this trend, the level of improved public services and facilities, and current developments in place or underway, Lebanon's 2020 population projection is revised in the attached table by extending current and past trends forward in a straight line. And this appears to more accurately reflect local growth expectations. Other estimates and projections in the table are as presented by UT-CBER, March 1999, except for necessary adjustment in unincorporated area numbers to offset Lebanon's revised estimates and forecast.

WILSON COUNTY POPULATION PROJECTIONS
TO THE YEAR 2020

AREA	1990	LATEST	2000	2005	2010	2015	2020
LEBANON	15,208	20,460	21,774	26,479	31,184	35,889	40,587
MOUNT JULIET	5,389	10,953	11,667	13,287	14,982	16,792	18,715
WATERTOWN	1,250	1,354	1,428	1,586	1,744	1,907	2,073
UNINCORPORATED	46,152	N/A	53,362	56,660	59,882	63,252	66,726
TOTAL	67,999	81,172	88,231	98,012	107,792	117,840	128,101

Sources:
U.S. Census of Population, 1990: "Latest Data" include certified populations as of 7/1/98 where annexations and special censuses exceed 1996 estimates; University of Tennessee Center for Business and Economic Research; Revision of Lebanon estimates and projections by Greater Nashville Regional Council, May 1999.

Appendix B

Non-residential Vacant Land Analysis

Appendix B
Non-Residential Vacant Land Analysis

Estimated Commercial/Retail Space Needed To Support New Population Base	
• Total Forecasted Population Increase:	20,127
• Total New Households Created (@ 2.79 persons per HH)[1]:	7,214
• Total Retail Sales Per Household[2]:	$15,917
• Retail Sales Per Square Foot[3]	$205
Retail Space Which Can be Supported by New Retail Sales:	560,123
Average Buildout Density in Square Feet for Retail Sites (per acre)[4] :	10,890
Net Acreage Needed to Accomdodate New Retail Space:	51.4
Commercial/Retail Development Acreage Shortfall:	**51 acres**

Estimated Industrial/Warehousing/Services Acreage Needed To Support New Population Base	
• Total Forecasted Employment Growth through 2020 (excluding retail trade)[5]:	5,000
• Anticipated Square Footage Requirements Per Employee[6]:	1,450
• Total Square Footage of New Industrial/Warehousing/Services Space[7]	7,250,000
Average Buildout Density in Square Feet for Industrial/Warehousing/Services Sites (per acre)[8] :	21,780
Net Acreage Needed to Accommodate New Industrial/Warehousing/Services Space:	333
Industrial/Warehousing/Services Development Acreage Shortfall:	**333 acres**

Note: Despite the estimates calculated for new industrial and warehousing space, the Joint Economic and Community Development Board of Wilson County projects an annual demand for 100 - 200 acres of industrial land based on the rate of absorption of this land use type over the last five years.

---

1 Population divided by 2.79 persons per household (1990 census) = total new households.

2 Based on figures published by Sales and Marketing Magazine, Survey of Buing Power, 1997.

3 Based on calculated average sales per square foot of various retails stores and outlets published in Dollars and Cents of Shopping Centers, by Urban Land Institute.

4 Based on buildout density and floor area ratio of 0.25 (or 25 square feet of building space for every 100 square feet of site area).

5 Estimate based on information provided by Joint Economic and Community Development Board of Wilson County, Tennessee Dept. of Employment Security, and BWSC, Inc.

6 Based on calculated average of space required for new industrial, warehousing and office uses locating in Wilson County. Information provided by JECDB and intrepreted by BWSC, Inc.

7 Total new employees x space per employee = total new space required.

8 Based on buildout density and floor area ratio of 0.50 (or 50 square feet of building space for every 100 square feet of site area).

Appendix C

Infrastructure Information

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES
FOR THE CITY OF LEBANON, TENNESSEE
FOR COMPLIANCE WITH PUBLIC CHAPTER 1101,
STATE GROWTH PLANNING LEGISLATION

((Please Use & Attach Additional Pages as Needed)

I. SUBJECT: LEBANON WATER SYSTEM

DATE(S) of INVENTORY: 1/11/99 - 5/13/99

PERSON(S) DOING INVENTORY: Wayne Johnson

PERSON(S) INTERVIEWED: Tim Graves, Jodie Beal, Jay Crawford, Jeff Baines

II. NUMBER OF CURRENT WATER CUSTOMERS:

A. INSIDE CITY LIMITS

1. Residential Customers 5,964
2. Nonresidential Customers 1,274

Subtotal 7,238

B. OUTSIDE CITY LIMITS

3. Residential Customers 889
4. Nonresidential Customers 19

Subtotal 908

Total 8,146

C. OTHER WATER SERVICE PROVIDERS/UTILITY DISTRICTS BUYING WATER FROM THE LEBANON SYSTEM

Indicate name and location of other provider(s) supplied by the City system and indicate amounts of water provided in gallons per day or other measure of use as may be defined under contract agreement:

~~Wilson County Water & Wastewater Authority - 673,000 GPD~~

Gladeville Utility District 93,000 GPD

LaGuardo Utility District 160,000 GPD

If available, provide number of customers served by other water service providers: Not Available

III. WATER SERVICE RATES/COSTS:

A. TO CUSTOMERS INSIDE CITY

1. Residential - - First 200 cf - $5.25; next 800 cf at $2.76 per 100 cf; next 3,000 cf at $2.69 per 100 cf; next
2. ~~Nonresidential~~ N/A - - 8,000 cf at $2.43 per 100 cf; next 17,000 cf at #1.51 per 100 cf; over 29,000 ct at $1.18 per 100 cf

B. TO CUSTOMERS OUTSIDE CITY

1. Residential - - First 200 cf - $7.88; next 800 cf - $4.14 per 100 cf; next 3,000 cf at $4.03 per 100 cf; next 8,000
2. ~~Nonresidential~~ N/A - - cf at $3.65 per 100 cf; next 17,000 cf at $2.27 per 100 cf; over 29,000 cf at $1.78 per 100 cf

C. TO OTHER WATER SERVICE PROVIDERS/UTILITY DISTRICTS SUPPLIED BY CITY

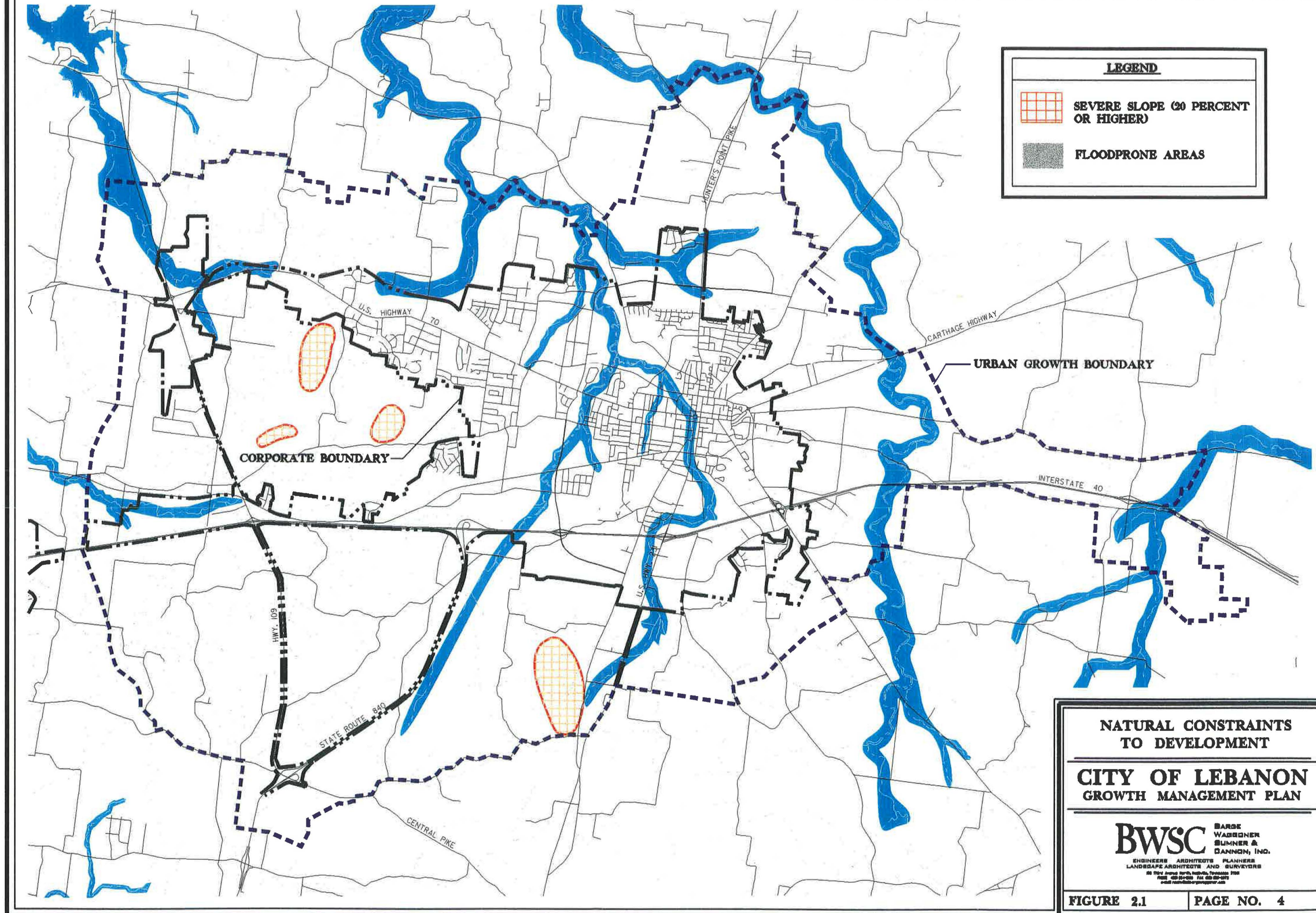
Wilson County Water & Wastewater Authority- $1.49 per 1,000 gal.

Gladeville Utility District - $1.49 per 1,000 gal.

LaGuardo Utility District - $1.49 per 1,000 gal.

IV. WATER TREATMENT PLANT:

A. LOCATION - - U.S. Highway 231 N. at Cumberland River (Old Hickory Lake)



NATURAL CONSTRAINTS TO DEVELOPMENT

CITY OF LEBANON
GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.
ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS

FIGURE 2.1 | **PAGE NO. 4**

LEGEND

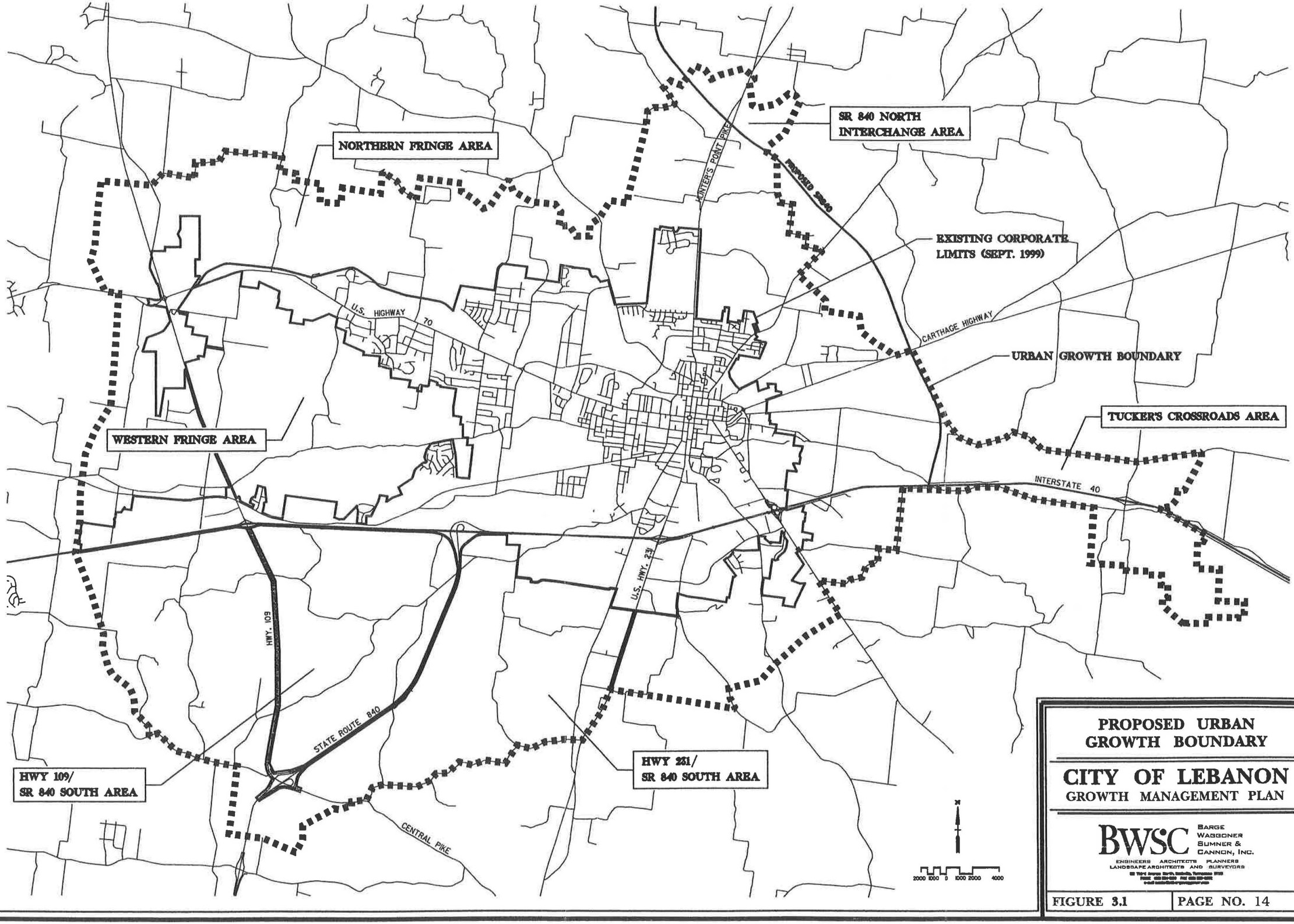
- AGRICULTURAL/UNDEVELOPED
- SINGLE FAMILY RESIDENTIAL
- DUPLEX RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC/SEMI-PUBLIC
- LEBANON CITY LIMIT BOUNDARY

EXISTING LAND USE MAP

CITY OF LEBANON
GROWTH MANAGEMENT PLAN

BWSC
BARGE WAGGONER SUMNER & CANNON, INC.
ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS

FIGURE 2.2 | PAGE NO. 6



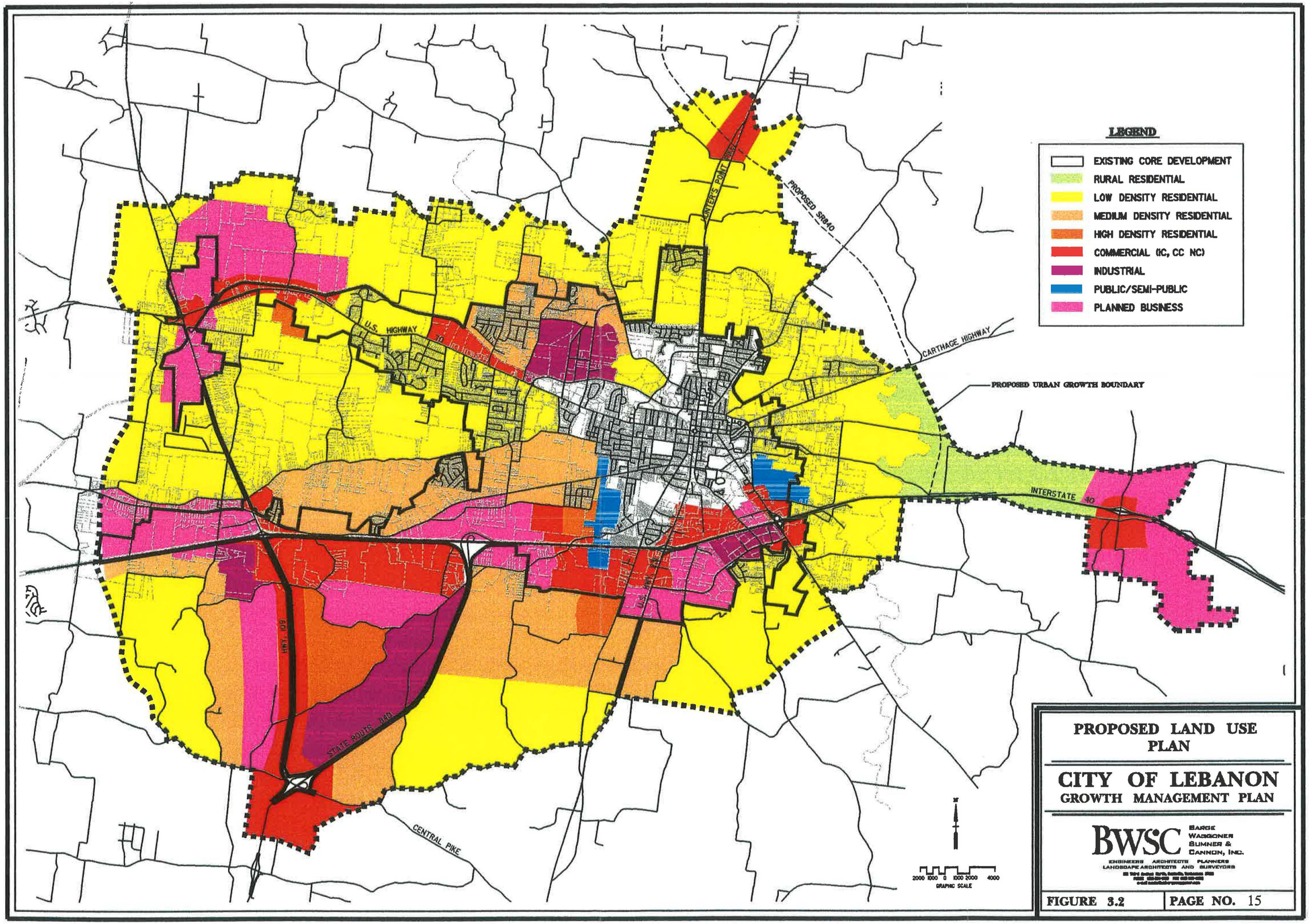
PROPOSED URBAN GROWTH BOUNDARY

CITY OF LEBANON
GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.

ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS

FIGURE 3.1 | PAGE NO. 14



PROPOSED LAND USE PLAN

CITY OF LEBANON
GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.
ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS

FIGURE 3.2 | **PAGE NO.** 15

NORTHERN FRINGE AREA

- Water : LaGuardo Utility District
- Sewer : $302,500
- Fire Protection : $560,000
- Police Protection : N/A
- Parks : N/A

SR840 NORTH INTERCHANGE AREA

- Water : Wilson County Utility District
- Sewer : $1.0 Million
- Fire Protection : $560,000
- Police Protection : N/A
- Parks : N/A

WESTERN FRINGE AREA

- Water : West Wilson Utility District
- Sewer : $1.4 Million
- Fire Protection : $560,000
- Police Protection : N/A
- Parks : $1.5 Million

TUCKER'S CROSSROADS AREA

- Water : Wilson County Utility District
- Sewer : $2.2 Million
- Fire Protection : $560,000
- Police Protection : N/A
- Parks : N/A

HIGHWAY 109/SR840 SOUTH AREA

- Water : Gladeville Utility District
- Sewer : $2.0 Million
- Fire Protection : $1.1 Million
- Police Protection : $250,000
- Parks : $1.5 Million

SR840/HIGHWAY 231 SOUTH AREA

- Water : Gladeville Utility District
- Sewer : 1.5 Million
- Fire Protection : $560,000
- Police Protection : $250,000
- Parks : $750,000

LEGEND

- FUTURE SEWER TREATMENT PLANT
- (F) PROJECTED FIRE DEPARTMENT FACILITY AND SERVICE AREA
- P PROJECTED POLICE DEPARTMENT FACILITY
- P PROJECTED COMMUNITY PARK FACILITY

NOTE:
ALL GAS AND ELECTRIC SERVICES TO BE INSTALLED AT THE EXPENSE OF THE INDIVIDUAL DEVELOPER AS DEVELOPMENT OCCURS.

CORPORATE LIMITS

URBAN GROWTH BOUNDARY

US HWY 70

INTERSTATE 40

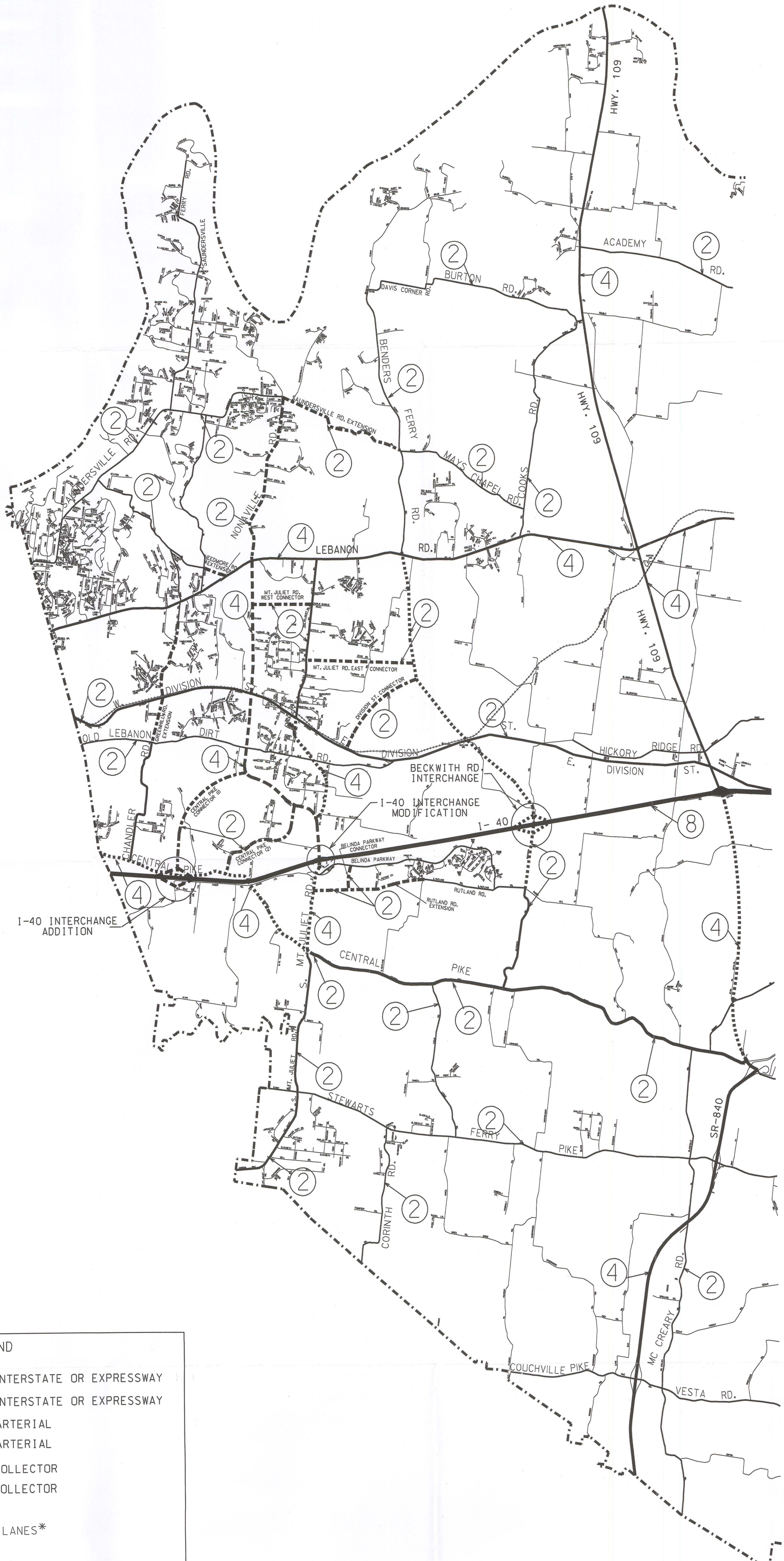
SR 840

PUBLIC INFRASTRUCTURE AND SERVICES PLAN

CITY OF LEBANON
GROWTH MANAGEMENT PLAN

BWSC
BARGE WAGGONER SUMNER & CANNON, INC.
ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS

FIGURE 4.1



LEGEND

- EXISTING INTERSTATE OR EXPRESSWAY
- PROPOSED INTERSTATE OR EXPRESSWAY
- EXISTING ARTERIAL
- PROPOSED ARTERIAL
- EXISTING COLLECTOR
- PROPOSED COLLECTOR
- (X) NUMBER OF LANES*

*NUMBER OF LANES REPRESENTS THROUGH MOVEMENT ONLY.

G S & P

Design Services For The Built Environment

Birmingham Jacksonville Nashville

GRESHAM SMITH AND PARTNERS

MAJOR THOROUGHFARE PLAN
CITY OF MT. JULIET

DATE 12

B. TREATMENT CAPACITY - - Maximum Gallons Per Day - - 12,000,000

C. CURRENT TREATMENT - - Gallons Per Day - - 6,800,000 average

D. DATE(S) OF CONSTRUCTION/EXPANSIONS - - Constructed in 1931; major expansions in 1971, 1986 & 1989

E. Describe any current treatment plant needs or related needs - - now and over next 5 years - -

Stand-by power

Modifications to upgrade solids & sludge dewatering

F. Note any anticipated future treatment plant needs or related needs - - beyond next five years to the Year 2020 - -

Water Treatment Plant expansion & upgrading

V. **WATER SUPPLY SOURCE(S):**

A. LOCATION(S) - - Cumberland River (Old Hickory Lake)

B. ADEQUACY OF SUPPLY

1. Indicate probable maximum amount of water available in gallons per day -

Cumberland River N/A

2. Describe any water quality issues, problems, needs associated with current source(s) - -

NONE

3. Identify possible future supply source(s), if need anticipated - -

Not anticipated

4. Note any other current or future needs - -

VI. WATER STORAGE FACILITIES:

A. Note location and capacity of any storage facilities - - 4 Mile Hill - 1,000,000 gal; Rome Pike - 3,000,000 gal.; Leesville Pike 3,000,000 gal; Seay Hill - 500,000 gal; South Perimeter Park 2,000,000 gal.

B. Note adequacy of storage capacity - - duration of storage - -

Current storage capacity is adequate to demands at this time.

C. Describe any current storage or related needs now and over next 5 years - -

Continue storage tank inspection & maintenance

D. Describe any future storage or related needs beyond next five years to Year 2020, if currently anticipated - -

Storage tank inspection & maintenance

New storage facilities

VII. WATER DISTRIBUTION SYSTEM:

A. Provide map of water distribution system/lines, which also shows location of treatment and storage facilities.

B. Describe any current distribution or related needs now and over next 5 years, including adequacy and availability of fire hydrants for fire protection services throughout the system - -

A second water transmission main from Water Treatment Plant

Pocket Plan (upsizing inadequate mains)

Industrial booster pump & transmission main

Abandon existing 16" transmission main

Treatment Plant - $700,000

Leeville Pike - Highway 231 Connector - Phases I,II,III

C. Describe any future distribution or related needs anticipated beyond the next 5 years to the Year 2020 - -

Pocket Plan (replacing inadequate lines)

Western extension - U.S. 231 By-Pass

VIII. **WATER DEPARTMENT EQUIPMENT NEEDS:**

A. Describe any equipment needs for now and over next 5 years - - _____

Three 3/4 ton trucks

Dump Truck

B. Describe any equipment needs beyond the next 5 years, if any are now anticipated - - _____

IX. **WATER DEPARTMENT STAFFING/MANPOWER NEEDS:**

A. Current Staff - - Fulltime: 9 at Water Treatment Plant 10 In Dist. System

- - Parttime: _____

Total: _____

B. Note any current staffing/manpower needs for now and over next 5 years - -

2 Additional workers

X. **CURRENT PLANS/IMPROVEMENT PROGRAMS:**

Attach and briefly describe any water system plans or improvement programs currently in place or on-going - - _____

Pocket Plan Phase II - (replacing undersized lines, etc.)

Pump Station upgrading at Williams Ave. & 4 Mile Hill

Second Water Transmission Line from River (Preliminary Study)

Castle Heights Avenue No water line (completed)

Water Storage Tank Inspection

XI. COMMENT ON ANY OTHER WATER SYSTEM ISSUES, NEEDS OR PROGRAMS NOT COVERED ABOVE:

INVENTORY OF PUBLIC INFRASTRUCTURE AND SERVICES FOR THE CITY OF LEBANON, TENNESSEE FOR COMPLIANCE WITH PUBLIC CHAPTER 1101, STATE GROWTH PLANNING LEGISLATION

(Please use and attach additional pages as needed.)

I. SUBJECT: LEBANON WASTEWATER SYSTEM

DATE(S) of INVENTORY: 1/11/99 - 5/13/99

PERSON(S) DOING INVENTORY: Wayne Johnson

PERSON(S) INTERVIEWED: Tim Graves - Jodie Beal

II. NUMBER OF CURRENT WASTEWATER CUSTOMERS:

A. INSIDE CITY LIMITS

1. Residential Customers 5,758
2. Nonresidential Customers 1,069

Subtotal 6,827

B. OUTSIDE CITY LIMITS - - (If Policy Against, Please note)

3. Residential Customers 9
4. Nonresidential Customers 4

Subtotal 13

Total 6,840

III. WASTEWATER SERVICE RATES/COSTS:

A. TO CUSTOMERS INSIDE CITY

1. Residential - - First 200 cf - $5.25; next 800 cf-$2.76 per 100 cf; next 3,000 of at $2.69 per 100 cf; N/A
2. ~~Nonresidential~~ - - next 8,000 cf at $2.43 per 100 cf; next 17,000 cf at $1.51 per 100 cf; over 29,000 cf at $1.18 per 100 cf

B. TO CUSTOMERS OUTSIDE CITY

1. Residential - - First 200 cf - $7.88; next 800 cf at $4.14 per 100 cf; next 3,000 cf at $4.03 per 100 cf; next

2. ~~Nonresidential~~ - - N/A 8,000 cf at $3.65 per 100 cf; next 17,000 cf at $2.27 per 100 cf; over 29,000 cf at $1.78 per 100 cf

IV. WASTEWATER TREATMENT PLANT:

A. LOCATION - - 321 Hartmann Drive

B. TREATMENT CAPACITY - - Maximum Gallons Per Day - -

4,720,000

C. CURRENT TREATMENT - - Gallons Per Day - - 3,700,000 average

D. DATE(S) OF CONSTRUCTION/EXPANSIONS - - Constructed in 1961; major expansions in 1984, 1994 & 1998

E. Describe any current treatment plant needs or related needs - - now and over next 5 years - -

Acquisition of land for second Wastewater Treatment Plant to support development along the Highway 70/Highway 109 growth corridor -

F. Note any anticipated future treatment plant needs or related needs - - beyond next five years to the Year 2020 - - Expansion of sewerage facilities including a second Wastewater Treatment Plant -

V. WASTEWATER COLLECTION SYSTEM:

A. Provide map of wastewater collection system/lines, which also shows location of treatment plant and any pumping stations - -

B. Describe any current collection or related needs now and over next 5 years - -

Existing sewer rehabilitation ; Pocket Plan

Addition of sewerage facilities for South Fork Subdivision ;

Horn Springs Subdivision & Georgetown Subdivision

C. Describe any future collection or related needs anticipated beyond the next 5 years to the Year 2020 - -

Small Trailer Jet Rodder; TV camera for sewer inspection;

Two 3/4 ton trucks, Backhoe

VI. WASTEWATER DEPARTMENT EQUIPMENT NEEDS:

A. Describe any equipment needs for now and over next 5 years - -

Current equipment is adequate

B. Describe any equipment needs beyond the next 5 years, if any are now anticipated - -

Couple of vehicles and maintenance and upgrading of existing

equipment as necessary

VII. WASTEWATER DEPARTMENT STAFFING/MANPOWER NEEDS:

A. Current Staff - - Fulltime: WWTP Plant 14; Sewer Plant 6

- - Parttime: _____

Total: _____

B. Note any current staffing/manpower needs for now and over next 5 years - -

Add a maintenance crew of three (3) men

VIII. CURRENT PLANS/IMPROVEMENT PROGRAMS:

Attach and briefly describe any wastewater system plans or improvement programs currently in place or on-going - -

Highway 70/109 Pump Station & Force Main

Bartons Creek Interceptor Sewer

Flow Equalization Basin

Pocket Plan Phase II (Phase I completed)

Plantation South Pump Station & Force Main

IX. COMMENT ON ANY OTHER WASTEWATER SYSTEM ISSUES, NEEDS OR PROGRAMS NOT COVERED ABOVE:

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES
FOR THE CITY OF LEBANON, TENNESSEE
FOR COMPLIANCE WITH PC 1101, STATE GROWTH
PLANNING LEGISLATION

(Use and attach additional pages as needed.)

I. Subject: GAS SYSTEM

Date(s) of Inventory: 3-17-99

Person(s) Doing Inventory: Don Cozart

Person(s) Interviewed: _____

Service Owned/Operated by City: Yes [X] No [ ]

Other Service Provider in Lebanon Urban Area, If Applicable?

_____

II. NUMBER/TYPE OF CURRENT GAS SYSTEM CUSTOMERS:

A. INSIDE CITY LIMITS

1.	Residential	4063
2.	Commercial	1083
3.	Industrial	25
	Subtotal	5171

B. OUTSIDE CITY LIMITS

1.	Residential	192
2.	Commercial	12
3.	Industrial	1
	Subtotal	205
	TOTAL	5376

C. IF APPLICABLE, NUMBER OF CUSTOMERS OUTSIDE CITY LIMITS SERVED BY OTHER PROVIDER

1.	Residential	
2.	Commercial	
3.	Industrial	
	TOTAL	

III. STORAGE CAPACITY: 180,000 Gallons Propane Peak Shaving Plant

Average Daily Purchase: Summer 1,000.000 Cu. Ft.
Winter 4,500,000 Cu. Ft.

Average Daily Sales: Summer 1,000,000 Cu. Ft.
Winter 4,500,000 Cu. Ft.

IV. GAS SERVICE RATES/COSTS:

A. Residential $5.60/MCF
B. Commercial $5.60/MCF
C. Industrial $4.60/MCF

V. STAFFING/MANPOWER NEEDS:

A. Current Staff - - Full-time: 13

Part-time: -

TOTAL: 13

B. Note any current staffing/manpower needs for now and over next 5 years:

Due to growing system 2-4 people need to be hired

VI. GAS SYSTEM FACILITY OR BUILDING SPACE NEEDS:

A. Describe any needs now and over next 5 years:

Present gas system has a trailor for an office need new facility located at the Peak Shaving Plant

B. Describe needs beyond next 5 years, if any are now anticipated:

VII. GAS DEPARTMENT EQUIPMENT NEEDS:

A. Describe any equipment needs now and over next 5 years:

Backhoe

Trencher CS

B. Describe any needs beyond the next 5 years, if any are now anticipated:

VIII. CURRENT PLANS/IMPROVEMENT PROGRAMS:

Briefly describe any gas system plans, projects or improvement programs currently in place or anticipated:

Enclosed 5 Year Plan

IX. COMMENT ON ANY OTHER GAS SYSTEM ISSUES, NEEDS OR PROGRAMS NOT COVERED ABOVE:

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES FOR THE CITY OF LEBANON, TENNESSEE FOR COMPLIANCE WITH PC 1101, STATE GROWTH PLANNING LEGISLATION

I. Subject: ELECTRICAL SYSTEM

Date(s) of Inventory: 3/29/99

Person(s) Doing Inventory: Hal Bittinger(accounting), Jeff Baines (Comm. P.W.)

Person(s) Interviewed: Joy Adams (Accounting) Bruce Fennell (Eng.)

Service Owned/Operated by City: Yes [X] No [ ]

Other Service Provider in Lebanon Urban Area, If Applicable?

MTEMC

II. NUMBER OF CURRENT ELECTRICAL SYSTEM CUSTOMERS:

A. INSIDE CITY LIMITS

1.	Residential Customers	7060
2.	Nonresidential Customers	0
	Subtotal	7060

B. OUTSIDE CITY LIMITS

1.	Residential Customers	280
2.	Nonresidential Customers	0
	Subtotal	280
	TOTAL	7340

C. IF APPLICABLE, NUMBER OF CUSTOMERS OUTSIDE CITY LIMITS SERVED BY OTHER PROVIDER

Residential _____ Nonresidential _____

III. ELECTRICAL SERVICE RATES/COSTS:

A. Residential .05773 minimum $7.50

B. Nonresidential

IV. AVERAGE KILOWATT HOURS:

Purchased Per Day 1,093,934 KWH

Sold Per Day 1,074,444 KWH

V. STAFFING/MANPOWER NEEDS:

A. Current Staff - - Full-time: 33

Part-time: 0

TOTAL: 33

B. Note any current staffing/manpower needs for now and over next 5 years:

VI. ELECTRICAL SYSTEM FACILITY OR BUILDING SPACE NEEDS:

A. Describe any needs now and over next 5 years:

Developing Plans For a North Substation To Replace Existing City Substation Located on Spring Street.

B. Describe needs beyond next 5 years, if any are now anticipated:

N/A

VII. ELECTRICAL DEPARTMENT EQUIPMENT NEEDS:

A. Describe any equipment needs now and over next 5 years:

Developing Plans To Add Capacitors Throughout Electric System To Control Power Factor

B. Describe any needs beyond the next 5 years, if any are now anticipated:

N/A

VIII. CURRENT PLANS/IMPROVEMENT PROGRAMS:

Briefly describe any electrical system plans, projects or improvement programs currently in place or anticipated:

In The Process of Recondutoring Some Primary Lines Within The Electric System

IX. COMMENT ON ANY OTHER ELECTRICAL SYSTEM ISSUES, NEEDS OR PROGRAMS NOT COVERED ABOVE:

N/A

Appendix D

Major Thoroughfare Plan

Appendix E

Urban Services Information

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES FOR THE CITY OF LEBANON, TENNESSEE FOR COMPLIANCE WITH PC 1101, STATE GROWTH PLANNING LEGISLATION

(Use and attach additional pages as needed.)

406 Tennessee Blvd
443-2323

I. Subject: POLICE PROTECTION FACILITIES & SERVICES

Date(s) of Inventory: March 1999

Person(s) Doing Inventory: Chief Billy Weeks

Person(s) Interviewed: _____

II. NUMBER OF POLICE OFFICERS:

Full-time:	53
Part-time:	
TOTAL:	53

NUMBER OF SUPPORT PERSONNEL:

Full-time:	9
Part-time:	9
TOTAL:	18

III. NUMBER OF CRUISERS IN SERVICE: 54

OTHER VEHICLES IN SERVICE: _____

IV. DISPATCHING:

IN-HOUSE	X
COUNTY E-911	
OTHER (DESCRIBE)	

V. DESCRIBE BUILDING FACILITIES ADMINISTRATIVE, DETENTION AND RELATED SPACE - - AND NOTE ANY ADDITIONAL SPACE NEEDS NOW AND OVER NEXT 5 YEARS:

13,000 Sq. Ft. office and Municipal Court Room.
No backup facility.

NOTE ANY POSSIBLE SPACE NEEDS BEYOND NEXT 5 YEARS, INCLUDING SATELITTE LOCATIONS.

VI. DESCRIBE ANY COOPERATIVE ARRANGEMENTS WITH COUNTY SHERIFF'S DEPARTMENT WITHIN CITY LIMITS AND OUTSIDE CITY:

Normal Mutual Aid Agreements

VII. CURRENT NUMBER OF OFFICERS PER 1,000 POPULATION WITHIN THE COMMUNITY 2.6

CURRENT NUMBER OF PATROL CARS PER 1,000 POPULATION 2.6

HOW DOES LEBANON COMPARE WITH NATIONAL STANDARDS TO SIMILARLY SIZE COMMUNITIES?

Average

DESCRIBE ADDITIONAL NEEDS NOW AND OVER NEXT 5 YEARS:

Increased office space for Investigators. Additional Patrol Officers based on growth and cars for service.

VIII. DESCRIBE ANY ON-GOING OR PROPOSED IMPROVEMENT PROGRAMS OR PROJECT - - POLICING, RECORDS, COMMUNICATIONS, ETC.:

A study and proposal is underway for Multi Jurisdictional dispatch including 911. We are working with Outlets Mall to establish a sub-station.

IX. DESCRIBE/LIST ANY ADDITIONAL EQUIPMENT NEEDS NOW OR OVER NEXT 5 YEARS:

Vehicles based on any new hire officers.

X. DESCRIBE ANY ISSUES, PROBLEMS OR NEEDS NOT COVERED ABOVE:

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES FOR THE CITY OF LEBANON, TENNESSEE FOR COMPLIANCE WITH PC 1101, STATE GROWTH PLANNING LEGISLATION

(Use and attach additional pages as needed.)

106 Stone St.
443-2903

I. Subject: FIRE PROTECTION FACILITIES & SERVICES

Date(s) of Inventory: 3/22/99

Person(s) Doing Inventory: Chief Henry W. Preston

Person(s) Interviewed: _____

II. NUMBER OF FIREFIGHTERS:

Full-time:	36
Part-time:	0
Volunteer:	0
TOTAL:	36

NUMBER OF SUPPORT PERSONNEL:

Full-time:	3
Part-time:	0
TOTAL:	3

III. NUMBER OF FIRE STATIONS: 2

RESPONSE AREA: CITY ONLY 27 1/2 sq.mile OUTSIDE 1 mile jurisdiction

(Describe any conditions for service outside the city limits, if applicable)

ISO RATING: 5 / 9

PLEASE ATTACH A MAP SHOWING FIRE STATIONS AND ATTACH A LIST OF SERVICEABLE APPARATUS SHOWING PUMPING CAPACITY AND OTHER VEHICLES.

IV. DESCRIBE EXISTING BUILDING FACILITIES AND SPACE AND INDICATE ANY ADDITIONAL SPACE NEEDS NOW AND OVER NEXT 5 YEARS:

~~Stations 1 & 2 (Hartmann Drive & East Gay St.) -Existing~~

Station #3 Hwy.70 West (Proposed this year 1999) - New

~~Station # 4 Hwy. 109 & I-40 Area (Proposed year 2000-2001)~~

~~Station #5 Hwy. 231 South Area South of I-40 (Proposed yr.2000-2001)~~

3 mi radius in city
5 mi radius in county

INDICATE BUILDING FACILITY NEEDS BEYOND 5 YEARS:

Station North of Lebanon 231 North in area of Kontika Sub.

V. DESCRIBE ADDITIONAL EQUIPMENT NEEDS NOW AND OVER NEXT 5 YEARS:

1-11/2 Ton 4 wheel drive Brush Truck - Now (1999-2000)

1-Pumper Telesquirt 1500 G.P.M.- Year 2000-2001

1-Pumper 1500 G.P.M. Replacement for Unit 1208 yr. 2001-2002

BEYOND 5 YEARS, IF APPLICABLE:

2 - Pumpers 1500 G.P.M.

1 - Rescue Truck

VI. NOTE ANY COOPERATIVE ARRANGEMENTS WITH OTHER LOCAL JURISDICTIONS:

Mutual Aid with Wilson County & Gallatin Fire Dept.

VII. DESCRIBE ANY ON-GOING OR PROPOSED IMPROVEMENT PLANS OR PROGRAMS:

On going records and dispatch upgrade with computers

Current hose testing - hydrant testing - equipment testing for I.S.O. rating

Upgrade of training with new Training Officer

Upgrading of Public Education for public with Life Safety Trailer.

VIII. COMMENT ON ANY ISSUES, PROBLEMS, NEEDS NOT COVERED ABOVE:

There is a need at this time to decide on a minimum manning level for all apparatus. There should be at least 3 fire fighters on each engine and 4 fire fighters on the ladder tower this is a minimum as NEPA reg. This would be a help in obtaining an I.S.O. rateing of .3.

INVENTORY

Fire Apparatus & Pumping Capacity

and other vehicles in service now.

Fire Station No. 1 - 209 East Gay St.:
1-1997 Pumper - 1500 G.P.M. Pumping Capacity
1-1977 Pumper - 1250 G.P.M. Pumping Capacity
1-1989 Ladder Tower -95 ft/ 1500 G.P.M. Pumping Capacity
1-1996 Brush Truck 11/2 Ton-300 gal. tank Pumping Capacity

Fire Station No. 2 - Hartmann Drive:
1-1988 Pumper - 1500 G.P.M. - Pumping Capacity
1-1984 Pick up truck (Service Truck) - Poor Condition

Chief's Office & Staff:
1996 Car - 4 door caprece - Chief's Car
1997 1/2 Ton Pick up truck - Fire Inspector's Vehicle
1998 1/2 Ton Pick up truck - Training Officer & Public Education Vehicle

Retired Standby Equipment (still in use)
1-1968 Pumper 1250 G.P.M. - Pumping Capacity
1-1972 Pumper 1250 G.P.M. - Pumping Capacity

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES FOR THE CITY OF LEBANON, TENNESSEE FOR COMPLIANCE WITH PC 1101, STATE GROWTH PLANNING LEGISLATION

(Use and attach additional pages as needed.)

416 Baird Park Circle
449-0303

I. Subject: PARKS & RECREATION

Date(s) of Inventory: 3-20-99

Person(s) Doing Inventory: Alex Buhler

Person(s) Interviewed: _____

II. STAFFING:

Full-time:	6
Part-time:	7
Volunteer:	
TOTAL:	13

DESCRIBE ANY STAFFING NEEDS NOW AND OVER NEXT 5 YEARS:
Will need more Part-time for Baird Park and Don Fox Community Playground. This does not include staffing for Jimmy Floyd Life Center.

III. PROVIDE A LISTING OF ALL PARK & RECREATION AREAS (WITH MAP OF LOCATIONS) IN THE CITY, WITH DESCRIPTION & LISTING OF FACILITIES FOR EACH. ALSO INDICATE SITE ACREAGE FOR EACH LOCATION:

Baird Park - Harold Dean Greer Recreation Center, Babe Ruth Park - Dixie Ruth Park (2), Kiwanis Little League (2) Lebanon Girls Softball (2), Elkins Park Softball - Football Complex (2), Lebanon Youth Soccer (3)

IV. DESCRIBE ANY ON-GOING OR PROPOSED IMPROVEMENT PROJECTS OR PROGRAMS:

Building 3 new softball, 1 new baseball and multi-purpose fields Thackston Property

V. DESCRIBE ANY BUILDING, FACILITY OR SITE NEEDS NOW AND OVER NEXT 5 YEARS:

Jimmy Floyd Family Center currently under construction projected openning November 1999.

AND BUILDING, FACILITY OR SITE NEEDS BEYOND 5 YEARS:

VI. DESCRIBE ANY EQUIPMENT NEEDS NOW AND OVER NEXT 5 YEARS:

Any equipment needed can probably be addressed through normal budget - will need some new equipment

VII. DESCRIBE ANY ISSUE, PROBLEM OR NEED NOT COVERED ABOVE:

INVENTORY OF PUBLIC INFRASTRUCTURE & SERVICES
FOR THE CITY OF LEBANON, TENNESSEE
FOR COMPLIANCE WITH PC 1101, STATE GROWTH
PLANNING LEGISLATION

(Use and attach additional pages as needed.)

I. Subject: OTHER PUBLIC WORKS FACILITIES/SERVICES INCLUDING SOLID WASTE MANAGEMENT; STREET CONSTRUCTION/REPAIR; STREET LIGHTING; STORM DRAINAGE

Date(s) of Inventory: 3/20/99

Person(s) Doing Inventory: Jeff Baines,P.E. Commissioner of Public Works.

Person(s) Interviewed: DAVID G. GIBBS, GENERAL SERVICES ADMINISTRATOR

II. SOLID WATE MANAGEMENT:

A. Number of Employees:

Full-time:	13
Part-time:	0
TOTAL:	13

B. Describe method of collection, current equipment and frequency of pick-ups:

Residential household garbage collection with four (4) 25-yard rear loading units and one (1) 9-yard satellite unit furnishing once a week pick up for 7,200 customers.

C. Describe city owned disposal facilities and/or arrangements for utilization of county owned or other facilities (include tipping fees):

Contracted with BFI for $8.00 per yard at the scale which translates to approximately $16.50 per ton.

D. Describe any current recycling programs/arrangements:

Private Companies are operating drop off bins throughout the City.

E. Describe any collection, recycling or disposal facility or equipment needs now and over next 5 years:

In the next five (5) years, we will need to add another 25-yard unit and an additional three (3) men.

Describe any needs beyond the next 5 years:

Ten (10) year contract with BFI with an option for an additional ten (10) more years.

F. Describe any current plans or improvement projects/programs in place or anticipated:

Update of our current Solid Waste Ordinance.

G. Note any solid waste management issues or problems not covered above:

III. STREET CONSTRUCTION/REPAIR:

A. Number of Employees:

Full-time:	18
Part-time:	0
TOTAL:	18

Note additional staffing needs, if any:

Seven (7) to eight (8) part-time summer employees.

B. Does city have an on-going program of routine inspection, maintenance and repair? If so, please describe:

Full time patching crew

C. List/Describe current equipment:

Road Grader, Dump Truck, Patch Truck

D. Describe any facility or equipment needs now and over next 5 years:

Paving Machine, 10 ton Vibratory Roller, Small Bulldozer

E. Describe any issues, problems, needs not covered above:

IV. STREET LIGHTING:

A. Describe any program now in place for routine inspection and maintenance:

When desired Gerald asks Russell & Shorty to run the town flagging all off or off/on lights. Gerald repairs during normal working hours.

B. Policies for provision of any new street lighting:

When annexation occurs, try to add lights in stated time frame. If a State Road, obtain TDOT approval. If not then add a small light every other lot line. Provide overhead free. Developer pays excess cost if fed from underground.

C. Describe any facility or equipment needs now and over next 5 years:

STORM DRAINAGE:

All storm drains are inventoried, mapped and routinely checked after each rain.

They are prioritized for frequency of blockage

There is an ongoing ditching maintenance program to maintain local drainage ways are flowing properly.

D. Describe any improvement projects/programs proposed or in-place other than previously noted:

NONE

V. STORM DRAINAGE

A. Describe any major unresolved storm drainage problems or issues affecting the city:

1) Flooding of town square (2) Flooding in Walkers Branch water shed (ie. Hallcroft Subdivision)

B. Note any improvement projects/plans in place or proposed:

Detention east of Hartsville Pike

C. Describe any city policies or financing methods for dealing with storm drainage problems:

Subdivision regulations requiring 100-yr. study for subdivisions outside the regulated 100-yr floodplain.

D. Describe any issues or problems not indicated above:

V. DESCRIBE ANY ADDITIONAL ISSUES OR NEEDS REGARDING THE ABOVE PUBLIC WORKS FACILITIES NEEDS OR OTHER NEEDS NOT PREVIOUSLY NOTED:

Appendix F

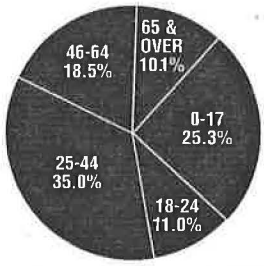
Regional Economic Forecasts

Regional Profile

Published by the Nashville Area Chamber of Commerce

Population Growth

County	1990	1999	% Change
Cheatham	27,140	35,560	+31.0
Davidson	510,784	541,490	+6.0
Dickson	35,061	41,482	+18.3
Robertson	41,494	51,499	+24.1
Rutherford	118,570	169,862	+43.3
Sumner	103,281	126,227	+22.2
Williamson	81,021	119,855	+47.9
Wilson	67,675	83,672	+23.6
Nashville MSA	985,026	1,169,647	+18.7
Maury	55,285	72,223	+30.6
Montgomery	101,618	141,797	+39.5
Nashville Economic Market	1,141,929	1,383,208	+21.1
Tennessee	4,890,640	5,497,000	+12.4



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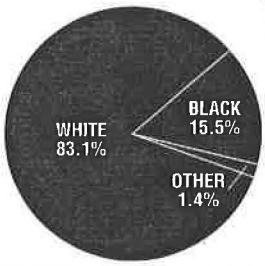
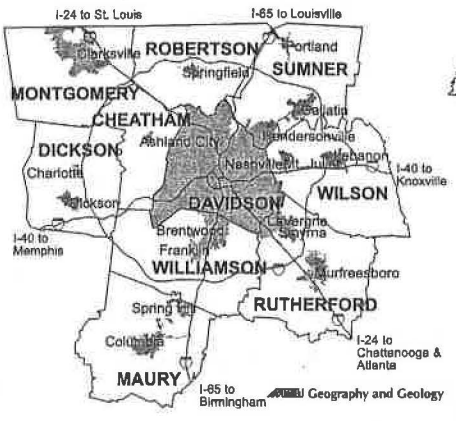


RACE

NASHVILLE MSA 1990



NASHVILLE ECONOMIC MARKET

The Nashville Economic Market

Nashville is the capital of Tennessee and a vital transportation, business and tourism center for North America. The Nashville Metropolitan Statistical Area (MSA), in the state's center, comprises eight counties and over one million in population. The Nashville Economic Market contains two additional counties.

Nashville-Davidson County has a consolidated government based on a 1963 plan that has become a national model. Davidson County is largely urbanized with extensive residential areas. Growth continues due to transportation, labor supply and development opportunities.

Cheatham County is the state's sixth fastest growing county. The county seat is Ashland City, home to State Industries and many other growing businesses.

Dickson County is developing industry to accompany its agricultural base with firms like Teksid Industries. Charlotte is the county seat and Dickson is the largest town.

Maury County, home to Saturn Corporation, continues to attract new business to communities offering rural amenities and urban accessibility. Columbia, the county seat, offers a variety of regional shopping and business services.

Montgomery County, part of of the Clarksville MSA, supports a diversified economy, Fort Campbell military base and Austin Peay State University. Clarksville, Tennessee's fifth largest city, continues rapid growth. Area industries include Bridgestone Metalpha, Quebecor and Trane Corporation.

Robertson County has a growing and diverse manufacturing sector and a strong agricultural base. Frigidaire operates a large plant in Springfield, the county seat.

Rutherford County is the fastest growing county in Tennessee and among the 50 fastest in the nation. Nissan Motor Manufacturing Corp. U.S.A. is located in Smyrna. Murfreesboro, the county seat and largest city, is home to Middle Tennessee State University and a broad economic base.

Sumner County has much major business development in Gallatin, the county seat, abundant recreational and impressive residential areas in Hendersonville and an extensive industrial base in Portland.

Williamson County is among the nation's 50 fastest growing counties with the emergence of upscale suburbs, retailing and office parks in Brentwood. Franklin, the county seat, offers historic ambiance as well as business settings like the headquarters for PRIMUS Automotive Financial Services.

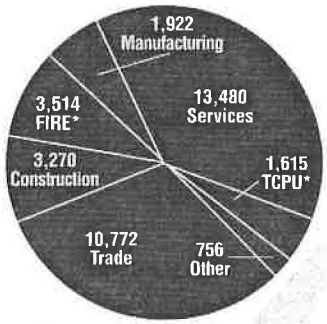
Wilson County continues to grow rapidly in residential commercial and industrial developments as Nashville grows eastward. Lebanon is the county seat and the largest city.

Economic Structure

The Nashville Region's economy is diverse and mirrors the national economy. The area benefits from low unemployment, consistent job growth, substantial outside investment and expansion and a well trained and growing labor force. The Nashville Region tends to outperform the state and nation throughout all stages of the economic cycle. The Nashville economy is clearly not reliant on any one area of business activity. The city is a leader in publishing and printing, finance and insurance, health care management, music and entertainment, automobile and related industry manufacturing, higher education and tourism. In the 1990s, the region has experienced simultaneous gains in services, manufacturing and trade in skilled occupations at competitive salaries and wages. Middle Tennessee's trained and motivated work force continues to draw interest among firms seeking a healthy business climate, consistent long-term growth and unmatched economic potential.

Nashville Economic Market

35,329 Business Establishments



Source: Bureau of Economic Analysis

Employment Characteristics

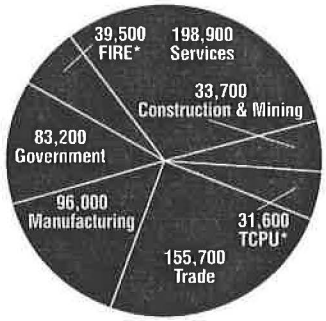
Work Force	1990	1991	1992	1993	1994	1995	1996	1997	1998	% Change 1990-98	Actual Net Change 1990-98
Non-Ag Employment	502,400	504,100	513,800	529,700	559,000	592,500	609,000	614,900	638,500	+27.1	+136,100
Manufacturing	89,400	87,500	90,300	91,900	96,300	99,900	99,800	94,900	96,000	+7.4	+ 6,600
Construction and Mining	24,600	23,900	19,500	20,400	24,500	28,400	28,200	30,300	33,700	+37.0	+9,100
Services	138,200	141,400	150,200	159,000	166,100	173,100	188,500	193,100	198,900	+43.9	+60,700
FIRE*	30,900	30,500	30,500	30,500	30,900	34,100	35,300	37,800	39,500	+27.8	+8,600
TCPU*	26,900	27,100	30,300	31,300	32,300	34,100	31,500	31,500	31,600	+17.5	+4,700
Retail/Wholesale Trade	123,600	124,600	125,800	129,100	129,100	146,900	148,200	149,700	155,700	+26.0	+32,100
Government	69,000	69,200	67,400	68,400	76,100	76,000	77,500	77,700	83,200	+20.6	+14,200

**FIRE (Finance, Insurance and Real Estate) and TCPU (Transportation, Communications and Public Utilities)*

Unemployment Rate	1990	1991	1992	1993	1994	1995	1996	1997	1998
Davidson County	3.5	4.4	4.8	3.8	3.1	3.1	3.0	3.2	2.7
Nashville MSA	4.0	4.9	5.2	4.2	3.2	3.3	3.2	3.4	2.9
Nashville Econ. Market	4.3	5.4	5.3	4.4	3.4	3.5	3.4	3.5	2.9
Tennessee	5.3	6.4	6.5	5.8	4.7	4.7	4.9	5.2	4.1
United States	5.5	6.7	7.4	6.7	6.0	5.7	5.5	4.9	4.6

Note: Data not seasonally adjusted
Source: Tennessee Department of Employment Security

Employment



New and Expanding Businesses

1990 – 1992
- Bankers Trust/BT Services
- Bridgestone/Firestone
- Caterpillar Financial Services
- Gabriel Ride Control Products
- National Federation of Independent Business
  Nissan Motor Manufacturing Corp. USA
  Saturn Corporation

1993-1995
- Bridgestone Metalpha
- Columbia/HCA Healthcare
  Georgia-Pacific Corporation
- Ingram Industries
- MagneTek
  Oneida Silversmiths
  The Gap
- Thomas Nelson Publishing
- Western Sizzlin' Restaurants

1996-1998
Accuride Corporation
American Standard Inc.
Deloitte & Touche
- Dollar General Corporation
  Metropolitan Life Insurance
- NFL Oilers/Titans
- PRIMUS Financial Automotive Services
- Shop at Home
  SunTrust Financial Services

• *Designates Headquarters*

Commercial Real Estate

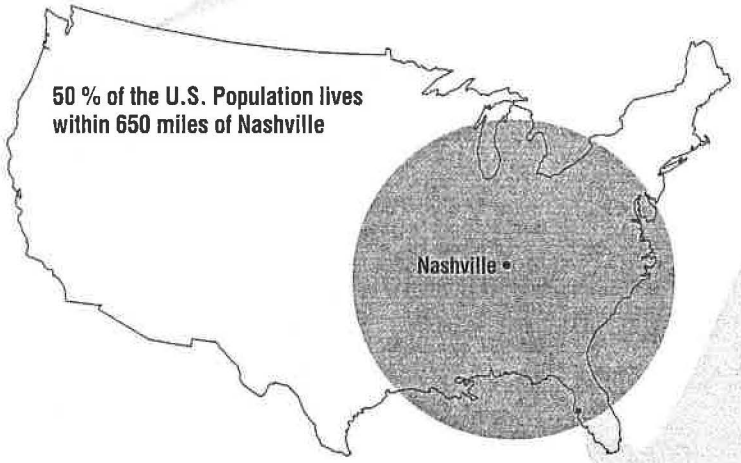
Nashville MSA

	Office Space (000 sq. ft.)	Office Vacancy Rate%	Industrial Space (000 sq. ft.)	Industrial Vacancy Rate %	Retail Space (000 sq. ft.)	Retail Vacancy Rate %
1990	16,478	21.6	110,309	8.4	21,987	15.0
1991	16,791	21.3	110,744	8.3	23,421	17.2
1992	16,846	18.4	110,937	6.4	23,927	14.8
1992	16,740	15.0	111,173	6.4	24,623	14.3
1994	16,909	10.5	111,350	5.4	24,999	12.9
1995	16,909	10.5	112,320	4.6	25,233	6.9
1996	17,871	6.2	114,923	6.7	25,150	6.6
1997	18,521	6.5	116,130	8.9	24,910	6.2
1998	20,252	9.92	115,540	7.76	26,284	6.54

Sources: Trammell Crow Company; CB Richard Ellis; Grubb & Ellis Centennial

Transportation Systems

- **Air:** Nashville International Airport, located eight miles southeast of downtown, handled more than eight million passengers and over 60,000 tons of cargo in 1998. Over 360 daily arrivals and departures to over 80 cities in North America. Nashville is served by Air Canada, American, American Eagle, Comair, Continental, Corporate Airlines, Delta, Delta Express, Northwest, Skyway, Southwest, TWA, United, United Express, US Airways, US Airways Express.



- **Road:** Convergence of three major interstate highways, I-40, I-24 and I-65, in Nashville. The I-440 and I-265 connectors link the central city, and I-840/Music City Beltway, connecting nine counties, is under construction with the first portion now completed between Lebanon and Murfreesboro.
- **Rail:** CSX Transportation links 20 states and operates a major intermodal yard for the Southeast with 90 trains daily.
- **Water:** Port of Nashville – Cumberland River; nine-foot navigation channel.
- **Mass Transit:** Intercity bus lines; downtown trolleys, HOV lanes; park and ride lots, two downtown LANDPORTs.

Cost of Living

(U.S. Average = 100)

New York	231.3	Richmond	108.3	Charlotte	99.1
Boston	131.9	Denver	108.1	Dallas	98.6
San Diego	127.8	Phoenix	102.3	Cincinnati	98.3
Washington	123.8	Atlanta	102.2	St. Louis	98.1
Philadelphia	121.2	Raleigh	101.8	Indianapolis	96.6
Detroit	114.0	Orlando	99.5	Baltimore	96.0
Cleveland	112.6	Austin	99.3	**Nashville**	**95.9**

Source: ACCRA Cost of Living Index, Third Quarter 1998

Tax Review

- **Personal Income Tax:** None on wages and salaries; 6% on certain types of dividend and interest income
- **Sales Tax:** State 6%; local option 2.25% with maximum $1,600 per single article of tangible personal property. Combined 8.25% applies in most counties.
- **Corporate Excise Tax:** 6% on net earnings.
- **Franchise Tax:** $.25 per $100, or major fraction thereof, of the issued and outstanding capital stock surplus and undivided profits; minimum, $10.
- **Inventory Tax:** None on finished goods inventory.
- **Unemployment Compensation Tax:** 0.15% to 10% of first $7,000 of wages paid to each employee in calendar year. Rate is 0% for employers with a reserved ratio of 20% or more. New employers rate is 2.7% for first three completed calendar years (excluding construction and mining.)
- **Local Gross Receipts Tax:** Varies from .125% to .16 of 1%. Exempts manufacturers and certain professionals.

County Property Tax Rates

Cheatham	$3.15
Davidson	
(General Services District)	3.27
(Urban Services District)	4.12
Dickson	2.87
Maury	2.89
Montgomery	3.30
Robertson	2.63
Rutherford	3.37
Sumner	2.96
Williamson	2.96
Wilson	2.83

Note: Check cities for additional rates.
Ratios per $100 assessed value (1997)
- Residential = 25%
- Industrial and Commercial Real Estate = 40%
- Industrial and Commercial Personal = 30%

Tax Comparison

City	Income	Property	Sales	Auto	Total
New York	$3,330	$1.713	$1,252	$ 75	$6,370
Philadelphia	3,095	2,205	528	102	5,930
Louisville	3,178	1,116	776	333	5,403
Charlotte	1,900	1,063	898	320	4,271
Atlanta	1,733	1,191	954	326	4,204
Los Angeles	996	1,748	928	397	4,034
Chicago	1,308	1,446	1,076	205	4,034
Birmingham	2,248	327	1,114	310	3,999
Indianapolis	1,886	1,124	560	117	3,687
Nashville	0	1,140	1,147	151	2,438

Tax burden based on family of four at $50,000/year.
Source: District of Columbia Dept. of Finance and Revenue, 1996

Top Employers

25 largest, excluding government agencies
(• National, State or Corporate Headquarters)

	Local Employees
• Vanderbilt University & Medical Center	12,719
• Saturn Corporation	9,671
• Columbia/HCA Healthcare Corporation	8,100
• Gaylord Entertainment	6,454
• Nissan Motor Manufacturing Corporation U.S.A.	6,000
• Kroger Company	5,750
• Reemay, Inc.	5,070
United Parcel Service	4,500
• First American National Bank	4,200
• Shoney's, Inc.	4,125
• St. Thomas Hospital	4,000
• BellSouth	3,500
• Inter-City Products Corporation	3,200
• Baptist Health Care Systems, Inc.	3,030
NationsBank	2,900
• Bridgestone/Firestone USA, Inc.	2,800
• Service Merchandise Company	2,589
• Ingram Industries, Inc.	2,500
• Fleetguard	2,300
• The Tennessean	2,300
Whirlpool, Inc.	2,300
• Cracker Barrel Old Country Store, Inc.	2,271
• Comdata Corporation	2,200
• State Industries	2,200
The Trane Company	1,800

Education System

PUBLIC SCHOOL SYSTEMS K-12
NASHVILLE ECONOMIC MARKET

County	1997-98 Enrollment	Drop Out Rate %	% of Graduates Continuing Education	Average SAT Score Total
Cheatham	6,584	5.2	57.2	1,092
Davidson	69,337	21.9	74.1	1,100
Dickson	7,867	20.1	52.1	1,246
Maury	11,762	23.8	62.1	1,143
Montgomery	22,697	8.0	68.3	1,203
Robertson	9,726	10.5	47.8	1,126
Rutherford	23,708	16.1	61.3	1,180
Sumner	21,926	15.6	67.8	1,148
Williamson	17,313	11.5	86.7	1,150
Wilson	11,545	14.5	67.2	1,136
Total	202,465	16.6	68.6	1142

- In Median Effective Buying Income (EBI) in the Nashville MSA is $38,224.
- Over 45,000 persons in the Nashville MSA have graduate or professional degrees.
- There are more than 70 private and parochial schools in the MSA, with a total enrollment of approximately 20,500 students. Annual tuition costs range from $1,300 to $6,000.

HIGHER EDUCATION
MIDDLE TENNESSEE REGION

ACCREDITED FOUR-YEAR & POSTGRADUATE INSTITUTIONS	
Aquinas College, Nashville	317
Austin Peay State University, Clarksville	7,508
Belmont University, Nashville	3,000
Cumberland University, Lebanon	1,200
Lipscomb University, Nashville	2,381
Fisk University, Nashville	826
Meharry Medical College, Nashville	856
Middle Tennessee State University, Murfreesboro	18,432
Nashville School of Law, Nashville	340
Tennessee Technological University, Cookeville	8,215
Trevecca Nazarene University, Nashville	1,582
Tennessee State University, Nashville	8,750
University of the South, Sewanee	1,507
University of Tennessee Space Institute, Tullahoma	268
Vanderbilt University, Nashville	10,200
ACCREDITED TWO-YEAR PUBLIC COLLEGES	
Nashville State Technical Institute, Nashville	7,271
Volunteer State Community College, Nashville	6,718
Motlow State Community College, Tullahoma	3,365
Columbia State Community College, Columbia	4,366
1998 Total Enrollment	82,585

Music City Facts

Climate & Setting

- Temperature Averages: Annual Average – 59.2 F, January – high 46.3 F, low 27.8 F; June – high 89.8 F, low 69.0 F
- Average annual precipitation is 48.5"
- Average humidity is 58%
- Central Time Zone; Elevation 550'
- Nashville Economic Market area is 5,225 square miles

Utilities

Nashville Electric Service, TVA, Nashville Gas Company and Metro Water Service serve Davidson County.

Monthly Electric Bills

200kW demand; 100,000kWh month

Philadelphia	$9,325
Newark	8,491
San Francisco	7,684
Tampa	5,532
Baltimore	5,507
Houston	5,433
St. Petersburg	5,431
Miami	5,301
Nashville	**5,265**

Source: Virginia Power/North Carolina Power, January 1998 Communications

Communications

Print:

- The TENNESSEAN: circulation – daily 197,000, Sunday 287,000
- Nashville Business Journal

Broadcast/Cable:

- TV: 8 local stations; 78 cable channels
- Radio: 10 AM stations; 19 FM stations

Income

- 1997 Median Effective Buying Income (EBI) in the Nashville MSA is $38,224
- 9,500 Nashville MSA households with EBI of $150,000 or higher; ranked 36th highest of 320 cities.

Per Capita Personal Income (1996)

		TN County Ranking
Cheatham	$18,326	35
Davidson	29,394	2
Dickson	19,216	27
Maury	20,681	16
Montgomery	18,475	34
Robertson	19,341	25
Rutherford	22,041	9
Sumner	21,993	10
Williamson	32,925	1
Wilson	22,096	7
Nashville MSA	26,262	
Tennessee	22,032	
United States	24,436	

Source: Sales & Marketing Managers and Bureau of Economic Analysis

Retail Sales

- The Nashville MSA has 7,409 retail establishments, up over 15% since 1990.

	$ Million	% Change
1990	$ 7,691	5.9
1991	8,146	2.3
1992	8,649	6.1
1993	9,579	10.7
1994	10,673	11.4
1995	11,422	7.0
1996	11,927	4.4
1997	12,798	7.3
1998	13,335	4.2

Source: TN Department of Revenue, Nashville Chamber estimate

Recreation & Arts

- 76 parks and playgrounds; 13 public pools
- 160 tennis courts; 18 golf courses (10 private, 8 public)
- 30,000 acres inland lakes for fishing, boating and skiing
- Centennial Sportsplex – swimming, tennis, ice skating
- Tennessee Performing Arts Center
- Nashville Symphony, Ballet, Opera and Tennessee Repertory Theatre
- Grand Ole Opry
- Country Music Hall of Fame
- Tennessee State Museum; Cumberland Science Museum
- Nashville Wildlife Park at Grassmere, The Nashville Zoo, Cheekwood: Nashville's Home of Art and Gardens
- Nashville Arena; NFL Stadium

Nashville
MUSIC CITY USA

For more information on the Nashville Economic Market contact:

Nashville Area Chamber of Commerce
161 Fourth Avenue North
Nashville, Tennessee 37219-2485

Phone: (615) 259-4755 FAX: (615) 256-3074
Internet:
http://www.nashvillechamber.com
E-mail: profile@nashvillechamber.com
Video Teleconference: (615) 401-7086/7087

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Nashville

A profile of business in the region

Suppliers follow Dell to Middle Tennessee

The ripple effect associated with Dell Computer Corporation's entrance into Middle Tennessee is revving up Nashville-area commercial real estate activity as the personal computer giant's suppliers scramble to find space for their operations.

As of September 30, at least 11 companies have signed leases for space in Davidson, Rutherford and Wilson counties.

"Dell's ripple effect is readily apparent in the activity of its suppliers," said Gaylord Entertainment Company CEO Terry London, who serves as chairman of PARTNERSHIP 2000, the economic development initiative of the Nashville Area Chamber of Commerce.

"We are just beginning to see the first wave of supplier companies setting up shop in Middle Tennessee. We expect many more companies and hundreds, if not thousands, of supplier-related jobs to follow in the coming years."

Janet Miller, director of economic development for the Nashville Chamber, said the new supplier businesses already occupy more than 650,000 square feet of space and account for more than 225 new employees. The companies include Ryder Integrated Logistics, Austin Foam Plastics, Capital City Container, Digimedia and IPC Communication Services.

Kip Thompson, vice president of worldwide facilities for Dell, cited outstanding logistical advantages as one of the primary reasons the company chose the Nashville area for its first U.S. expansion outside of Texas.

"We can get to 60 percent of our customer base in two days from Nashville," he said.

Additionally, Thompson said innovative state and local leadership, superior infrastructure and availability of space to grow their operations played an important role in Dell's location decision.

Dell already employs about 1,000 Middle Tennessee residents at its 304,000-square-foot Lebanon manufacturing facility in Wilson County. The company's main campus, to be housed in Davidson County, is under development.

> *"We can get to 60 percent of our customer base in two days from Nashville."*
>
> *-Kip Thompson, Vice President, Worldwide Facilities, Dell Computer Corp.*

NFL stadium enhances Nashville's image as a professional sports town

The opening and naming of Adelphia Coliseum, the official name of the Tennessee Titans' new home stadium, completed Nashville's transformation into an NFL city.

Adelphia Communications paid $30 million for naming rights to the newly completed 67,000-seat stadium and celebrated with thousands of Titans' fans during a grand opening event this summer.

Titans' fans enjoyed an intense game during the team's regular season debut at "The Delph" on September 12. A crowd of nearly 66,000 – a franchise record at the time – turned out to see the Titans manage a come-from-behind win over the Cincinnati Bengals, 36-35.

"There's a real sense of pride associated with Adelphia Coliseum," said Joe Kelley, chairman of the Nashville Sports Council. "It has helped create a level of excitement and energy among professional sports fans that hasn't existed here until very recently. The stadium's unmistakable presence makes a bold statement to visitors, tourists and travelers that says 'We're in the big leagues now."

Fans pack the newly completed, 67,000-seat Adelphia Coliseum to cheer on the Tennessee Titans.

Another important development in the professional sports arena was the official naming of the NHL's Nashville Predators' home venue. Gaylord Entertainment Company, a Nashville-based diversified entertainment company and minority owner of the Predators, signed an $80 million deal to change the name of the Nashville Arena to Gaylord Entertainment Center.

Nashville International Airport improvements to top $45 million

Nashville International Airport was the fourth best among 36 major U.S. airports, according to a Plog Research survey released in 1998 that evaluated baggage delivery, ease of reaching gates, available ground transportation and other amenities.

The Metropolitan Nashville Airport Authority has embarked on two massive expansion initiatives to make it even better. The first, a $35 million capital improvement program, will increase parking availability and significantly enhance terminal access. The second initiative, an $11 million project, will dramatically expand air cargo services.

"These improvements are essential to keep Nashville competitive with other cities," said General William G. Moore, president of the Airport Authority. "As the region has grown, so has the volume of passengers, flights and cargo traveling to and from Nashville."

In terms of parking, expansion efforts will add more than 1,200 new spaces.

Terminal improvements include adding pedestrian bridges with moving sidewalks connecting the baggage and ticketing levels to the parking garage, increasing traffic lanes on all three levels, adding valet parking service and building four climate-controlled waiting rooms for passengers on the ground transportation level.

Additional improvements include expanding passenger pick-up and drop-off areas on the baggage and ticketing levels, adding more covered rental car spaces, taxi waiting spaces, parking toll booths, stairways and elevators in the parking garage.

Improvements to air cargo services will create a complex to be known as the Nashville Air Cargo Link. This program includes rehabilitation and enlargement of cargo aircraft aprons; taxiways and parking areas for customers, trucks and employees, plus the addition of new air cargo facilities on adjacent land.

"The goal of the Nashville Air Cargo Link is to provide seamless service between freight forwarders, manufacturers, distributors and air cargo carriers," said Hugh G. Smith, vice president of air cargo for the Airport Authority.

To further enhance air passenger service, Nashville International Airport added several new non-stop markets to its flight schedule during the last year including service to Seattle, Wash.; Fort Lauderdale, Fla.; San Diego, Calif.; Long Island, N.Y.; and Hartford, Conn.

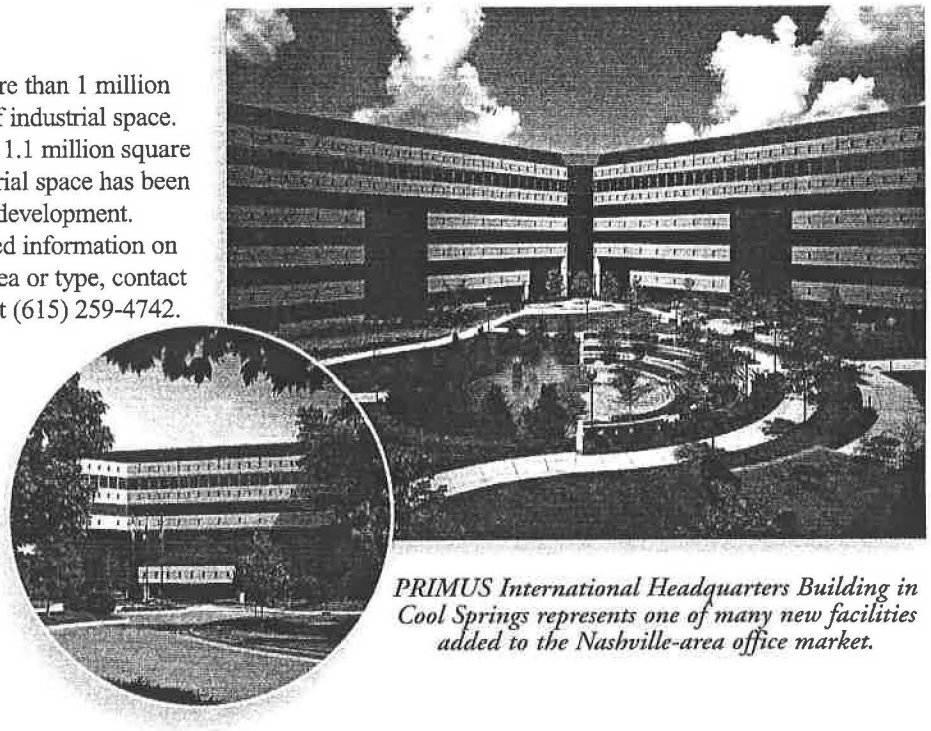
Improvements at Nashville International Airport will significantly enhance the facility's capacity to move goods and people.

Nashville Under Construction

The PRIMUS International Headquarters Building is among the newest facilities added to Middle Tennessee's office market landscape. The 540,000-square-foot building sits on 100 acres and can accommodate about 2,300 employees.

Companies looking to expand in, or relocate to, the Nashville area will have a greater selection of space with the abundance of multi-tenant, speculative and industrial buildings under construction. Current projects will add more than 1.7 million square feet of Class A office space and more than 1 million square feet of industrial space. An additional 1.1 million square feet of industrial space has been proposed for development.

For detailed information on projects by area or type, contact Janet Miller at (615) 259-4742.



PRIMUS International Headquarters Building in Cool Springs represents one of many new facilities added to the Nashville-area office market.

Nashville pursues rail transit to support growth, beat gridlock

Nashville is taking proactive steps to ensure that Middle Tennessee's transportation network keeps pace with the region's growth.

During the past year, the Nashville Area Chamber of Commerce spearheaded efforts to draft a regional multi-modal transportation plan that would shorten commutes to and from downtown Nashville and reduce overall automobile traffic on Middle Tennessee thoroughfares.

"Roads cannot be built fast enough, or cheaply enough, to meet the demands of continued regional growth," said Lewis Levine, vice chairman of transportation for the Chamber. "If we are to continue to grow and prosper, we must enhance our current transportation system so that it offers area residents a comfortable and convenient alternative to driving their cars."

The Chamber outlined its proposed multi-modal transportation plan in a recent report titled "Beating Gridlock: An Attainable Transportation Program for Middle Tennessee." The plan calls for developing commuter rail service to five counties by the year 2010 and building the first leg of a light rail system from downtown Nashville out west to Interstate 440. It also addresses the need to secure regional funding sources for operating and capital costs and the need to launch a public awareness campaign that encourages regional support among business leaders, elected officials and citizens.

A delegation made up of state transportation officials, Chamber representatives and area business leaders traveled to Washington, D.C. in October to seek an estimated $25 million in federal funding to put the first of five commuter rail corridors in operation by 2001.

Visit the Chamber's website at nashvillechamber.com for report details.

The City of Hendersonville plans to build a full-service commuter rail station which could include amenities such as a drycleaner, coffee shop and a post office.

Proposed site for Hendersonville Station and future Hendersonville Commuter Rail Station.

Nashville hosts world's top corporate real estate executives

More than 2,300 top corporate real estate executives and site selection consultants spent several days in Nashville recently. Nashville served as the host city for the International Development Research Council's (IDRC) World Congress held October 16-20 at the Opryland Hotel. This year marked the second time in seven years that the IDRC has selected Nashville to host its meeting.

"This show is typically held in larger markets such as New York, Boston, Chicago and Los Angeles, so bringing in a group of this caliber is a major coup for Nashville – and for the state of Tennessee," said Janet Miller, director of economic development for the Nashville Area Chamber of Commerce. "I think the fact that they chose Nashville not once, but twice, in the last decade is a real testament to our city."

Miller said holding the conference here provided attendees, some of whom have never visited Tennessee or Nashville, a chance to see what the city was all about. And for those who attended the first IDRC World Congress held in Nashville in 1992, it was an opportunity to highlight the many positive changes that occurred since their last visit.

"These folks are the decision makers who have the ability to create significant economic development in Nashville and throughout Tennessee in the years ahead," Miller said.

Fast Facts

- Nashville is among the top ten most educated metropolitan areas in America, according to a recent study conducted by the Center for Regional Economic Issues at Case Western University. The study determined that there is a direct correlation between the number of college-degree holders in a particular area and rapid increases in per capita income.
- Growth of women-owned businesses in Nashville is the fifth-fastest in the nation, according to recent figures released by the National Foundation for Women Business Owners.
- Crime rates dropped for the third consecutive year in Nashville during 1998 with declines in all major crime categories.
- Nashville ranked 37th in 1999 among U.S. metro areas with the most households with effective buying incomes of $150,000 or more, according to the 1999 Survey of Buying Power. Nashville ranked 47 in population size on this list.
- Two Nashville hospitals – Vanderbilt Medical Center and St. Thomas Hospital – rank among the nation's best for their programs in cardiology and heart surgery, urology and treatment of hormonal disorders, according to *U.S. News & World Report* magazine's annual survey of "America's Best Hospitals."

1992 MAJOR THOROUGHFARE PLAN

CITY OF LEBANON

WILSON COUNTY, TENNESSEE

1998 UPDATE

NOTE:

1. DETAILED CORRIDOR STUDY FOR THE PROPOSED HARTMANN DR. (U.S. 231 BY-PASS) ARE ON FILE AT THE CITY OF LEBANON ENGINEERING DEPARTMENT

LEGEND

COLLECTORS

ARTERIALS

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	FEB.26.1999		
2	MAY.5.1933	C.E.H. JR.	PLAT RECORDED
3	MAY.19.1998	A.R.G.	HARTMANN DR. (U.S. 231 BY-PASS) CORRIDOR

RECORDING INFORMATION:

DATE_____

PLAT BOOK_____PAGE_____R.O.W.C. TN.

THIS PLAT VOIDS, VACATES AND SUPERCEDES THE PLAN PREVIOUSLY RECORDED ON 3/5/93- PLAT BK. 19 PG 866.

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Relocations

Nashville's favorable business climate has attracted numerous national and international companies in recent months. The following is an abbreviated listing of relocations that have occurred since April 1999:

Austin Foam Plastics
Foam and corrugated packing material; 81,000 square feet and 80 new employees; Rutherford County

Capital City Container
Austin-based supplier of cardboard packing for Dell Computer Corporation; 35,000 square feet and 50 new employees; Davidson County

Dell Computer Corporation
Personal computer manufacturer; first Nashville-area facility of about 300,000 square feet and 1,000 new jobs; Wilson and Davidson counties

Ford Motor Credit/Fairlane
Loan service center for Fairlane with 500 employees; new service center for Ford Motor Credit with 110 new employees; Williamson County

Imperial Fabricating
New manufacturing and distribution facility for heavy truck parts; 224,000 square feet; Sumner County

Lightning Logistics
Distribution and logistics center serving Dell and its suppliers; 40,000 square feet and 15 new employees; Davidson County

Mephisto USA
Relocation of U.S. headquarters and distribution for the fine footwear manufacturer; 34,000 square feet and 50 new employees; Williamson County

Premium Wear, Inc.
Golf and corporate casual wear manufacturer; 103,000 square feet and 60-75 new employees; Montgomery County

Ryder Integrated Logistics
Largest logistics consolidator for Dell Computer Corporation; will expand to 340,000 square feet; Rutherford County

Sprint PCS
New 500-seat customer service center; 90,000 square feet and 1,150 new employees; Davidson County

Nashville Neighbors: Sumner County

Scenic beauty, excellent quality of life and proximity to Nashville are a few of the many reasons more and more families and businesses are moving to Sumner County.

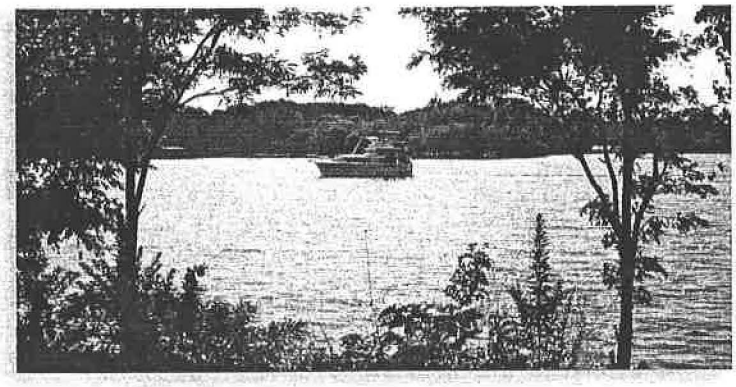
In the last decade, Sumner County's population has grown by more than 22 percent. Today, more than 125,000 people reside there, making it the third largest county in the Nashville Metropolitan Statistical Area behind Davidson and Rutherford counties.

Sumner County is unique in that it is comprised of four major cities – Gallatin, the county seat; Hendersonville, home of Old Hickory Lake and 26 miles of beautiful shoreline; Portland, the site of impressive new retail development; and White House, one of the top 125 fastest-growing cities in the nation.

"We've seen a lot of new residential activity in recent years which has led to the need for and development of new schools," said Tracy Carman, executive director of the Gallatin Chamber of Commerce. "We've opened three new schools here since January."

The other cities echoed Carman's comments, citing high volumes of residential activity and an abundance of new businesses including Gap Distribution, Bosch Automotive Motor Systems and a new distribution facility for Advance Auto Parts.

Sumner County boasts a healthy mix of industries with concentrations among manufacturing and printing companies. Major employers, aside from those companies listed above, include RR Donnelley & Sons Company and G.F. Furniture in Gallatin; Unipres USA (pressed metal parts for the automotive industry) and National Catalog Corporation in Portland; Osh Kosh B'Gosh in White House; and Betty Machine in Hendersonville.



Old Hickory Lake is one of many popular recreational areas in Sumner County.

Nashville
AREA CHAMBER OF COMMERCE

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URBAN GROWTH BOUNDARY REPORT

CITY OF MT. JULIET, TENNESSEE

PREPARED

FOR

THE CITY OF MT. JULIET, TENNESSEE

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MT. JULIET PLANNING COMMISSION

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URBAN GROWTH BOUNDARY

CITY OF MT. JULIET, TENNESSEE

I. INTRODUCTION

Through **Public Chapter 1101**, of 1998, the Tennessee General Assembly provided the structure and process for local governments to cooperatively determine their own future. Known as an **"Urban Growth Boundary"** (UGB) the plan is to identify a region that contains the corporate limits of the municipality where growth is expected and where future annexations may occur. The urban growth boundary is to include territory:

- reasonably compact but large enough to accommodate twenty years growth;
- that is contiguous to the existing municipal boundaries;
- that is reasonably likely to experience growth over the next twenty years, based upon history, economic and population trends, and topographic characteristics;
- where the municipality is better able than other municipalities to efficiently and effectively provide urban services; and
- that reflects the municipality's duty to fully develop the area within the current boundaries, while controlling and managing growth outside those boundaries, taking into account the impact on agriculture, forest, recreation and wildlife.

To comply with this Act, the City of Mt. Juliet has defined an "Urban Growth Boundary" encompassing the existing municipality and surrounding territory, and has compiled the following justification for this 20-Year Growth Boundary.

The process of developing an urban growth boundary involves analysis of several factors. Mt. Juliet's Urban Growth Boundary will be defined in a step by step analysis. These seven steps are as follows:

1. Population analysis and projections
2. Inventory and analysis of existing land use
3. Vacant land inventory and analysis
4. Inventory and analysis of existing infrastructure and public services
5. Determination of minimum space needs based on projected population growth
6. Proposed Urban Growth Boundary
7. Future infrastructure and urban services

II. POPULATION PROJECTIONS

Mt. Juliet's most recent official population figure is 10,953, as of July 1, 1999. It should be noted that this figure is developed by adding persons annexed into the city to the last community-wide census. Thus, this number does not include persons who have located within the existing incorporated area since the last official community-wide census.

Population projections for Mt. Juliet **provided by the UT Center for Business and Economic Research**, are as follows:

POPULATION ESTIMATES AND PROJECTIONS - 1995-2020

Year	Population	Net Increase Beyond 1995
1990	5,389	
1995	6,988	
2000	11,667	4,679
2005	13,287	6,299
2010	14,982	7,994
2015	16,792	9,804
2020	18,715	11,727

Based upon this information Mt. Juliet's population is expected to increase by a total of 11,727 persons or roughly 168 percent over the estimated 1995 population of 6,988. The most recent estimate places the city's population at 10,953. It is important to note that the population being projected is due to actual net growth and that any increases in population due to annexation of existing county residents is not included within these figures. Thus, it is possible for Mt. Juliet's actual population to rise well beyond the figure indicated and still be consistent with the projection.

III. EXISTING LAND USE

A land use inventory was completed for the City of Mt. Juliet in 1988. The following information is taken from that report.

At the time of the 1988 survey the city contained a total of 7,960 acres. Of this total land base some 2,060 acres or 25.88 percent was being utilized for urban purposes. Since 1988, the city has issued 2,412 building permits for new houses. If it is assumed that on average each of these houses has required a total gross area (including streets) of one-half acre of land, the total developed and developing land base within the city presently stands at roughly 3,266 acres.

APPROXIMATE EXISTING LAND USE IN ACRES - 1988

USE CATEGORY	ACRES	PERCENT OF TOTAL	
		Developed Land	All Land
Residential	1600	77.7	20.10
Manufacturing	45	2.2	.57
Communications and Utilities	120	5.8	1.51
Wholesale & Retail Trade	55	2.7	.69
Services & Public Cultural, Recreation & Entertainment	60	2.9	.75
Street Right-of-Way	180	8.7	2.26
Sub-Total	**2,060**	**100.0**	**25.88**
Undeveloped	5,900		74.12
Total	**7,960**		**100.0**

IV. VACANT LAND INVENTORY AND ANALYSIS

In order to develop an estimate of total land space required to serve the projected needs of the future population, two factors must be evaluated. The first is an evaluation of the suitability of Mt. Juliet's vacant land base for active urban usage. In developing this information, estimates of land unsuitable for active urban usage must be developed and the acreage added to the total land area required to support the projected population. Area considered as unsuitable for development includes land subject to flooding, wetlands, karst areas and areas with excessive slope.

Within Mt. Juliet, a total of approximately 4,700 acres (7,960 less 3,266 developed acres) are presently undeveloped. These lands are not developed for a variety of reasons. However, the combination of flooding and steep slope constrains a significant fraction of the city's total vacant land inventory. Such lands are generally considered as unsuitable as development sites. **Illustrations 1 and 2**, taken from the 1988 General Plan, provide basic information relative to the extent of steep slopes and flooding conditions within Mt. Juliet. A cursory examination of these illustrations reveals that a significant fraction of the undeveloped land situated within the city is unsuitable for urban development. It is estimated that roughly one-third the vacant land within the city is so constrained. Thus, it is estimated that approximately 3,150 acres of the city's total vacant land inventory is suitable for intensive urban usage.

V. INVENTORY AND ANALYSIS OF EXISTING INFRASTRUCTURE AND PUBLIC SERVICE UTILITIES

UTILITIES

Sewer Service

Mt. Juliet operates a sewage collection network but does not treat its wastewater. The city contracts with Water Services Department of Metropolitan Nashville for this service. At the time this document is being written the City of Mt. Juliet is in the process of finalizing negotiations with Metro Water Services that will ultimately provide conditions and costs that

will facilitate expansion adequate to serve all development projected for Mt. Juliet's "201 Service Area" and territory beyond. When the contract between these parties is ratified it will establish a sound economic formula whereby Mt. Juliet can provide sewerage service to all new development projected to take place with the proposed "Urban Growth Boundary".

Present charges associated with these operations are as follows:

Connection Charges

Administration Fee	$2,000 per phase of a subdivision
Tap Fee	$1,250 per dwelling unit
Mt. Juliet Access Fee	$ 750 per dwelling unit
Metro Connection Fee	$ 500 per dwelling unit
Inspection Fees	5% of contract amount

Monthly Charges

Currently, the average monthly residential sewer bill in Mt. Juliet is roughly $21. Due to a number of factors related to the service contract with Metropolitan Nashville, this figure is expected to remain constant for a period of years.

Water Service

Water service within Mt. Juliet and West Wilson County is provided by the Water Services Department of Metropolitan Nashville and by the West Wilson Utility District. In that the city is not actively involved in providing this service, it does not and will not directly control either the cost or the quality of such service. It is apparent that the water service issue is particularly significant as it relates to the matter of fire protection. Gaining resolution of this issue is particularly important if adequate fire flows are to be assured.

Electric Service

Electric service within west Wilson County is provided by Nashville Electric Service and the Middle Tennessee Electric Cooperative. Neither the rate structure nor the conditions of service are within control of the City of Mt. Juliet.

Natural Gas

Nashville Gas Company provides natural gas service to the area. As in the case of water and electric service, rates and conditions for service are not within control of the City of Mt. Juliet.

PROTECTIVE SERVICES

Fire

The Wilson County Emergency Management Agency provides fire protection within the City of Mt. Juliet and all of West Wilson County. The cost of this service is paid as a portion of the county property tax. Currently, two fire stations provide service to Mt. Juliet. One of these stations is situated adjacent to the city hall and the second is located off Saundersville Road in the unincorporated northwestern corner of the county. Both these

stations are equipped with pumper trucks and both are served by a combination of full-time and volunteer firefighters. Distances for emergency response recommended by the National Fire Protection Association and various fire insurance rating agencies are a maximum of three miles for high-density residential, commercial and industrial property and a maximum of four miles for low-density residential activities. Based upon this standard, these two stations provide adequate response time for most of the city and much of the unincorporated area in the northwestern portion of the county.

Police Protection

The Mt. Juliet Police Department provides police services within the city. This organization is currently comprised of 22 uniformed officers. The Department's proposed budget for Fiscal Year 1999-2000, is $1,300,000. This is an average cost of approximately $59,000 per officer.

The present ratio of officers to population is approximately two officers per thousand persons. This ratio meets the standard for protection for communities within the population range of Mt. Juliet established by various agencies that evaluate such operations.

Ambulance Service

The Wilson County Emergency Management Agency provides ambulance service to the people of Mt. Juliet and West Wilson County. This agency presently maintains two ambulances within West Wilson County. One of these ambulances is located adjacent to City Hall and the second in the Lakeview area. The objective is to provide an emergency response within five minutes to any individual requiring assistance.

PARKS AND RECREATION

Mt. Juliet presently has a total of 58.5 acres of parkland situated in three sites. Within the past year the city has constructed a new community center on one of these sites and has just begun construction of recreation facilities on a second. Stating this In terms of a ratio of gross acreage per population, the current ratio is approximately five acres per one thousand persons.

The National Recreation and Parks Association produces information concerning generally accepted standards of parkland and recreational facilities within municipalities. NRPA suggests that a park system at a minimum be composed of a "core" system of parkland with a total of 6.5 to 10.5 acres of developed open space per 1,000 population. To meet this standard the City of Mt. Juliet would presently contain a total parkland inventory that ranged between 71.5 and 115.5 acres. In that the city currently has an inventory of only 58.5 acres, a deficit presently exists.

TRANSPORTATION

Street Development

Most street development within the city limits consists of minor streets, constructed by private developers, then dedicated to the city. The City of Mt. Juliet has within the past year instituted a transportation impact fee that is intended to provide limited funding for construction of major new street. Moreover, the City has instituted a property tax that is dedicated to paying the local share of a new by-pass route that will serve the western portion of the community.

Major Highways

Due to the continuing growth within West Wilson County a number of new street projects utilizing state and Federal highway funds are being constructed in the area. State Route 109 and U. S. Highway 70 are presently being widened and improved; a new interchange has been approved for location at the point where Beckwith Road intersects I-40, and the State of Tennessee is funding a large portion of the western by-pass. In addition to these projects now under construction, a significant number of new initiatives are in the planning stage. Among these are improvements to Central Pike, construction of an eastern industrial access route and operational improvements to Mt. Juliet Road and Nonaville Road.

Street Maintenance

Currently, the City of Mt. Juliet earmarks $300,000 each year for street maintenance. Decisions concerning street repaving are made on an as needed basis. According to estimates provided by Mt. Juliet's City Engineer, the City of Mt. Juliet is presently responsible for maintaining approximately 100 miles of public streets. Best available estimates of the cost for repaving streets within the area is roughly forty to fifty thousand dollars per mile. On average, streets need to be paved about every ten years. Thus, it follows that based on current costs and the life expectancy of the city's street inventory the city is incurring street maintenance costs in the order of $500,000 per year. In that the present budget is only $300,000 it appears the city is presently incurring an unmet maintenance liability of roughly $200,000 per year. It is apparent that future expansion will require significant additional expenditure to maintain streets being added by future annexations.

PLANNING AND ZONING

Mt. Juliet currently operates a complete program of land use controls within the city. In addition, the city has controlled the subdivision of property within an unincorporated portion of county that lies immediately adjacent to the city. This territory, known as the Mt. Juliet Planning Region, was brought under the planning control of the Mt. Juliet Regional Planning Commission by action of the State of Tennessee Local Government Planning Advisory Committee. The territory contained within the Planning Region corresponds very closely to the "201 Sewer Service Area" that had been created by previous action of the U. S. Environmental Protection Agency. Thus, the city is currently operating a program of land use controls within an area that was initially defined based upon provision of sanitary sewer service.

VI. MINIMUM FUTURE LAND SPACE NEEDS

DEVELOPED LAND

A simple ratio of land space to population provides a rough approximation of future space needs. The following analysis offers such an approximation.

$$\frac{\text{Current developed urban land}}{\text{Current population}} = \textbf{urban land area per capita}$$

$$\frac{\text{3,266 acres of developed urban land}}{\text{10,953 persons}} = \textbf{.298 acres per person}$$

If it is assumed that this ratio of .298 acres of urban land will be required for each new resident, then by the Year 2020, a theoretical total of 3,495 acres of land (.298 acres X 11,727 persons) will be required for active urban usage.

TOTAL LAND NEEDS

The figure of 3,495 additional acres of land is a number that assumes all future land will be totally usable for urban purposes. As we have seen from the analysis of vacant land this will not be the case due to a number of environmental constraints that limit the use of certain sites. Within Mt. Juliet, a total of 4,700 acres of or 59 percent of the city's total land base is presently undeveloped. Of this total, approximately 3,150 acres are considered to be suitable for intensive urban usage.

If it is further assumed that additional acreage is required in order to provide an inventory of sites and optional locations and that this inventory will also include properties that are constrained, future land space needs are increased by an additional fifteen to twenty percent. Thus, total additional land space needed to accommodate growth to the year 2020 is estimated to be in the order of 4,100 to 4,400 acres. As we have seen from previous calculations, roughly 3,150 acres of suitable land is theoretically available to accommodate this growth. Thus, an additional 950 to 1,250 acres will be required if it is assumed that all suitable sites now located within the city are to be developed prior to any additional annexation.

At the current time a total of approximately 8,300 residential dwelling units are approved within Mt. Juliet and undeveloped. A number of these units are proposed for location on very small lots. Therefore it does not appear reasonable to assume a use factor of one-half acre of gross land area per dwelling unit, as was the case with previous development. A more reasonable assumption would be one-third acre of gross land per unit. Based upon this assumption, these units will require an additional 2,750 acres.

Two very different conclusions may be drawn from this information. The first conclusion is that these units are simply part of a pipe line inventory that is anticipated within the growth projections supplied by the University of Tennessee. The second conclusion is that Mt. Juliet is actually growing at a faster than projected pace. If this second conclusion is proven to be correct the total land base anticipated to be occupied by existing and committed development is currently in the order of 6,000 (3,266 developed acres plus 2,700 committed acres) acres and further expansion in the order of 950 to 1,250 acres will be required to contain the actual growth.

VII. PROPOSED URBAN GROWTH BOUNDARY

The Urban Growth Boundary proposed by the City of Mt. Juliet is presented on **Illustration 3**, at the conclusion of this report.

VIII. FUTURE INFRASTRUCTURE AND URBAN SERVICES

UTILITIES

Sanitary Sewer

Mt. Juliet's UGB is primarily based on the service area wherein sanitary sewer service is presently available or may be extended. Sewer service is provided within the extreme northwestern portion of the UGB by Metropolitan Nashville's Department of Water Services. The remainder of the UGB lies within the Cedar Creek Drainage Basin. This area is included within the "201 Area Facilities Plan" as a service area wherein the City of Mt. Juliet will provide sewerage services. At the present time Mt. Juliet has in place plans to serve this entire area. Moreover, the recent agreement developed between Metropolitan Nashville and the City of Mt. Juliet assures that Mt. Juliet will have adequate treatment capacity to meet all service needs within the UGB to the Year 2020 and beyond.

Water Service

As indicated in the portion of this analysis pertaining to existing conditions, water service in Mt. Juliet is provided by entities other than the city government. Given this fact, it is difficult for the city to control either the cost or quality of the service provided. This issue is particularly problematic as it relates to the matter of fire protection. As is the case with most communities, the water system in Mt. Juliet and the surrounding area is comprised of many small diameter lines. Certain of these lines are incapable of providing any fire protection and others are inadequate to provide large volume flows required by large multi-family residential, commercial or industrial buildings. Thus, it appears the issue of adequate water service will be a significant factor affecting Mt. Juliet for many years.

Other Utilities

Electric and natural gas service is presently provided by utility operations based in Metropolitan Nashville. It is expected that this condition will continue and that the timing of needed expansions will keep pace with future growth. The cost to the rate-payers will be that established by these firms for customers throughout their service areas.

PROTECTIVE SERVICES

Police Protection

Based upon projected future population, it is estimated that an additional 22 to 24 officers will be required to maintain the ratio of two officers per thousand persons. An approximate budget for a force of this size, based upon the current average cost of $59,000 per officer is in the order of 2.6 to 2.7 million dollars.

Fire Protection

It is clear that the City of Mt. Juliet will need to reevaluate fire protection issues as the population grows and the base of commercial and industrial development expands. As new development expands into the area it is anticipated that additional fire stations will be required in order to maintain adequate emergency response time. Recommended distances for response are a maximum of three miles for high-density residential, commercial and industrial property and a maximum of four miles for low-density residential activities. To meet these standards new stations would be required in the following areas:

1. In the vicinity of the Villages of Mt. Juliet, and

2. Somewhere in the Cooks Road area about midway between Highway 70, and the end of the peninsula

Each of these stations will require pumper trucks and adequate ladder trucks to serve the area will also be required. In that so many issues are unresolved it is not possible at this point to make any realistic evaluation of either the long-term capital investment or the operating cost of these improvements. It is, however, apparent that the matter of adequate fire protection will be a major issue to be resolved and that the cost will be large.

Ambulance Service

The adequacy of ambulance service, like fire protection, is measured in emergency response time. It appears that as additional growth is experienced in the southern and eastern portions of the UGB additional ambulance locations will be required. The additional fire stations can serve to house these facilities. Moreover, the personnel could serve in a "first responder" concept to support both fire and emergency medical service needs.

RECREATIONAL FACILITIES

Assuming that the population projections are realized, total parkland required by the Year 2020, will be in the order of 122 to 196 acres. Thus, a total additional acquisition ranging from 63 to 137 acres will be required to meet National Recreation and Park Association standards.

The proposed budget, for Fiscal Year 2000, provides $1,300,000 for operation and improvement of the park system. It is apparent that the total funds being devoted to recreational facilities must rise significantly if current and projected needs are to be met.

Note: This map is a graphical representation for visual purpose only. The boundaries are by no means indicative of legal surveyed boundaries, and should not be used as such.

1600 0 1600 3200 4800 Feet

Kevin Mack
Mayor

James Bradshaw
Vice-Mayor

Robert Shearer
City Manager

City of Mt. Juliet

Commissioners

Ed Hagerty
Ray Justice
Larry Marchese

PLANNING REGION & URBAN GROWTH BOUNDARY MAP

Bob Daniel, Chair, Planning Commission — January 22, 2001 Date

Approved:

Tom Stiner, Chair, Local Government Planning Advisory Committee — Date

City Limits

Planning Region & Urban Growth Boundary

Parcels

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STATE OF TENNESSEE
DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LOCAL PLANNING ASSISTANCE OFFICE

WATERTOWN, TENNESSEE

URBAN GROWTH BOUNDARY REPORT

PUBLIC CHAPTER 1101

NOVEMBER, 1999

WATERTOWN, TENNESSEE

URBAN GROWTH BOUNDARY REPORT
REQUIRED UNDER
PUBLIC CHAPTER 1101

Honorable Mike Jennings, Mayor

Board of Alderman

Brent Bain
Janice Jewell
Howell Roberts
Gary Eakes
Sharon McComb
Charles Robinson

PREPARED BY

WILSON COUNTY PLANNING OFFICE
LEBANON, TENNESSEE
NOVEMBER, 1999

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CHAPTER ONE

INTRODUCTION

This document is prepared pursuant to Section 7(a)(2) of Public Chapter 1101. The law charges each municipality with the task of preparing an Urban Growth Boundary. The boundary is to accommodate any planned growth for the next twenty years. *Tennessee Code Annotated* Section 6-58-106(a)(2) states:

"Before formally proposing urban growth boundaries to the coordinating committee, the municipality shall develop and report population projections; such projections shall be developed in conjunction with the University of Tennessee. The municipality shall also determine and report the current costs and the projected costs of core infrastructure, urban services and public facilities necessary to facilitate full development of resources within the current boundaries of the municipality and to expand such infrastructure, services and facilities throughout the territory under consideration for inclusion within the urban growth boundaries. The municipality shall also determine and report on the need for additional land suitable for high density, industrial, commercial and residential development, after taking into account all areas within the municipality's current boundaries that can be used, reused or redeveloped to meet such needs. The municipality shall examine and report on agricultural lands, forests, recreational areas and wildlife management areas within the territory under consideration for inclusion within the urban growth boundaries and shall examine and report on the likely long-term effects of urban expansion on such agricultural lands, forests, recreational areas and wildlife management areas."

The Urban Growth Boundary shall accommodate residential and nonresidential growth projected to occur during the next twenty (20) years and in conformance with the provisions of *TCA* 6-58-106(a) and approved in accordance with *TCA* 6-58-104. This report shall provide justification for the Urban Growth Boundary proposed by Watertown, Tennessee. This report shall include land use analysis, existing municipal service information, and projected land use needs.

Definitions

The following terms as herein defined shall be interpreted as follows throughout this report. All other terms and phrases shall be interpreted by the standard dictionary definition.

1. Improved Vacant Land. Land that is not developed with immediate access to all municipal utilities.

2. Land Use. Land that is categorized by its present and existing use. The categories shall be residential, commercial, industrial, public and semi-public and vacant.

3. Population Projections. The method of forecasting future population. Methods of forecasting can differ dependent on necessary results. The population projections used in

this report were conducted and produced by The University of Tennessee Center for Business and Economic Research.

Criteria Defining an Urban Growth Boundary

As defined in Tennessee Code Annotated Section 6-58-106, an Urban Growth Boundary of a municipality shall:

- Identify territory that is reasonably compact yet sufficiently large to accommodate residential and nonresidential growth projected to occur during the next twenty (20) years;
- Identify territory that is contiguous to the existing boundaries of the municipality;
- Identify territory that a reasonable and prudent person would project as the likely site of high density commercial, industrial and/or residential growth over the next twenty (20) years based on historical experience, economic trends, population growth patterns and topographical characteristics;
- Reflect the municipality's duty to facilitate full development of resources within the current boundaries of the municipality and to manage and control urban expansion outside of such current boundaries, taking into account the impact to agricultural lands, forests, recreational areas and wildlife management areas.

Methodology

This report was prepared using a variety of resources. Information of public utilities and facilities was gathered through interviews with community officials. A complete land use inventory was completed by using information provided by the Wilson County Tax Assessor and through field survey, which produced an existing land use map. The 1990 Census information was used to determine average household size. The average residential density was calculated using the current certified population of Watertown and the number of acres in use as residential property. The population projections were developed by the Center for Business and Economic Research at the University of Tennessee. The 1990 Census information was used to calculate the number of acres needed for the projected population. The floodplain information was calculated using FEMA panel flood maps.

This information was compiled and processed under the guidelines set forth in Public Chapter 1101.

CHAPTER TWO

EXISTING MUNICIPAL SERVICES

Utility Information

Water Service- Watertown has one water treatment plant located within the corporate boundary. The primary source for water is two underground wells. These wells have supplied the water for Watertown since 1927. There are a total of 603 water customers within the corporate boundary. The base rate for water is $2.30, plus an additional amount based on a sliding scale dependent on use.

The maximum capacity is 324,000 GPD. The current daily usage averages 180,000 GPD. Watertown has one (1) storage tank with a capacity of 400,000 GPD located at the end of Woodland Drive. The water department currently staffs four (4) persons for extending lines, maintenance and repair. The existing treatment plant is adequate for Watertown's current population.

Sewer Service- Watertown has 520 residential wastewater customers within the corporate boundary and 30 nonresidential customers. In addition, Watertown has two (2) customers outside the corporate boundary, making the total 552 customers. The base rate for sewer service is $8.62, plus an additional amount based on a sliding scale dependent on use. The base rate is increased for those being served outside the corporate boundary.

The maximum treatment capacity is 330,000 GPD. The current daily treatment usage ranges from 100,000 GPD to 250, 000 GPD. The sewer system is experiencing influx and infiltration of groundwater and surface water. The high range of the gallons per day is a result of the infiltration during periods of heavy rain. Watertown recently received a substantial grant to aid in improving their lines and system.

Solid Waste Collection

Solid waste collection in Watertown is provided by one (1) County-owned convenient center. The convenient center is located on City-owned property, but maintained and operated by the County. This facility is open seven (7) days a week and offers various recycling bins.

Protective Services

Police Service- The Watertown Police Department has three (3) full-time employees and eight (8) part-time employees. In addition to the patrol officers, the Police Department employs two (2) full-time support staff and one (1) part-time support staff employee. The National Association of Policemen recommends 2.1 patrol officers per 1,000 population for communities under 30,000 total population. Using this standard, Watertown currently meets the minimum number of full-time officers for the current population level.

Fire Service- The Fire Department of Watertown has twenty-one (21) volunteer firefighters. In addition to the volunteer firefighters, the City has one (1) volunteer support staff that serves as the dispatcher. Watertown has one (1) fire station that serves that City. The response area is limited to the corporate boundary with mutual aid between the County to provide coverage outside the corporate boundary. Watertown has an ISO rating of seven (7).

Parks and Recreation

Watertown has one municipal park that comprises 12.55 acres. Watertown recently adopted regulations for the preservation of municipally owned open space. In addition, Watertown has purchased additional acreage to develop as recreation/open space.

Land Use Controls

Watertown manages density and land use through enforcement of a municipal zoning ordinance and municipal subdivision regulations, with assistance from the Watertown Municipal Planning Commission. These documents provide the town with the necessary tools for implementing land use and density control. In addition, Watertown is active in protecting the historically significant Central Business District. Currently the City is developing a plan for recreational rail service that could boost the tourism industry in Watertown.

CHAPTER THREE

EXISTING LAND USE ANALYSIS

Land Use Inventory

Watertown comprises approximately 1.1 square miles of land or 704 acres of land. **Table 1** depicts the breakdown of land use and the percent of developed and undeveloped land.

TABLE 1

Type	Acreage	Percent of Developed Land	Percent of Total Land
Residential	256.29	54.99	36.4
Commercial	22.81	4.89	3.24
Industrial	34.58	7.42	4.91
Public/Semi-Public	67.88	14.57	9.65
Infrastructure	84.48	18.13	12
Natural Constraints	22.26		3.16
Undeveloped Land	215.7		30.64
TOTAL	704	100	100

Table 1 demonstrates that 30.64% of the total land within Watertown is available for development. The areas with natural constraints typically include floodplain, slope greater than 20% and soils that are not conducive to septic systems. The majority of the lands within Watertown can support septic systems, with moderate to severe limitations. The areas in which the soil analysis demonstrated the more severe limitation, municipal sewer has been provided. In addition, there are no areas within the existing corporate boundary of slope greater than 20%. The table represents that there are 22.26 acres of floodplain within the existing corporate limits. Residential land use comprises the largest amount of developed land at 36.4% of the total amount of land. Commercial lands total 3.24%, industrial land use 4.91% and public/semi-public land use comprises 9.65%. Public and semi-public uses include churches, schools, parks, utilities and other property owned by the municipality, state or federal government. Infrastructure accounts for 12% of the total number of acres. *(See Figure 1)* This percentage is an average of the total amount of land dedicated to public infrastructure, including road and railroad rights of way.

CHAPTER FOUR

PROJECTED LAND USE NEEDS

Population Projections

The University of Tennessee's Center for Business and Economic Research has published population projections for Watertown through the year 2020. The projections along with the percent change are presented in **Table 2.**

TABLE 2

1990	% change	1996	% change	2000	% change	2005	% change	2010	% change	2015	% change	2020	Total change
1250	8.32	1354	5.47	1428	11.06	1586	9.96	1744	9.35	1907	8.7	2073	53.1

Residential Growth

The 1996 population number was a result of a certified census conducted by the City of Watertown. The total population according to the certified census was 1354. Using the 1996 certified population and the 2020 projection, an increase of 719 persons is projected. This is a 53.1% increase over the 1996 certified population.

For estimating the amount of residential land use needs, the 1990 census population of 1250 is used. According to the 1990 census, the average household size is 2.45. Using the average household size and the 1990 population, it can be estimated that there were 510.20 dwellings in the corporate boundary of Watertown in 1990. Using the same statistics, it can be estimated that to house the certified population of 1354, a 104 person increase, 42.45 new dwellings were built to accommodate the population increase. Using the above information, it is estimated that there are currently 553 (a rounded figure from 552.65) dwellings in Watertown. By dividing the number of dwelling units by the number of acres in use as residential, it is estimated that there are 2.16 units per acre.

Using the increase in population from 1996 to 2020 and the average household size, it can be estimated that a total of 272 new homes will be needed in the next twenty years to accommodate the population. Using 2.16 dwelling units per acre, it is estimated that 272 new homes will require 125.93 acres.

Economic/Business Growth

The majority of the commercial development of Watertown is concentrated on the downtown square. There is commercial development along Sparta Pike that exists as service commercial for passers-by. Watertown is a "bedroom community" that supports commercial development

for its town population and limited commercial for travelers along Sparta Pike. Watertown does not actively seek increased commercial activity, except to support the existing population.

As a result, the projections for commercial and economic development must be based on assumptions. The first assumption is that there is a direct correlation between the population and the need for a specific amount of commercial development. The second assumption is that Watertown's location along a State route will facilitate an additional need for commercial development to serve increased traffic. This assumption represents that Watertown will facilitate commercial development that is not related to its population base. In order to determine commercial land needs based on population, a constant must be obtained. Using the current certified population and the estimated acreage currently in use as commercial, a constant of .02 was produced. Based on the constant of .02, Watertown will require a total of 41.46 acres in use as commercial. This represents that Watertown will need to develop an additional 18.65 acres commercially to serve its 2020 population.

Industrial Growth

Watertown has one industrial park located twelve (12) miles south of Lebanon and on a major State Route with rail access. Watertown has sewer and water readily available at the Industrial Park. The Industrial Park has adequate available land to accommodate additional industry.

Additional acreage for industrial use is not needed presently, however, if a large industry did locate in the existing Industrial Park, additional acreage would be needed to expand the Industrial Park. Watertown does not heavily recruit industry however, it is unlikely they would turn down additional employment and revenue generated from new industry.

CHAPTER FIVE

DEVELOPMENT POTENTIAL WITHIN CORPORATE BOUNDARY

Vacant Land Potential

The vacant land development potential within the corporate boundary of Watertown demonstrates that there is currently sufficient land available for commercial and residential development. On the other hand, other issues must be evaluated other than raw land data analysis. Development through infill will account for much of the vacant land within the corporate boundary. The majority of the available land within the corporate boundary is improved vacant land.

There are several large farms within the corporate boundary of Watertown. The majority of the undeveloped land within the corporate boundary is classified as greenbelt and used solely for agricultural purposes. With this information, it can be assumed that Watertown has little land available within its current corporate boundary for development. The properties classified as greenbelt can change their classification at any time and become developable land. Agriculture and farming is a large part of the sustainable development for Watertown. There is not a diversified economic base, therefore, many residents rely on farming their land for income.

Special Land Management Concerns

Watertown is located in the southeastern section of Wilson County. The surrounding area is farmland and scattered residential. Within the corporate limits of Watertown there is approximately 22.26 acres of floodplain. Watertown enforces a flood ordinance that prohibits development in the floodway and provides guidelines for development in the floodplain.

As previously stated, the majority of the agricultural land within the corporate boundary is classified as greenbelt. This term signifies that no development will occur on this land while it is in this protected classification.

There are no known areas that have been designated for special wildlife preservation.

CHAPTER SIX

PROJECTED LAND NEEDS OUTSIDE EXISTING CORPORATE BOUNDARY

Development Potential

Development will occur outside the existing corporate boundary of Watertown. The location of Watertown makes growth inevitable. As services are provided outside the existing corporate boundary, increased residential and commercial development will follow. Currently, Watertown does not extend water or sewer outside its incorporated areas. This will continue to remain the practice of Watertown. In addition, developers must burden the expense of extending infrastructure to the meet the needs of their development. The City will maintain the lines once they have been extended. Wilson Water Authority provides water service outside the corporate boundary and retains certain sewer service rights.

There exists floodplain outside the corporate boundary due to Round Lick Creek. The floodplain extends from north of the existing corporate boundary south and along the southern boundary of the existing corporate boundary *(See Figure 2)*. In addition, there are several areas adjacent to Watertown that include slopes greater than 20%. These areas are not suitable for development *(See Figure 3)*. The predominant soils in and surrounding Watertown comprise the Talbott-Rockland-Colbert-Hagerstown association. These soils are typically well drained and are suitable for agricultural purposes. These soils do pose limitations for intense use of septic systems.

Projected Service Capability

Water- The current treatment plant and water capacity is adequate for the present population of Watertown. Based on the current population and the current daily usage average of 180,000 GPD, each customer uses approximately 132.94 GPD. Based on this assumption, the projected 2020 population would require a daily usage capacity of 275,584.62. The maximum capacity is 324,000 GPD. The projected number is an estimated average based on residential use of the municipal water system. Development other than residential is difficult to determine due to the varied uses. Industrial and commercial development can have an impact greater than residential uses on a municipal water system.

Sewer- The maximum treatment capacity of the sewer plant is 330,000 GPD, with an average daily use of 160,000 GPD. It is assumed that a three-bedroom house will have an impact of 350 GPD on a municipal sewer treatment plant. Using the average household size, it was estimated that the City of Watertown would require an additional 272 homes based on the 2020 population. Using this information, it is estimated that 272 homes will require an average daily usage of 95,200 GPD. Combining the current average of 160,000 GPD and the future estimated average of 95,200 GPD. This is a total of 255,200, which will meet the current capacity of the sewer treatment plant. This is based on the assumption that the city maintains the sewer system and all of its lines and has no surface or groundwater infiltration.

An additional impact to the sewer treatment facility is increased commercial and industrial development. The Industrial Park has water and sewer service, but these services are not being used to full capacity. Industrial development has a significant impact on a sewer facility depending on the level of the industrial use. Likewise, commercial development can significantly impact a sewer treatment facility. It is difficult to estimate the amount of usage projected commercial development will impact due to the varying levels of use dependent on the specific commercial use.

It can be assumed that the Watertown sewer treatment facility will need a significant upgrade within the next twenty years. Watertown is currently under discussion of upgrading the treatment facility to accommodate 600,000 GPD. This would be an incremental process and would require significant study to determine the costs associated with such an upgrade. Estimated costs for this type of upgrade are discussed below. Watertown does contract with a consulting firm to do studies and large upgrades. Watertown has been the recipient of grants to improve their sewer system, but the majority of a significant upgrade will require a bond. Watertown has a good bonding capacity and the revenue from the sewer customers is used to pay the bond over a specified time period.

Projecting sewer line and costs heavily depends on the type of development occurring. The majority of development anticipated around Watertown is residential development. An estimation of the projected costs to provide sewer service within the Urban Growth Boundary totals $4,700,000.00. The total number includes approximately 70,000 linear feet of sewer piping at an estimated cost of $3,000,000.00. It is anticipated that to provide sewer to this entire area, approximately seven (7) lift stations will be needed along with a force main of 20,000 linear feet. To adequately treat the additional sewerage, the wastewater treatment facility would need to be upgraded and expanded at a cost of approximately $650,000. The engineering and project development costs total approximately $400,000. These cost projections represent an estimated cost to the City of Watertown of providing sewer within the entire Urban Growth Boundary.

Sewer line extension for new developments is the responsibility of the developer. Watertown has adopted the necessary guidelines to assure that developers must incur the expense of extending sewer lines to new developments. Watertown would assume the responsibility of an upgrade to the sewer treatment facility.

Police- The current number of officers is sufficient for Watertown's present population. As the Town continues to grow additional police officers will need to be hired. The National Association of Policemen recommends 2.1 patrol officers per 1,000 population for communities under 30,000 total population. Using this standard, Watertown will need to employ a minimum of one (1) police person.

Fire- The Watertown Volunteer Fire Department currently has sufficient staff to meet the current population. As Watertown grows and the population increases, additional manpower will be needed to staff the Fire Department. In addition, updated equipment and possibly one additional fire truck will be needed.

Road Maintenance- Watertown maintains approximately 10-13 miles within the corporate boundary. Any re-paving efforts are contracted with the County. TDOT maintains State Route 26.

Parks and Recreation- As stated previously, Watertown recently purchased approximately 20 acres to develop as recreation/open space. Watertown is developing plans to annex the territory and expand the current park facility to the south. The City residents are active in recreational programs that utilize the existing facility. The addition to the existing park will fulfill and exceed the recommended amount of recreation/open space needed for the City of Watertown.

CHAPTER SEVEN

URBAN GROWTH BOUNDARY

Wilson County is growing and developing at a rapid rate. As development increases in the West Wilson County area, development pressures will rise in the east-side of the County. Watertown is a "bedroom community". The people take pride in Watertown and are very active in the decision-making process. Watertown realizes that growth and development are inevitable for Wilson County.

Watertown is located along Sparta Pike twelve (12) miles south of Lebanon. The area's terrain is flat to gently rolling in and immediately around the corporate boundary. The areas to the south and east of Watertown become very steep and rocky. These areas are not conducive to development.

The land use analysis section supports that there is sufficient land within the existing corporate boundary for the projected residential, commercial and limited industrial development. The land use analysis section does not take into account the amount of available land that is classified as greenbelt within the existing corporate boundary. The majority of the vacant land within the corporate boundary is active farmland and does have the greenbelt classification. As stated previously, this classification can be changed at the desire of the property owner. However, the use of land as agricultural is important to Watertown, for many residents make their livelihood off their land.

The Urban Growth Boundary of Watertown has been established to accommodate the projected growth for the next twenty years. This boundary also serves to accommodate the necessary commercial, industrial and public/semi-public developments that are associated with population growth. According to the land use analysis section of this report, there are 215 undeveloped acres within the corporate boundary. The projected residential and commercial land needs total 144.58 acres. By subtracting the land needs from the available land, there is not sufficient land available for agricultural and open space use. The calculations and projections formulated in this report support the need of an Urban Growth Boundary for Watertown. Additional reasons other than population can be used to justify an Urban Growth Boundary.

The Urban Growth Boundary comprises approximately 5.81 square miles. This totals approximately 3,718.4 acres. *(See Figure 4)* There are areas that exist within the Urban Growth Boundary that are not conducive to development, specifically areas of floodplain and steep slope. Soil composition will also be a problem in certain areas. These constraint areas total approximately 8% of the total land within the Urban Growth Boundary. These areas should typically remain vacant or be developed as low density residential.

The area to the north of Watertown is the natural watershed within the region. The land to the north is among the best land for development within Wilson County. The location of the City makes Watertown the logical sewer provider to areas not presently served by sewer. It is important for the City to control development in this area so as to not over-burden resources.

Watertown has the necessary land use tools to manage density and development. This area serves as a logical expansion for residential development. This area is also important agriculturally. The land is typically flat to gently rolling and the soils are conducive for agricultural purposes.

The boundary extends to the west before the intersection of Taylor Road and Sparta Pike and includes the community of Cherry Valley. This area is scattered with residential uses and limited commercial. This area can continue to function residentially while adding additional concentrated service commercial facilities. Sparta Pike serves as the direct route to Lebanon, which facilitates additional growth along Sparta Pike.

The area south of the existing corporate boundary is primarily residential with scattered farms. The Urban Growth Boundary is not extended far in this area due to the rocky terrain. This area has a large amount of floodplain, however, the land outside of the floodplain contains good soils and the land can be easily developed residentially.

The boundary to the east extends east along Sparta Pike and stops before Hearn Hill Road. This corridor is presently scattered with residences and farms. The areas to the east will most likely develop at a slower rate. It is important to include this area to the east because it is a major corridor providing access to Lebanon and several communities in the East Wilson County region. There area several large farms in this area that could potentially be developed as residential subdivisions. In addition, Sparta Pike facilitates the need for additional commercial development.

In all, Watertown does not only propose an Urban Growth Boundary as a response to population growth, but rather to accommodate residential, commercial and industrial growth while retaining the current character of the community. The City does not want to discourage the farmers that are within the corporate boundary, nor do they want to discourage any potential development. The large tracts of open land within Watertown give the City a sense of identity.

Watertown wishes to retain its rural character, while accommodating growth. This can be achieved through land use management. Assumptions of land use within the Urban Growth Boundary have been stated in this report. While it is important to establish a boundary, it is just as important to manage the land uses within the boundary. Watertown is in the process of creating guidelines to protect their historical significance. By adding to the current land use tools, Watertown can continue to manage density and development, while also managing the types of development. This will facilitate the creation of Watertown's sense of place and identity within Wilson County.

WILSON COUNTY
PLANNING OFFICE

ROOM 5, WILSON COUNTY COURTHOUSE * LEBANON, TENNESSEE 37087
(615) 449-2836 * FAX (615) 443-6190

May 9, 2001

Mr. Don Waller
Local Government Planning Advisory Committee
Economic and Community Development Department
Local Planning Assistance Office
10th Floor William Snodgrass Tennessee Tower
Nashville, TN 37243-0405

Dear Mr. Waller:

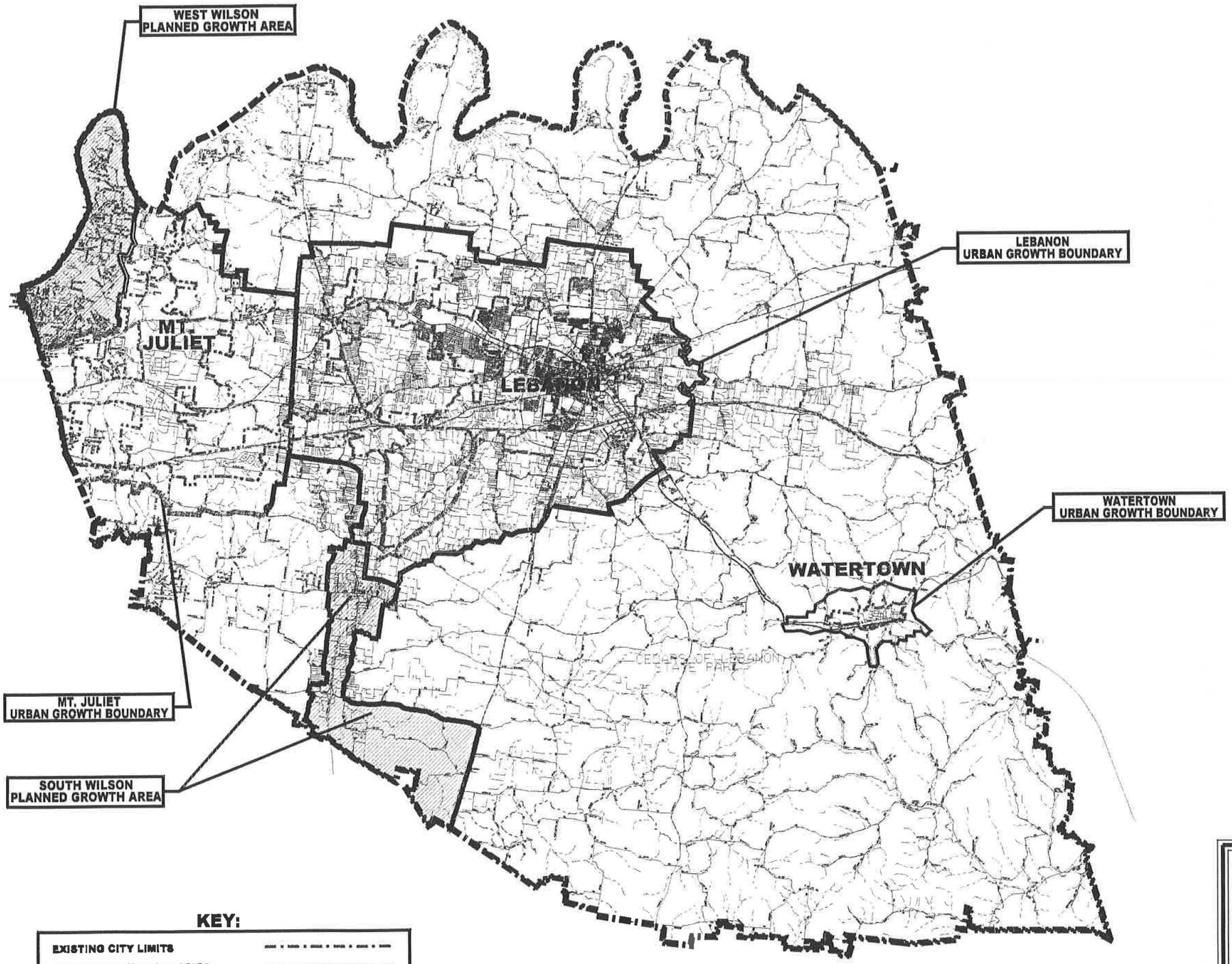
The Local Government Planning Advisory Committee approved the Wilson County Growth Management Plan in January 2001. The Plans submitted were from Mt. Juliet, Lebanon, Watertown and Wilson County along with a countywide map depicting the boundaries.

The map that was submitted depicted the corporate limits of Mt. Juliet incorrectly. There is a small portion of the current corporate boundary of Mt. Juliet that was omitted and is actually located within Lebanon's Urban Growth Boundary. All parties are aware of this and realize that further annexation by Mt. Juliet is not feasible adjacent to this property. A revised map of the Mt. Juliet portion only is included in this packet. In addition, some minor text changes had been made concerning updated information within the Lebanon Growth Management Plan. These updates were not reflected in the copy sent to LGPAC.

The Wilson County Coordinating Committee approved the various plans and map that is now being submitted to LGPAC for an administrative review. I would like to request a letter of approval for these administrative changes in order to record these documents locally. I sincerely apologize for any inconvenience and appreciate your attention in this matter.

Sincerely,

Jack Parrish
Chairman Wilson County Coordinating Committee



ADOPTED GROWTH MANAGEMENT PLAN

AUGUST 14, 2000

WILSON COUNTY

COORDINATING COMMITTEE

APPROVED BY:

Jack Parrish, Chairman

ROBERT DEDMAN
County Executive

RACHEL WARREN
Assistant/Secretary

WILSON COUNTY GOVERNMENT

March 11, 2002

Donald G. Waller
Local Planning Assistance Office
William Snodgrass/Tennessee Tower Building- 10th Floor
312 8th Avenue North
Nashville, Tennessee 37243-0405

Mr. Don Waller;

Re: The City of Mount Juliet and a request to modify their planning region to match the boundaries of their proposed growth boundary.

This letter is being sent as requested in response to Mount Juliet's request for planning region modifications. At this time the County Commissioners affected by this boundary change are not inclined to agree to the proposed modification in the City of Mount Juliet's Planning Region jurisdiction. While County planning staff does recognize that City Jurisdictions are many times more adequately prepared to deal with higher density residential and commercial development occurring in urban and suburban areas, there are a few unique circumstances, which cause the affected County Commissioners some concern. These are as follows:

1. The Wilson County Growth Plan has been approved by all local governments within the County. It is County Planning Staff's understanding that any planning region area falling outside of the Mount Juliet Growth boundary was relinquished at the point of approval of the County' Growth Plan by the LGPAC.

2. Several Commissioners have expressed concern over the City of Mount Juliet's lack of an independent tax base. To be more specific, Mount Juliet has rescinded all local property taxes and is solely reliant on state share sales tax and gasoline tax revenues for the majority of their operation and capital expenditure budgets. Given recent discussions at the State over the revenue expenditure crisis; the County Commissioners affected by this proposal are not comfortable with Mount Juliet's long-term ability to fund appropriate levels of oversight and enforcement of their current land use and development regulations. This concern is exacerbated by consistent rumors that the legislature may look to cuts in state share revenues to local governments to shore up their own funding requirements.

3. The Growth Boundary as shown on Mount Juliet's Proposal, does not match the growth boundary that was approved by the State of Tennessee and recorded in the Wilson County register of Deeds office. Therefore, a reasonable assessment of what is being proposed by Mount Juliet cannot be made.

4. Finally, there is concern over a perceived lack of planning expertise on the current staff of the City of Mount Juliet. It has come to the attention of the affected County Commissioner that Mount Juliet has recently opted to end their contract with the Local Planning Assistance Office as of June 2002. While Mount Juliet does maintain a planning department, there is concern that Mount Juliet has relinquished credible planning expertise with this decision.

It is my hope that this letter does not cause friction between Wilson County and the City of Mount Juliet or its staff. However, I felt it best to lay the legitimate concerns of the affected County Commissioners on the table in hopes that this issue can be resolved in a timely manner. Thank you for your time and attention to this matter.

Respectfully,

Robert Dedman
County Executive
Wilson County, Tennessee

cc: Kevin Mack, Mayor of Mount Juliet
Phil Maples, Director of the Nashville LPAO
Tom Brashear, Wilson County Planner

STATE OF TENNESSEE, COUNTY OF WILSON

I, Jim Goodall, Clerk of the County Commission of Wilson County, State aforesaid, do certify that the foregoing is a full, true and complete copy of Resolution 02-3-15 in Opposition to the City of Mt. Juliet's Request to Modify Their Planning Region to Match the Boundaries of the Proposed Growth Bounday. Passed by unanimous voice vote. Which remains of record on file in said office.

Given under my hand and official seal, at office, in Lebanon, this 1st day of April, 2002.

Jim Goodall
JIM GOODALL, CLERK

Sondra L Winfree
SONDRA L. WINFREE, DEPUTY CLERK

02-3-15

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF WILSON COUNTY, TENNESSEE IN OPPOSITION TO THE CITY OF MT. JULIET'S REQUEST TO MODIFY THEIR PLANNING REGION TO MATCH THE BOUNDARIES OF THE PROPOSED GROWTH BOUNDARY

WHEREAS, the City of Mt. Juliet has submitted a request to the Local Government Planning Advisory Committee to modify their planning region to match the boundaries of their proposed growth boundary; and

WHEREAS, the County Commissioners whose districts are affected by this proposed change have expressed opposition to the proposed change, said opposition being summarized in a letter of March 11, 2002 from County Executive Dedman to Donald G. Waller of the local planning assistance office; and

WHEREAS, by letter of March 12, 2002, Donald Waller has indicated that the opposition must be a response from the County Commission as a whole not from County Commissioners in individual districts;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Wilson County, Tennessee that we adopt this resolution in opposition to the request of the City of Mt. Juliet to modify their planning region to match the boundaries of their proposed growth boundary.

BE IT FURTHER RESOLVED that a copy of this resolution be sent to Mr. Donald G. Waller of the State of Tennessee, Department of Economic and Community Development Local Planning Assistance Office.

SPONSOR

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SPONSOR

SPONSOR

Passed
UVV

WEST WILSON
PLANNED GROWTH AREA

LEBANON
URBAN GROWTH BOUNDARY

MT.
JULIET

LEBANON

WATERTOWN
URBAN GROWTH BOUNDARY

WATERTOWN

MT. JULIET
URBAN GROWTH BOUNDARY

SOUTH WILSON
PLANNED GROWTH AREA

State of Tennessee, County of WILSON
Received for record the 13 day of
JULY 2001 at 1102 PM. (RECH 116160)
Recorded in official records
Book P33 Pages 825- 829
State Tax $ .00 Clerks Fee $ .00
Recording $ .00 Total $ .00
Register of Deeds JOHN D SPICKARD
Deputy Register BRENDA WHITE

BK P33 PG 835

0 5000 10000 15000 20000

SCALE: 1" = 5000'

Local Government Planning Advisory Committee
Date: January 24, 2001
To: Approve Wilson County Growth Plan
Tom Stine, Chairman

KEY:

EXISTING CITY LIMITS

URBAN G[illegible]RIES

COUNTY PLANNED GROWTH AREAS

ADOPTED GROWTH MANAGEMENT PLAN

AUGUST 14, 2000

WILSON COUNTY

COORDINATING COMMITTEE

State of Tennessee, County of WILSON
Received for record the 03 day of
JULY 2001 at 2:21 PM. (RECH 116175)
Recorded in official records
Book 862 Pages1446-1632
State Tax $ .00 Clerks Fee $ .00,
Recording $ .00, Total $ .00,
Register of Deeds JOHN B SPICKARD
Deputy Register BRENDA WHITE

BK 862 PG 1446

Plat
(original recorded in the Wilson County Register of Deeds Office)

Wilson County

Adopted Growth Management Plan

See Plat Book P23 Page 825

Tennessee General Assembly
Public Chapter 1101

GROWTH MANAGEMENT PLAN

prepared for

WILSON COUNTY, TENNESSEE

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CHAPTER ONE - INTRODUCTION AND BACKGROUND

1.1 Introduction

Considering the aggressive development trends that are currently being experienced throughout the middle Tennessee area, urban growth is becoming an important community concern throughout the region. The urban growth patterns and development decisions that are made today will shape the environment and quality of life experienced in Wilson County in the 21st century. For this reason, more and more communities are promoting smarter urban growth policies to better accommodate this anticipated growth.

1.2 Purpose

Through the Growth Policy Legislation, Public Chapter 1101, adopted by the Tennessee General Assembly in 1998, local communities are provided with the framework and processes to better plan for their future. Under this flexible framework, the City and County governments are able to cooperatively determine their future while preserving and complementing the unique character of their area.

As specified in Tennessee Code Annotated 6-58-106, there are several conditions that must be met in determining planned growth and rural areas. The standard process requires each municipality and county to prepare a report including 1)population growth projections, 2)current and projected costs of core infrastructure, urban services, and public facilities necessary to support future urban growth, and 3)land use suitability analysis for land needed to accommodate additional urban growth, considering land management issues for environmentally sensitive areas. The purpose of this report is to provide the necessary information to support the proposed Growth Management Plan for Wilson County.

1.3 Background and Methodology

Wilson County is one such area that is currently experiencing a rapid growth movement. With several new large development projects planned in the County, and many more sure to follow due to several proposed transportation and thoroughfare projects, the time to plan the County's future is now. This report provides an examination of the County's plan to meet the future public needs and demands for residential, commercial, and industrial growth in its planned growth areas, while maintaining the rural nature of the remaining portions of the County.

This report is the culmination of a six month process involving extensive research and analysis of existing conditions, and forecasts of future population growth, infrastructure, and public service demands. Through input from County Officials and two public hearings, community involvement played an important role in the completion of this plan.

1.4 Format of the Report

In August of 1999, Barge, Waggoner, Sumner and Cannon, Inc. was retained by Wilson County to assist in the preparation of an Growth Management Plan that fulfilled the requirements of Public Chapter 1101 and provided a plan and overall vision for the future growth of the County. This report provides the culmination of extensive planning and engineering analyses which attempt to inventory and analyze the growth trends anticipated for the County. These analyses, combined with the public input received in two meetings, helped create two planned growth areas and a plan of services for the County as it anticipates the future urban growth that is sure to come in the next 20 years.

Chapter One of the report provides this Introduction and Background statement. Chapter Two presents an Inventory and Analysis Phase in which existing conditions were identified, key issues were defined, and thorough analysis of these issues and future growth areas and rural areas were determined. Chapter Three presents the proposed Growth Management Plan and identifies key areas of anticipated urban growth with generalized future land uses and areas of the County recommended to remain rural. Chapter Four presents the Public Infrastructure and Services Plan, including forecasted needs for water and sewer utilities, fire, police, etc., and recommended strategies for phasing and implementation. Each of these sections will be outlined and discussed in more detail throughout the report.

Finally, it is difficult for any report to document all the data and analyzes researched and performed during the planning process. This report attempts to provide the key conclusions of this process, while at the same time, meeting the minimum requirements of Section 7 of Public Chapter 1101.

CHAPTER TWO - INVENTORY AND ANALYSIS

This section of the report identifies the key demographic, land use and infrastructure items in the County that may impact future urban growth and the limits of this growth. Wilson County continues to be a major presence in the Middle Tennessee Area, and the strength of the Nashville area economy and the County's geographic location in the region has and will continue to place the County in an advantageous position to attract future residential and commercial developments. This chapter inventories and analyzes these factors that will shape this future growth.

2.1 Demographics

One of key components of any land use planning effort is an examination of the forecasts of population growth for the study area. Future plans and policies regarding urban growth must be based on realistic estimates of the demands of a future population for new residential and non-residential land uses. According to population projections provided by the University of Tennessee Center for Business and Economic Research, the population within the County's unincorporated areas is expected increase to 66,726 persons by the year 2020, an increase of 25% from year 2000 estimates. Appendix A provides a summary of the population forecasts for various areas in Wilson County.

This expanded population base will require new areas of residential and non-residential development, and consequently, the question of where this growth will occur must be asked. To help address the issue of where this growth could or may occur, the question of whether or not the County is positioned for this growth should now be reviewed. Several natural and manmade factors must be considered to accurately determine the answer.

2.2 Land Development Capability and Suitability

As illustrated in Figure 2.1, there are two primary natural factors or conditions which influence future urban growth patterns in the County, and the development potential of a particular piece of property can be dramatically altered based on these physical characteristics of the land. The predominant natural factor affecting development in the County is the presence of several large areas of flood prone lands. The geological makeup of the County make it particularly susceptible to flooding, thus development in these flood prone areas is not recommended nor is it likely. Additionally, several areas within the County contain moderately and severely sloping lands. Depending on the severity of the slopes, the development potential of these lands can be limited also.

On the whole, however, the natural constraints to development within the County's unincorporated areas of the County can be minimized with proper engineering techniques. Despite this fact, development on these sensitive lands should be avoided. The total acreage of impacted lands represents approximately 26% of the total land within the unincorporated portions of the County.

2.3 Existing Land Uses

A valuable tool in forecasting the future land use needs and urban boundaries is the examination and analysis of existing land uses. Figure 2.2 illustrates the general nature and location of existing land uses within the County, as compiled by the County Planning Office. Table 2-1 summarizes the relationships among the various land use types and the relative percentages of each type against the total acreage.

A brief description of each land use category and its pattern of development within the County is provided below.

Table 2-1
Summary of Existing Land Uses

Land Use Category	Total Area (Acres)	% of Total Corporate Area
Residential		
Low Density	42,480	12%
High Density	3020	0.7%
Commercial	700	0.2%
Public-Semi Public	10,700	3%
Industrial	400	0.1%
Vacant/Undeveloped	295,500	84%
Totals	**352,800**	**100%**

Residential: Like many other counties comparable to Wilson County, residential is the predominant land use in the unincorporated portions of the County. The majority of this residential use exists at very low density single family detached housing along rural roads, with a smaller portion of multi-family and duplex housing located near the corporate boundaries of Mt. Juliet and Lebanon.

Commercial: Commercial activity exists mainly as community and neighborhood commercial located at the intersections of major county roads.

Industrial: The extent of industrial uses in the County is very limited due to the lack of adequate infrastructure. Several rock quarries are present in the southern portions of the County, and scattered industrial uses are located throughout the County along the major highways.

Public/Semi-Public: Almost 11,000 acres of the County is devoted to public uses with a large portion of this total consisting of the Cedars of Lebanon State Park and Forest.

Vacant/Undeveloped: A large portion of the unincorporated areas of the County remains in a rural and undeveloped state. Approximately 295,000 acres is made up of agricultural lands and lands that have been left undeveloped. This rural atmosphere is desired by the residents within these areas, and productive agricultural lands still remain a part of the land use fabric of Wilson County.

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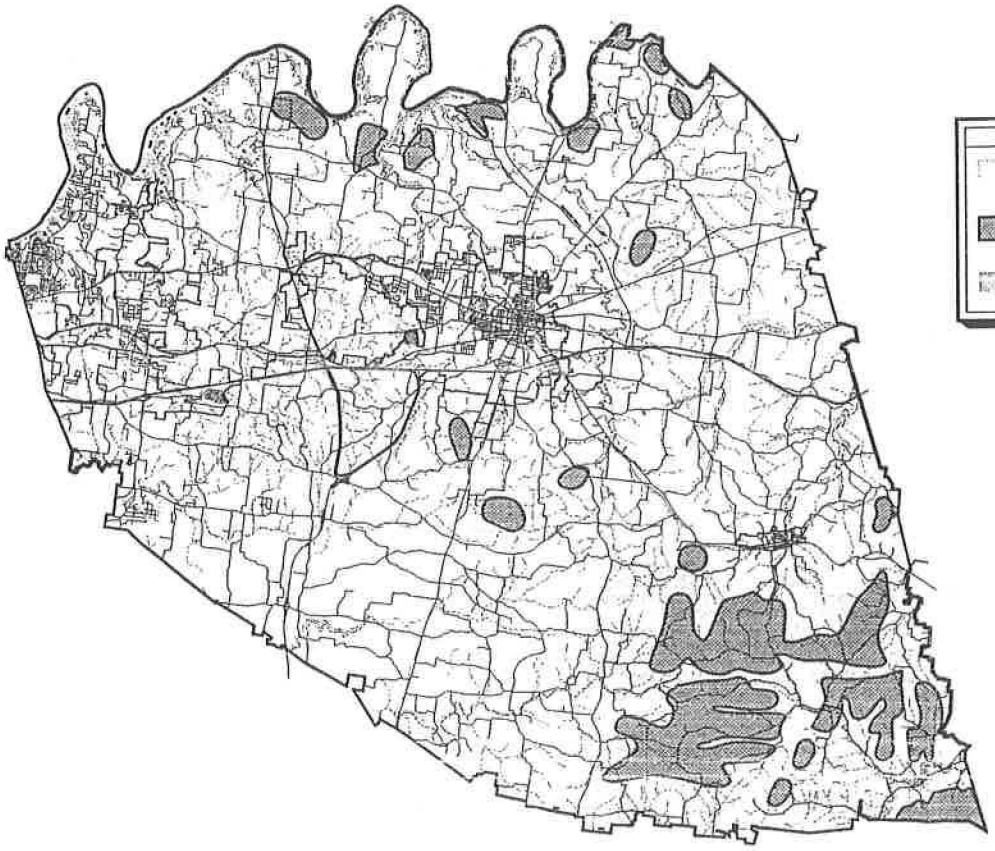
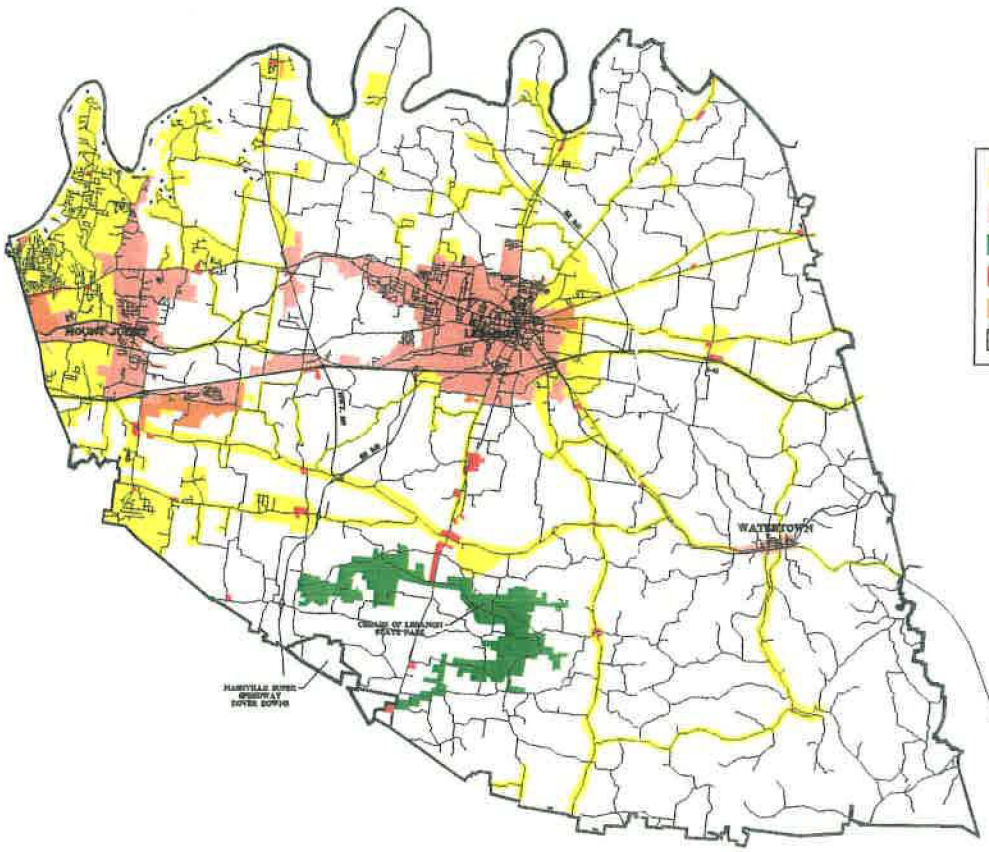


NATURAL CONSTRAINTS TO DEVELOPMENT

WILSON COUNTY
GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.

FIGURE 2.1	PAGE NO. 2-2



EXISTING LAND USE MAP

WILSON COUNTY
GROWTH MANAGEMENT PLAN

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FIGURE 22 | PAGE NO.

2.4 Vacant Land Analysis

As was documented in Table 2-1 and depicted in Figure 2.2, Wilson County contains an abundance of vacant land capable of accommodating the approximately 13,500 new residents expected in the unincorporated portions of the County over the next 20 years. An evaluation of the existing vacant and undeveloped lands within the rural areas of the County is warranted, however, to help ensure that the County's future growth areas are "reasonably compact yet sufficiently large" as required by the growth management law.

Table 2-2 outlines an analysis that was completed to determine the potential of existing vacant properties to accommodate the expected future residential growth. As indicated in this calculation, there is almost 200,000 acres of available additional land in the County to meet the projected residential development demand. This calculation examines the additional land needed to accommodate future residential growth, only. To be clear, the County will need additional land for other non-residential land uses, but the strongest demand for these areas will likely be centered on those areas which contain adequate infrastructure to support these uses. These areas will be at or near the existing municipal limits of Mt. Juliet and/or Lebanon.

Table 2-2
Vacant Land Analysis

Persons Per Acre Analysis	
• Total Acreage of Vacant Land within unincorporated County boundaries:	295,500
• Total Acreage of "undevelopable" vacant land[1]:	91,700
Net acres of useable, vacant land	203,300
• Total Acreage of Developed Residential Uses in unincorporated County	42,500
• Total Population of Unincorporated Portion of County (present)	53,362
Persons per Acre of Residential Development:	1.25
Projected Increase in Population	13,364
Persons per Acre	1.25
Additional Acres of Residential Development Land Needed	10,691
Net acres of usable land:	203,300
Residential Development Acreage Overage:	192,609

[1] "Undevelopable" includes floodplains, steep sloping land and non-residential zoned land

2.5 Existing Public Infrastructure

In order to accommodate future urban growth, adequate infrastructure needs to be in place. The following elements of the County's existing public infrastructure system were inventoried and analyzed to determine their ability to meet future demands (see Appendix B for additional information).

Water: Appendix B contains a map of the service boundaries of the five separate utility districts operating within the County to provide rural water service to the unincorporated areas. These utilities are primarily oriented to provide rural water services, thus their ability to provide "urban" level services (i.e. domestic and fire protection water services) is very limited. These districts do have the ability to issue bonds to finance proposed system improvements, so providing urban services is not beyond their capability.

Sanitary Sewer: Currently there is no sanitary sewer service available in the unincorporated portions of the County, with the exception of a several small areas which receive these services from the existing municipal systems. The Water and Wastewater Authority of Wilson County reserves the right to provide sanitary sewer services to those areas of the County not served by municipal systems, and an agreement is in place with a private wastewater treatment contractor to provide on-site disposal systems (sand filtration process) for proposed developments across the County.

Electric Service: Three primary service providers generate electric service to the County. Nashville Electric Service currently provides electrical power service to the western portions of the County, while the City of Lebanon and Middle Tennessee Electric Membership Cooperative provide electrical service to the central and eastern portions of the County. In order to accommodate future urban growth for any area outside the corporate limits of Lebanon and Mt. Juliet, improvements to existing distribution network will be required.

Gas: Currently, three suppliers provide natural gas service to the County. Nashville Gas provides service to the areas west of Highway 109. Tennessee Natural Gas supplies a large portion of the remaining County area, with a small area of the southern portion of the County supplied by Texas Eastern. The rural areas will require significant network improvements in order to provide adequate service to urban development in these areas.

Transportation: The existing grid of major state and federal highways in the Wilson County area provides a transportation network for the County that has helped support past growth and will help spur future growth over the next 20 years. The major north south corridors (Highway 109, Highway 231, and Highway 70) have been supplemented by State Route 840. These thoroughfares are complemented by an array of east-west routes (I-40, Highway 70) that provide critical links to the growing Nashville region. Appendix C provides the current thoroughfare plan for Wilson County and shows the new roads planned for various parts of the County.

2.6 Existing Urban Services

In addition to the infrastructure systems throughout the area, adequate public services should also be present in order to support future urban growth. The following public services were inventoried and analyzed to determine their ability to meet future demands (see Appendix D for additional information).

Police Protection: The Wilson County Sheriff's Department is located in the City of Lebanon. The Department consists of 90 full-time officers and a total of 23 support personnel. Officers also share several sub-offices with other public agencies, including the Mt. Juliet Police Station, Lakeview Fire Hall and Watertown Police Station. The Department currently responds to County E-911 dispatching with 28 cruisers and 15 other vehicles currently in service.

Fire Protection: The present Wilson County Fire Department consists of 66 full time and 20 volunteer firefighters with an additional 10 support personnel. The county has 6 stations (Lebanon, Mt. Juliet, Saundersville Road area, Gladeville, Watertown and Highway 109 near Highway 70) that provide an ISO rating of 7 within a 5 mile radius of each station. All other areas within the County fall short of the recommended standards set by the International County Managers Association.

Parks and Recreation: The Cedars of Lebanon State Park provides the only Parks and Recreation facility within the unincorporated area of the County.

Solid Waste Management: Residential household garbage collection is provided weekly by the County for 7,200 customers. Thirteen (13) full time employees provide this service utilizing four (4) 25 cubic yard rear loading units and one (1) 9 cubic yard satellite unit.

Street Construction/Repair: The Wilson County Road Commission currently maintains approximately 1,000 miles of roadway in the unincorporated areas and staffs 60 full time employees. In 1998, approximately $1.1 million in capital funds were expended out of the Highway Capital Projects Fund to improve Wilson County roads.

2.7 Other Factors Affecting Growth

In addition to the key factors such as estimated population increase, current land use trends, public services capabilities and general economic projections, there are several other factors impacting the County that could have a dramatic effect on the future growth of portions of the unincorporated County. Outlined below are three factors that may have an impact on the planned growth areas proposed for the County.

Proposed Development Projects: With plans for large development projects such as Dell Computer and the Nashville Speedway currently in the design stages, demand for urban level

development and the accompanying services in the surrounding areas will increase. These proposed developments will likely anchor a new development surge in the areas near Highway 109, State Route 840 and Interstate 40. The City of Lebanon has already committed to provide sanitary sewer services to the area as a result of their commitment to provide sanitary sewer service to the Speedway. To fully capitalize on the area's growth potential and ability to create new jobs and an expanded tax base for all of Wilson County, urban services should be and will be required.

Proposed Major Thoroughfare Projects: Major roadway improvements have perhaps the largest impact on development opportunities. The County-wide widening and southern extension of Highway 109 will have a major impact on the way this area of Wilson County develops. Additional proposed transportation projects include a new interstate interchange at Franklin Road and Interstate 40 and the potential SR 840 North construction. Furthermore, the widening of Highway 70 from the Davidson County line to Lebanon and the ongoing study and evaluation of possible commuter rail service from Lebanon to Nashville will have a dramatic effect on the capacity of this critical east-west commuter route. Each of these improvements will introduce new opportunities for job growth and improved access to the area's transportation network, both of which are generally regarded as factors influencing future growth.

Market Conditions and the Nashville "Push": In addition to the new developments and roadway projects slated for construction in the central portions of the County, the continued growth and development of the Nashville economic market area will have a tremendous impact on Wilson County's future development. The entire Nashville economic market area has grown and developed on the strength of the Nashville area economy, and the forecast for future growth remains strong (see Appendix E). Population growth for the region has increased 21% over the last ten years. Total non-agricultural employment has increased 27 % since 1990, and the region's unemployment rate has remained below 4% for the last 5 years. Wilson County has shared in this growth and prosperity. Population and employment in the County has increased at similar rates, and with the prospect of new roadways (SR 840 and Highway 109) and exciting new developments (Speedway and Dell), the County's ability to capture their fair share of the region's growth will be enhanced. A strong demand for various higher density land uses (residential, warehousing, industrial) can be expected in these areas as the continued urbanization of the greater Nashville area radiates east along Interstate 40 into western and central Wilson County. If the proper infrastructure required to support the anticipated growth is put in place, it appears to be only a matter of time before the Nashville "push" and urbanization reaches to the State Route 840 and Highway 109 corridor.

These factors, combined with the general increase in population expected based on historical trends, begs the question: Where and How does the County want to grow? The next chapter of this report will review possible urban growth areas and the infrastructure required to serve them.

3.1 Introduction

After reviewing the population forecasts, adequacy of both natural and manmade features in the County and determining the other miscellaneous factors that may influence the nature and location of future growth in the County, this portion of the report provides the proposed growth management plan for Wilson County. The location and limits of the County's proposed Planned Growth Areas and the generalized land uses that are anticipated and desired in these areas will be presented, and the County's response to the proposed Urban Growth Boundaries of each municipality will be offered.

3.2 Proposed Growth Management Plan

Figure 3.1 provides a graphic representation of the overall Growth Management Plan for Wilson County, Tennessee. Two planned growth areas (PGA's) are proposed in the southwestern and northwestern portions of the County and the remainder of the County is designated to be "rural" as defined in the PC 1101 guidelines. The decision to locate and define the extent of each of PGA was impacted by three primary factors:

* **Public Input Process:** Two public meetings and several task force meetings with County officials made it clear that the citizens of Wilson County desire that their community remain rural in most locations. Citizens and County officials were presented with potential growth areas across the County (see Figure 3.2), and their input directed the County's resources to promote urban growth to the areas near SR 840 and Highway 109 (Gladeville PGA) and the western portions of the County near Saundersville Road (West Wilson PGA). All other potential urban growth areas were rejected.

* **Presence of Existing and/or Planned Infrastructure to Service "Urban" Development:** In both cases, the proposed PGA's benefit from an existing transportation infrastructure that will promote the growth of the area. Highway 70 forms the southern boundary of the West Wilson PGA and Saundersville Road provides a key arterial through the heart of the area. The development which will occur within the Gladeville PGA will be due, in no small measure, to the presence of SR 840 and the southern extension of Highway 109. On the other hand, Wilson County's ability to provide utility services to support the anticipated "urban" development patterns within the PGA's is very limited. Within both areas, however, there are proposed plans to install sanitary sewer infrastructure, which, with the proper planning, could be reworked to handle the anticipated sanitary sewer service needs of the areas (i.e. Lebanon's sewer line to service the Speedway and Metro Nashville's service agreement to provide sewer to the Saundersville Road area).

* **Proximity of Existing or Proposed "Urban" Developments:** The question in Wilson County was not whether growth was going to occur, but rather, when it does happen, where and how does the County want to focus this growth? The location and extent of the proposed PGA's is a direct response to the County's desire to focus their "urban" growth to areas where this development pattern already exists (i.e. West Wilson PGA) or where the planning data and analyses indicates that there will be significant pressure for it to exist (i.e. Gladeville PGA). Dell Computer and the Nashville Speedway chose to locate in the I-40, SR840 and Highway 109 corridor for specific reasons, and these reasons (i.e. excellent road network, proximity and accessibility to the entire Nashville region, pro-business climate, etc.) will likely entice other developments if the proper infrastructure is in place.

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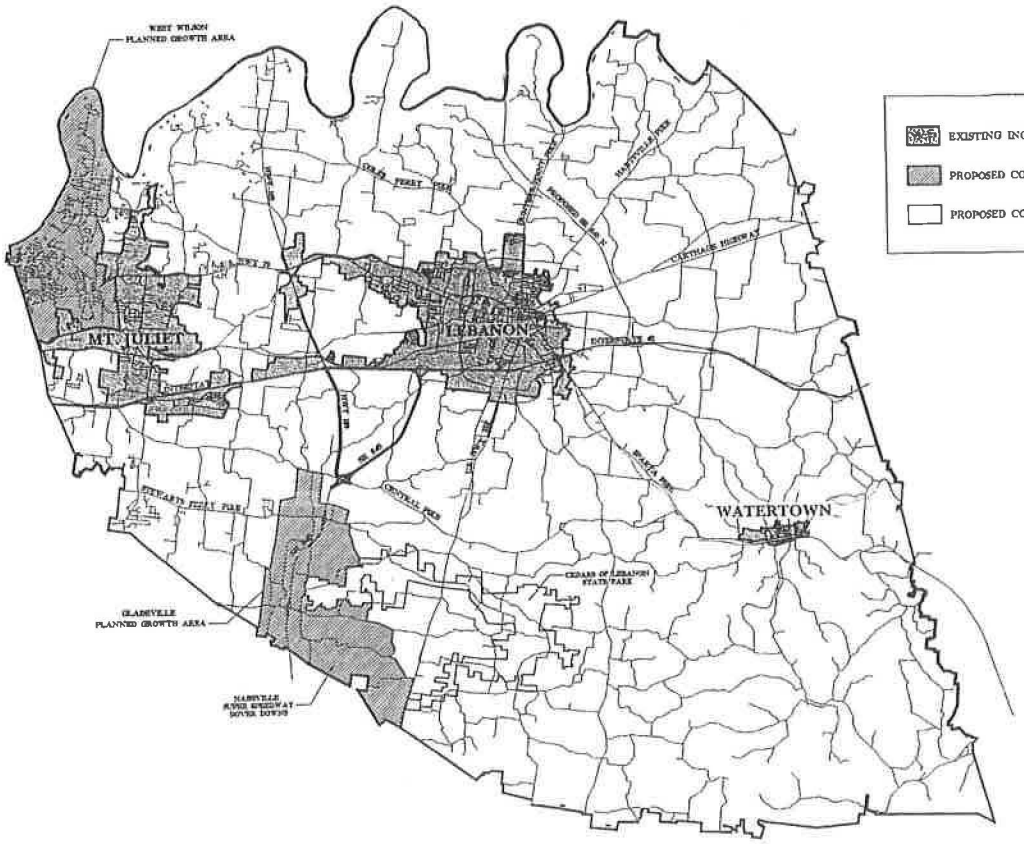
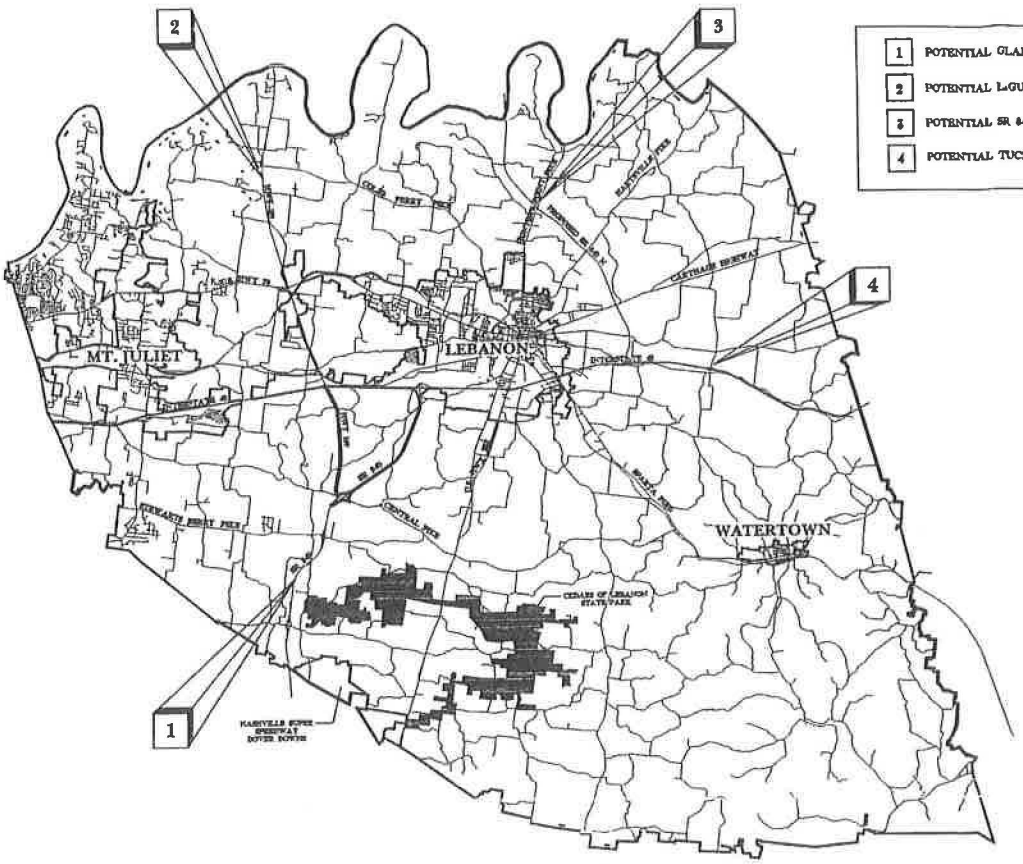


PROPOSED GROWTH MANAGEMENT PLAN

WILSON COUNTY
GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.

FIGURE 3.1	PAGE NO. 3-3



LEGEND

1. POTENTIAL GLADEVILLE PLANNED GROWTH AREA
2. POTENTIAL LaGUARDO PLANNED GROWTH AREA
3. POTENTIAL SR 840 N INTERCHANGE PLANNED GROWTH AREA
4. POTENTIAL TUCKER'S CROSSROAD PLANNED GROWTH AREA

BK 862 PG 1466

POTENTIAL PLANNED GROWTH AREAS

WILSON COUNTY
GROWTH MANAGEMENT PLAN

BWSC

FIGURE 3.2 | PAGE NO. 3-4

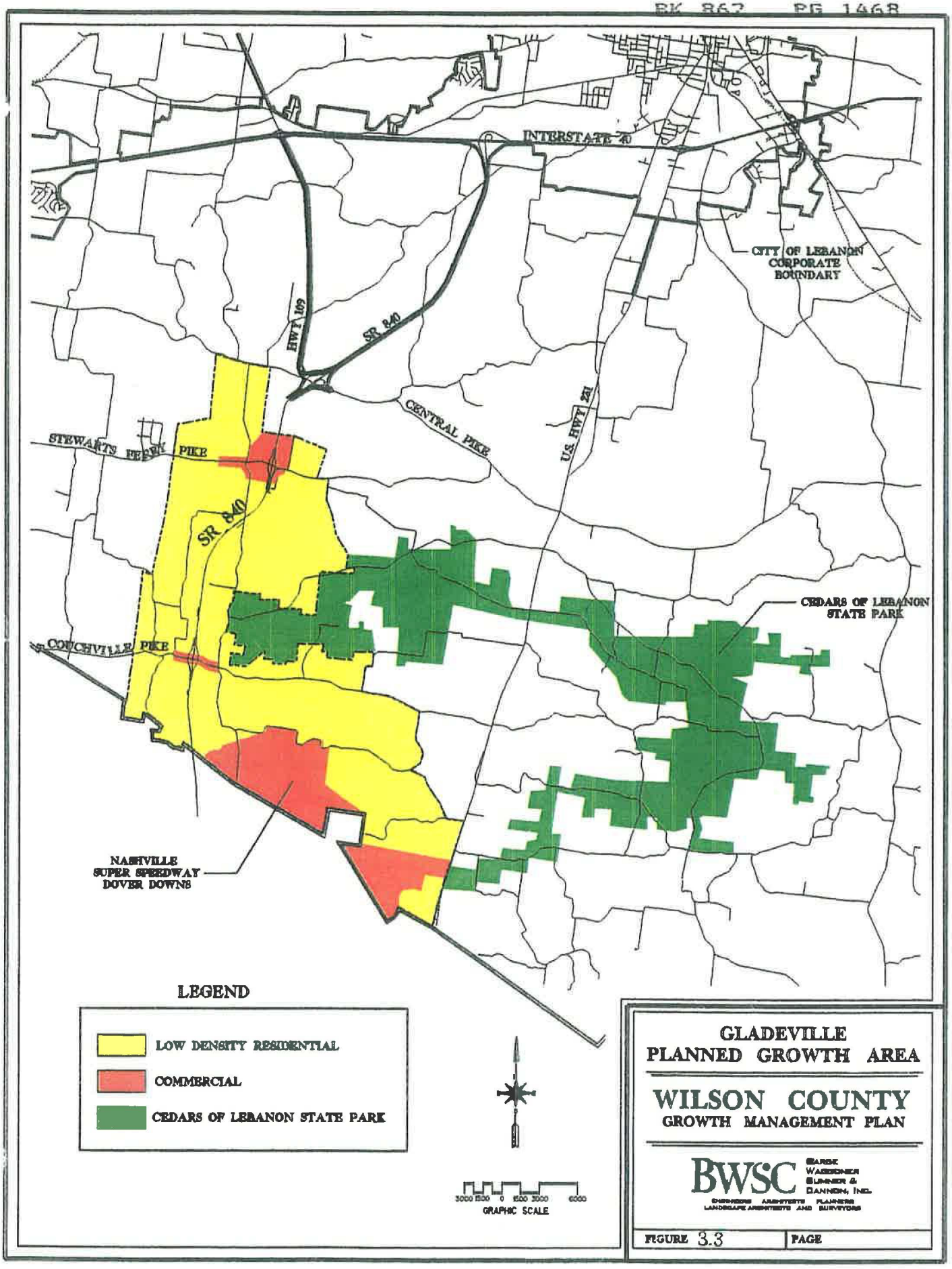
Figure 3.3 indicates the general character of the Gladeville PGA which is primarily low-density residential in nature, thus supplying potential home buyers with an alternative suburban location within Wilson County. Low-density uses are recommended in order to provide a suitable density for future residential developments, while at the same time, providing a adequate residential buffer for the Cedars of Lebanon State Park and Forest. High-density residential land uses are not recommended in the PGA, but instead are targeted for these areas within the City of Lebanon's Urban Growth Boundary at I-40 and Highway 109. The land use plan includes three commercial areas, two of which are centered on existing interchanges with SR840 and the third which is targeted for the Nashville Speedway properties at the County line. The commercial land uses shown at Stewarts Ferry Pike are envisioned as "community-scale" commercial and retail developments that support the surrounding residential areas. The commercial at Couchville Pike is targeted for more interstate-related uses for patrons of the Speedway and other regional travelers that may need goods and services.

Figure 3.4 displays the overwhelming residential character of the West Wilson PGA. Almost 82 % of this area is already developed in suburban residential, but less than 18% of the homesites have sanitary sewer service available to them. Recently, Metropolitan Nashville's Department of Water and Sewerage Services signed an agreement with the City of Mt. Juliet which defines the sanitary sewer service capabilities and responsibilities of each entity in this area. The eastern limits of the PGA also mark the eastern limits of Metro's service capabilities. Additionally, the PGA also includes a small area designated for commercial uses along Highway 70.

By focusing the County's efforts to promote urban development in these areas, the County can now grow in a more organized manner to minimize sprawl, as well as preserve the remainder of the County in a rural state. Table 3-1 provides a general description of the land uses targeted for the proposed planned growth areas.

TABLE 3-1
General Description and Characteristics of Land Use Categories

	Characteristics		
Land Use Category	*General Nature of Land Uses*	*Overall Density Range*	*Permitted Uses*
Low density Residential	Single family residential subdivisions, open space	1 - 3.5 units per acre	Single Family Residential
Commercial	Commercial retail uses based on location and trade area	0.25 to 0.35 Floor Area Ratio	Retail, Restaurants, Personal services, Convenience, etc.

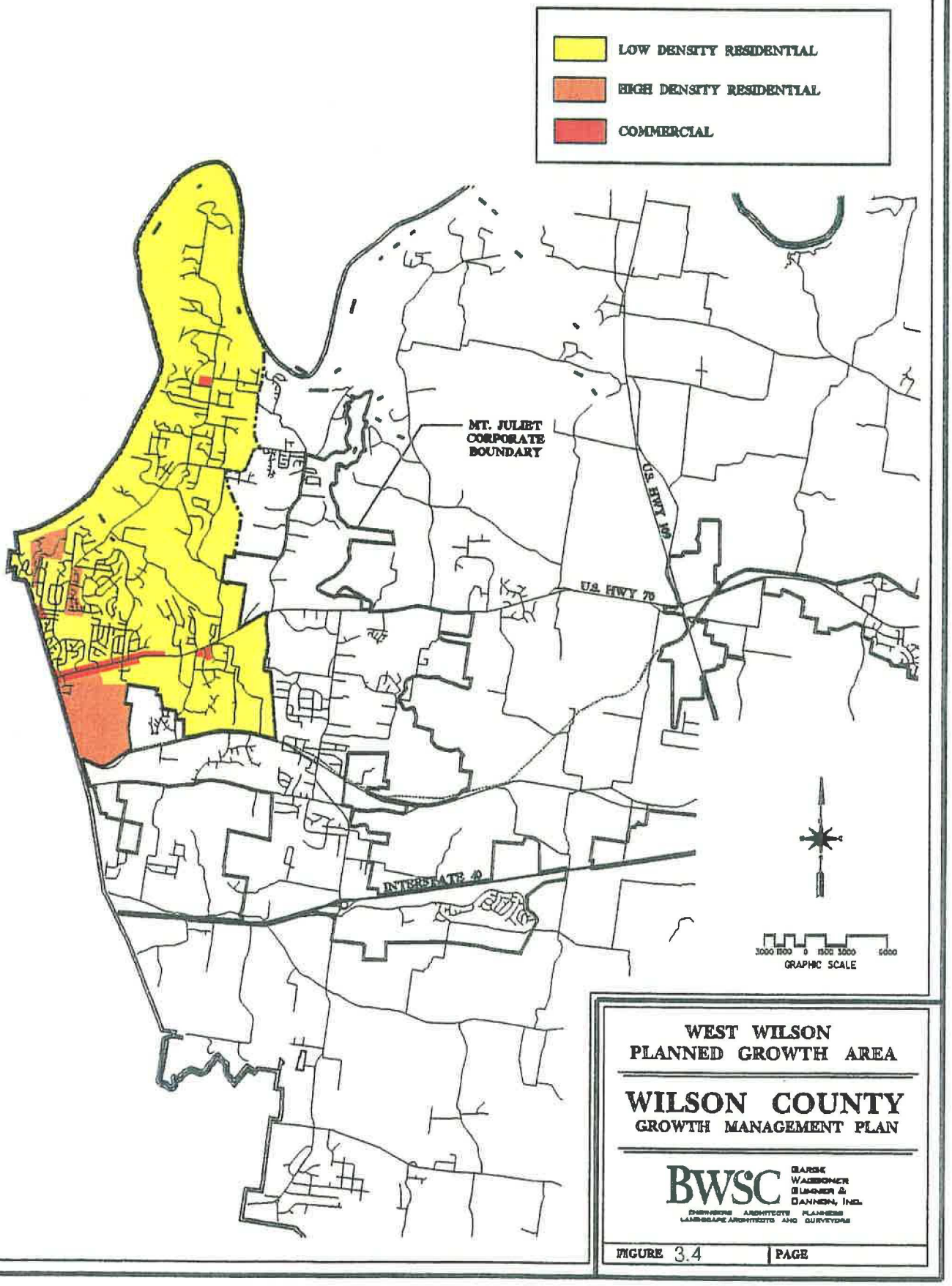


GLADEVILLE PLANNED GROWTH AREA

WILSON COUNTY GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.
Engineers Architects Planners Landscape Architects and Surveyors

FIGURE 3.3 | PAGE



WEST WILSON PLANNED GROWTH AREA

WILSON COUNTY
GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.
Engineers Architects Planners Landscape Architects and Surveyors

FIGURE 3.4 | PAGE

3.4 Proposed Rural Areas

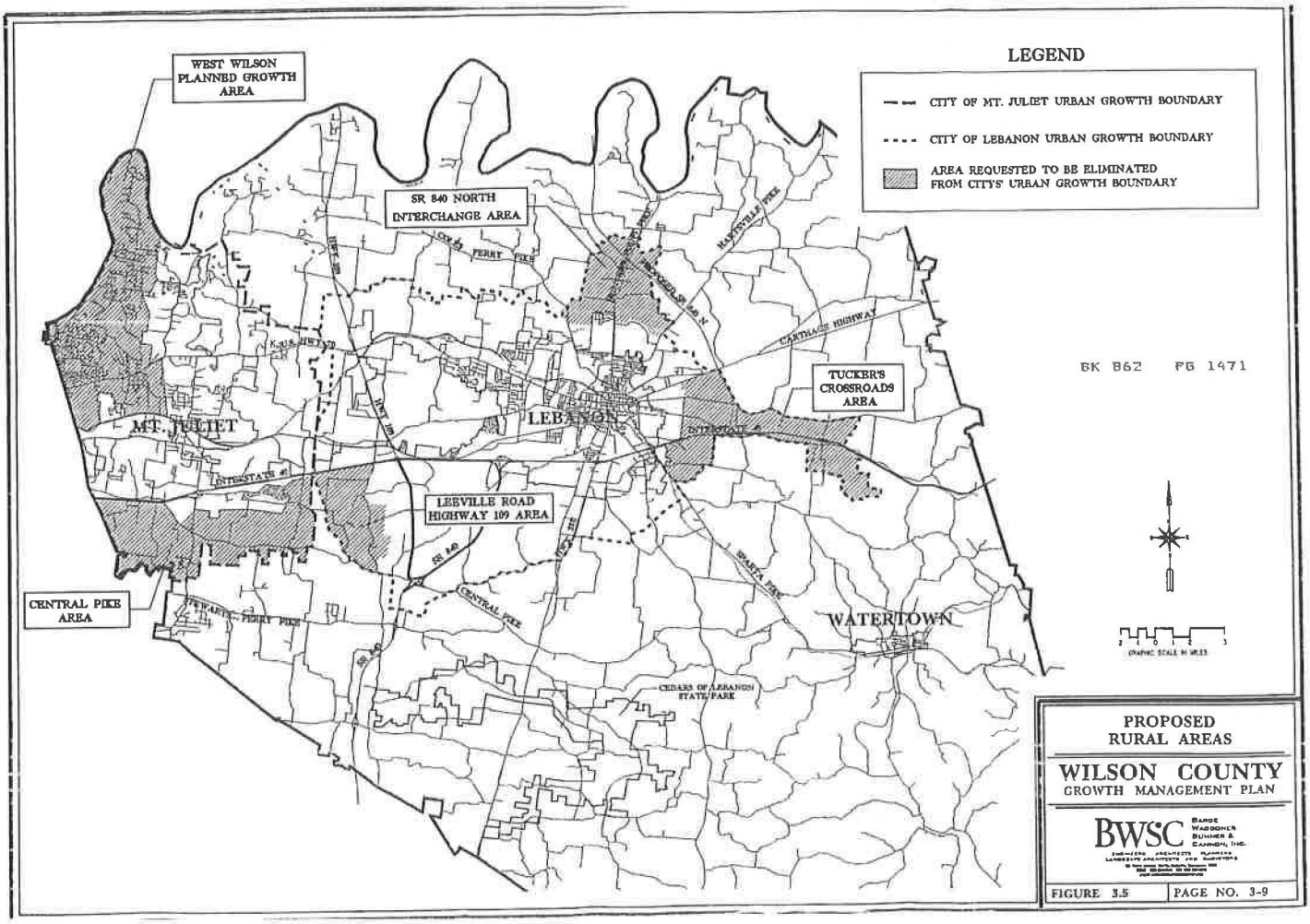
One of the key concerns emanating from the public input process was the desire for several key areas of the County to remain "rural" in nature. According to Public Chapter 1101, proposed rural areas should be characterized as "territory that over the next 20 years is to be preserved as agricultural lands, forests, recreational areas, wildlife management areas or for uses other than high density commercial, industrial, or residential development". By designating certain areas as rural in their Plan, the County thereby acknowledges their duty to "manage growth and natural resources in a manner which reasonably minimizes detrimental impact" to these lands.

Figure 3.5 provides a graphic depiction of the areas within the unincorporated County that were of special concern due to their inclusion in either the City of Lebanon's or Mt. Juliet's urban growth boundaries. There was a strong desire by the general public and the task force of County officials to protect these areas from "urbanization" and preserve them as part of the rural fabric of Wilson County. In addition, the County believes it is important to preserve and protect the lands classified as greenbelts within the current or proposed incorporated areas of Wilson County. The County recognizes that it is not their enumerated duty, within the law, to dispute the exact limits of each city's UGB, but it is important that the rural nature of certain portions of Wilson County are preserved in this planning process. Consequently, Figure 3.5 provides a review of those areas within each city's urban growth boundary that are requested to be revised in this Plan.

* **Central Pike Area:** The primary issues raised in this area were the landowners' desires to remain an agricultural, rural area and the City's recent approval of over 3,000 new homesites in an area immediately north of Central Pike in the Belinda City development. The need for additional residential land in this area seemed imprudent when this inventory of approved homesites are now immediately available. Consequently, this Plan requests that the City's urban growth boundary be revised back to the current southern limits of the City until such time that this inventory of lots is absorbed or the market determines that additional sites are needed to provided competition.

* **Leeville Road at Highway 109 Area:** This Plan recognizes the significant development pressure that will exist in this general area once Highway 109 is completed and connected to SR840, and the Plan supports the management of this growth by focusing future growth in this critical corridors. As such, the Plan requests that the City's urban growth boundary be revised back to Leeville Road in order that the City's future infrastructure spending can be focused on providing adequate utilities to the areas immediately adjacent to the transportation corridors. Land lying further away from these corridors is recommended to remain rural until such time that the available land within the urban growth boundary is absorbed.

* **Tucker's Crossroads Area:** This area was the most highly publicized area of contention during the public meetings. The residents of this area recognized that the Linwood Road interchange at Interstate 40 provides a strong incentive for future growth in the area, however, their desire to keep the area rural and independent from the growing urbanization of the City of Lebanon was clear. The Plan requests that the eastern limits of the urban growth boundary be revised to the Peyton Road area.


LEGEND
CITY OF MT. JULIET URBAN GROWTH BOUNDARY
CITY OF LEBANON URBAN GROWTH BOUNDARY
AREA REQUESTED TO BE ELIMINATED FROM CITY'S URBAN GROWTH BOUNDARY
WEST WILSON PLANNED GROWTH AREA
SR 840 NORTH INTERCHANGE AREA
TUCKER'S CROSSROADS AREA
LEEVILLE ROAD HIGHWAY 109 AREA
CENTRAL PIKE AREA
MT. JULIET
LEBANON
WATERTOWN
CEDARS OF LEBANON STATE PARK
BK 862 PG 1471
PROPOSED RURAL AREAS
WILSON COUNTY
GROWTH MANAGEMENT PLAN
BWSC
FIGURE 3.5
PAGE NO. 3-9

* **SR840 North Interchange Area:** Similar to the Tucker's Crossroads area, the residents of this area, north of the City of Lebanon, desire to remain rural in nature for the foreseeable future. The County believes that the development of this portion of SR840 will occur very late in the 20 year planning period contemplated under this Plan. Consequently, this Plan requests that urban growth boundary be revised back to the current City limits on Highway 231 until such time that a more definitive timetable and funding is made available to SR840.

3.5 Planned Growth Areas as a New Municipality or Potential Annexations

Due to the fact that both planned growth areas are located next to existing City limits or adjacent to proposed urban growth boundaries, the County should accept that these areas may always be considered as potential annexation targets. The PC 1101 planning process has enabled the residents of the County and cities to understand the importance of defining the limits of their potential growth and focusing their resources to fully develop these areas before additional land for urbanization is targeted. Based on this understanding, it is not anticipated that any of the planned growth areas will be annexed by the municipalities or that any new municipality will be formed in these areas.

3.6 Environmental Impacts and Resource Management

Cedars of Lebanon State Park and Forest is the only forest or wildlife management area within the County. The impacts of the proposed planned growth areas on this Park will be minimized by the requiring of buffer zones when development occurs. The likely long term impact on agricultural lands in most of the planned growth areas will be their eventual development into urban uses. The combination of several area transportation improvements (SR 840, Highway 109, Franklin Road interchange) and the continued urbanization of west Wilson County as a result of the continued development and growth of the Nashville region will intensify the development pressures in these areas. Preservation of the farmlands in these areas through restrictive land use planning guidelines is possible, but in the absence of a detailed subarea plan for this high growth area, the County prefers that all property owners in the Gladeville planned growth area be given equal opportunity to develop their properties

CHAPTER FOUR - PUBLIC INFRASTRUCTURE AND SERVICES PLAN

4.1 Introduction

As required by Public Chapter 1101, it is the duty of Wilson County to determine "the projected costs of providing urban type core infrastructure, urban services and public facilities throughout the territory under consideration for inclusion within the planned growth area as well as the feasibility of recouping such costs by imposition of fees or taxes within the planned growth area, necessary to facilitate full development of resources within the current boundaries of the municipality and to expand such infrastructure, services and facilities throughout the territory under consideration for inclusion within the urban growth boundaries." This section of the report provides cost estimates for providing core services for these areas, and then examines the County's capacity to undertake these improvements over the 20 year planning period.

At this point it is important to note two fundamental principles which provide the basis for the County's planned growth areas and their proposed Infrastructure and Services Plan. First, the County's interpretation of providing core infrastructure is based on the idea that it is the County's duty is to provide the regional or area-wide infrastructure capacities for future development in the PGA. The development of individual land parcels within the PGA will be "developer-driven," meaning that new development will pay for sewer, water or any other utility extensions to or from the regional infrastructure item. Second, the County's plan is one that stresses the planning concept of concurrency. No new development will be approved or permitted without the proper and adequate infrastructure and services already in place or under construction. In this way, the County's infrastructure base is not slowly eroded by developments which add only small demands on the infrastructure base, but yet their incremental impact results in a looming infrastructure crisis for the County. These two principles will permit the County to stage their future growth in a manner that is responsive to the private real estate market, while at the same time, recognizing the budget constraints of a growing suburban County.

4.2 Proposed Public Infrastructure and Services Plan

In order to accommodate the anticipated future development within the two planned growth areas, plans for providing infrastructure and public services were established. Future infrastructure needs were established based on proposed land use areas and densities, and public services were estimated using the commonly accepted standards for similar communities as a benchmark for future services. These benchmarks were also compared against the levels of service provided in the incorporated municipalities within the County to ensure that appropriate commitments of spending, services and facilities were determined.

Before examining the infrastructure plan for each PGA, it is important to note an additional factor which impacts the County's ability to provide "urban" level services to the proposed planned growth areas. The County has contracted with an independent contractor to provide sewer service for all new developments occurring in the unincorporated areas of the County.

The on-site disposal contractor typically provides these services via a sand filter treatment system for each individual project. Although this contract reduces or eliminates the County's financial responsibilities in regards to this particular infrastructure item (due to the fact that each development provides and pays for its own on-site disposal system), the individualized character of each on-site treatment system does not lend itself to a comprehensive and integrated approach to providing sanitary sewer service to the areas set aside for planned growth areas in this Plan. Constructing on-site treatment systems in these areas will be difficult and costly for the following reasons: (1) the land area required to install these systems will become cost prohibitive in newly developing and already developed areas; (2) the "site-based" approach of this technology makes integrating or connecting all sites into a "regional" collection system is difficult and expensive; and (3) the potential liability for the County if the systems and/or contractor fails could be dramatic. For these reasons, the plan for providing sanitary sewer services to the proposed planned growth areas centers on the County entering into a cooperative effort with the City of Lebanon (Gladeville PGA) and Metro Nashville (West Wilson PGA) to share in the costs of providing sanitary sewer services to these areas. Both of these entities have or will have sanitary sewer facilities in the vicinity of these PGA's, and the sharing of costs to upsize or install new lines should enable all parties to benefit by providing a fertile environment for new growth. Under this service scenario, the County would create a special sewer assessment district in each PGA and institute a sewer assessments on any future service requests. The fees associated with the assessment would be collected prior to development, and the amount of the assessment would be sufficient to retire any debt incurred by the County for participating in the construction of sanitary sewer lines, pump stations or additional treatment capacity with the cooperating entity.

* **Gladeville Planned Growth Area:** Figure 4.1 depicts the general nature of infrastructure improvements required in the Gladeville PGA. Sanitary sewer service is provided through a cooperative agreement with the City of Lebanon to upsize their planned force mains, pump stations and treatment capacity. Since this agreement is not in place, the specific elements of the system required of the County to accommodate this PGA include:

    * 3.0 MGPD Pump station at County Line
    * 16" force main from County line to Stewarts Ferry Pike
    * 3.0 MGPD Pump station at Stewarts Ferry Pike
    * 16" force main from Stewarts Ferry Pike to an Upsized existing Lebanon Pump station at Eastgate Business Center
    * 16" force main from Eastgate Pump Station to new Lebanon Treatment Plant (3.0 MGPD treatment capacity needed to handle PGA flows)

Water service to the area will be provided by the Gladeville Utility District with developers paying for all improvements required to the system. Major "regional" roadway improvements will include widening of McCreary Road, Stewarts Ferry Pike and Couchville Pike. Since Stewarts Ferry and Couchville Pikes are state highways, the costs associated with their improvement will be borne by the state. Finally, proposed public service facilities to serve the area population include an upgraded fire station and new police and parks and recreation facilities.

*** West Wilson Planned Growth Area:** Figure 4.2 generally depicts the improvements targeted for the West Wilson PGA. Sanitary sewer service is provided through a cooperative agreement with Metro Nashville. Appendix E provides the study completed by Metro Nashville Department of Water and Sewerage Services for this area. The major elements of this system are outlined below:

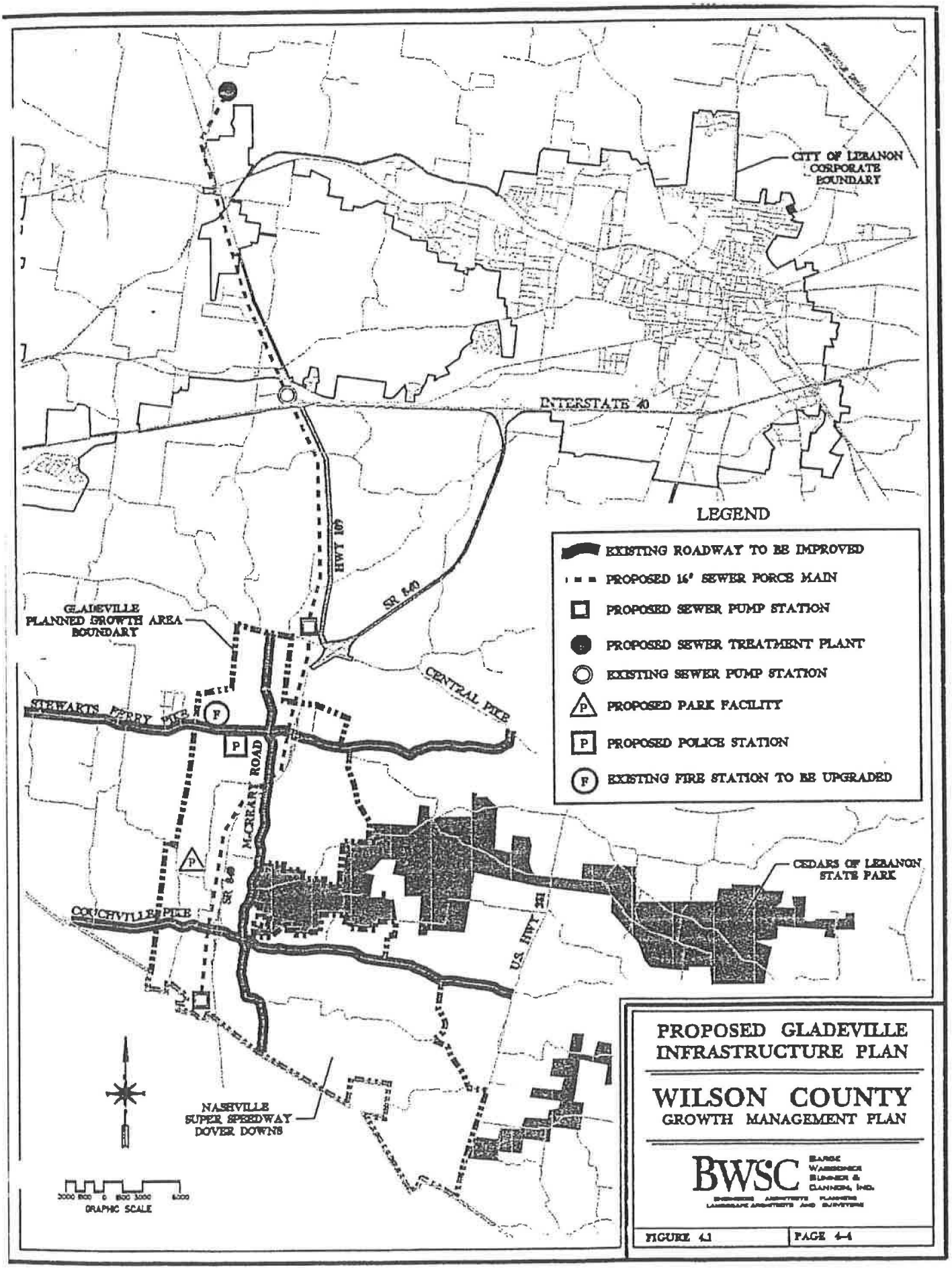
* Three new Pump Stations and new force mains (size varies - 10" to 14")
* New 18" gravity main to connect to existing Metro Nashville sewer system

Water service to the area will be provided by the West Wilson Utility District with developers paying for all improvements required to the system. Major "regional" roadway improvements will include widening of Saundersville and Saundersville Ferry Roads, since neither road is presently designated as a state highway, the costs for these improvements will be borne by the County. Finally, proposed public service facilities to serve the area population include upgraded fire station and police stations and a parks and recreation facility.

4.3 Projection of Costs for Future Infrastructure and Service Improvements

Table 4-1 provides a tabular summary of the public infrastructure and services costs for each area, as well as a review of the phasing and total financial commitment by the County to the Plan, with each major infrastructure category identified and the costs associated with providing "core infrastructure" within the PGA. Approximately $36.2 million of new public infrastructure and services will be required over the next 20 years to adequately provide urban services within the County's proposed planned growth areas. Because the specifics of any cooperative agreement have not been determined, the costs associated with providing sanitary sewer service for these areas have been estimated at the full costs, with no cost sharing with cooperating entities. Additionally, the phasing of these sewer improvements are based on a prediction of when the first developments requiring such services would commence. Of the total spending of $36.2 million, approximately $6.4 million is forecasted for Years 1-5, almost $14.8 million planned for Years 6-10, approximately $8.4 million planned for Years 11-16, and $6.5 million planned for Years 16-20.

The proposed spending indicated in Table 4-1 will require a significant and increased commitment by the County to fund the improvements required in this Plan. Last year, the County spent just under $1.1 million in highway infrastructure capital to improve the roadways of Wilson County. Another $3.3 million was spent on General Capital Projects, however, it is unlikely that this annual capital spending amount can be committed each year to infrastructure improvements within the PGA's only. With projected average annual infrastructure spending approaching $1.8 million over the twenty years of this Plan, the County will be required to focus their spending on the areas targeted for growth, or in the alternative look for other means to finance these improvements (i.e. impact fees, special assessment districts, etc.). To be sure, the spending indicated in Table 4.1 represents a conservative estimate of the anticipated costs (i.e. no cost sharing for sewer services), but this table clearly points to the County's need to adhere to the concepts of concurrency and "developer-driven" infrastructure planning and construction. With developers paying their fair share of these costs, this plan of capital spending is feasible. With growth and development comes an expanded tax and rate-payer base to support these new services; if growth slows so too does the rate at which the County's infrastructure expands.



PROPOSED GLADEVILLE INFRASTRUCTURE PLAN

WILSON COUNTY GROWTH MANAGEMENT PLAN

BWSC Barge Waggoner Sumner & Cannon, Inc.

FIGURE 4.1 | PAGE 4-4

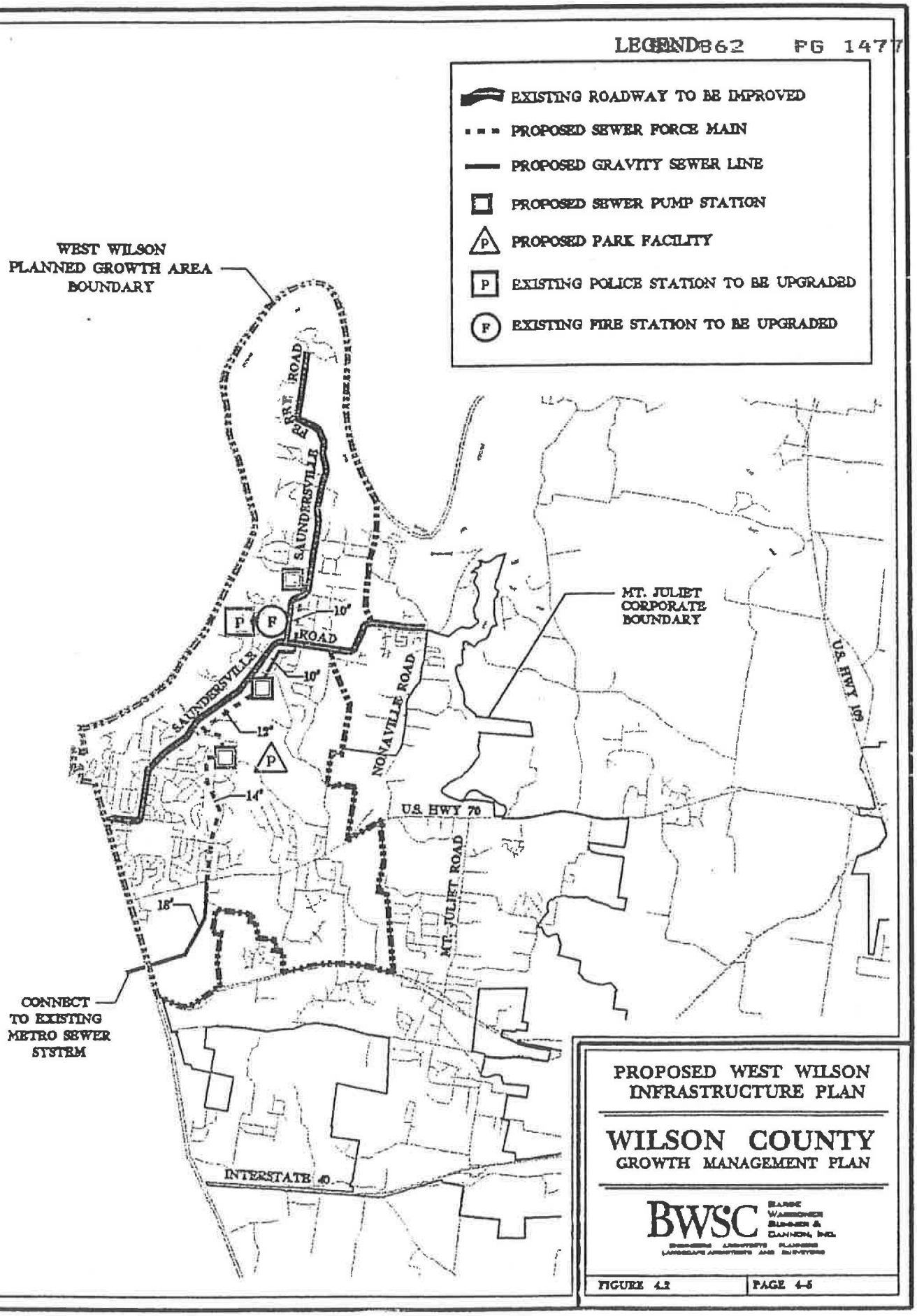

EXISTING ROADWAY TO BE IMPROVED
PROPOSED SEWER FORCE MAIN
PROPOSED GRAVITY SEWER LINE
PROPOSED SEWER PUMP STATION
PROPOSED PARK FACILITY
EXISTING POLICE STATION TO BE UPGRADED
EXISTING FIRE STATION TO BE UPGRADED
WEST WILSON PLANNED GROWTH AREA BOUNDARY
SAUNDERSVILLE FERRY ROAD
SAUNDERSVILLE ROAD
NONAVILLE ROAD
MT. JULIET CORPORATE BOUNDARY
U.S. HWY 109
U.S. HWY 70
MT. JULIET ROAD
INTERSTATE 40
CONNECT TO EXISTING METRO SEWER SYSTEM
10"
10"
12"
14"
18"
P
F
PROPOSED WEST WILSON INFRASTRUCTURE PLAN
WILSON COUNTY
GROWTH MANAGEMENT PLAN
BWSC
Barge Waggoner Sumner & Cannon, Inc.
FIGURE 4.2
PAGE 4-5

Table 4-1
Summary of Infrastructure Improvements

Proposed Improvements	Phase I 0-5 years	Phase II 6-10 years	Phase III 11-15 years	Phase IV 16-20 years	Totals
Gladeville Planned Growth Area					
Water	NA	NA	NA	NA	
Sewer					$7,721,800
16" F.M.- County Line to Stewarts Ferry Pike		$1,143,800			
16" F.M.- Stewarts Ferry Pike to Eastgate		$946,000			
16" F.M.- Eastgate to Highway 70		$1,032,000			
County Line Pump Station		$800,000			
Stewarts Ferry Pike Pump Station		$800,000			
Lebanon Treatment Plant Capacity			$3,000,000		
Fire Protection			$275,000	$115,000	$390,000
Police Protection			$100,000	$75,000	$175,000
Road Improvements					$13,800,000
Stewarts Ferry Pike			$4,650,000		
Couchville Pike		$5,250,000			
McCreary Road				$3,900,000	
Parks				$1,500,000	$1,500,000
Subtotals by Phase/Area	$0	$9,971,800	$8,025,000	$5,590,000	$23,586,800
West Wilson Planned Growth Area					
Water	NA	NA	NA	NA	
Sewer					$4,704,000
14" Force Main and Pump Station	$1,253,000				
12" Force Main and Pump Station		$1,110,000			
10" Force Main and Pump Station		$693,000			
18" Gravity Line	$1,416,000				
10" Gravity Line		$232,000			
Fire Protection			$300,000	$115,000	$415,000
Police Protection			$100,000	$75,000	$175,000
Road Improvements					$6,525,000
Saundersville Road	$3,750,000				
Saundersville Ferry Road		$2,775,000			
Parks				$750,000	$750,000
Subtotals by Phase/Area	$6,419,000	$4,810,000	$400,000	$940,000	$12,569,000
Total Infrastructure Improvements	**$6,419,000**	**$14,781,800**	**$8,425,000**	**$6,530,000**	**$36,155,800**

BK 862 PG 1478

Appendix A

Population Forecast

BK 862 PG 1479

WILSON COUNTY POPULATION PROJECTIONS
TO THE YEAR 2020

AREA	1990	LATEST	2000	2005	2010	2015	2020
LEBANON	15,208	20,460	21,774	26,479	31,184	35,889	40,587
MOUNT JULIET	5,389	10,953	11,667	13,287	14,982	16,792	18,715
WATERTOWN	1,250	1,354	1,428	1,586	1,744	1,907	2,073
UNINCORPORATED	46,152	N/A	53,362	56,660	59,882	63,252	66,726
TOTAL	67,999	81,172	88,231	98,012	107,792	117,840	128,101

Sources:
U.S. Census of Population, 1990: "Latest Data" include certified populations as of 7/1/98 where annexations and special censuses exceed 1996 estimates; University of Tennessee Center for Business and Economic Research; Revision of Lebanon estimates and projections by Greater Nashville Regional Council, May 1999.

BK 862 PG 1480

Appendix B

Existing Public Infrastructure

BK 862 PG 1481

Inventory of Public Infrastructure and Services
Wilson County, Tennessee

In Accordance with PC 1101 of 1998
State Growth Planning Legislation

I. Subjects: STREET CONSTRUCTION/REPAIR
STREET LIGHTING
STORM DRAINAGE

Date(s) of Inventory: 7-1-98 4-1-99

Person(s) Doing Inventory: Danny Thurmon Jerry Reynolds

Person(s) Interviewed: Superintendent, Asst. Supt, & Inspector

II. STREET CONSTRUCTION/REPAIR:

BK 862 PG 1482

A. Number of Employees: Full-time: 60
Part-time: 2
TOTAL: 62

Note additional staffing needs, if any:

10 employees 7employees paving crew & 3 for Full time patch crew.

B. Does county have an on-going program of routine inspection, maintenance and repair? If so, please describe:

Yes a inspector, rides County roads turns list in to office rating pavement condition. We then try to pave Any rated poor as funds are available. also do routine maintenance, patching, mowing, ditching etc.

C. List/Describe current equipment:

See Inventory List attached

D. Describe any facility or equipment needs now and over next 5 years:

We need a paver, dump trucks (10) Rollers (2), tractors with mowers. We also need to build new office & Garage on TN. Blvd property. We have out grown present Location also need to get out of down town.

E. Describe any issues, problems, needs not covered above:

We have a 250 miles of narrow oil + chipped roads average from 14' to 18' wide, this would need to be addressed as funds are available, also About 400 miles needs resurfacing.

IV. STREET LIGHTING:

A. Describe any program now in place for routine inspection and maintenance:

None

B. Policies for provision of any new street lighting:

at this time any street lighting is done by property owner, developer.

C. Describe any facility or equipment needs now and over next 5 years:

As the county continues to grow, we will need to develope a program for street Lighting & traffic Lights At several intersections. Bucket Trucks & Street & red light equipment.

D. Describe any improvement projects/programs proposed or in-place other than previously noted:

None

V. STORM DRAINAGE

A. Describe any major unresolved storm drainage problems or issues affecting the county:

85 to 90% of storm drainage Problems are off of Road Right of way. So by Law we can not address these problems. We only have 25' EACH Side of Road way from center of Road or 50' R.O.W.2/3

B. Note any improvement projects/plans in place or proposed:

C. Describe any county policies or financing methods for dealing with storm drainage problems:
ALL Rd. Drainage IS paid for from ROAD COMMISSION maintenance budget. We have a $5,000,000 budget for maintenance of 1,000 miles of Rd. wky.

D. Describe any issues or problems not indicated above:

As a ROAD COMMISSION we can not work ON drainage R.O.W. but As a Public Works I believe the law does allow for this. We may in the near future need to look At becoming a public works.

V. DESCRIBE ANY ADDITIONAL ISSUES OR NEEDS REGARDING THE ABOVE PUBLIC WORKS FACILITIES NEEDS OR OTHER NEEDS NOT PREVIOUSLY NOTED:
We are In need of additional funding for resurfacing ROADS, At the present time we are resurfacing 25 miles per yr. but we feel a need to keep up with paving cycle, which would mean 55 to 60 miles per yR. AT Our last ROAD COMMISSION meeting Rd. BOARD Approved asking County COMMISSION for $1,000,000 per yr. IN ASPHALT monies this would be Additional to our maintenance budget.

Inventory of Public Infrastructure and Services

Wilson County, Tennessee

I. Subject: WATER AND WASTEWATER AUTHORITY OF WILSON COUNTY, TENNESSEE

Date of Inventory: September 10, 1999

Person(s) doing inventory: Eddie Harris

II. Number of current water customers:

A. County Residents

1. Residential Customers 4420

2. Nonresidential Customers 96

B. Inside City Limits

BK 862 PG 1485

3. Residential Customers 82

4. Nonresidential Customers 0

Total 4598

C. OTHER WATER SERVICE PROVIDERS/UTILITY DISTRICTS BUYING WATER FROM WILSON COUNTY SUPPLIERS

1. Gladeville Utility District during periods of Emergency.

III. WATER SERVICE RATES/COSTS:

A. To county customers

1. Residential 18.69 minimum 0 to 2000 gallons

2. Nonresidential same rate

B. To Customers Inside the City

1. Residential Same Rate as county residents

C. TO OTHER WATER SERVICE PROVIDERS/UTILITY DISTRICTS SUPPLIED BY YOUR UTILITY DISTRICT

Rate 350 per 1000 gallons

IV. WATER TREATMENT PLANT:

A. Locations: Not applicable. The Authority does not own Or operate a water treatment plant. Water is supplied By meter connections and purchased primarily from the City of Lebanon with smaller amounts purchased from The Gladeville Utility District and Consolidated Utility District.

B. Treatment Capacity- Not applicable

C. Current Treatment ---Gallons per day--
As stated above, the Authority does not treat it's own Water. However, current daily usage is approximately 950,000 gallons of water per day.

D. Dates Of Construction / Expansions – Not Applicable

E. Describe Current Treatment Plant Needs (Next 5 Years)
Not applicable

BK 862 PG 1486

F. Future Treatment Plant Needs (Beyond Next 5 Years)
It is quite likely that within the time beyond 5 years To the year 2020 a new water treatment plant will be Constructed by the Authority.

V. Water Supply Sources:

A. Location-- Not applicable. Purchase from others.

B. Adequacy of Supply

1. Not applicable

2. Not applicable

3. Identify possible future supply sources, if Need anticipated.
Supply for future water treatment plant would Be the Cumberland River in northern Wilson County. This source would be adequate for all Foreseeable supply needs.

4. Note any other current or future needs—
See 3. Above.

VI. WATER STORAGE FACILITIES:

A. Location	Capacity
1. Poplar Hill Road	500,000 gallons
2. Trousdale Ferry Pike	500,000 gallons
3. Sparta Pike	100,000 gallons
4. Chicken Road	250,000 gallons
5. Statesville Road	50,000 gallons
Total Storage	1, 400,000 gallons

B. Note adequacy of storage capacity:
Total system storage is currently adequate with Greater than 24 hours storage.
(1,400,000 gallons available storage) = 1.47 days
(950,000 gallons per day usage)

BK 862 PG 1487

C. Describe any current storage or related needs now And over next 5 years:
Within the next 5 years it is projected two additional Tanks may be needed to provide storage, and equalize And maintain adequate pressure during peak demand Periods if current growth trends continue.
Proposed Tank # 1 will be needed in the Cainsville Road Vicinity in the southern part of the system.
Proposed Tank # 2 will be needed near the existing Poplar Hill tank.

D. Describe any future storage or related needs beyond next Five years to Year 2020, if currently anticipated—

At least one additional tank will be required in the northern Portion of the water system in the vicinity of Beasley Bend Road. Additional storage requirements will be dictated by future Growth and density trends that are currently unknown.

VII. Water Distribution System:

A. Existing system (see map)

B. 1. Distribution Needs for next 5 years. The following List is not prioritized.

a. Upgrade Doaks Crossroads pump capacity.

b. New connector lines and control valve assembly for connection between differing pressure subsystems north and south of U.S. Interstate 40.

c. Extensions of water lines to areas currently without Public water service.

2. Fire Hydrants.

The current water system has not been designed to meet Fire protection demands of 500 gpm at 20 psi residual Pressure. It is estimated less than 10 % of the existing fire hydrants on the system could meet those conditions. Approximately 50% of the hydrants can produce approximately 200 to 250 gpm at 20 psi.

Fire hydrant installation has been minimized in order that Funds could be used for water lines to serve more customers With potable water.

Fire hydrant placement and installation has and will continue To be primarily driven by new subdivisions and the Accompanying planning requirements for the new hydrants associated with such development.

As the water system continues to grow with new and larger Water lines and additional storage tanks, fire flow availability

For existing and future fire hydrants will increase substantially.

C. Describe any future distribution or related needs Anticipated beyond the next 5 years to the Year 2020.

1. Continued system expansion to areas of Need.

2. A new trunk line between the Sparta Pike pump station and the Poplar Hill Tank Will be required.

3. Upgrade Sparta Pike pumping station Capacity.

4. New master meter connection to City of Lebanon system along U.S. Highway 231S.

5. A new trunk line across the upper half of The water system in conjunction with a new Water treatment plant.

6. Upgrade Doaks Crossroads pumping station.

7. Establish telemetry control links from tank, pump stations etc., to office for central monitor

BK 862 PG 1489

VIII. Water Department Equipment Needs:

A. Describe any equipment needs for now and over next 5 years:

1. Continue upgrading of equipment as needed.

2. Shop equipment for new facility.

B. Describe any equipment needs beyond the next 5 years, If any are now anticipated—

1. Future equipment needs determined by future Growth and enlargement of water system.

IX. Water Department Staffing / Manpower Needs:

A. Current Staff- Fulltime: 10

Parttime: 1

B. Note any current staffing/ manpower needs for Now and over next 5 years:

1. Future employee needs determined by growth Of water system.

X. Current Plans/Improvement Programs:

1. Contract WC99- Water Line Extensions Project is Currently expected to be completed by October 1999. The contract consisted of approximately 67,000 LF Of six-inch diameter water line extensions.

2. 2000 Water Line System Expansion Project. It is projected approximately 21 miles of additional water lines to serve areas of need will be constructed between approximately June 2000 and December 2001.

3. Improvement of Hartsville Pike (S.R. 141) by the Tennessee Department of Transportation will require Relocation of substantial portions of water line along The subject project areas. The time schedule for this Project is currently unknown, but is expected within The next 5 years.

BK 862 PG 1490

XI. Other Water System Issues:

1. Additional needs include improved mapping of the Existing system and establishment of GIS system Integrating mapping and records data.

Appendix C

Current Thoroughfare Plan

BK 862 PG 1491

Plat
(original recorded in the Wilson County Register of Deeds Office)

Wilson County

Base Map

See Plat Book P23 Page 826

BK 862 PG 1492

Appendix D

Existing Urban Services

BK 862 PG 1493

Inventory of Public Infrastructure and Services
Wilson County, Tennessee

In Accordance with PC 1101 of 1998
State Growth Planning Legislation

(Use and attach additional pages as needed.)

I. Subject: POLICE PROTECTION FACILITIES & SERVICES

Date(s) of Inventory: 9/10/99

Person(s) Doing Inventory: _____

Person(s) Interviewed: TERRY ASH, SHERIFF
444-1412

II. NUMBER OF POLICE OFFICERS:
Full-time: 90
Part-time: 5
TOTAL: 95

NUMBER OF SUPPORT PERSONNEL:
Full-time: 23
Part-time: _____
TOTAL: 23

III. NUMBER OF CRUISERS IN SERVICE: 28

OTHER VEHICLES IN SERVICE: 15

BK 862 PG 1494

IV. DISPATCHING:
IN-HOUSE _____
COUNTY E-911 ✓
OTHER (DESCRIBE) _____

V. DESCRIBE BUILDING FACILITIES ADMINISTRATIVE, DETENTION AND RELATED SPACE - - AND NOTE ANY ADDITIONAL SPACE NEEDS NOW AND OVER NEXT 5 YEARS:

1 MAIN OFFICE ; JAIL

SUB-OFFICES + SHARED USE:
- MT. JULIET POLICE STATION
- LAKEVIEW FIRE HALL
- WATERTOWN POLICE STATION

NOTE ANY POSSIBLE SPACE NEEDS BEYOND NEXT 5 YEARS, INCLUDING SATELITTE LOCATIONS.

VI. DESCRIBE ANY COOPERATIVE ARRANGEMENTS WITH CITY POLICE DEPARTMENT'S WITHIN CITY LIMITS AND OUTSIDE CITY:

- The County & Municipalities have a User's Agreement
  - they assist each other when need
  - County only entity w/ Juvenile facilities

VII. CURRENT NUMBER OF OFFICERS PER 1,000 POPULATION WITHIN THE COMMUNITY _____

CURRENT NUMBER OF PATROL CARS PER 1,000 POPULATION _____

HOW DOES WILSON COUNTY COMPARE WITH NATIONAL STANDARDS TO SIMILARLY SIZE COMMUNITIES?

DESCRIBE ADDITIONAL NEEDS NOW AND OVER NEXT 5 YEARS:

- County has 5 yr- plan:
  - Need additional patrol services, esp N.W county
  - Traffic division needs to be expanded

VIII. DESCRIBE ANY ON-GOING OR PROPOSED IMPROVEMENT PROGRAMS OR PROJECT - - POLICING, RECORDS, COMMUNICATIONS, ETC.:

- School Resource officers
  - currently, have 1 per High School,

IX. DESCRIBE/LIST ANY ADDITIONAL EQUIPMENT NEEDS NOW OR OVER NEXT 5 YEARS:

- Require additional vehicles as officers hired; approx. 8-10

X. DESCRIBE ANY ISSUES, PROBLEMS OR NEEDS NOT COVERED ABOVE:

- Jail overcrowding: Construction/renovation needed
- All divisions need to be expanded
- Budget: need competitive salaries + benefits

Inventory of Public Infrastructure and Services
Wilson County, Tennessee

In Accordance with PC 1101 of 1998
State Growth Planning Legislation

(Use and attach additional pages as needed.)

I. Subject: FIRE PROTECTION FACILITIES & SERVICES

Date(s) of Inventory: 9/9/99

Person(s) Doing Inventory: _____

Person(s) Interviewed: Wayne Williamson, WEMA Director 444-8777

II. NUMBER OF FIREFIGHTERS:

Full-time:	66
Part-time:	
Volunteer:	20 (organization that Responds when Needed)
TOTAL:	66 (20)

NUMBER OF SUPPORT PERSONNEL:

Full-time:	10
Part-time:	
TOTAL:	10

III. NUMBER OF FIRE STATIONS: 6 (see Map for locations)

RESPONSE AREA: COUNTY ONLY ✓ IN CITY Assist Watertown

ISO RATING: 7 (areas w/in 5 miles of station); 9,10 (all other areas)

PLEASE ATTACH A MAP SHOWING FIRE STATIONS AND ATTACH A LIST OF SERVICEABLE APPARATUS SHOWING PUMPING CAPACITY AND OTHER VEHICLES.

IV. DESCRIBE EXISTING BUILDING FACILITIES AND SPACE AND INDICATE ANY ADDITIONAL SPACE NEEDS NOW AND OVER NEXT 5 YEARS:

* NEED 2 ADDITIONAL STATIONS
* NEED 30-40 ADDITIONAL EMPLOYEES FOR NEW STATIONS

STING EQUIPMENT

- 8 Engines
- 1 TANKER (USED FOR BRUSH FIRES)

BK 862 PG 1497

Nashville
A profile of business in the region

Suppliers follow Dell to Middle Tennessee

The ripple effect associated with Dell Computer Corporation's entrance into Middle Tennessee is revving up Nashville-area commercial real estate activity as the personal computer giant's suppliers scramble to find space for their operations.

As of September 30, at least 11 companies have signed leases for space in Davidson, Rutherford and Wilson counties.

"Dell's ripple effect is readily apparent in the activity of its suppliers," said Gaylord Entertainment Company CEO Terry London, who serves as chairman of PARTNERSHIP 2000, the economic development initiative of the Nashville Area Chamber of Commerce.

"We are just beginning to see the first wave of supplier companies setting up shop in Middle Tennessee. We expect many more companies and hundreds, if not thousands, of supplier-related jobs to follow in the coming years."

Janet Miller, director of economic development for the Nashville Chamber, said the new supplier businesses already occupy more than 650,000 square feet of space and account for more than 225 new employees. The companies include Ryder Integrated Logistics, Austin Foam Plastics, Capital City Container, Digimedia and IPC Communication Services.

Kip Thompson, vice president of worldwide facilities for Dell, cited outstanding logistical advantages as one of the primary reasons the company chose the Nashville area for its first U.S. expansion outside of Texas.

"We can get to 60 percent of our customer base in two days from Nashville," he said.

Additionally, Thompson said innovative state and local leadership, superior infrastructure and availability of space to grow their operations played an important role in Dell's location decision.

Dell already employs about 1,000 Middle Tennessee residents at its 304,000-square-foot Lebanon manufacturing facility in Wilson County. The company's main campus, to be housed in Davidson County, is under development.

> *"We can get to 60 percent of our customer base in two days from Nashville."*
> *-Kip Thompson, Vice President, Worldwide Facilities, Dell Computer Corp.*

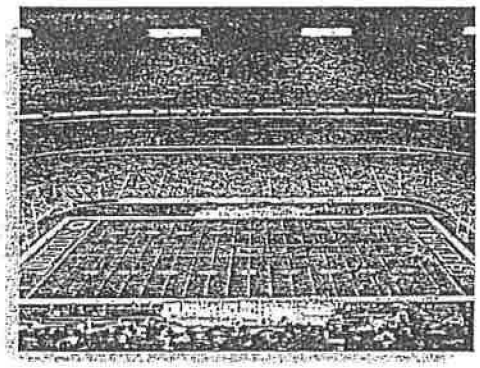
NFL stadium enhances Nashville's image as a professional sports town

The opening and naming of Adelphia Coliseum, the official name of the Tennessee Titans' new home stadium, completed Nashville's transformation into an NFL city.

Adelphia Communications paid $30 million for naming rights to the newly completed 67,000-seat stadium and celebrated with thousands of Titans' fans during a grand opening event this summer.

Titans' fans enjoyed an intense game during the team's regular season debut at "The Delph" on September 12. A crowd of nearly 66,000 – a franchise record at the time – turned out to see the Titans manage a come-from-behind win over the Cincinnati Bengals, 36-35.

"There's a real sense of pride associated with Adelphia Coliseum," said Joe Kelley, chairman of the Nashville Sports Council. "It has helped create a level of excitement and energy among professional sports fans that hasn't existed here until very recently. The stadium's unmistakable presence makes a bold statement to visitors, tourists and travelers that says 'We're in the big leagues now."



Fans pack the newly completed, 67,000-seat Adelphia Coliseum to cheer on the Tennessee Titans.

Another important development in the professional sports arena was the official naming of the NHL's Nashville Predators' home venue. Gaylord Entertainment Company, a Nashville-based diversified entertainment company and minority owner of the Predators, signed an $80 million deal to change the name of the Nashville Arena to Gaylord Entertainment Center.

Nashville International Airport improvements to top $45 million

Nashville International Airport was the fourth best among 36 major U.S. airports, according to a Plog Research survey released in 1998 that evaluated baggage delivery, ease of reaching gates, available ground transportation and other amenities.

The Metropolitan Nashville Airport Authority has embarked on two massive expansion initiatives to make it even better. The first, a $35 million capital improvement program, will increase parking availability and significantly enhance terminal access. The second initiative, an $11 million project, will dramatically expand air cargo services.

"These improvements are essential to keep Nashville competitive with other cities," said General William G. Moore, president of the Airport Authority. "As the region has grown, so has the volume of passengers, flights and cargo traveling to and from Nashville."

In terms of parking, expansion efforts will add more than 1,200 new spaces.

Terminal improvements include adding pedestrian bridges with moving sidewalks connecting the baggage and ticketing levels to the parking garage, increasing traffic lanes on all three levels, adding valet parking service and building four climate-controlled waiting rooms for passengers on the ground transportation level.

Additional improvements include expanding passenger pick-up and drop-off areas on the baggage and ticketing levels, adding more covered rental car spaces, taxi waiting spaces, parking toll booths, stairways and elevators in the parking garage.

Improvements to air cargo services will create a complex to be known as the Nashville Air Cargo Link. This program includes rehabilitation and enlargement of cargo aircraft aprons; taxiways and parking areas for customers, trucks and employees, plus the addition of new air cargo facilities on adjacent land.

"The goal of the Nashville Air Cargo Link is to provide seamless service between freight forwarders, manufacturers, distributors and air cargo carriers," said Hugh G. Smith, vice president of air cargo for the Airport Authority.

To further enhance air passenger service, Nashville International Airport added several new non-stop markets to its flight schedule during the last year including service to Seattle, Wash.; Fort Lauderdale, Fla.; San Diego, Calif.; Long Island, N.Y.; and Hartford, Conn.

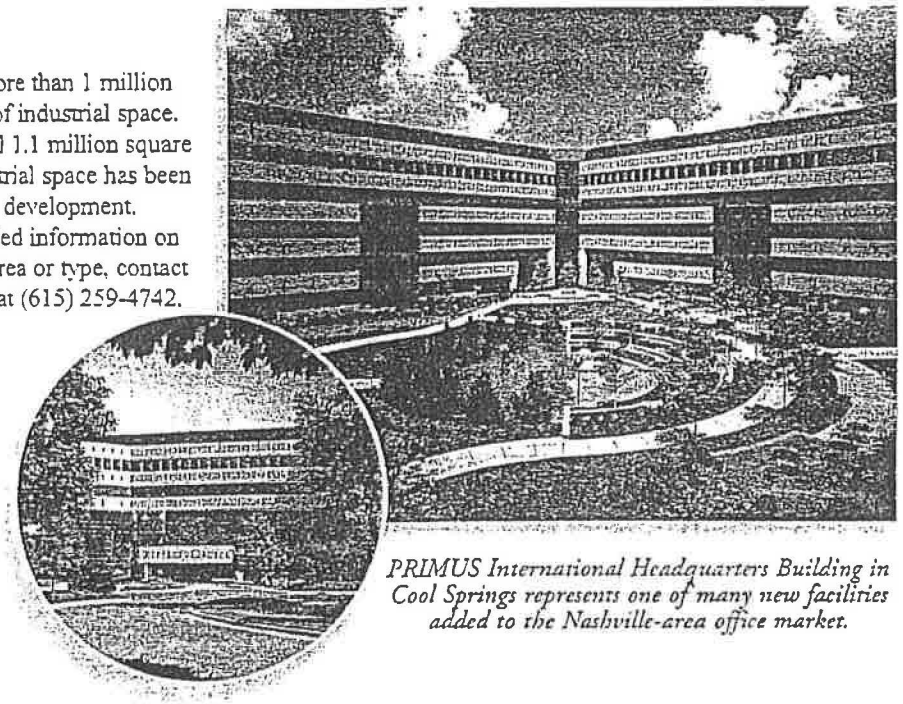
Improvements at Nashville International Airport will significantly enhance the facility's capacity to move goods and people.

Nashville Under Construction

The PRIMUS International Headquarters Building is among the newest facilities added to Middle Tennessee's office market landscape. The 540,000-square-foot building sits on 100 acres and can accommodate about 2,300 employees.

Companies looking to expand in, or relocate to, the Nashville area will have a greater selection of space with the abundance of multi-tenant, speculative and industrial buildings under construction. Current projects add more than 1.7 million square feet of Class A office space and more than 1 million square feet of industrial space. An additional 1.1 million square feet of industrial space has been proposed for development.

For detailed information on projects by area or type, contact Janet Miller at (615) 259-4742.



PRIMUS International Headquarters Building in Cool Springs represents one of many new facilities added to the Nashville-area office market.

Nashville pursues rail transit to support growth, beat gridlock

Nashville is taking proactive steps to ensure that Middle Tennessee's transportation r. rk keeps pace with the region's growth.

During the past year, the Nashville Area Chamber of Commerce spearheaded efforts to draft a regional multi-modal transportation plan that would shorten commutes to and from downtown Nashville and reduce overall automobile traffic on Middle Tennessee thoroughfares.

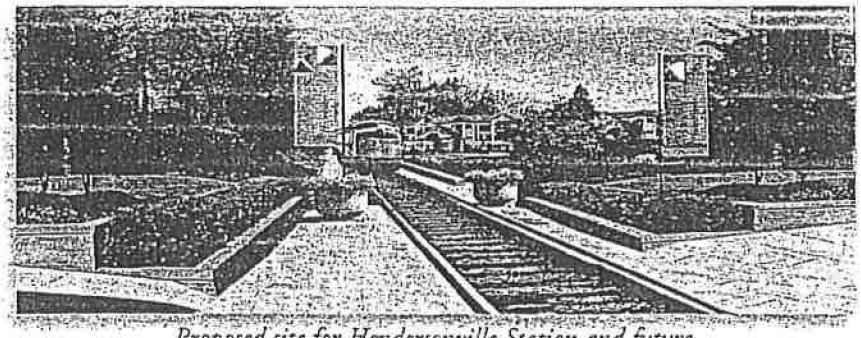
"Roads cannot be built fast enough, or cheaply enough, to meet the demands of continued regional growth," said Lewis Levine, vice chairman of transportation for the Chamber. "If we are to continue to grow and prosper, we must enhance our current transportation system so that it offers area residents a comfortable and convenient alternative to driving their cars."

The Chamber outlined its proposed multi-modal transportation plan in a recent report titled "Beating Gridlock: An Attainable Transportation Program for Middle Tennessee." The plan calls for developing commuter rail service to five counties by the year 2010 and building the first leg of a light rail system from downtown Nashville out west to Interstate 440. It also addresses the need to secure regional funding sources for operating and capital costs and the need to launch a public awareness campaign that encourages regional support among business leaders, elected officials and citizens.

A delegation made up of state transportation officials, Chamber representatives and area business leaders traveled to Washington, D.C. in October to seek an estimated $25 million in federal funding to put the first of five commuter rail corridors in operation by 2001.

Visit the Chamber's website at nashvillechamber.com for report details.

The City of Hendersonville plans to build a full-service commuter rail station which could include amenities such as a drycleaner, coffee shop and a post office.



Proposed site for Hendersonville Station and future Hendersonville Commuter Rail Station.

Nashville hosts world's top corporate real estate executives

More than 2,300 top corporate real estate executives and site selection consultants spent several days in Nashville recently. Nashville served as the host city for the International Development Research Council's (IDRC) World Congress held October 16-20 at the Opryland Hotel. This year marked the second time in seven years that the IDRC has selected Nashville ost its meeting.

"This show is typically held in larger markets such as New York, Boston, Chicago and Los Angeles, so bringing in a group of this caliber is a major coup for Nashville – and for the state of Tennessee," said Janet Miller, director of economic development for the Nashville Area Chamber of Commerce. "I think the fact that they chose Nashville not once, but twice, in the last decade is a real testament to our city."

Miller said holding the conference here provided attendees, some of whom have never visited Tennessee or Nashville, a chance to see what the city was all about. And for those who attended the first IDRC World Congress held in Nashville in 1992, it was an opportunity to highlight the many positive changes that occurred since their last visit.

"These folks are the decision makers who have the ability to create significant economic development in Nashville and throughout Tennessee in the years ahead," Miller said.

Fast Facts

BK 862 PG 1499

- Nashville is among the top ten most educated metropolitan areas in America, according to a recent study conducted by the Center for Regional Economic Issues at Case Western University. The study determined that there is a direct correlation between the number of college-degree holders in a particular area and rapid increases in per capita income.
- Growth of women-owned businesses in Nashville is the fifth-fastest in the nation, according to recent figures released by the National Foundation for Women Business Owners.
- Crime rates dropped for the third consecutive year in Nashville during 1998 with declines in all major crime categories.
- Nashville ranked 37th in 1999 among U.S. metro areas with the most households with effective buying incomes of $150,000 or more, according to the 1999 Survey of Buying Power. Nashville ranked 47 in population size on this list.
- Two Nashville hospitals – Vanderbilt Medical Center and St. Thomas Hospital – rank among the nation's best for their programs in cardiology and heart surgery, urology and treatment of hormonal disorders, according to *U.S. News & World Report* magazine's annual survey of "America's Best Hospitals."

Appendix F

Planning Report
for
Northwest Wilson County
Royal Oaks Wastewater Treatment Plant
Sewer Service Area

BK 862 PG 1500

Planning Report

for

Northwest Wilson County – Royal Oaks Wastewater Treatment Plant Sewer Service Area

BK 862 PG 1501

Prepared by and for:

Metro Water Services
1600 2nd Avenue North
Nashville, Tennessee 37208

December 18, 1998

METRO WATER SERVICES

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Executive Summary

Metro Water Services has allocated 85% of its average daily sewerage flow capacity in the Royal Oaks Wastewater Treatment plant facility (servicing the eastern portion of the planning area). Allocable daily capacity at Dodson Chapel Pumping Station is 3.4 mgd average daily flow (8.5 mgd peak daily flow). In order to support continued growth, additional sewer infrastructure will be required in the planning area to transport flows to treatment facilities. This report outlines options for the facilities necessary to support anticipated growth through the year 2015.

Development in the area has been low to moderate in the recent past. The majority of the western portion of the study area has been developed with private septic tank disposal on one acre lots. It is anticipated that the design life of those septic systems will be substantially depleted during the planning period. For new development, the Wilson County Zoning Ordinance allows three (3) dwelling units per acre when adequate sewerage disposal is available. Cluster rezoning in Wilson County could result in substantially higher densities and is beyond the scope of this planning report. Metro Water Services has received requests for capacity in public sewerage trunk and treatment facilities in the eastern portion of the planning area that exceed the current available capacity at Royal Oaks Wastewater Treatment Plant.

BK 862 PG 1503

The various scenarios analyzed resulted in the following costs:

Alternative 1 All flow pumped to MWS	$ 8,137,000
Alternative 2 Western flows pumped to MWS, east to expanded Royal Oaks WWTP	$ 9,780,000
Alternative 3 All flow pumped to Upgraded Royal Oaks WWTP	$13,965,000
Alternative 4 West flow pumped to MWS, east flow to Mt Juliet	$10,591,000
Alternative 5 All flow pumped to Mt Juliet	$13,159,000

In order to serve property draining to Old Hickory Lake from Langford's Cove to Lindsley's Bend in northwest Wilson County, a series of pump stations and force mains will be required. Alternative 1, yields the least future cost scenario for service through the year 2015. Alternative 1 pumps the east and the west basin flows to the MWS system at Dodson Chapel Pump Station.

This scenario calls for combining (manifolding) of the force mains and should be constructed with a phased implementation considering actual development and/or extension to currently unsewered areas. Phasing of system construction in alternative 2 may be more practical depending on the actual build-out of developments and availability of funding for extension to areas currently served by private sewerage disposal.

Introduction

Service areas and facilities operated and maintained by Cumberland Utility District were transferred to Metro Water Services (MWS) in 1994. The majority of the system transferred comprised areas within Davidson County, however there are some detached areas with sewer facilities operated and maintained by MWS. These facilities were constructed for specific residential and commercial developments under the authority of Cumberland Utility District. All portions of the planning area are contained within the Greater Nashville 208 regional planning area. This report intends to define existing major facilities and provide alternatives for intermediate and long range needs in the proposed Nashville 201 Facilities Planning Area addition.

BK 862 PG 1504

Planning Area

The Proposed additions to the Metro Water Services' 201 planning area boundary in Northwest Wilson County include several sub-basins contiguous to Old Hickory Lake as well as areas contributing to existing MWS sewer facilities.

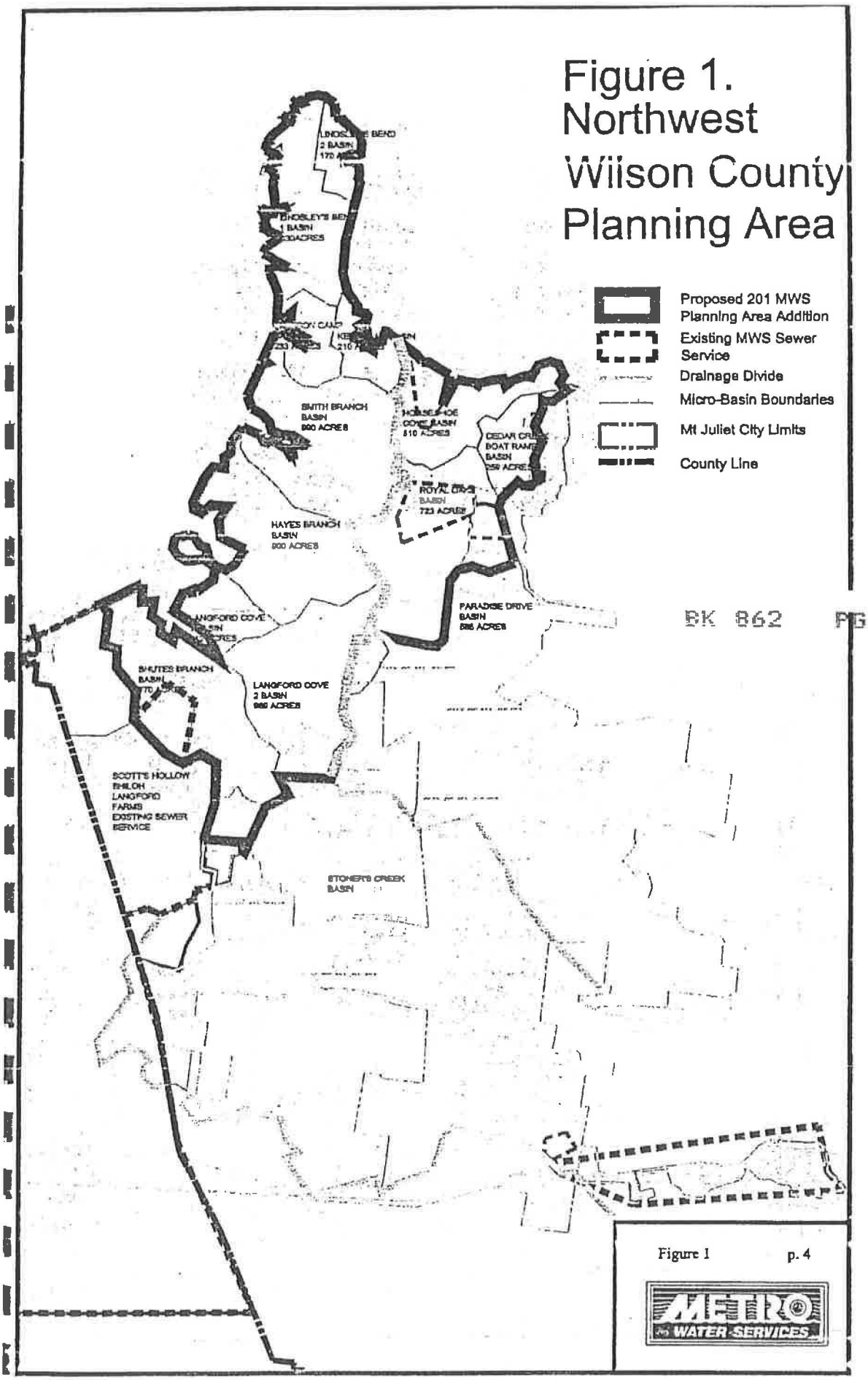
The proposed sewer service areas examined by this report are located along the southern shores of Old Hickory Lake east of Davidson County to Cedar Creek and the limits of the city of Mt Juliet and generally north of Lebanon Pike. The planning area is approximately 7,000 acres and does not include area in Wilson County currently served by gravity in the Shiloh micro-basin (see figure 1).

Existing Infrastructure

The sewer system in the eastern portion of the planning area includes a 150,000 gallon per day wastewater treatment plant (Royal Oaks WWTP), an existing pump station (Horseshoe Cove SPS) and approximately 700 existing residential and commercial customers served by a collection system comprised of 8" sewer mains. Flow monitoring in the collection system indicates an approximate average daily flow of 112,000 gallons contributing to the 150,000 gallon Royal Oaks Wastewater Treatment Plant (see appendix A).

The western portion of the planning area includes Langford Farms Pump Station serving approximately 400 existing residential customers. The flow from this pump station contributes to the Shiloh micro-basin which flows by gravity to the Dodson Chapel Pump Station. Existing average daily flow in the Dodson Chapel pump station is 5.28 mgd. The design capacity of the station was 13.8 mgd, however some modifications were made to the system during its construction which yield a higher capacity. The remainder of the western basin is approximately 70% developed. This majority of this area is served with private septic tank disposal constructed in the 1970s .

Figure 1. Northwest Wilson County Planning Area



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METRO WATER SERVICES

Population Projections

The planning authority for these basins includes both Wilson County Planning Commission and the city of Mt Juliet Planning Commission. Density for Residential (R-1) Zoning District, the general existing zoning in the planning area, was changed from 20,000 square feet to 15,000 square feet per lot in 1997. Planned residential (R-3) zoning will allow densities up to 12 units per acre. Zone changes to more intensive uses are not within the scope of this study

Local planning staff has estimated population projections for the five (5) counties surrounding Davidson County for the Metropolitan Planning Organization (MPO). The population projections for this portion of Wilson County were recently updated and reflect breakdowns of estimates adopted by the MPO. Table 1 shows existing and anticipated population projections through the year 2015. Table 2 presents a distribution of the MPO estimates by drainage basin.

Table 1. Metropolitan Planning Organization Population Estimates

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Planning Traffic Analysis Zone (TAZ)	sub-TAZ	Proportion of TAZ in Proposed MWS Service Area	1995 Estimated Potential Customer Population	1995 Estimated Potential Sewered Households	Approximate Existing Public Sewered Households	2015 Estimated Potential Customer Population	2015 Estimated Potential Sewered Households
289	-1	100%	1,165	392	106	1,343	463
289	-2	100%	1,334	449	0	1,360	469
289	-3	100%	1,165	392	0	1,253	432
290	-1	50%	683	225	90	773	267
290	-2	70%	984	324	400	1,346	464
292	-1	90%	682	225	0	788	272
292	-2	95%	1,009	333	0	1,047	361
293	-1	100%	2,953	990	100	3,039	1,048
293	-2	100%	2,356	790	790	2,401	828
294	-1	50%	362	125	625	508	175
294	-2	100%	527	182	625	1,050	362
Total			13,219	4,427	2,736	14,908	5,140

Table 2. Metropolitan Planning Organization Population Estimates Distributed by Drainage Watershed

Planning Traffic Analysis Zone (TAZ)	sub-TAZ	Approximate Proportion of TAZ in Micro-Basin	1995 Estimated Potential Customer Population	1995 Estimated Potential Sewered Households	Approximate Existing Public Sewered Households	2015 Estimated Potential Customer Population	2015 Estimated Potential Sewered Households
Shute's branch							
292	-2	50%	531	175	-	551	190
293	-1	50%	1,477	495	50	1,520	524
293	-2	17%	393	132	132	400	136
Subtotal			2,400	802	182	2,471	852
Shilo							
293	-1	50%	1,477	495	50	1,520	524
293	-2	83%	1,963	658	658	2,001	690
294	-1	50%	362	125	600	508	175
294	-2	100%	527	182	600	1,050	362
Subtotal			4,329	1,460	1,908	5,078	1,751
Langford's Cove 1							
292	-1	10%	76	25	-	88	30
Subtotal			76	25	-	88	30
Langford's Cove 2							
292	-1	50%	379	125	-	438	151
292	-2	45%	478	158	-	496	171
290	-2	10%	141	45	400	192	56
Subtotal			997	329	400	1,126	388
Hayes Branch							
292	-1	30%	227	75	-	263	91
289	-2	33%	445	150	-	453	156
Subtotal			672	225	-	716	247
Smith Branch							
289	-1	45%	524	176	106	604	208
289	-2	67%	889	299	-	907	313
Subtotal			1,414	476	106	1,511	521
Keenan Drive							
289	-1	5%	56	20	106	67	23
289	-3	8%	97	33	-	104	36
Subtotal			156	52	106	172	59
Jackson Camp							
289	-3	17%	194	65	-	209	72
			194	65	-	209	72
Lindsley Bend 1							
289	-3	58%	660	229	-	731	252
Subtotal			660	229	-	731	252
Lindsley Bend 2							
289	-3	17%	194	65	-	209	72
Subtotal			194	65	-	209	72
WEST BASIN SUBTOTAL:			11,111	3,728	2,702	12,310	4,245
Horseshoe Cove							
289	-1	50%	583	196	106	672	232
Subtotal			583	196	106	672	232
Cedar Creek Boat Ramp							
290	-1	10%	137	45	90	155	53
Subtotal			137	45	90	155	53
Royal Oaks							
290	-1	40%	545	180	90	618	213
290	-2	60%	843	278	400	1,154	398
Subtotal			1,389	458	490	1,772	611
EAST BASIN SUBTOTAL:			2,108	699	686	2,598	896
Grandtotal			13,219	4,427	3,388	14,908	5,140

BK 862 PG 1507

Current requests for sewer capacity availability exceed the projected growth for the year 2015. The discrepancy between projected growth and development approval requests may be an indication of market changes that are not reflected in historical growth trends on which the projections are based. MPO projections are based on broad generalized growth trends and infrastructure availability. An additional development potential analysis has been done to determine the ultimate capacity needed to serve the planning area given existing zoning (see Table 3). Any single facility design report quantifying capacity should include the most recent update to the MPO projections, census count estimates and customer water usage records for the area to define actual capacity to be constructed.

Table 3. Analysis of developed and undeveloped Lands in Northwest Wilson County

Table 2 Ultimate Build-out								
Micro-Basin	Total Area	Estimated Large Tract Area	Estimated Existing Units	Ultimate Potential Units *	Ultimate Future Development Residential Sewerage Flow	Ultimate Existing Residential Sewerage Flow	Total Ultimate Sewerage Flow	Potential Ultimate Population
	(acres)	(acres)	(units)	(units)	(gallons per day)	(gallons per day)	(gallons per day)	(persons)
LINDSLEY BEND 1	530	271	207	569	497,953	181,125	679,088	1,785
LINDSLEY BEND 2	166	51	86	125	112,088	75,250	187,338	492
JACKSON CAMPGNDEL DR	223	120	125	252	220,500	109,375	329,875	857
SMITH BRANCH	990	208	567	437	382,200	522,375	904,575	2,378
HAYES BRANCH	800	290	534	809	532,875	467,250	1,000,125	2,629
LANGFORD COVE 1	242	85	20	137	119,438	17,500	136,938	360
LANGFORD COVE 2	999	591	272	1,241	1,085,963	238,000	1,323,963	3,480
SHUTE'S BRANCH	670	139	746	292	255,413	652,750	908,163	2,387
KEENAN LANE	210	120	57	252	220,500	49,875	270,375	711
WEST SUBTOTAL:	5,232	1,885	2,644	3,917	3,426,938	2,313,500	5,740,438	15,089
HORSESHOE COVE	510	301	151	632	553,088	132,125	685,213	1,801
CEDAR CREEK BOAT RAMP	255	157	44	381	333,506	38,500	372,006	978
ROYAL OAKS	773	224	536	428	374,850	558,250	933,100	2,453
EAST SUBTOTAL:	1,492	687	833	1,442	1,261,444	728,875	1,990,319	5,232
SHILOH **	1,550	89	1,200	187	163,538	1,050,000	1,213,538	3,190
TOTAL:	8,274	2,641	4,677	5,545	4,851,919	4,092,375	8,944,294	23,511

*Ultimate potential development is defined by 3 units per acre on 70% of land in tracts over 5 acres, zoning district R-1, minimum lot size of 15,000 SF

**Shilon Micro-basin is currently served by gravity sewer to Dobson Chapel PS

BK 862 PG 1508

Alternatives

Five alternatives have been analyzed for serving the planning area. These alternatives address major treatment and transportation facilities required for extending service into the area. This cost of extending service to each existing lot or developable tract of land is outside the scope of this report and has not been assessed.

Alternative 1. Pump east and west watershed flows to the 36" trunk upstream of Dodson Chapel Pump Station (see figure 2)

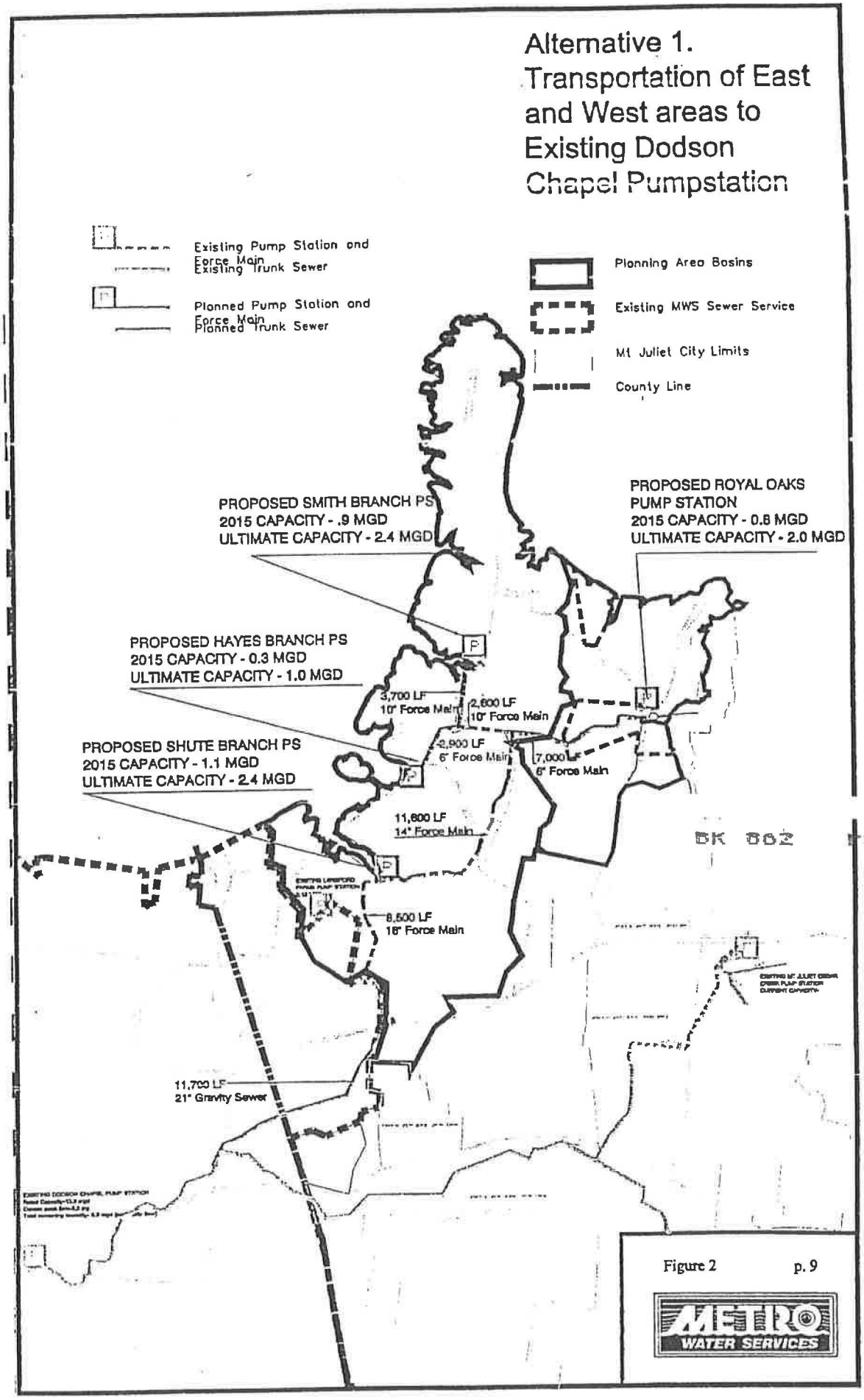
Under this scenario the existing capacity in the trunk sewers agreed to be constructed by Cumberland Utility District would be allocated to those areas within the expanded Metro Water Services planning area. There is adequate capacity for growth anticipated by the MPO through the year 2015. It should be noted that where possible, the force mains should be sized for 2015 and ultimate growth, while the trunk sewers in the system should be phased as development actually occurs. Force main and pump station cost have been developed for ultimate growth since the site preparation and excavation for either planning horizon are comparable. Gravity sewer cost have been developed for the anticipated 2015 build-out since other infrastructure (including transportation, water, police service, fire service and schools) must be developed and available to support the ultimate growth.

Table 4 Projected Cost of Alternative 1 assuming construction today.

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
CONSTRUCTION (1998 DOLLARS)				
6" FORCE MAIN	9,900	LF	$ 50	$ 495,000
10" FORCE MAIN	6,300	LF	$ 55	$ 347,000
14" FORCE MAIN	11,600	LF	$ 65	$ 754,000
18" FORCE MAIN	8,500	LF	$ 70	$ 595,000
21" GRAVITY SEWER	11,700	LF	$ 120	$ 1,404,000
0.8 MGD PUMP STATION	1	LS	$ 500,000	$ 500,000
0.9 MGD PUMP STATION	1	LS	$ 500,000	$ 500,000
0.3 MGD PUMP STATION	1	LS	$ 300,000	$ 300,000
1.1 MGD PUMP STATION	1	LS	$ 500,000	$ 500,000
SUBTOTAL:				$ 5,395,000
ANNUAL FACILITY OPERATION AND MAINTENANCE (1998 DOLLARS)				
PUMP STATION	4	EACH	$ 222,000	$ 888,000
TREATMENT PLANT (CENTRAL)	1.25	MG	$ 1,483,000	$ 1,854,000
SUBTOTAL:				$ 2,742,000
GRANDTOTAL:				$ 8,137,000

BK 862 PG 1509

Alternative 1. Transportation of East and West areas to Existing Dodson Chapel Pumpstation



BK 662 PG 1510

Figure 2 p. 9

METRO WATER SERVICES

Maintenance cost for the larger diameter force mains might be higher than normal until the 2015 population projections are realized. If this scenario is selected for implementation, operation and maintenance of the pump stations and force mains must be closely monitored to ensure that odor and corrosion is properly controlled. Depending on the actual schedule for development build-out, it may be more cost effective to install a dual pipe system and plan to change the pump sizes in phase with development since the majority of expense for the force main and pump station construction is in excavation and structure.

Alternative 2. Pump west watershed flows to Dodson Chapel Pump Station and treat east watershed flow at upgraded Royal Oaks Waste Water Treatment Plant (WWTP)

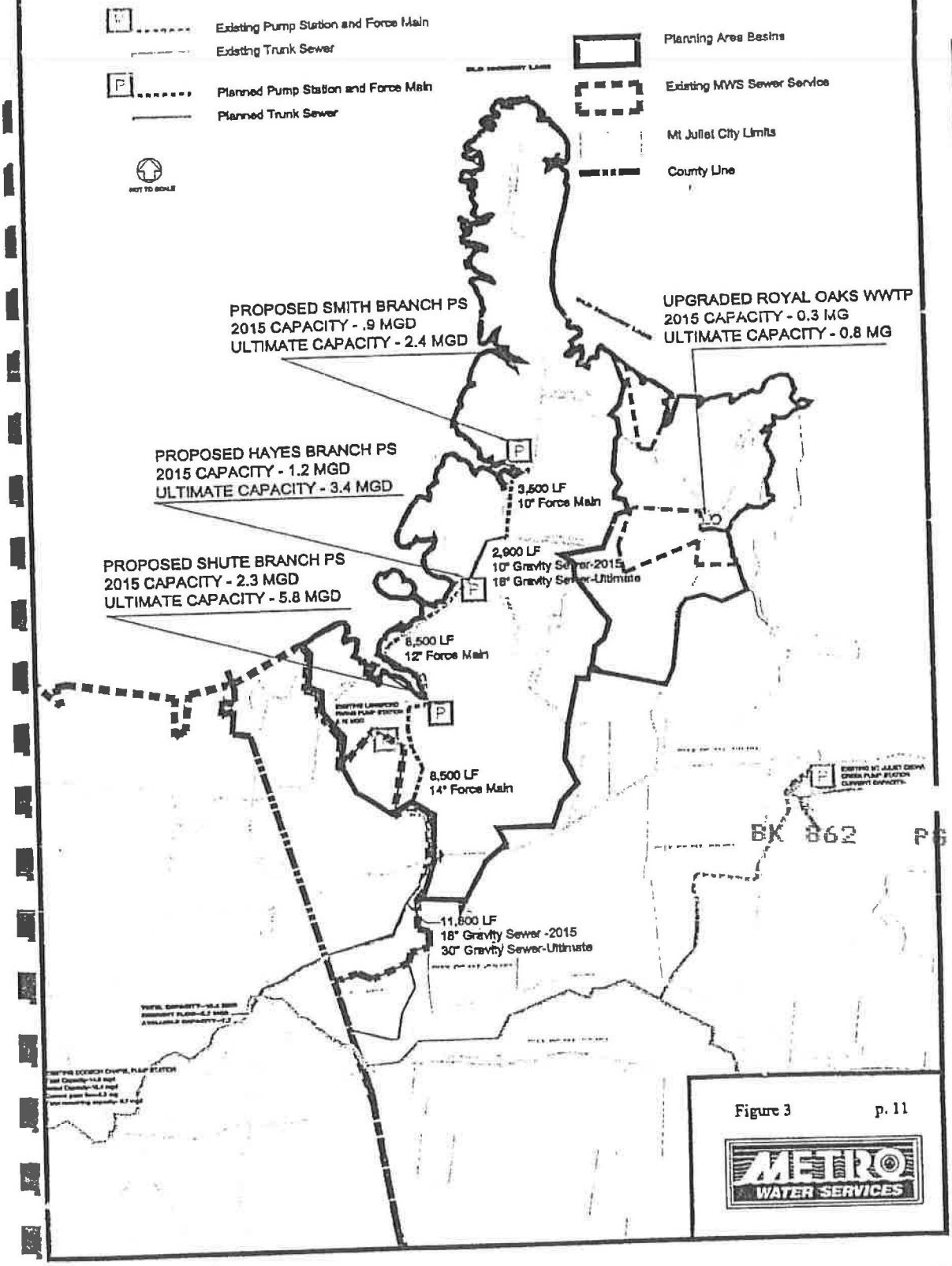
This scenario allows separate development of east and west watershed capacities since the two systems will be constructed independently of each other. Again it should be noted that the majority of force mains should be sized for 2015 and ultimate growth, while the trunk sewers in the system should be phased in as development actually occurs. Force main and pump station cost have been developed for ultimate growth since the site preparation and excavation for either capacity limit are comparable. Treatment plant and gravity sewer cost have been developed for the anticipated 2015 build-out since other infrastructure (including transportation, water, police service, fire service and schools) is not currently available and must be developed by local authorities to support the ultimate growth.

Table 5 Estimated Capital Cost of Alternative 2 assuming construction today.

CONSTRUCTION (1998 DOLLARS)					
10" FORCE MAIN	3,500	LF	$ 55	$	193,000
12" FORCE MAIN	8,500	LF	$ 60	$	510,000
14" FORCE MAIN	8,500	LF	$ 65	$	553,000
10" GRAVITY SEWER	2,900	LF	$ 80	$	232,000
18" GRAVITY SEWER	11,800	LF	$ 120	$	1,416,000
0.3 MG TREATMENT PLANT	300,000	GAL	$ 4.95	$	1,485,000
0.9 MGD PUMP STATION	1	LS	$ 500,000	$	500,000
1.2 MGD PUMP STATION	1	LS	$ 600,000	$	600,000
2.3 MGD PUMP STATION	1	LS	$ 700,000	$	700,000
SUBTOTAL:				$	6,189,000
ANNUAL FACILITY OPERATION AND MAINTENANCE (1998 DOLLARS, 20yr, 7%)					
PUMP STATION (<3MGD)	3	EACH	$ 222,474	$	667,000
TREATMENT PLANT (0.3 MG CEDAR	1	EACH	$ 1,589,100	$	1,589,000
TREATMENT PLANT (0.9 MG CENTRAL)	0.9	MG	$ 1,483,160	$	1,335,000
SUBTOTAL:				$	3,591,000
GRANDTOTAL:				$	9,780,000

BK 862 PG 1511

Alternative 2. Transport West Basin to Existing Dodson Chapel Pump Station and East Basin to existing Royal Oaks WWTP



BK 862 PG 1512

Figure 3 p. 11

METRO WATER SERVICES

The series of pump stations rather than a manifolded system as in scenario 1 should have normal maintenance and operation expected at most pumping facilities. This type of routing also allows a phased build out of the system independent of other watersheds. Maintenance and operational problems are more easily identified in a re-pumped system.

Alternative 3. Treat and transport east and west watershed flows to upgraded Royal Oaks WWTP

This scenario diverts flows from some basins currently transported by the Stoner's Creek trunk and Dodson Chapel Pump Station. It should be noted that where possible the force mains have been sized for 2015 and ultimate growth, while the expansion of treatment facility and trunk sewer capacity in the system should be phased as development actually occurs. Force main cost has been developed for ultimate growth since the excavations for either capacity are comparable.

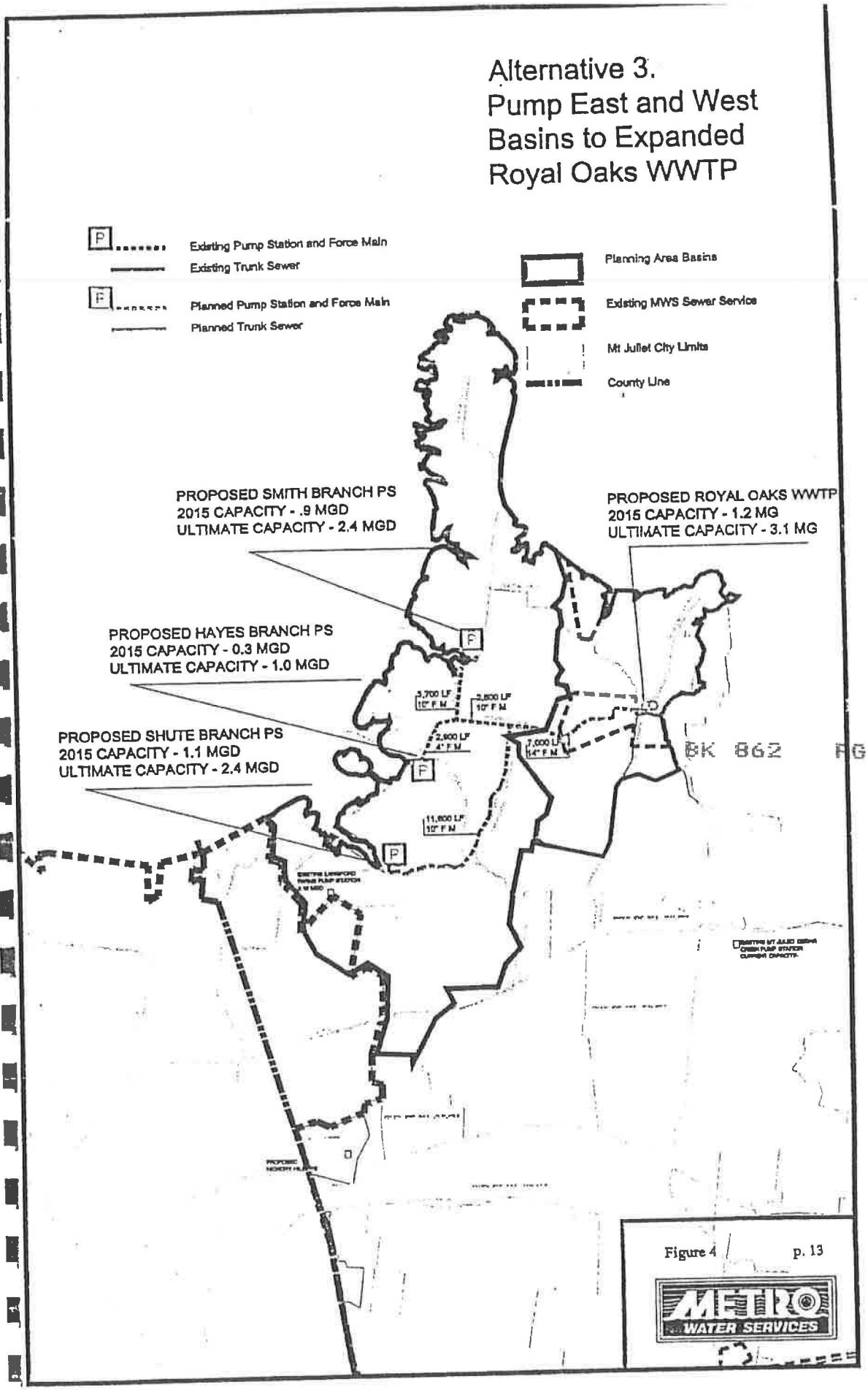
Table 5 Estimated Cost of Scenario 3 assuming construction today.

4" FORCE MAIN	2,900 LF	$	45	$	131,000
10" FORCE MAIN	17,900 LF	$	65	$	1,164,000
14" FORCE MAIN	7,000 LF	$	75	$	525,000
1.2 MG TREATMENT PLANT	1,200,000 GAL	$	4.95	$	5,940,000
0.9 MGD PUMP STATION	1 LS	$	500,000	$	500,000
0.3 MGD PUMP STATION	1 LS	$	300,000	$	300,000
1.1 MGD PUMP STATION	1 LS	$	500,000	$	500,000
SUBTOTAL:				$	9,060,000
ANNUAL FACILITY OPERATION AND MAINTENANCE (1998 DOLLARS, 20yrs, 7%)					
PUMP STATION (<3MGD)	3 EACH	$	222,474	$	667,000
TREATMENT PLANT (1.2 MG CEDAR CREEK)	1 EACH	$	4,237,600	$	4,238,000
SUBTOTAL:				$	4,905,000
GRANDTOTAL:				$	13,965,000

Expansion of the treatment plant for 2015 flows can be physically accommodated on the current property. Permissibility of additional effluent has not been confirmed to the Old Hickory Lake receiving waters, however proper treatment plant design and operation should result in an acceptable effluent discharge.

BK 862 PG 1513

Alternative 3. Pump East and West Basins to Expanded Royal Oaks WWTP



BK 862 PG 1514

Figure 4 p. 13

Alternative 4. Pump west watershed flows to Dodson Chapel Pump Station and pump east watershed flows to Mt Juliet's Cedar Creek Pump Station.

This scenario assumes Smith Branch and Hayes Branch force mains are manifold together and the entire west basin flow is re-pumped at Shute's Branch to a new trunk sewer flowing to Dodson Chapel Pump Station in the MWS system. Flows from the East basin are pumped to parallel trunk sewer and existing Cedar Creek Pump Station in the Mt Juliet Sewer System (see figure 5).

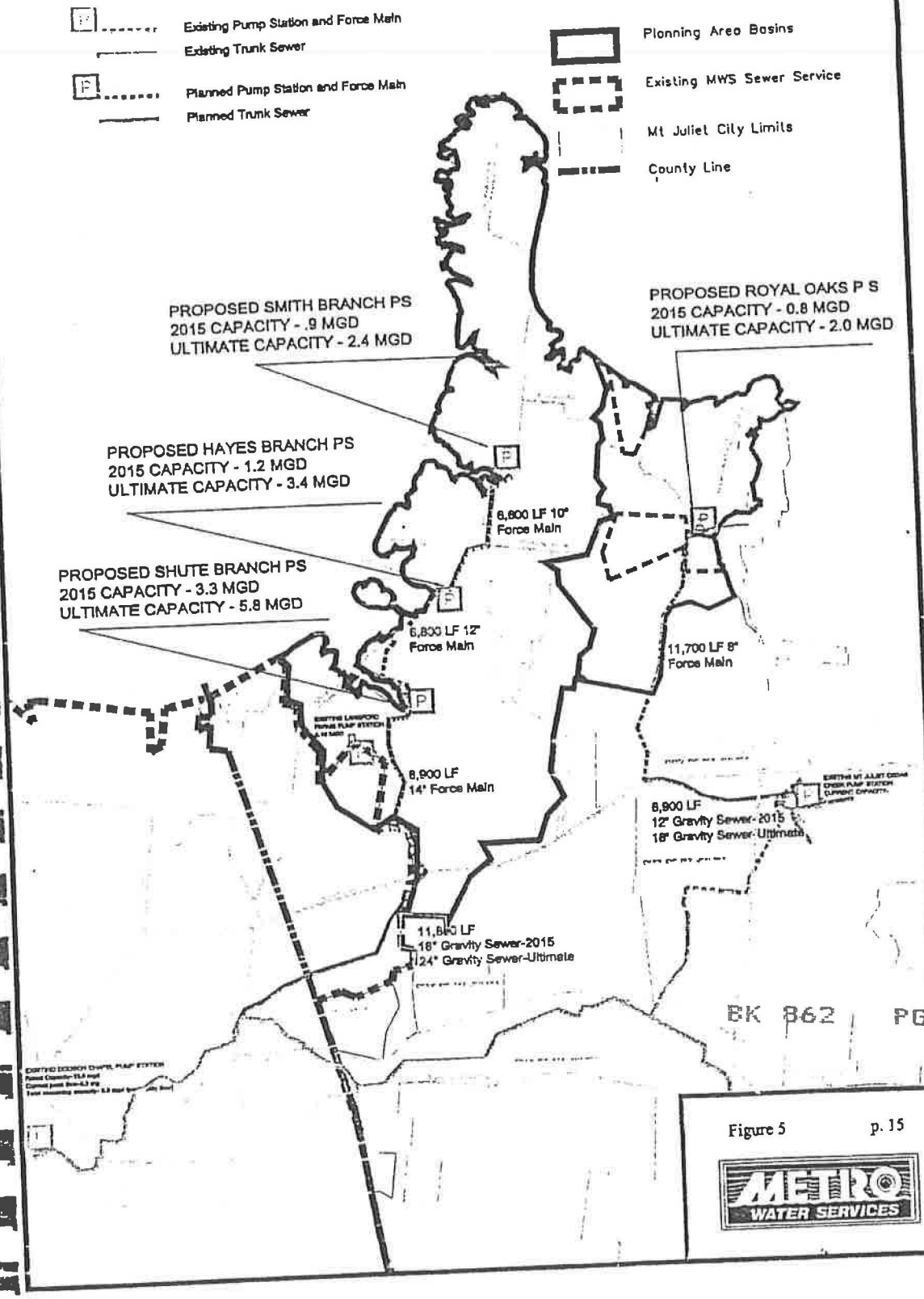
Table 6. Projected Cost of Alternative 4 assuming construction today.

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
METRO SYSTEM				
8" FORCE MAIN	11,700	LF	$ 60	$ 702,000
10" FORCE MAIN	6,600	LF	$ 65	$ 429,000
12" FORCE MAIN	6,800	LF	$ 70	$ 476,000
14" FORCE MAIN	8,900	LF	$ 75	$ 668,000
12" GRAVITY SEWER	6,900	LF	$ 85	$ 587,000
0.8 MGD PUMP STATION	1	LS	$ 400,000	$ 400,000
0.9 MGD PUMP STATION	1	LS	$ 500,000	$ 500,000
1.2 MGD PUMP STATION	1	LS	$ 600,000	$ 600,000
5.8 MGD PUMP STATION	1	LS	$ 900,000	$ 900,000
SUBTOTAL:				$ 5,262,000
PURCHASE CAPACITY IN MT JULIET SYSTEM				
8" FORCE MAIN	9800	LF	$ 60	$ 588,000
PUMP STATION UPGRADE	1	LS	$ 200,000	$ 200,000
12" GRAVITY SEWER	19552	LF	$ 85	$ 1,662,000
SUBTOTAL:				$ 2,450,000
20 YEAR FACILITY OPERATION AND MAINTENANCE (1998 DOLLARS, 20YR, 7%)				
PUMP STATION (<3mgd)	2	EACH	$ 222,474	$ 445,000
PUMP STATION (3-6mgd)	1	EACH	$ 444,948	$ 445,000
TREATMENT PLANT (1.2 MG CENTRAL)	1.2	MG	$ 1,483,160	$ 1,780,000
TRANSPORT THROUGH MT JULIET *	109,500	K-GAL	$ 1.91	$ 209,000
SUBTOTAL:				$ 2,879,000
GRANDTOTAL:				$ 10,591,000

*Assumes Mt Juliet will charge $0.18 per 1000 gallons of flow transported through the Mt Juliet system for planning period

BK 862 PG 1515

Alternative 4.
Pump West Basin to Dodson Chapel Pump Station and East Basin to Mt Juliet's Cedar Creek Pump Station



BK 862 PG 1516

Figure 5 p. 15

METRO WATER SERVICES

Re-pumping of all flows will most likely result in a more readily accessible system and more easily maintained system. At the time of design, an analysis of the most cost effective configuration for the build-out should be conducted based on actual flows, scour velocities and pressure heads anticipated in the pipe.

Alternative 5. Pump east and west watershed flows to Mt Juliet's Cedar Creek Pump Station.

This alternative places the responsibility of providing capacity for transportation and treatment out side of the water to the City of Mt Juliet while maintaining the customer base within MWS service jurisdiction.

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
8" FORCE MAIN	11,700 LF	$	60	$ 702,000
10" FORCE MAIN	6,600 LF	$	65	$ 429,000
12" FORCE MAIN	6,800 LF	$	70	$ 476,000
14" FORCE MAIN	8,900 LF	$	75	$ 668,000
21" GRAVITY SEWER	4,000 LF	$	120	$ 480,000
24" GRAVITY SEWER	6,900 LF	$	130	$ 897,000
0.8 MGD PUMP STATION	1 LS	$	500,000	$ 500,000
0.9 MGD PUMP STATION	1 LS	$	500,000	$ 500,000
0.3 MGD PUMP STATION	1 LS	$	300,000	$ 300,000
1.1 MGD PUMP STATION	1 LS	$	500,000	$ 500,000
SUBTOTAL:				$ 5,452,000
PURCHASE CAPACITY IN MT JULIET				
12" FORCE MAIN	9800 LF	$	60	$ 588,000
PUMP STATION UPGRADE	1 LS	$	200,000	$ 200,000
24" GRAVITY SEWER	26260 LF	$	130	$ 3,414,000
SUBTOTAL:				$ 4,202,000
20 YEAR FACILITY OPERATION AND MAINTENANCE (1998 DOLLARS, 20YR, 7%)				
PUMP STATION (<3MGD)	2 EACH	$	222,474	$ 445,000
PUMP STATION (3-6 MGD)	1 EACH	$	444,948	$ 445,000
TREATMENT PLANT (1.2 MG CENTRAL)	1.2 MG	$	1,483,160	$ 1,780,000
TRANSPORT THROUGH MT JULIET *	438,000 K-GAL	$	1.91	$ 835,000
SUBTOTAL:				$ 3,505,000
GRANDTOTAL:				$ 13,159,000

*Assumes Mt Juliet will charge $0.18 per 1000 gallons of flow transported and treated through their system

BK 862 PG 1517

Conclusions

The analysis conducted selected 5 of many scenarios possible for service to this defined area. The 5 alternatives were selected based on a planning area defined by a mixture of civil and topographic boundaries. This method of planning area definition can yield skewed results by taking growth out of context for all contributing areas to the planned infrastructure. In noting this, the flows and routings could change significantly should the providers of service in the entire drainage basin change. As in all projected flow analyses, actual rate of development and area growth should be taken into account at time of facility construction.

It should also be noted that available capacities at Dodson Chapel have been based on allocated flows either from current contractual obligations or capacity fees paid. Reservation of capacity has not been made for these flows nor any flows not committed to date. If a significant amount of time or acceleration of growth in the surrounding area supercedes development and construction of the facilities defined in this report, additional capacity downstream may become needed.

Alternative 1, yields the least future cost scenario for service through the year 2015. Alternative 1 pumps the east and the west basin flows to the MWS system at Dodson Chapel Pump Station.

This scenario calls for combining (manifolding) of the force mains and should be constructed with a phased implementation considering actual development and/or extension to currently unsewered areas. Phasing of system construction in alternative 2 may be more practical depending on the actual build-out of developments and availability of funding for extension to areas currently served by private sewerage disposal.

BK 862 PG 1518

Wilson County Rural Area Policy: (Adopted by Wilson County Coordinating Committee 12/21/99)

Wilson County designated the majority of land rural in its twenty year Urban Growth Management Plan. The intent of the Rural Areas is to conserve and protect the designated park, forest, recreation and agricultural lands of the County. These areas are deemed to be valuable resources within the County and as such shall be given special considerations in any land use decisions made by the County Planning Commission and the County legislative body.

The primary land use within the Rural Areas shall be wildlife, park, recreation, forest and agricultural. Low to moderate density residential, commercial and industrial land uses shall be permitted within the Rural Areas where infrastructure is available to support the development. While these uses are permitted within the Rural Areas, these uses shall be developed so as to not cause an adverse impact on wildlife, park, forest, recreation and agricultural lands.

It shall be the duty of the Wilson County Planning Commission and the County legislative body to review all developments within the Rural Areas with respect to an impact on conserved lands. The approval of rezonings shall also be contingent upon the study of negative impacts on these lands. If a negative impact is founded, then the person requesting approval shall provide a mitigation of the negative impact to the Planning Commission or County legislative body for review. If the mitigation is not deemed appropriate by the voting body, the request shall be denied. These restrictions shall not apply to minor subdivisions of property. A minor subdivision constitutes a division of property into five lots or less.

In addition to the above policy, developments shall not be permitted at a higher density than already present in areas where there is an insufficient water supply and/or pressure. Developments or rezonings shall also not be approved in areas with an inadequate road system. It is the responsibility of the Planning Commission and the County legislative body to uphold and practice the above policy pertaining to the designated Rural Areas within Wilson County.

For the purpose of implementing this rural policy, the following definitions for Agricultural and Forest, derived from *Tennessee Code Annotated* 67-5-1004, shall be used:

"Agricultural use of land means a tract of land at least fifteen (15) acres including woodlands and wastelands which form a contiguous part thereof, constituting a farm unit engaged in the production or growing of crops, plants, animals, nursery, apiary, floral products, composting of plant and animal wastes and open agricultural lands not in present cultivation but which are part of the farm unit. Agricultural land also means two (2) or more tracts of land including woodlands and wastelands, one (1) of which is greater than fifteen (15) acres and none of which is less than ten (10) acres, and such tracts need not be contiguous but shall be constitute a farm unit being held for the production or growing of agricultural products." (this definition was amended to include composting from the State Farm Bureau).

"Forest use of land means land constituting a forest unit engaged in the growing of trees under a sound program of sustained yield management or any tract of fifteen (15) or more acres having tree growth in such quantity and quality and so managed as to constitute a forest."

ADOPTED GROWTH MANAGEMENT PLAN
AUGUST 6, 2012

WILSON COUNTY
COORDINATING COMMITTEE

APPROVED BY: _____ 11/5/13
Phil Smartt, Chairman

Local Government Planning Advisory Committee

TO: Amend the Wilson County Growth Plan

DATE: 5-8-13

Chair _____

Dan Hawk
Department of Economic & Community Development

LEGEND

Growth Areas

- Lebanon
- Mt. Juliet
- South Wilson
- Watertown
- West Wilson

- City Limits
- County Boundary
- Existing Growth Boundaries

North

1:60,408

2 1 0 2 4 6 8 Miles

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Map Created: 23 Apr 2012
Map Updated: 12 Dec 2012
Map Plotted: N/A

WEST WILSON PGA

ADOPTED GROWTH MANAGEMENT PLAN
AUGUST 6, 2012

WILSON COUNTY
COORDINATING COMMIT

APPROVED BY: _____
Phil Smartt, Chairman

Local Government Planning Advisory Committee

TO: Amend the Wilson County Growth Plan

DATE: 5-8-13

_____
Chair

_____
Dan Hawk
Department of Economic & Community Development

LEGEND

Growth Areas

- Lebanon
- Mt. Juliet
- South Wilson
- Watertown
- West Wilson

- City Lim
- County B
- Existing Boundar

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1:16,000

0 0.425 0.85 1.7 2.55 3.4 Miles

C:_Bo_Logan\Project

MT. JULIET UGB

Local Government Planning Advisory Committee

To: Amend the Wilson County Growth Plan

DATE: 5-8-13

Chair

Dan Hawk
Department of Economic & Community Development

DAVIDSON COUNTY

ADOPTED GROWTH MANAGEMENT PLAN
AUGUST 6, 2012

WILSON COUNTY
COORDINATING COMMITTEE

APPROVED BY: 11.2012
Phil Smartt, Chairman

LEGEND

Growth Areas
- Lebanon
- Mt. Juliet
- South Wilson
- Watertown
- West Wilson

- City Limits
- County Boundary
- Existing Growth Boundaries

North

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Map Created: 23 Apr 2012
Map Updated: 12 Dec 2012
Map Plotted: 03 Jan 2013

1:25,000

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LEBANON UGB

ADOPTED GROWTH MANAGEMENT PLAN
AUGUST 6, 2012

WILSON COUNTY
COORDINATING COMMITTEE

APPROVED BY: 11/6/13
Phil Smartt, Chairman

Local Government Planning Advisory Committee

To: Amend the Wilson County Growth Plan

DATE: 5-8-13

Chair

Dan Hawk
Department of Economic & Community Development

LEGEND

Growth Areas

- Lebanon
- Mt. Juliet
- South Wilson
- Watertown
- West Wilson

- City Limits
- County Boundary
- Existing Growth Boundaries

North

1:25,000

1 0.5 0 1 2 3 Miles

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Map Created: 23 Apr 2012
Map Updated: 12 Dec 2012
Map Plotted: 02 Jan 2013

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WATERTOWN UGB

ADOPTED GROWTH MANAGEMENT PLAN
AUGUST 6, 2012

WILSON COUNTY
COORDINATING COMMIT

APPROVED BY: _____
Phil Smartt, Chairman

TRACY RD
TURNER RD
ROBERTS RD
S COMMERCE RD
POPLAR HILL RD
KNEE RD
LINWOOD RD
BORUM RD
NEW TOWN RD
PARKERSON RD
HUDSON RD
HOLMES GAP RD
SPARTA PKE
TAYLOR RD
BEECH LOG RD
BASS RD
HALE RD
OLD STATESVILLE RD
NEAL RD
FITE RD
SHERRILLTOWN RD
WRIGHT RD
PATTON HOLLOW RD
STATESVILLE RD
ADAMS RD
ARMBRUSTER LN
ROCKY BRANCH RD
W MAIN ST
OAK ST
RAMP
ELM AVE
CANDICE ST
FORREST
SILVER ST
EASTLAND CT
BOYD ST
EDNA GROOMS LN
GRAND AVENUE ANX
WOODLAND ANX
BRYANT ST
WOODLAND ST
PURPLE GEBR
TENNESSEE BLVD
PRIEST AVE
PHILLIP AVE
CORNWELL AVE
BECKWITH AVE
BENTRA AVE
COMMERCE AVE
RICHLAND AVE
MAPLE ST
WATERS AVE
VICKERS AVE
CHURCH AVE
HAYES ST
LYNN AVE
GRAND AVE
CEDAR AVE

LEGEND

Growth Areas

- Lebanon
- Mt. Juliet
- South Wilson
- Watertown
- West Wilson

- City Limits
- County Boundary
- Existing Growth Boundaries

North

Local Government Planning Advisory Committee

To: Amend the Wilson County Growth Plan

DATE: 5-8-13

Chair

Dan Hawk
Department of Economic & Community Development

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Miles

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SOUTH WILSON PGA

ADOPTED GROWTH MANAGEMENT PLAN AUGUST 6, 2012

WILSON COUNTY COORDINATING COMMIT

APPROVED BY: _____
Phil Smartt, Chairman

Local Government Planning Advis

To: Amend the Wilson County Growth

DATE: 5-8-13

Chair

Dan Hawk
Department of Economic & Communit

LEGEND

Growth Areas

- Lebanon
- Mt. Juliet
- South Wilson
- Watertown
- West Wilson

- City Limits
- County Bo
- Existing G Boundarie

RUTHERFORD COUNTY

1:18,000

0 0.375 0.75 1.5 2.25 3 Miles

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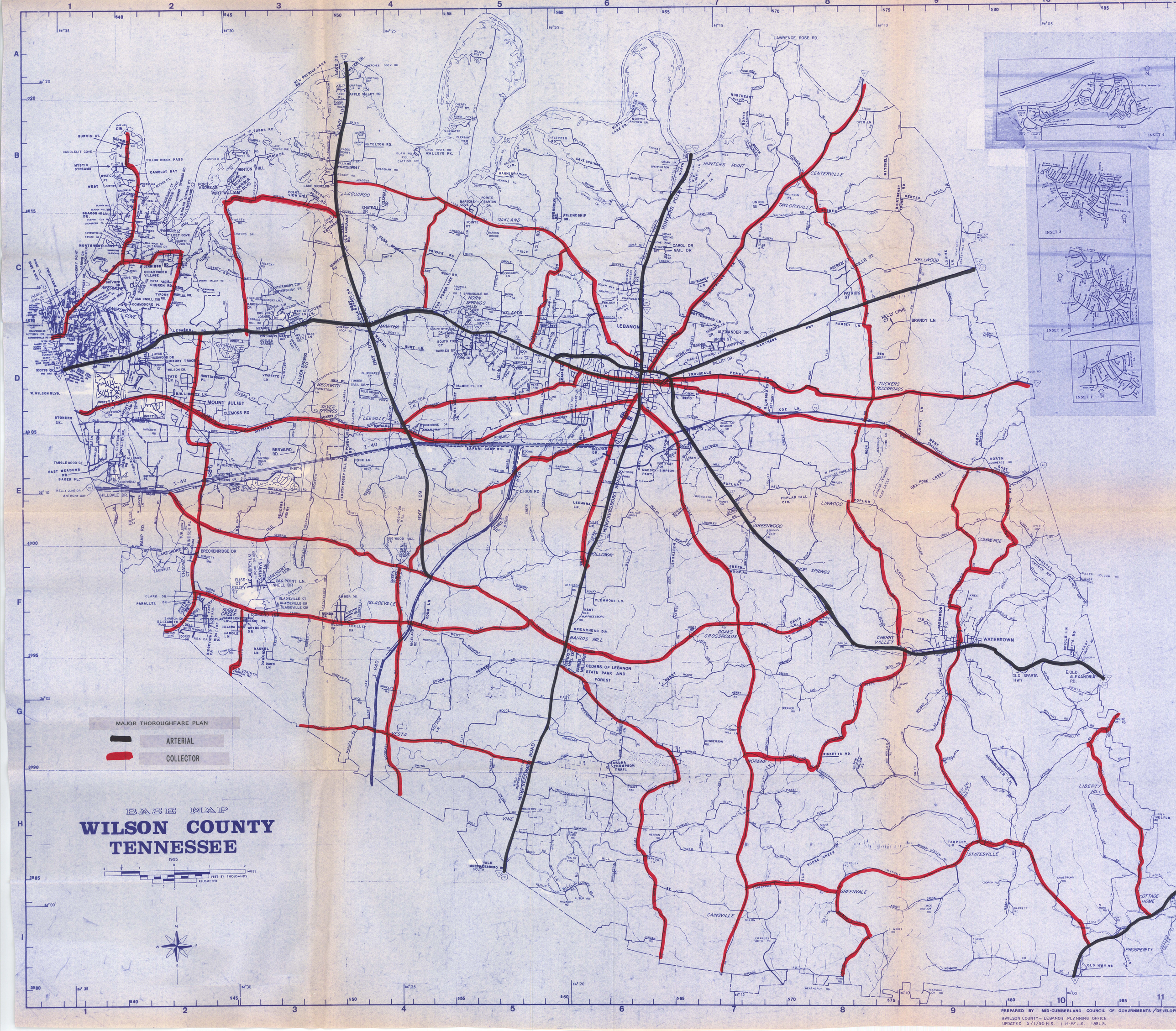

PREPARED BY MID-CUMBERLAND COUNCIL OF GOVERNMENTS / DEVELOP

BWILSON COUNTY - LEBANON PLANNING OFFICE
UPDATED 5/1/95 H.S. 1-14-97 L.R. 1-98 L.R.

RANDALL HUTTO
County Mayor

RACHEL WARREN
Administrative Assistant

WILSON COUNTY GOVERNMENT

April 23, 2013

Mr. Dan Hawk
Director of Rural Development
Tennessee Department of Economic & Community Development
312 Rosa Parks Avenue, Tenth Floor
Nashville, TN 37243

Dear Mr. Hawk;

The Wilson County Urban Growth Boundary Plan has been amended. The Wilson County Commission gave its final approval of the amended plan on September 17, 2013. This correspondence is to request that the Local Governmental Planning Advisory Committee (LGPAC) take the necessary action to approve the amended plan as soon as possible.

It is our understanding that with the receipt of this request, all the necessary documents and paperwork are in place to proceed with approval by the LGPAC.

Thank you for your assistance in this matter.

Respectfully,

Randall Hutto
Wilson County Mayor

228 E. Main Street, Room 104 • Lebanon, TN 37087 • (615) 444-1383 • Fax (615) 443-1714 • huttor@wilsoncountytn.com

SUBMITTAL OF COUNTY GROWTH PLAN
AND
CERTIFICATE OF RATIFICATION

WHEREAS, the Wilson County Coordinating Committee has developed and recommended to the county and municipal legislative bodies of Wilson County an amendment to the County Growth Plan dated January 31, 2001 which complies with TCA 6-58-106; and

WHEREAS, the county and municipal legislative bodies have ratified the amendment to the Wilson County Growth Plan as required by TCA 6-58-104; and

WHEREAS the Wilson County Coordinating Committee has held the requisite public hearings pursuant to TCA 6-58-104;

NOW, THEREFORE the Wilson County Coordinating Committee submits to the Local Government Planning Advisory Committee the WilsonCounty Growth Plan as amended for its approval pursuant to TCA 6-58-104.

Chair
Wilson County Coordinating Committee

01/11/2013
Date

RESOLUTION OF APPROVAL
BY THE
LOCAL GOVERNMENT PLANNING ADVISORY COMMITTEE

WHEREAS, the Wilson County Coordinating Committee has submitted an amendment to the County Growth Plan for Wilson County and its municipalities, and

WHEREAS, the Coordinating Committee has certified that the plan has been ratified pursuant to TCA 6-58-104,

NOW THEREFORE BE IT RESOLVED by the Local Government Planning Advisory Committee that the Wilson County Growth Plan is hereby approved and becomes effective this date.

George James
Chair

5-8-2013
Date