

LAND USE AND
TRANSPORTATION PLAN
2010-2020

Prepared for
Townsend Municipal Planning Commission

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Townsend Land Use and Transportation Plan

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Chapter 1 ***Introduction***

Executive Summary

The Townsend Land Use and Transportation Plan 2010 acts as a guide for the city's administration and citizens in both short-term and long-term land use decisions. The Townsend Land Use and Transportation Plan is a tool that the entire community can use to determine the best location for land uses within the city and create an attractive place that all can enjoy for generations to come. This plan presents information on the current conditions in the city, changes that have occurred since the adoption of the Townsend Land Use Plan: April 1986, the implications of such changes, and goals and policies that guide decision-makers as they plan for the future. The objective, as outlined in Section 13-4-203 of the *Tennessee Code Annotated*, is to serve as a guide for "accomplishing a coordinated, adjusted and harmonious development of the municipality which will, in accordance with existing and future needs, best promote public health, safety, order, convenience, prosperity, and general welfare as well as efficiency and economy in the process of development."

The Plan is divided into two main sections - information on those factors that affect land use and land use policies and implementation strategies based on background information and community input. A total of six chapters include information on historical events, methodologies, and purposes (Chapter 1), on natural features and their effect on land uses (Chapter 2), on the city's socio-economic conditions and trends (Chapter 3), and an inventory and analysis for land use and transportation (Chapter 4). These chapters provided the foundation to develop land use objectives and policies located in the development plan (Chapter 5), and the various implementation methods available to the community (Chapter 6). In preparation for the policies in this plan, members of the community were invited to give their own expertise and input through surveys, workshops, and public hearings.

The Townsend Land Use and Transportation Plan 2010-2020 covers a planning period of approximately 10 years. During the planning period, the plan should be periodically reviewed to ensure that the major assumptions provided in the plan remain true and to monitor the progress of its implementation.

Purpose of Plan

Land is a limited resource, and cities are often required to make timely decisions that will impact this resource. Although an individual change may not be dramatic, the culmination of seemingly small land use decisions eventually impacts both the natural and built systems within a community. This land use plan provides decision makers with policies based on reliable data and community input and recommends various tools available to the City of Townsend to promote development that results in a high quality of life for both present and future citizens.

Many of the business establishments within the city rely on the tourist industry for a majority of their income. Due to its close proximity to the Great Smoky Mountains National Park (GSMNP) and the number of tourists who visit each year, this plan includes a special focus on the land uses devoted to this industry, the economic trends, and the available implementation tools that may reinforce the idea of Townsend as the “Peaceful Side of the Smokies.”

Study Area

The City of Townsend lies in a valley surrounded by the Great Smoky Mountains National Park (GSMNP) and its foothills. The valley is known as the Tuckaleechee Cove area or “The Cove.” The area within the municipal limits ranges from the floodplains of the Little River to the tops of the foothills. Illustration 3 “Natural Factors Constraining Development” provides a visual representation of the geographically secluded “Cove” area. The city encompasses an area of 1,285 acres or approximately two square miles. Although this is a relatively small area, each year approximately two million people traveling to the national park choose to enter through Townsend creating both opportunities and problems. Highway 321/73, East Lamar Alexander Parkway, divides in Townsend – one way carrying motorists to the tourist city of Pigeon Forge on Wears Valley Road, and the other carrying motorists to the Great Smoky Mountains National Park. Townsend, as a gateway community, has the task of balancing the needs of its local citizens, an influx of tourists, and the natural beauty and resources that initially attracted both groups to the area.

Townsend is one of six cities in Blount County. Approximately 45 percent of the county is in the Great Smoky Mountains and the remainder is in the valley. The nearest urban area nearest to the city is Knoxville, Tennessee. Since the last Land Use Plan was adopted in 1986, the metropolitan area of Knoxville, Tennessee has grown significantly. The population of the five county area including Knox, Blount, Anderson, Loudon, and Union has grown from 505,070 in 1980 to 691,152 in 2008, a 36.8 percent increase.¹

The study area consists of multiple jurisdictions and divisions including: the corporate limits of Townsend, the designated urban growth boundary, the census block tract 114 of Blount County, the 37884 zip code, and Blount County. The data collected requires a broader study area than Townsend since some data is only available at a county wide or zip code level. Additionally, those living outside of the municipal limits still impact the city by relying on businesses within the city to provide goods, services, and entertainment. Illustration 1 depicts the location of the city within the study area utilized in the process of disseminating information throughout the plan. Data sets pertaining to a particular geographic area will be accompanied by a corresponding illustration in that chapter.

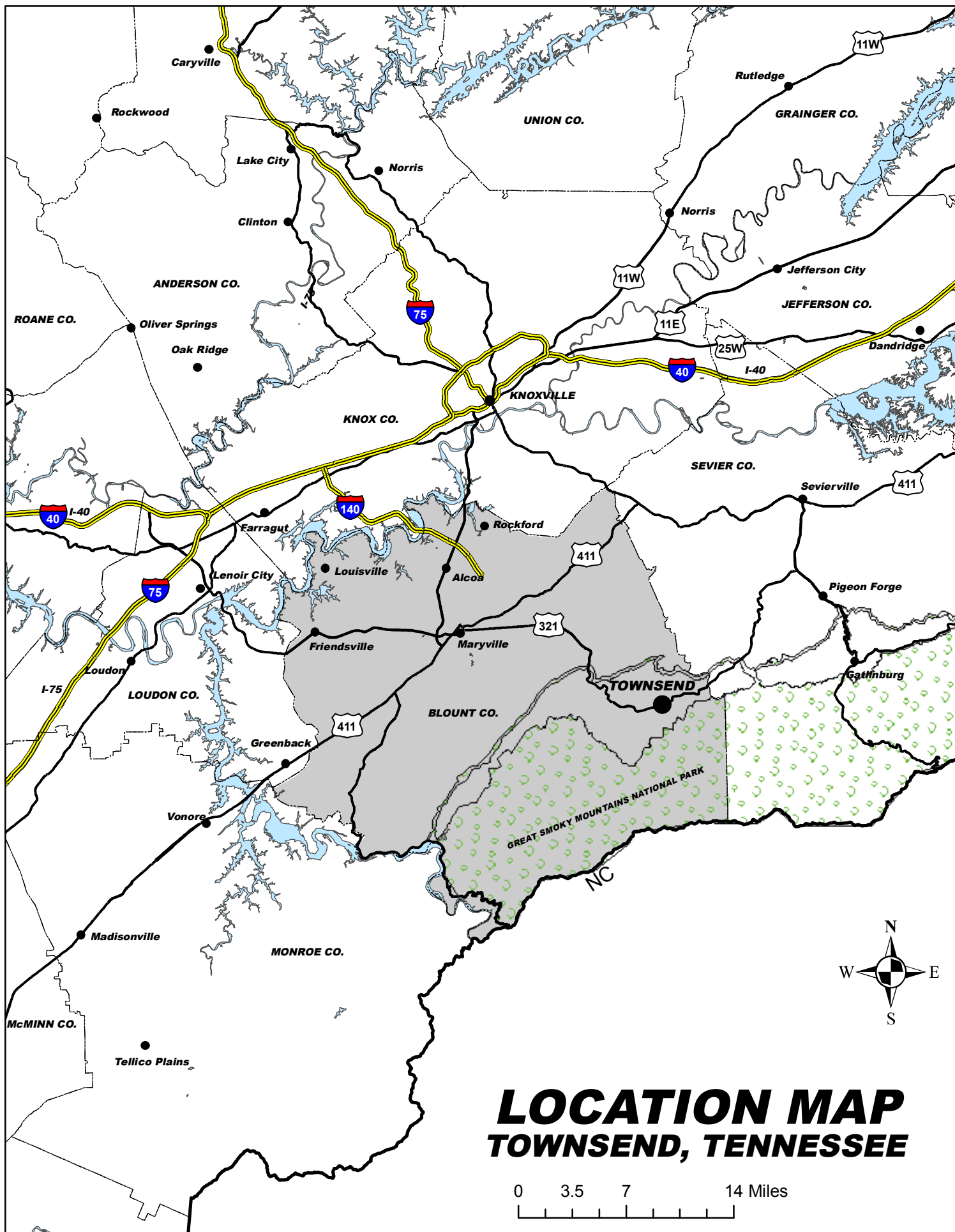


Illustration 1

Historical Events Affecting Development

Townsend and the surrounding area was first known as Tuckaleechee Cove, meaning “Peaceful Cove.” Native Americans first settled in the area around the year 300 A.D.² According to historical records, European settlers did not enter the cove until 1790 when traders followed a Native American trading path through the cove.³ The Tuckaleechee Cove area was officially open for European settlement after the ratification of the Treaty of Tellico in 1798. Land grants were distributed in 1810. Then in 1890, the timber extraction industry arrived. The Little River Railroad and Lumber Company began operations in 1901 and from that time, settlement in the area increased dramatically. When residents chartered the City of Townsend in 1921, it derived its namesake from the founder of the company, Colonel W.B. Townsend. The Great Smoky Mountains National Park was established in 1934, and the Little River Railroad and Lumber Company dissolved soon after. The presence of the company influenced a number of historical developments. During the time of its operation, tourist traffic increased in the area and most likely initiated the development of a resort hotel and 75 cottages.⁴ The construction of the railroad provided transportation between Townsend and larger metropolitan areas, and its path would later become the state highway leading to Townsend and the GSMNP.

The number of floods throughout the history of Townsend, the formation of the Great Smoky Mountains National Park, and the placement of State Highway 321/73 established the current development pattern. The formation of the Park constrained the amount of area available for growth, brought an influx of tourists, and created an “unspoiled” wilderness next door to the city. Floods have dictated how and where people choose to build and formed the pattern of development still in existence today.

The City of Townsend has experienced a number of catastrophic flood events in its known history. The Little River, the topography of the land, and the climate led to a number of floods that completely destroyed all infrastructure in the immediate path of floodwaters. A study completed by the Tennessee Valley Authority (TVA) Division of Water Quality Planning in 1960, provided a historic synopsis of the impact of the floods up to that point.⁵ This publication intended to provide “the solution of local flood problems and the best utilization of lands subject to overflow.” Due to the free flowing nature of the Little River, the findings are still relevant to present land development. The largest flood in the historical record occurred in 1875. However, according to the Flood Insurance Study prepared by the Federal Emergency Management Agency, the largest flood since stream gauging began in 1951, occurred in 1963.⁶ The most recent flood with damage reported occurred in 1994. In recent history, Highway 321/73 was constructed further to the south of the river pushing development further away from flood prone areas.

Community Planning Methodology

The Townsend Planning Commission hosted a series of public meetings where the public received an invitation by public notice to participate in the land use planning process. The

planning commission went beyond the requirements of the law by hosting a land use goals workshop, publicizing a draft proposal of the land use goals along with an additional workshop, and providing a land use goals survey in the municipal building and on the city website. The planning commissioners along with members of the community were invited to share their goals and ideas for implementing those goals. The copy of the survey is provided in Appendix A.

Acknowledgement of Other Plan and Studies

The following list of plans and studies should be used as planning companion documents. The list is not exhaustive but it does provide helpful information for guiding land use decisions.

- *Land Use Plan: Townsend, Tennessee.* This plan was completed in 1987 and published by the Local Planning Assistance Office.
- *Assessments of Visits to the Great Smoky Mountains National Park and Demand for Overnight Accommodations: Townsend, Tennessee 1985.* Prepared by the Local Planning Assistance Office.
- *Townsend –Tuckaleechee Cove Development Plan.* The plan was prepared by Barge, Waggoner, Sumner and Cannon, Inc., Dodson Associates, and the Tuckaleechee Cove Advisory Board and completed in 1998. The plan includes the entire Tuckaleechee Cove, but also concentrates on Townsend as the center of the Cove.
- *Floods on Little River: Vicinity of Townsend and Kinzel Springs, Tennessee, 1960.* Published by the Tennessee Valley Authority: Division of Water Control Planning.
- *Blount County Policies Plan, revised in 2008.* The plan was published by the Blount County Planning Department and includes suggested policies for the entire Tuckaleechee Cove Area.
- *Blount County Green Infrastructure Plan, 2009.* Published by the Blount County Planning Department.
- *2005-2030 Knoxville Regional Long Range Transportation Plan Update,* amended in 2007. Prepared by the Knoxville Regional Transportation Planning Organization. The organization covers four counties including Blount County. The Regional Transportation Alternative Plan (RTAP) has a potential express bus route to Townsend from Knoxville depending on Cades Cove scenarios.

Townsend Planning Program

Townsend was chartered as a municipal corporation in 1921. A Board of Commissioners acts as its legislative body. Newly elected commissioners begin serving on the first day of September for a term of four years. During the first meeting, the commissioners decide who will serve as mayor for a term of two years. At the completion of the two years, the mayor may be reappointed for two more years or a new one may be appointed. The mayor appoints members of the planning commission and the board of zoning appeals, which are legal bodies that make decisions within their statutory authority.

Municipal Planning Commission

The Townsend Municipal Planning Commission was first established in 1984 by the authority granted by Section 13-4-101 through 13-4-105 of the *Tennessee Code Annotated* (TCA). The commission has seven members and meets monthly. The planning commission by-laws state that the chairman, vice-chairman, and the secretary shall be elected annually. The planning commission's duties include making reports, adopting a general plan for development, establishing platting regulations, and creating a zoning plan. Subdivision regulations and subsequent amendments do not require legislative action; however, the adoption of a zoning plan or subsequent amendments does require action by the Board of Commissioners. The building official, through the building permit system, enforces zoning and subdivision regulations. The majority of land use decisions within the city are made at this time. The commission has several documents available for guidance including, but not limited to, the zoning ordinance, the subdivision regulations, and the land use plan. The passage of Public Chapter 1101, The Growth Policy Act, provided an additional planning document to guide land use decisions in the State of Tennessee.

The Board of Zoning Appeals

The Board of Zoning Appeals (BZA) is a quasi-judicial body required by statute. The board may offer some flexibility in the zoning regulations within the guidelines provided in the ordinance. Townsend has a three member BZA and derives its powers from the TCA Sections 13-7-205 through Section 13-7-208, which authorize the following:

- 1) to hear and decide appeals based on decisions by a municipality's administrative officials,
- 2) hear and decide special exceptions or interpretations of official maps or special questions, and
- 3) hear and decide variances on the strict application of the zoning regulations.

The Townsend Zoning Regulations do not provide for many special exceptions in the zoning ordinance. A special exception allows the zoning ordinance to be a more flexible document by providing the BZA with the ability to decide if a use or structure meets the intent of a district or purpose stated explicitly in the regulations. As the regulations are amended in the future, the planning commission should decide if special exceptions are an appropriate method of ensuring that the document is flexible and rational.

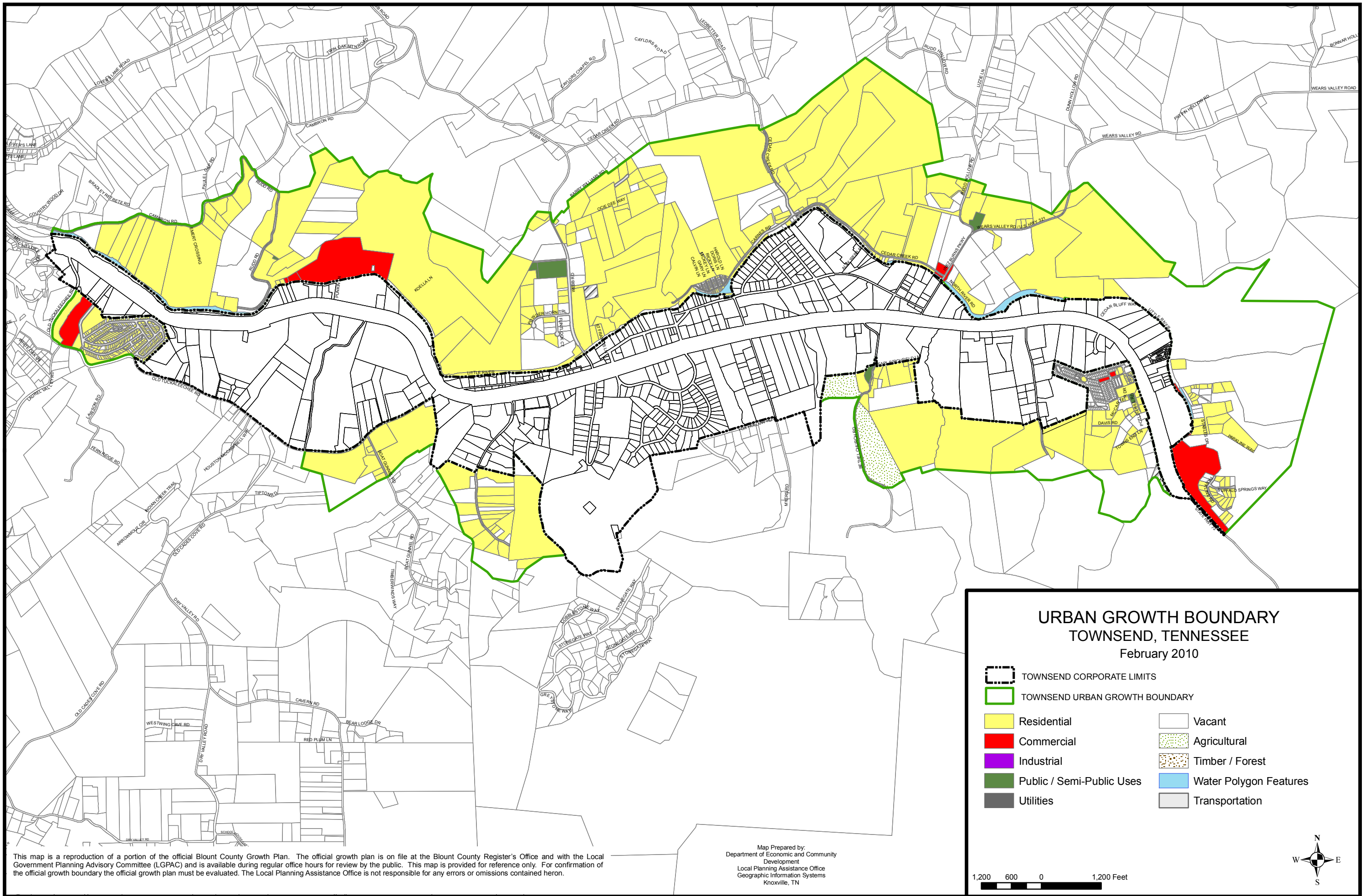
Growth Management

Tennessee Public Chapter 1101 required cities and counties to evaluate their potential growth over the next twenty years from the year 2000 by defining their responsibility to manage growth, ensure efficient use of land, and provide appropriate public services. The law required that each county prepare a growth plan that places parameters on growth areas within the county identified as municipal urban growth boundaries, county planned growth areas, and rural areas. A county coordinating committee made up of a representative cross section of the county was established to develop these growth parameters. The county and municipal governments within the county

participated in the process by proposing these boundaries based on land needs and public service capabilities. The official map of the Blount County Growth Plan is recorded in the Blount County Register's Office; however, Illustration 2 is a representation of that map. The land use of parcels within the urban growth boundary is also included and discussed below. Townsend may not annex any territory outside of the proposed urban growth boundary unless the boundary is amended or an annexation by referendum occurs as allowed under TCA Section 6-58-111.2.

The total area of land within the urban growth boundary (UGB) is 1,911 acres and is mostly comprised of residential uses. The majority of the city's UGB extends north of the current municipal limits. Some areas to the south are also included; however, these areas are not contiguous to each other. Commercial uses are sporadically located and include a number of campgrounds such as Tremont Hills, Sundown Resort, Big Valley, Big Meadow, and Tuckaleechee Campgrounds. A significant portion of the land area consists of large lots.

The transportation network is connected through narrow, windy roads in the northern area. Recently, TDOT constructed a bridge connecting Lamar Alexander Parkway and Cameron Road. In the south, roads are disconnected and generally serve a small number of homes. The exception is Black Mash Hollow Road. It serves a number of small lots and is dangerously narrow. All roads except for Wears Valley Road is maintained by Blount County.



Chapter 2

Natural Features

Natural features often dictate the location and intensity of development. In the past, the Little River, steep slopes, and prime farmland soils shaped the development pattern. Ignoring natural factors during the development results in both costly and often times irreversible damage for the property owner, the community, and future generations. The air quality, water quality, topography, drainage patterns and flooding, and soils affect the location and type of development at both the site and community scale. Conversely, development can affect these natural factors causing expensive environmental mitigation and a loss of quality of life for the community.

Climate

Townsend's climate is highly influenced by its location abutting the Great Smoky Mountains and its location in the Tennessee Valley. The mean annual precipitation is 53 inches with rainfall the highest in during the winter months. The greatest known flood occurred in February of 1875, and other significant flood events have also occurred during the winter months. The number of frost free days is 150-200 creating a relatively long crop growing season.⁷

Air Quality

Townsend, as a municipality within the Knoxville Metropolitan Area, received the status of a non-attainment area for both the particulate matter 2.5 (PM_{2.5}) and 8-hour ozone standards. Non-attainment status for each has repercussions for the overall economic well-being of the area and may potentially pose health risks for residents and visitors.

This non-attainment area designation for PM_{2.5} took effect in December 2004 for the Knoxville Metropolitan Area. Particulate matter air pollution refers to microscopic airborne particles made up of dust, dirt, soot, smoke, sulfates, nitrates, and liquid droplets. PM_{2.5} can vary in size but according to the Environmental Protection Agency (EPA), particles less than 2.5 micrometers in diameter (PM_{2.5}) are believed to pose the greatest risks to human health. Due to the small size of PM_{2.5}, it can travel longer distances and has a longer life in the respiratory system than coarse particulate matter.⁸ A number of factors can lead to non-attainment status including emissions data, air quality data, population density and degree of urbanization, traffic and commuting patterns, and growth rates and patterns.

The Knoxville MSA was designated in 2004 as a non-attainment area for the 1997 8-Hour Ozone Standard. Ozone occurs naturally in the upper levels of the atmosphere, but when chemicals such as motor vehicle exhaust, industrial emissions, and chemical solvents interact with sunlight and warm weather, ground ozone can occur. The 8-hour ozone standard measures the ground level ozone levels.⁹

According to Clear the Air, an organization sponsored by the Tennessee Department of Transportation (TDOT), transportation is the leading cause of air quality issues in Tennessee.

Combining trips, reducing automobile use, and modifying vehicle operator behavior can reduce the amount of pollution emitted in the air. Over 25 percent of all vehicle trips are less than one mile in the United States yet the lack of safe, adequate connections may discourage persons from choosing non-automotive transportation. In response to this issue, adequate and accessible connections among daily trip generators should be an important aspect of the transportation system in the city.

Topography

Townsend and the cove lie within a valley between the Great Smoky Mountains and the Chilhowee Foothills. The majority of the land within the city limits has a slope of less than seven percent. The consequences of ignoring appropriate development on slopes could lead to increases in negative effects on adjacent property, city streets, utilities, and the community. The adopted zoning ordinance and subdivision regulations should provide guidelines that result in suitable placement of structures, decreased run-off, and site design that enhances the natural environment rather than detracting from it.

On Illustration 3, slopes are grouped according to ranges that best support the uses described below and in Table 1. *Landscape Planning: Environmental Applications*, 2nd edition provides the following guidelines for development on slopes.¹⁰ Most land uses are appropriate for the 0 to 6.9 percent slope range; however, the cost of development increases for commercial and parking facilities on slopes greater than three percent. Industrial developments are not recommended on slopes over three percent. Land uses on slopes of 15-24.9 percent should be carefully sited and appropriately mitigated by engineering techniques so that the land development results in no harm to property owners or natural resources. Due to the shallowness of the soil, potential for high velocity water movement, and the potential for runoff to affect water quality in nearby water bodies, development on slopes greater than 15 percent should be limited. If development does occur, then precautions should be used to mitigate potential problems such as the reduction of cut and fill practices, deforestation, and alteration to the natural drainage flow. Townsend Subdivision Regulations do not allow streets to exceed a 15 percent slope. Optimally, no development should occur on slopes greater than 25 percent.

Table 1
Guidelines for Development on Slopes

| Slope | Appropriate Uses | Optimum Street Standards |
|-----------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 0-2.9 Percent | Most land uses | Determined by local conditions |
| 3.0-6.9 | Most land uses other than industrial. Costs increase for commercial and parking areas. | The maximum posted speed limit should not exceed 50 mph on some slopes within this range |
| 7-14.9 Percent | Housing sites Sidewalks | Streets with posted speed limits ranging from 30-50 mph |
| 15-24.9 Percent | Single-family housing sites Septic drainfields lawns | Streets with posted speed limits less than 20 mph |

Source: William Marcsh, Landscape Planning: Environmental Applications

Drainage Patterns and Flooding

The topography and climate of Townsend increases its potential for flood events, especially flash floods. Snow melting from the higher elevations and strong storms in the spring increases the amount of runoff. Run-off from impervious sites may affect the water quality of the Little River and its tributaries as water from storm events may carry pollutants, silt, and other materials into water bodies. Although development must conform to the flood hazard regulations, site plan requirements may also require developers to consider and adapt to natural drainage patterns within the watershed.

The flood hazard areas in Townsend are mainly located along the Little River. A number of developments are located in the flood hazard area. The most densely built areas of the floodplain are located north and east of State Highway 73. Tourist accommodations including single-family tourist residences, Mountaineer Campground, Townsend Great Smokies KOA, and Lazy Daze Campground are located in this area. Residential areas in the flood hazard area include properties on the west side of Riverview Estates and some of the properties along the river fronting Old Highway 73.

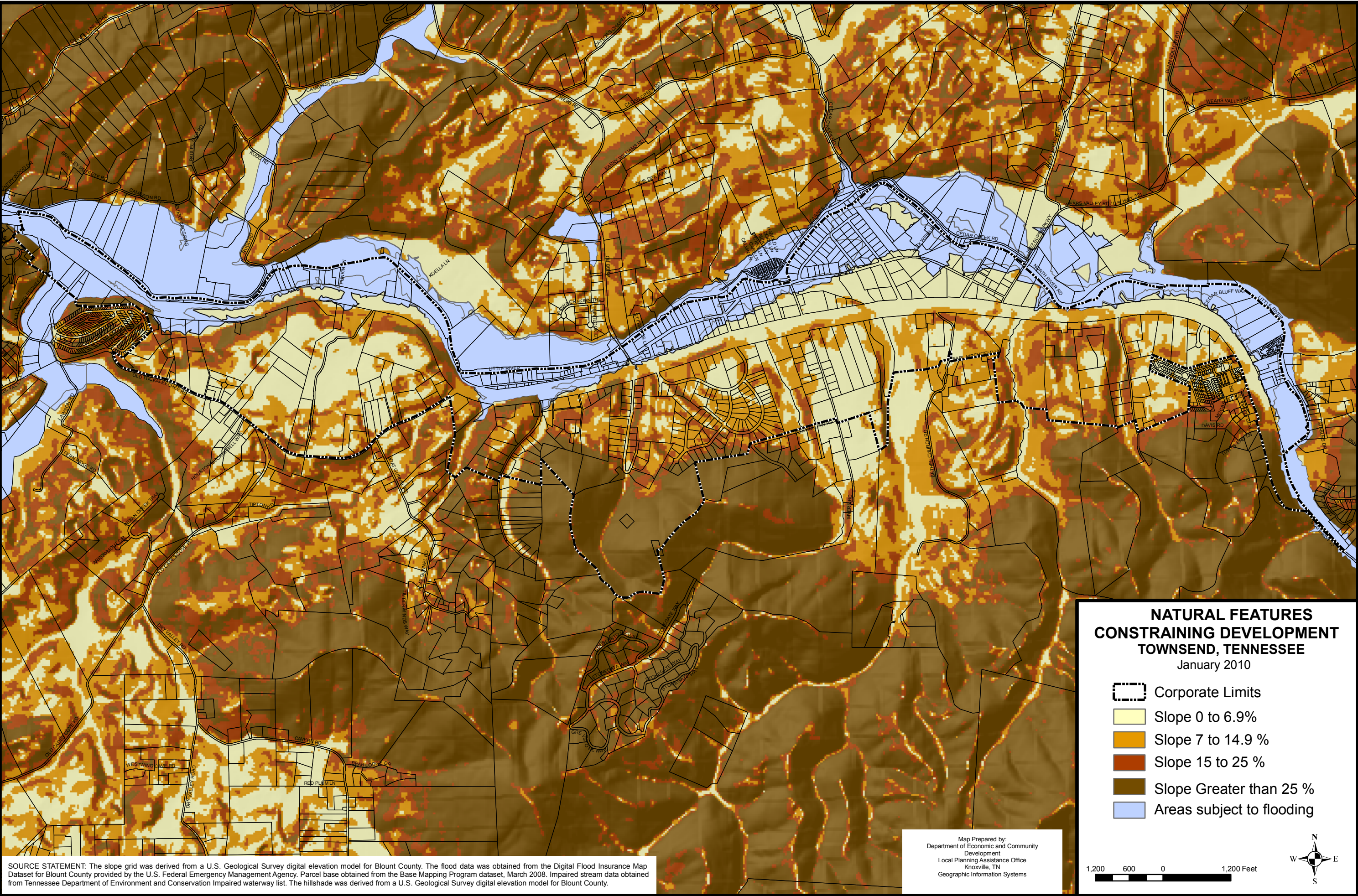
Townsend has been a participant in the National Flood Insurance Program (NFIP) since June of 2004. This program allows residents in cities that have adopted flood hazard regulations to purchase insurance. The Municipal Flood Damage Prevention Ordinance was last updated in May 2007 and provides the minimum standards for maintaining eligibility for the NFIP. Development in the town is now eligible for flood insurance; however, the infrastructure and buildings must be built to the specifications in the flood hazard ordinance. Although Townsend has adopted a flood hazard ordinance, some structures pre-exist the regulations and may still flood during a flood event. Structures not built to the specifications recommended in NFIP may

cause issues with debris in a flood event; however, the enforcement of the ordinance should minimize any future loss of life and property.

Water Quality

Water quality issues in Townsend affect not only the city itself, but also the entire county. The Little River begins in the Great Smoky Mountains National Park and flows out of it through Townsend serving as the source of drinking water for Blount County. Due to the lack of development within the park, the protection of the county's drinking water first begins in Townsend. The portion of the river that flows through Townsend is a fully supporting stream for wildlife and recreation; however, portions downstream are on the Environmental Protection Agency's (EPA) 303 d list of impaired streams.

In recent years, the City of Townsend has adopted regulations that intend to decrease the amount of stormwater running off of property and to increase flexibility with pervious surfaces of parking lot design. Additionally, civic organizations like the Little River Watershed Association provide education to the public and organize projects benefiting the river. Since the water quality decreases as it flows out of the GSMNP, the city should utilize land use controls to reduce stormwater run-off and promote infiltration of rain water.



SOURCE STATEMENT: The slope grid was derived from a U.S. Geological Survey digital elevation model for Blount County. The flood data was obtained from the Digital Flood Insurance Map Dataset for Blount County provided by the U.S. Federal Emergency Management Agency. Parcel base obtained from the Base Mapping Program dataset, March 2008. Impaired stream data obtained from Tennessee Department of Environment and Conservation Impaired waterway list. The hillshade was derived from a U.S. Geological Survey digital elevation model for Blount County.

Soils

Soil characteristics at the community and site level may be used to identify appropriate and best land uses within a community. At the community-wide level, soil data can be used to determine natural drainage patterns within a watershed and flood potential. This information should be used to abate any adverse impact of development on the health, safety, and welfare of citizens in the community. At the site level, soil classifications provide information on subsurface sewage disposal, drainage qualities, depth to water table, load bearing strength, stability, shrink-swell potential, soil depth, and the opportunity for food production.

Twenty-five different soil series have been identified within Townsend and areas immediately adjacent to the city. Due to this significant variation and the lack of any large homogenous areas throughout Townsend and the “Cove” area, soil tests are an important tool within any proposed development or protected area. Each soil type supports a best use(s) of the land; however, the soil may be amended to provide for other uses. Amending soil is costly and may affect hydrology patterns and the potential for certain land uses within the city.

Data from the Natural Resource Conservation Service (NRCS) is used to determine the characteristics of the soil as it relates to the following development: subsurface sewage systems, residential structures, commercial structures, and crop productivity. The NRCS rates soils as not limited, somewhat limited, and very limited. The rating of very limited does not infer that a particular area may not be developed for a particular purpose, but areas with very limited capabilities will most likely require major soil reclamation and special design techniques increasing the cost of development. Maintenance for the structure and/or site could also be more costly.¹¹ Soil tests are needed to identify the location of a building or septic drainage area or the required amendments to the site to ensure positive long-term results.

The NRCS rates soils for both residential and commercial development using the same factors - load-supporting capacity and the ease of excavation. The load-supporting capacity is measured by the depth to water table, ponding, flooding, subsidence (gradual settling or sudden sinking of soil), shrink-swell potential, and compressibility. The ease of excavation is measured by depth to water table, ponding, flooding, slope, depth and hardness to bedrock, and the amount and size of rock fragments.¹² Soils most agreeable to residential development are more common than soils agreeable to commercial development. Soils rated as somewhat to not limited for residential and commercial structures are scattered throughout the city; however, larger concentrations of adequate soils are located south of Highway 321/73 between the Chestnut Hills area and the Sundown Resort. Many of the areas that are not limited or somewhat limited are vacant. Most of the vacant land that may support both commercial and residential development are already zoned B-1, General Business. However, if the city develops an overlay district or any other land use mechanism that encourages commercial structures, then the areas shown to support heavier development should be targeted.

Many of the soils found in the municipal limits are rated as very limited for septic tank absorption fields. Although limiting features are present, the use of septic tanks are not impossible, but greater care must be taken in site design, installation, and maintenance. According to the Natural Resource Conservation Service (NRCS), sewage disposal systems

located on areas with very limited capabilities will require major soil reclamation, special design techniques, or expensive installation procedures. Additionally, systems on these locations require higher maintenance and costs compared to systems on soils rated somewhat limited or not limited. As a result, standards set by the zoning and subdivision regulations provide only the minimum site requirements and the soil itself will dictate the area required for an appropriately sized septic drainage field. Actual site conditions may lead to greater lot sizes, increasing the amount of land required for residential use.

Conclusions

Natural factors have shaped the development of Townsend since its early history. These factors continue to influence development by dictating placement of commercial and residential structures, constraining the intensity of development, and even providing economic opportunities for outdoor recreation and tourist-related businesses. The tourism industry within the city and the surrounding “Cove” area greatly depends on the health of the environmental systems in the area. Development is influenced by natural features; and conversely, natural features are influenced by development.

Although few excessive slopes are within the municipal limits, the appropriate uses on slope ranges provided in this section should guide future develop to prevent erosion or impacts to adjacent property owners. The drainage pattern for the city begins on the steep slopes surrounding the “Cove.” Water drains from these slopes down into the valley and eventually into the Little River. Disruption of this natural drainage pattern may have negative effects on flood events, including flash floods. Land use controls may be used to limit or prohibit runoff from properties to protect the water quality in the Little River.

Due to the small size of the city and the presence of multiple soils, soil characteristics within the city cannot be generalized. Each development site requires testing, and even then diverse soil series supporting or limiting a range of uses may be found requiring careful siting of structures and utilities. The lack of a public sewer system results in minimum lot sizes depending on the available locations of soils suitable for a drainfield and a reserved area for a back-up drainfield. If soils are found to be adverse to the type of development proposed on the lot, then the cost of development and amount of land required for the development may increase.

Development within the city should first consider the site restrictions from natural factors during the planning phases. Although flood hazard areas might be obvious or easy to research, soil restrictions and consideration for water moving through the watershed will require careful site planning. The City of Townsend may use the subdivision and zoning regulations as tools to ensure that the natural factors discussed in this section are given due consideration.

Chapter 3

Socio-economic Trends

This chapter provides valuable background information for city officials and others in the community as they develop and implement an efficient and meaningful planning program. Historical, current, and projected data were used to discover trends pertinent for the formulation of future land use needs.

Population

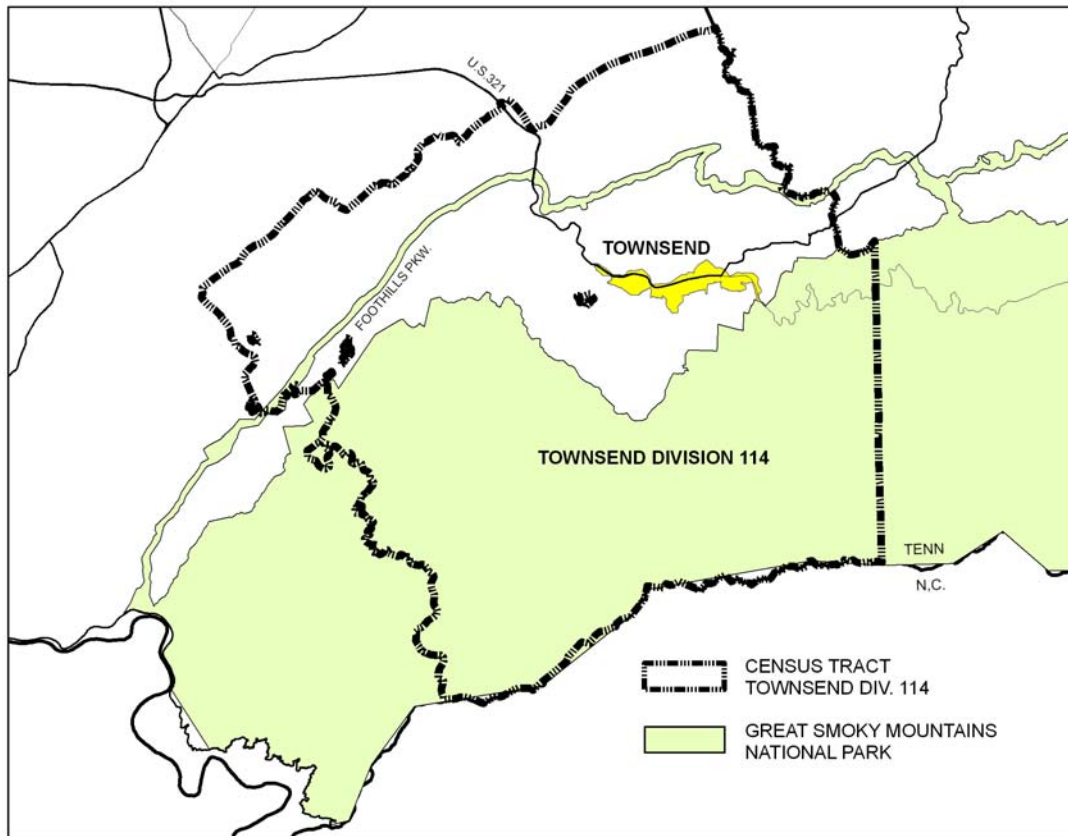
Population trends provide a basis for analyzing land use patterns and providing a framework for determining future land use requirements. These requirements also provide an insight into the needs for future capital improvements, utilities, recreation opportunities, and other similar services necessary to serve the public. Knowing the composition of a city informs the planning commission on the appropriate mix of uses and conditions that lead to location-specific land use decisions.

Townsend presents a number of challenges in determining trends in its population and economy due to the relative frequency of amendments to the city limits. From the time of the previous land use plan in 1986 until the most recent 2000 Census, the city limits have expanded and contracted as a result of annexations and de-annexations. The data collected from various sources in this plan may use varying city limits if collected during a different time frame. A more detailed discussion of the city limits is found in Chapter 4. For this reason, data was collected from larger geographical areas to establish regional trends. These geographical comparison areas include the Townsend Census Tract 114, Blount County, Tennessee, and the United States. Where possible, a map is provided to display the areas analyzed for a particular data set.

For this chapter “The Cove” refers to the geographical area described in the previous chapter. The Cove is geographically bounded by the Chilhowee and the Great Smoky Mountain Ranges. The city lies in the center and provides much of the basic goods and services needed by the residents of the Cove. Census Tract 114, shown on Illustration 4, is the most comparable political boundary to the Cove. Neither the census tract nor the Cove contains a municipality other than Townsend. Since the incorporated area of Townsend includes only a portion of the populated area in the Cove, Census Tract 114 provides a more stable basis for analyzing population and economic trends.

Illustration 4

Census Tract 114, Townsend Division



Source: Provided by the Local Planning Assistance Office

Table 2 displays the current and past population counts in Townsend and its geographical comparison areas from 1950 to 2000 as reported by the United States Census and compiled by the University of Tennessee Center for Business and Economic Research. Since the incorporation of the city in 1921, the population has fluxuated from a high of 402 in 1940 to a low of 244 in 2000. An increase occurred from 1970 till 1980; however, a decline resumed after 1980. Other municipalities in Blount County have experienced similar trends; however, the county has grown steadily throughout the 1950 to 2000 time period, even doubling its population. Townsend's recent decline may be partially attributed to a concurrence of two de-annexations of the city limits and the point in time when the census count occurred, because the Townsend Census Tract 114 experienced an 18.7 percent growth in the same period.

Annexations from 1986 to 2009 increased the corporate limits to the east along both sides of Highway 321 and continuing on to Highway 73. However, some city limit variations occurred during that time. From 1998 to 2001, the city adopted six ordinances with the purpose of either annexing or rescinding annexations. These areas included an area bounded by Old Tuckaleechee

Road and Highway 321, Riverview Estates and parcels to the east of it, an area north of the Little River, and the recent 2009 annexation area south of Highway 321 and west of the Sundown Resort. Population and economic data gathered for the 2000 census could have been affected by the oscillating city limits.

Table 2
Population Changes from 1950 -2000
Blount County and Blount County Cities

| Area | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | Percent Change 1990-2000 |
|-------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------------|
| Townsend..... | 328 | 283 | 267 | 351 | 324 | 244 | -24.7 |
| Rockford..... | — | — | — | — | 646 | 798 | 23.5 |
| Friendsville..... | — | 606 | 575 | 694 | 792 | 890 | 12.4 |
| Louisville..... | — | — | — | — | — | 2,001 | — |
| Alcoa..... | 6,355 | 6,395 | 7,739 | 6,870 | 6,400 | 7,734 | 20.8 |
| Maryville..... | 7,742 | 10,384 | 13,308 | 17,480 | 20,303 | 23,120 | 13.9 |
| Census Tract 114..... | — | — | 3,851 | 3,984 | 4,749 | 5,637 | 18.7 |
| Blount County..... | 54,619 | 57,525 | 63,744 | 77,770 | 85,962 | 105,823 | 23.1 |
| East Tennessee Development District... | 620,476 | 654,236 | 701,545 | 845,121 | 890,334 | 1,045,366 | 17.4 |

— Data Not Available

Adapted from the 1986 Townsend Land Use plan and the University of Tennessee Center for Business and Economic Research, UTK¹³

Population changes for both the city and the census tract influence land use needs. The increase in population in the census tract could possibly affect the demand for goods and services in the City of Townsend, which is the center of commerce within the census tract. In recent years, the construction of the IGA Grocery Store, the Dollar General, and other stores suggest that demand for everyday goods and services has increased. The visitor counts have not fluxuated significantly, so population increases in the surrounding area appear to provide some explanation. The demand for residential land use cannot be automatically assumed to be in decline due to the decline in population. The use of single-family homes, generally log cabins,

for tourist or second homes creates a demand for residential land that cannot be calculated by population demands.

Population Characteristics

Townsend's composition of residents has varied throughout the years. Currently, the overall trend is leading to an increase of the elderly population with a decrease in the number of young families. In 1980, those 17 and under comprised 25 percent of the population. By 2000, only 12 percent of the population was in this age range. In contrast, the percent of the population 65 years and older rose from 15 percent in 1980 to 30 percent in 2000. The trend is similar in Census Tract 114.

The changes within the age characteristics of the population among Townsend, Census Tract 114, and Blount County in the year 2000 are provided in Table 5. Townsend's median age was 55.7 compared to 35.2 and 38.4 in the United States and Blount County, respectively. The implications of the age characteristics directly affect the facility, services, and land use needs in the city. Demand for housing accessible to gathering places, healthcare providers, and basic goods and services will most likely continue to rise. Additionally, demand for housing units requiring less maintenance and discretionary income will also most likely increase.

Table 3
Population Characteristics in 2000
Townsend, Census Tract 114, and Blount County

| Age in Years | Townsend | | Census Tract 114 | | Blount County | |
|-----------------------|-----------------|----------------|-------------------------|----------------|----------------------|----------------|
| | Persons | Percent | Persons | Percent | Persons | Percent |
| Under 5 years..... | 14 | 5.7 | 255 | 4.5 | 6,105 | 5.8 |
| 5-17 years..... | 16 | 6.6 | 841 | 14.9 | 18,025 | 17.0 |
| 18-64 years..... | 142 | 58.2 | 3,645 | 64.7 | 66,779 | 63.1 |
| 65 years and older... | 72 | 29.5 | 896 | 15.9 | 14,914 | 14.1 |
| Totals..... | 244 | 100.0 | 5,637 | 100.0 | 105,823 | 100.0 |

Adapted from: U.S. Census Bureau 2000 Summary File 1

Population Projections

Predicting the growth of a small area with variable trends and an active annexation program is very difficult. A number of issues arise when projecting Townsend's future population. Adjustments to the city limits and recent building projects alone will skew the projection provided by the Center for Business and Economic Research, which projected the population to reach 287 persons by 2025. Assuming the average household size remains at 1.97, the increase of 43 persons would create an additional 21 households. Considering the increased population of the Census Tract 114, policies in the planning program can be reasonably based on the assumption that the population will increase beyond 287 persons and 21 households within the city limits.

Population projections for Census Tract 114 were not available, so Blount County was used for comparison. The county experienced a 23 percent increase from 1990 to 2000. This increase was greater than both the state and the nation, which increased by 17 percent and 13 percent, respectively, during the same time period. Population projections for the coming decades forecast a continuing population growth rate greater than the state and the nation. The projections provided by the Center for Business and Economic Research at the University of Tennessee projected the total population of the county to reach 151,018 people by 2020. Using the average household size in Blount County as 2.43, the number of households would increase by 18,599 households. Table 4, Population Projections, provides a forecast for the geographical comparison areas in and around Blount County.

Table 4
Population Projections
Blount County and Blount County Cities

| Area | 2000 | 2020* |
|------------------------------------------|-------------|--------------|
| Townsend..... | 244 | 262 |
| Rockford..... | 798 | 1,046 |
| Friendsville..... | 890 | 1,181 |
| Louisville..... | 2,001 | 2,758 |
| Alcoa..... | 7,734 | 10,682 |
| Maryville..... | 23,120 | 34,373 |
| Census Tract 114..... | 5,637 | — |
| Blount County..... | 105,823 | 151,018 |
| East Tennessee Development District..... | 1,045,366 | 1,309,049 |

— Data Not Available

* Projections do not include any annexations after 2000

Source: Tennessee Advisory Commission on Intergovernmental Relations (TACIR)

Educational Attainment

Although the high school graduation rates have remained the same for the city and county since 1980, the percent of persons attaining college and professional degrees has almost doubled. Generally, a person's income increases with educational attainment. As personal income rises, the city's overall well-being and ability to support service and retail industries also rises. The percent of those in Townsend and Blount County who received a bachelors or professional degree rose 54.6 and 58.85 percent, respectively, from 1980 to 2000. Table 5 presents a comparison between educational attainment of residents in the city and the county. The data was compiled from the Census Bureau's summary file 3 that uses a sample of the population to report statistics.

Table 5
Educational Attainment
Of Persons Age 25 and over

| | Townsend | | Blount County | |
|----------------------------------|----------|-------------------|---------------|-------------------|
| | Count | Percent of Sample | Count | Percent of Sample |
| High School | | | | |
| Some High School..... | 10 | 5.1 | 9,641 | 13.2 |
| High School Degree..... | 77 | 39.7 | 25,143 | 34.5 |
| College | | | | |
| 1-3 years..... | 54 | 27.8 | 18,979 | 26.0 |
| Bachelor's Degree..... | 25 | 12.9 | 8,364 | 11.5 |
| Graduate or Professional Degree. | 23 | 11.9 | 4,728 | 6.5 |
| Total of population 25 +..... | 194 | 100.0 | 72,938 | 100.0 |

Adapted from the U.S. Census Bureau 2000 Summary File 3 (SF 3)

Income

The Census Bureau uses the total amount of wages, salaries, tips, commissions, bonuses, and other earnings to calculate income. The two indicative measures of an area's affluence are the per capita and the household income. The usefulness the per capita and household income can be attributed to the calculation of the two indicators. Per capita income is tabulated by dividing

the aggregate income of the population by the total population and indicates the overall wealth of the community. In contrast, household income reflects the income per household. This number is used in this plan to measure the affordability of housing in the city.

As seen in Table 6 below, the per capita of Townsend has increased at a rate at least twice the rate of Blount County, Tennessee, and the United States from 1990 to 2000. In 1990, the per capita income was below all the comparison areas. This significant increase may be attributed to either an in-migration of wealthier residents or the annexation of residential areas with higher levels of income.

Table 6
Per Capita Income
Townsend, Blount County, Tennessee, and the US

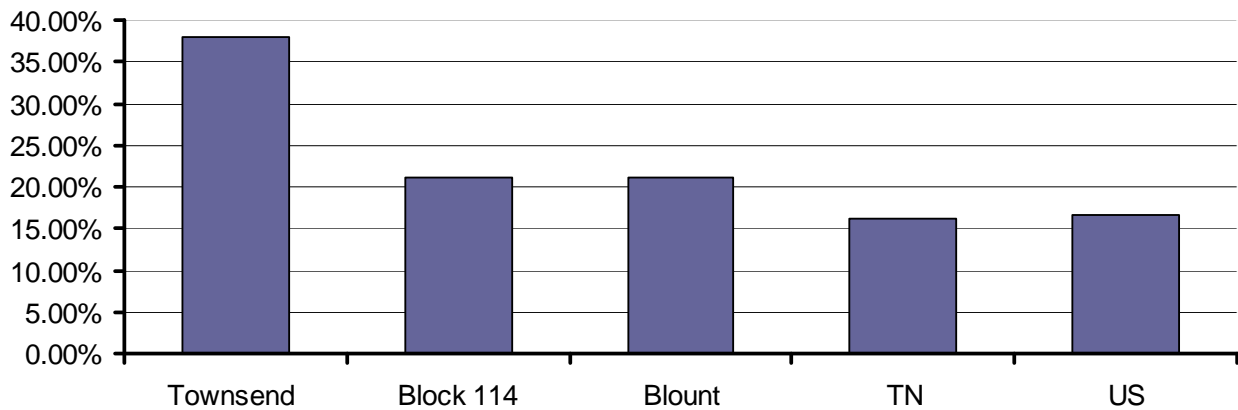
| | 1980 | 1990 | 2000 | Percent change from 1990-2000 |
|--------------------|-------------|-------------|-------------|------------------------------------------|
| Townsend..... | | 10,428 | 21,647 | 107.6 |
| Blount County..... | 7,690 | 12,674 | 19,416 | 53.2 |
| Tennessee..... | 7,660 | 12,255 | 19,393 | 58.3 |
| United States..... | 9,481 | 14,420 | 21,587 | 49.7 |

Adapted from : the 1987 Land Use Plan and the U.S. Census Bureau Summary
File 3¹⁴

Median household income in Townsend reached \$36,250 in 2000. However, the household income of the residents has stayed below that of Blount County and the United States by \$1,612 and \$5,744, respectively. Considering the varied standard levels of living around the country, the gap between Townsend and the nation is not a great concern. Additionally, Townsend's household income is slightly above the census block and the state.

A unique characteristic of Townsend's economy is the higher than average amount of retirement income. According to the US Census Bureau, 38 percent of all income in 2000 came from retirement sources, which is twice the national average and significantly higher than the geographical comparison areas as displayed in Graph 1. Although the wealth of an age cohort is not measured here, one can assume from previous data such as the rising age of the population and the increase in per capita income that this age cohort may be one reason for the increasing amount of income reported by residents.

Graph 1
Percent of Retirement Income



Adapted from the U.S. Census Bureau Summary File 3 (SF 3)

A number of studies have detailed the prevailing national trends and effects on communities who have received significant in-migration of this age cohort. One study coined the term “grey gold” referring to the wealth that older in-migrants bring specifically to rural communities.¹⁵ This grey gold also brings a demand for goods, services, and possibly new industries that are desirable to this group while not requiring public expenditures such as governmental assistance programs and education. Another study by the Economic and Community Development Institute at Auburn University found a positive correlation between tourist towns and retirement destinations.¹⁶ If the conclusions of these studies remain indicative of the trends affecting Townsend, then the city should use the land use policies to guide decisions that affect the needs, benefits, and possible externalities created by this in-migration.

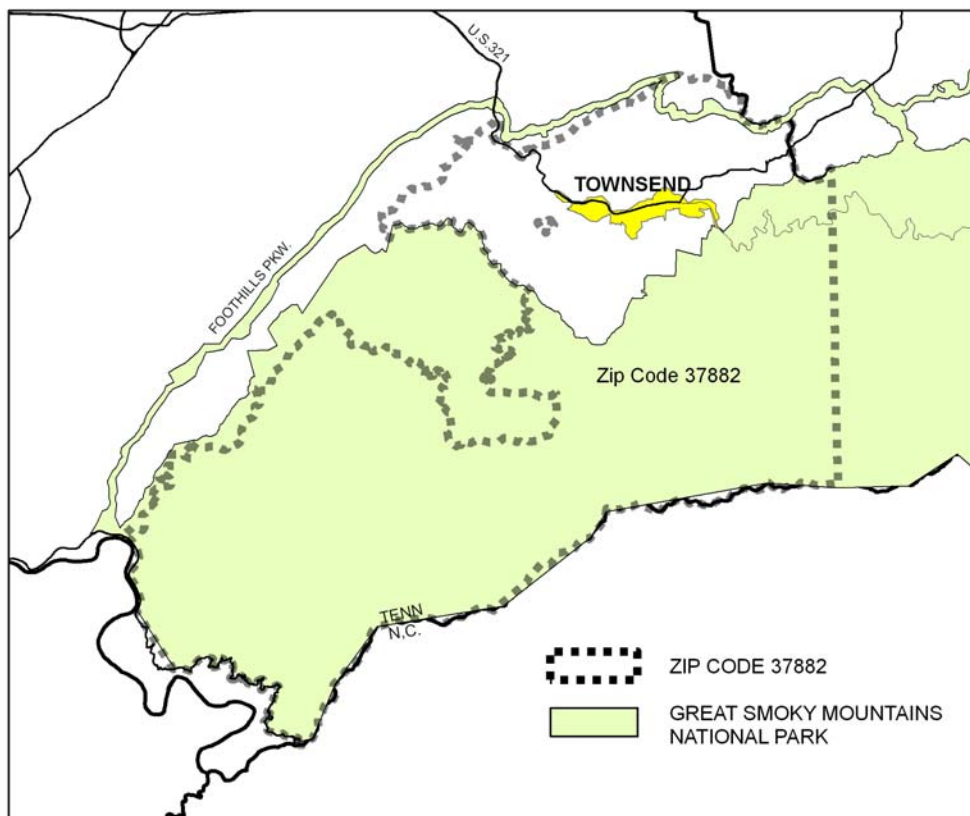
Economy

The economic conditions in Townsend are heavily influenced by its location as a gateway to the Great Smoky Mountains National Park (GSMNP), the most visited national park in the nation. As a result, the economy relies heavily on tourism related industries such as retail trade and overnight accommodations. In 2009, nearly 1.5 million visitors passed through Townsend on their way to the Park.¹⁷ Broader geographical boundaries are utilized in this section due to two primary reasons – the economy of Townsend is subjected to larger regional and national trends, and data for the city does not often exist due to its size. Data sets were gathered from a number of sources that used various geographic boundaries. Industry data pertains to the zip code 37882, business permit data pertains to the corporate limits, and microenterprise data pertains to the county.

Industry

For the land use plan, the geographical area lying within the zip code 37882 as shown on Illustration 5 was used for industry data. The Censtats Database, maintained by the Census Bureau, has organized industry data by the North American Industry Classification System (NAICS) for various geographical areas down to the zip code level since 1998. For reference, Appendix A provides a table for the various categories and subcategories used by the classification system. NAICS data is helpful for understanding industry trends in a larger geographical area similar to the “Cove.” The NAICS section provides information on the number of businesses, the number of employees, and the payroll expenditures for the zip code 37882.

Illustration 5
Zip code 37882



Source: Local Planning Assistance Office

During the 1998 - 2006 time period, the annual payroll for the reported industries increased 58 percent to \$9,514,000. In 1998, the accommodation and food services and retail trade sectors dominated the reported industries with 29 and 19 establishments, respectively. For comparison, the third highest reported number of establishments was five from construction. However by

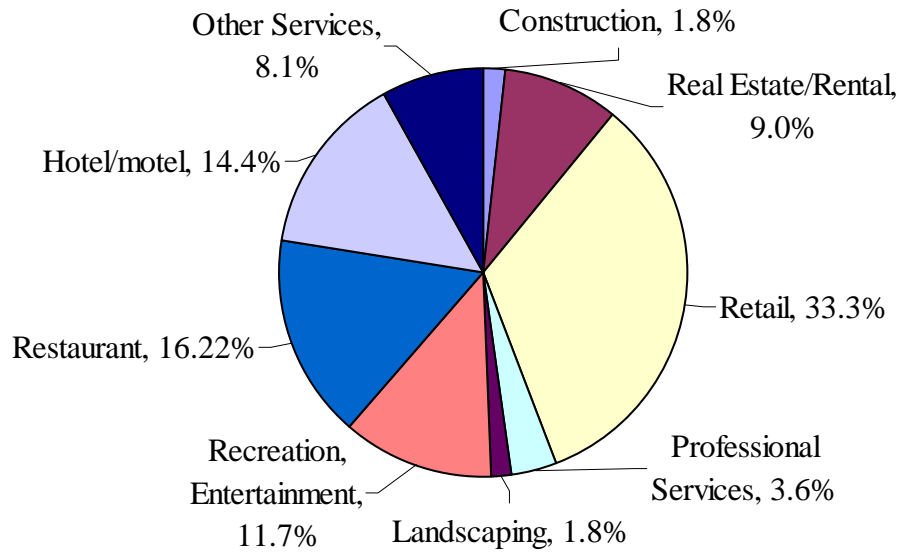
2006, the real estate sector had grown from two to 10 establishments and the arts/recreation sector had grown from three to six establishments. These two categories combined with accommodation and food service and retail trade accounted for 65.2 percent of all establishments in 2006.

Shifts within the dominant industries occurred during the same time period. Based on the employment-size classes provided in the NAICS, accommodation and food service businesses appeared to hire a greater number of workers per establishment and retail businesses appeared to hire fewer ones. The accommodation and food service industry reported an increase of one establishment employing between 20-49 persons and an increase of three establishments employing between 10-19 persons.¹⁸ The retail industry within the State of Tennessee followed the opposite trend. It reported an increase in retail establishments with a larger number of employees and a decrease in establishments employing fewer persons. These shifts do not seem out of the ordinary in the context of the greater Townsend area, which shares the common vision of promoting local crafts and/or locally-owned businesses where the owner may be the only employee.

Townsend Business Permits

Business permit records were analyzed to obtain the information for the businesses within the corporate limits of Townsend. The permit records were obtained in 2008 and did not encompass those businesses within the January 2009 annexation area. The data reported to the census bureau in 2006 for those industries within the zip code 37882 in the previous section markedly differ, but differences between the two data sets cannot be explained by the two year lapse alone. Most likely, the difference is caused by collection and reporting methods, so the information contained in these two sections should be viewed independently of one another. Graph 2 depicts the composition of business within the city limits.

Graph 2
Business Permits in Townsend 2008



Adapted from information provided by the City of Townsend

Tourism-related businesses such as hotel/motels, restaurants, retail, and real estate/rental businesses comprise approximately 84 percent of the businesses within the city limits. The Tennessee Department of Tourist Development ranked Blount County as 6th in the state for overall tourism expenditure levels in 2008. Most likely, Townsend received a greater share than other jurisdictions within the county due to its gateway location. Travel expenditures in Blount County for 2008 totaled \$300,820,000 with 3,160 employed in tourism-related businesses. The county and its cities received \$10,290,000 of local tax shares from tourism-related dollars.¹⁹

The current recession has had little effect on the number of people accessing the GSMNP through Townsend. In 2008, the number of people accessing the park through Townsend decreased by 4.7 percent, and overall Park visitation was down 3.5 percent. However, park visitation rose again in 2009. This increase may be most likely attributed to the park's 75th anniversary celebrations. Although revenue from retail sales in the county during the fiscal years of 2008 to 2009 declined 57 percent, revenue from the state and local sales tax on other activities did not change as drastically.²⁰ Townsend's composition of non-retail tourism-related businesses appears to have provided some relief from the recession.

Small Business

The economy of Townsend is largely comprised of small businesses. Even yet, a number of these businesses would be considered microenterprises, businesses with 5 or fewer employees. According to the Association of Enterprise Opportunity, a microenterprise advocate, 19.5 percent of workers in Blount County are employed by a microenterprise with total receipts of \$401,333,000 annually.²¹ This is slightly higher than the 17.1 percent of microenterprises in Tennessee. Although no statistics are currently available on the amount of receipts for small businesses in Townsend itself, the lack of chain businesses, manufacturing, and industrial establishments leads to the conclusion that the city's share of these microenterprises is higher or proportionate to the county's share.

Data provided by the Census Bureau, the City of Townsend, and the Association for Enterprise Opportunity, points to the importance of small businesses within the city limits. In addition, a simple windshield survey of the city leads to the assumption that the majority of area business establishments appear to be locally-owned, and many promote the theme of Townsend as the "Peaceful Side of the Smokies" through site and building design. Notably, the largest establishments tend to be restaurants or accommodations, but even these appear to be locally-owned and reflect the city's theme. Lacking from Townsend's landscape is the presence of fast-food restaurants and big-box retailers. The policies and implementation strategies found in Chapter Five reinforces the values of the community and provides useful tools for ensuring that Townsend remains the "Peaceful Side of Smokies."

Employment

The majority of Townsend's residents were employed in the private salaries and wages category in 2000. The top three occupations were construction, educational services, and accommodation and food services.²² In 1980, the top three occupations of residents were sales, professional specialty, and precision production, craft, and repair.²³ Although the occupations were categorized under the North American Industry Classification System (NAICS) in 2000 and under the Standard Industrial Classification System (SICS) in 1980, the occupations are comparable. National and regional trends along with a focus on the tourism industry could account for some of the change. Additionally, 7.1 percent of the workforce was self-employed (not incorporated) compared to the 14 percent reported in 1980. The current municipal limits include those areas counted in 1980 along with additional areas. The change among employers and the categories of employment for Townsend residents is shown in Table 7. The loss of those reporting self-employment and employment in the precision, craft, and repair industry may be a concern to the City of Townsend. This decline does not necessarily mean that the number of businesses in town related to the industry has declined, but that the number of residents employed in the industry has declined.

The average person appears to be working outside the city and even beyond the Tuckaleechee Cove Area. This is not surprising considering that Blount County offers a diversity of employment opportunities for any education level. Travel distances declined in the most recent decade. In 1990, 55 percent traveled over 30 minutes to work. In 2000, only 38 percent traveled over 30 minutes to work.

Table 7
Employment by Industry: 2000
City of Townsend

| Industry | Male | Female | Total |
|----------------------------------------------------------------------------------------------|-------------|---------------|--------------|
| Agriculture, forestry, fishing and hunting, and mining:..... | 0 | 0 | 0 |
| Construction..... | 13 | 0 | 13 |
| Manufacturing..... | 5 | 0 | 5 |
| Wholesale trade..... | 1 | 0 | 1 |
| Retail trade..... | 3 | 7 | 10 |
| Transportation and warehousing, and utilities:..... | 5 | 4 | 9 |
| Transportation and warehousing..... | 5 | 2 | 7 |
| Utilities..... | 0 | 2 | 2 |
| Information..... | 7 | 3 | 10 |
| Finance, insurance, real estate and rental and leasing:..... | 0 | 4 | 4 |
| Finance and insurance..... | 0 | 4 | 4 |
| Real estate and rental and leasing..... | 0 | 0 | 0 |
| Professional, scientific, management, administrative, and waste management services:..... | 2 | 2 | 4 |
| Professional, scientific, and technical services..... | 0 | 2 | 2 |
| Management of companies and enterprises..... | 0 | 0 | 0 |
| Administrative and support and waste management services..... | 2 | 0 | 2 |
| Educational, health and social services:..... | 9 | 13 | 22 |
| Educational services..... | 9 | 3 | 12 |
| Health care and social assistance..... | 0 | 10 | 10 |
| Arts, entertainment, recreation, accommodation and food services:.. | 9 | 8 | 17 |
| Arts, entertainment, and recreation..... | 3 | 2 | 5 |
| Accommodation and food services..... | 6 | 6 | 12 |
| Other services (except public administration)..... | 0 | 2 | 2 |
| Public administration..... | 0 | 2 | 2 |
| Total..... | 54 | 45 | 99 |

Source: Census 2000 Summary File 3 (SF 3)

At the time of this report, the United States was in a recession. As a result, the unemployment rate for Blount County should be compared to the state and national rates to gain an understanding of the economic climate. In February of 2009, the unemployment rate for Blount County was 9.2 percent. The rate was in line with the State's 9.3 percent and higher than the nation's 7.6 percent.

Telecommunications

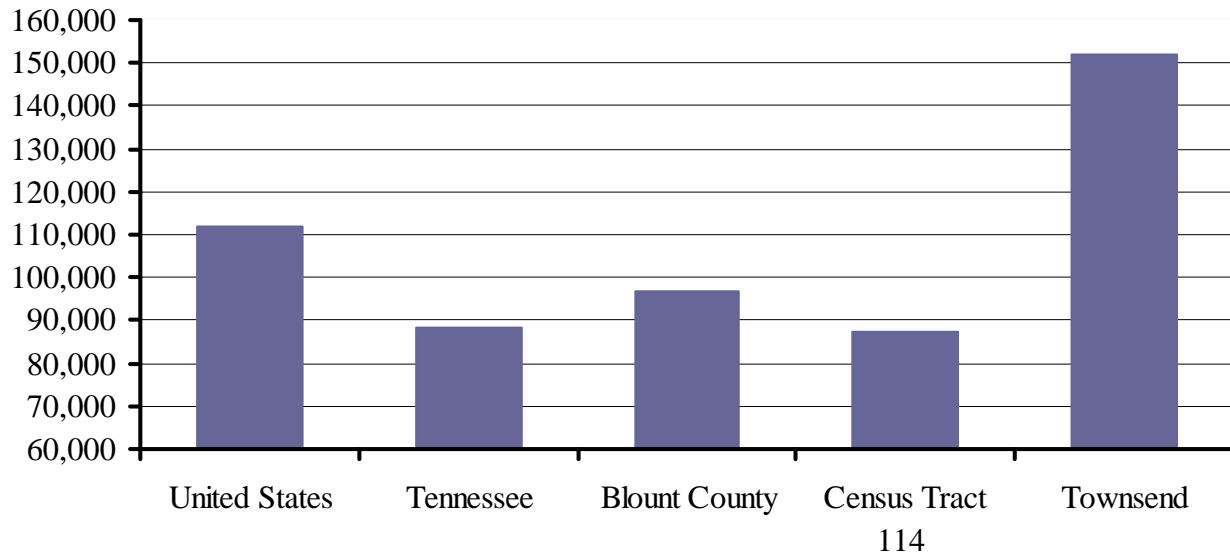
Telecommunications includes voice, video, and Internet communications services. In many rural areas, these services are either unavailable or insufficient. The availability and capacity of internet connections in communities is often a concern for residential, commercial, and governmental services due to the limitations it creates. According to Connected Tennessee, a nonprofit organization dedicated to accelerating the availability of broadband in the state, broadband technology facilitates the following: a better business environment, more effective community and economic development, improved healthcare, enhanced education, and more efficient government. All areas within the City of Townsend are served by two broadband providers- AT&T and Comcast.²⁴ The availability of this technology provides opportunities for satellite healthcare facilities, wireless hotspots, and many other private and public sector ventures.

Housing

The condition of housing, age, affordability, and mix of housing choices informs the planning program on the appropriate implementation policies for future land use. According to census data taken in 2000, 37 percent of the dwelling units are used as seasonal or overnight rentals. The use of residential land for tourist accommodations and the impact on housing costs is a unique factor in Townsend. A more in-depth study is required to fully explore the impact of this industry on the town. Tourist accommodations and their value affect the availability of future land for residential development and housing affordability and causes difficulty in estimating future housing and residential land needs. The median year of the structure built in Townsend is 1980, slightly newer than the county, state, and the U.S. average, but older than the Census Block 114. The addition of multi-family residences over the past twenty years has increased the diversity of housing available to residents. This increase could be attributed to developers and others in the real estate industry responding to the preferences of an older population.

Determining affordability would be difficult in the city of Townsend due to its small size, tourist residences, and its proximity to a relatively large amount of housing outside of the city limits. However, the availability of affordable housing outside of the city limits may also be limited. The cost of housing inside of the city should be kept in consideration as the city develops or if the introduction of a sewer system should occur allowing greater density within the city limits. Graph 3 displays the substantially higher cost of housing within the city limits compared to other areas. In 2000, the median value of owner-occupied housing was \$152,200 in Townsend. Housing affordability for the average household may be out of reach considering that a household would need to earn approximately \$45,000 per year to meet the 30 percent housing affordability ratio; yet, in 2000 the median household income reported was \$36,250.

Graph 3
Median Housing Prices: 2000



Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3)

Conclusions

Information provided in this chapter identified the following key socio-economic issues that will affect future land use needs and decisions: an in-migration of elderly persons, increasing per capita income levels, housing affordability, a reliance on tourism-related industries, and the use of single-family housing for overnight rentals.

Based on the aforementioned limitations of the 2000 Census data, the information in this chapter was primarily based on the assumption that the population of Townsend and its surrounding area will continue to increase during the next planning period. Although an accurate population forecast is not available, population and housing characteristics rather than the projected population counts should guide land use decisions. The population has shifted towards older persons. The land use policies presented in this plan takes into consideration the implications of a aging population such as a preference for multi-family units or units in close proximity to goods and services with multiple transportation options.

Per capita income levels have increased at a rate twice that of both the state and the nation. The demand for high end housing and the use of single family housing for overnight rentals could likely be the cause of the housing affordability issue within the city. Based on median household income levels and the price of housing, homeownership is beyond the reach of the average household. The growing affordability gap may even account for the appearance of an outmigration of artists, crafters, and young families. A survey of sale prices of housing within the

city in the past three years found that the majority of the houses sold for at least \$200,000. In the largest residential development, The Reserve, the remaining proposed units will most likely sell for no less than \$300,000.

As previously discussed, the economy of Townsend is affected by a larger geographic area than the city limits. Establishments relating to tourism dominate the economy in and around Townsend. Retail, accommodations and food services, real estate/rental, and arts/recreations comprised 64 percent of all establishments in 2006. From 1998-2006, the payroll for industries within the Townsend zip code increased by 50 percent. A majority of these businesses appear to operate as small, locally-owned business.

The land use policies and implementation methods provide suggested actions that may be taken through the planning program to address these issues. Land use controls may be used to encourage affordable housing or apply creative solutions to housing for those who are self-employed such as allowing residences above shops or mixed use developments. The policies of the town reinforce the importance of these small business operations and their part of making Townsend the “Peaceful Side of the Smokies.”

Chapter 4

Land Use and Transportation Inventory and Analysis

The land use inventory and analysis provides the City of Townsend with information on the current allocation of land uses throughout the city, land use changes that have occurred in past years, and the availability of land for future uses. The information contained in this chapter, provides a basis for the policies and goals outlined in the development plan and provide guidance for possible amendments to land use controls, namely subdivision and zoning regulations. The data from this chapter's existing analysis integrated with information pertaining to natural factors affecting development, socio-economic factors, and transportation is vital in determining what areas are best suited for the various land uses and transportation facilities over the 10 year planning period.

Land Use Inventory

The land use inventory for Townsend began in the fall of 2008 and was completed after an annexation became effective in January of 2009. As a starting point, the inventory began with a map created by combining parcel geometry from the Tennessee Base Mapping Program (BMP) with parcel attribute data maintained in the Comptroller of the Treasury's Computer Assisted Appraisal System (CAAS) database. The CAAS database is used by county assessors to maintain ownership records, appraise property, classify parcels by use, and determine tax assessment information. As such, this database offers the ability to map a number of key variables at the parcel level. However, tax records are structured around their primary purpose: accurately assessing real property to determine taxation based on use of the property and the value of any improvements. To take these records and use them for a different purpose requires a careful understanding of the data, especially limitations that are inherent in collection methods and in the structure of the tables themselves. Aware of the limitations of the CAAS data, a "first cut" of the land-use was developed by assigning each parcel to one of the land-use categories. The CAAS fields used to determine a property's land-use category included: Property Type, Improvement Type, Mobile Home Code, Number of Mobile Homes, Improvement Value, Land Description, and Number of Dwelling Units. Additionally, subtypes defined for BMP data were used to assign parcels to the road and railroad rights-of-way and water body categories.

Although CAAS data is a valuable source of parcel specific information, there are limitations to its for designating land uses. One limiting factor involves its accuracy. Properties regularly change ownership; consequently, the CAAS database changes often and at any point sustains some level of inaccuracy. The CAAS dataset supporting this analysis was obtained in January of 2009. However, due to variations in the process by which the BMP data is updated, the parcel data was older, having been created in May of 2007. Since limited subdivision of real property has occurred in the town, this discrepancy is not significant. A further issue that must be acknowledged revolves around CAAS table organization. Tax assessors commonly place improvements on separate "cards" attached to a parcel's main record. For parcels containing

multiple improvements, multiple records will exist for that parcel in the database, each with the same parcel identification number. This organizational scheme creates a problem whenever the tables are joined to a spatial data layer in a geographic information system (GIS), because only one record per parcel can be assigned to each parcel. Any parcel with two or more cards will appear to have only one after the join is completed. The implications for the accuracy of a land-use map may be severe.

Due to the known limitations of the data underpinning this land use inventory, improperly coded parcels have been identified and corrected through the use of “windshield surveys” of the community, the knowledge of local officials, and the planner’s own knowledge of Townsend. Through an iterative field checking process, the data was checked, corrected if necessary, and then analyzed. The final product of this process is Illustration 6: Existing Land Use: Townsend, Tennessee, February 2009. This map displays the final result of the land use inventory conducted for this report and presents a picture of the extent and composition of land uses in Townsend in early 2009.

Classifications

The Computer Assisted Appraisal System (CAAS) and the Base Mapping Parcel (BMP) data were initially used to classify each parcel into a major land use category; however, some parcels were further divided into subcategories. The criteria for subcategory classification is explained in the list below. This breakdown allows for more detailed examination of the land use conditions and their development since the previous analysis in 1986. Each parcel was classified into one of the categories below.

Residential: Land on which one or more dwelling units are located. This includes all single-family and multi-family residences, and mobile homes. Single family includes seasonal/vacation rentals and parcels coded resort residential in the CAAS. Multi-Family includes any complex housing over two attached dwellings, including condos. These could either be owner or renter-occupied.

Commercial/Private Services: Land on which retail trade activities and/or services occur. This category includes uses such as retail stores, professional and personal services, recreation establishments, restaurants, day care centers, and service stations. This report separates tourist accommodations under this category. Accommodations are hotels, motels, campgrounds, and multiple overnight cabins on one property. Single family tourist residences developed as Planned Unit Developments (PUDs) were generally categorized as a commercial use.

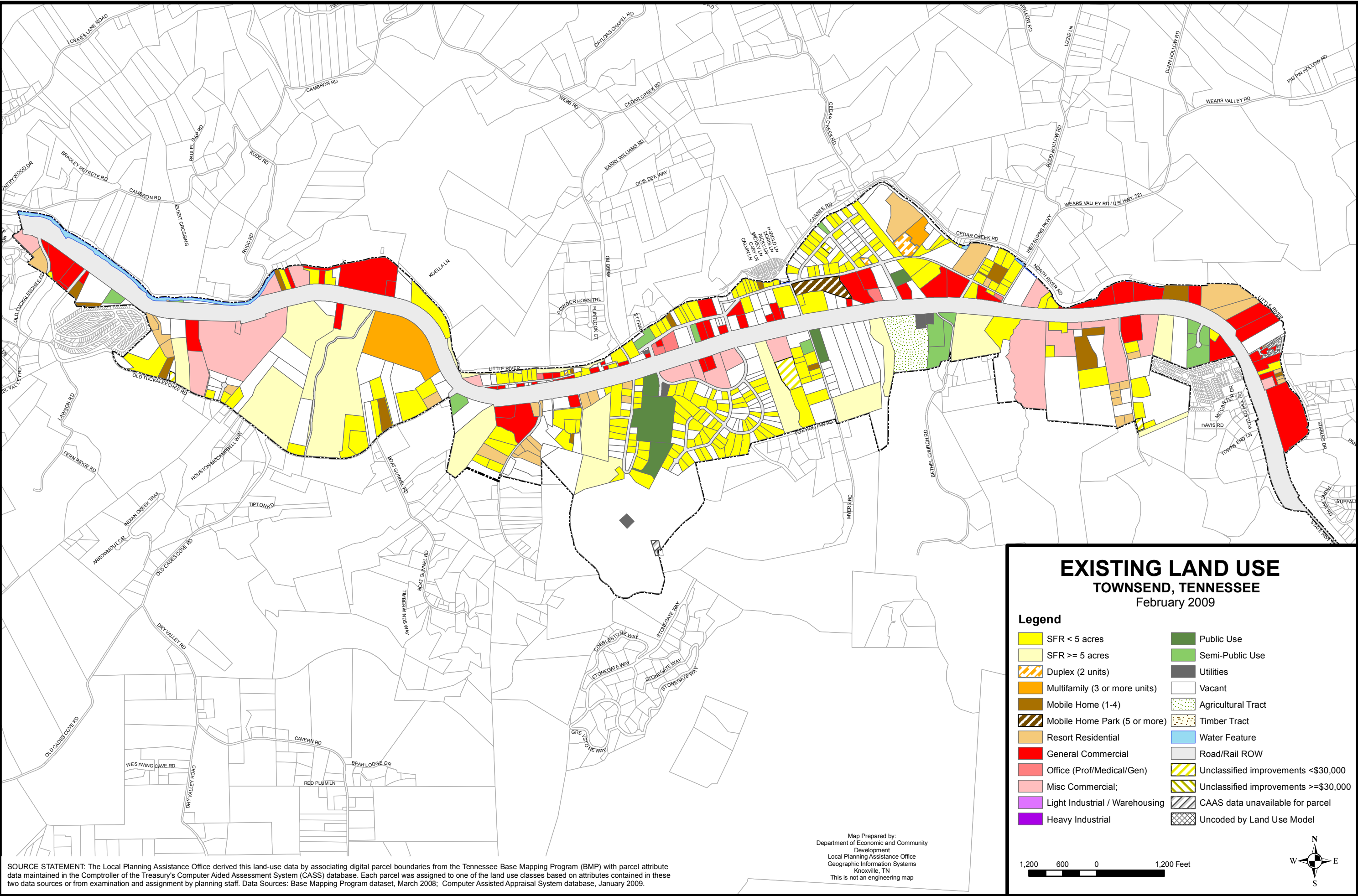
Recreational/Cultural/ Educational/ Public Uses: Parcels owned by a governmental entity except for right of ways. Public land includes federal, state, and local governmental uses, particularly schools. Semi-public lands are privately owned sites open to the public such as museums, libraries, parks, cemeteries, and churches.

Utilities: Land on which utility structures or facilities are located. This group includes water tanks, electrical substations, and telephone switching stations.

Transportation Rights of Way: Land owned by municipal, county, and state governments for use as a right of way.

Vacant Land: Undeveloped land that may be used for crop, forest, agricultural, or future development purposes.

Water Features: Areas contained by bodies of water including rivers and lakes. Water bodies such as farm ponds are not included.



SOURCE STATEMENT: The Local Planning Assistance Office derived this land-use data by associating digital parcel boundaries from the Tennessee Base Mapping Program (BMP) with parcel attribute data maintained in the Comptroller of the Treasury's Computer Aided Assessment System (CASS) database. Each parcel was assigned to one of the land use classes based on attributes contained in these two data sources or from examination and assignment by planning staff. Data Sources: Base Mapping Program dataset, March 2008; Computer Assisted Appraisal System database, January 2009.

Map Prepared by:
Department of Economic and Community
Development
Local Planning Assistance Office
Geographic Information Systems
Knoxville, TN
This is not an engineering map

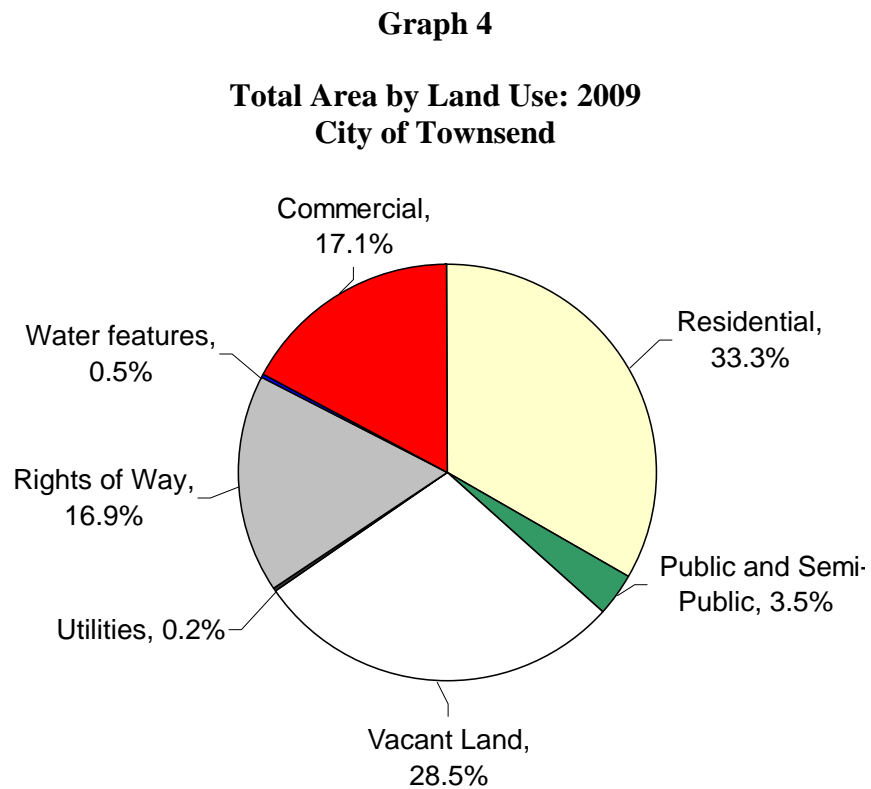
EXISTING LAND USE
TOWNSEND, TENNESSEE
February 2009

- Legend**
- | | |
|--------------------------------|--------------------------------------|
| SFR < 5 acres | Public Use |
| SFR >= 5 acres | Semi-Public Use |
| Duplex (2 units) | Utilities |
| Multifamily (3 or more units) | Vacant |
| Mobile Home (1-4) | Agricultural Tract |
| Mobile Home Park (5 or more) | Timber Tract |
| Resort Residential | Water Feature |
| General Commercial | Road/Rail ROW |
| Office (Prof/Medical/Gen) | Unclassified improvements <\$30,000 |
| Misc Commercial; | Unclassified improvements >=\$30,000 |
| Light Industrial / Warehousing | CAAS data unavailable for parcel |
| Heavy Industrial | Uncoded by Land Use Model |

1,200 600 0 1,200 Feet



The total area contained within Townsend's Municipal Limits totals 1,285 acres. Of the total area, 68 percent is considered developed. Residential uses require the greatest amount of land. A characteristic unique to Townsend is the percent of land reserved for commercial and right of way uses. Graph 4 and Table 8 provides data on each land use category and the allocation of acres among land uses.



Source: Local Planning Assistance Office

Table 8
Townsend, Tennessee Land Use Inventory

February 2009

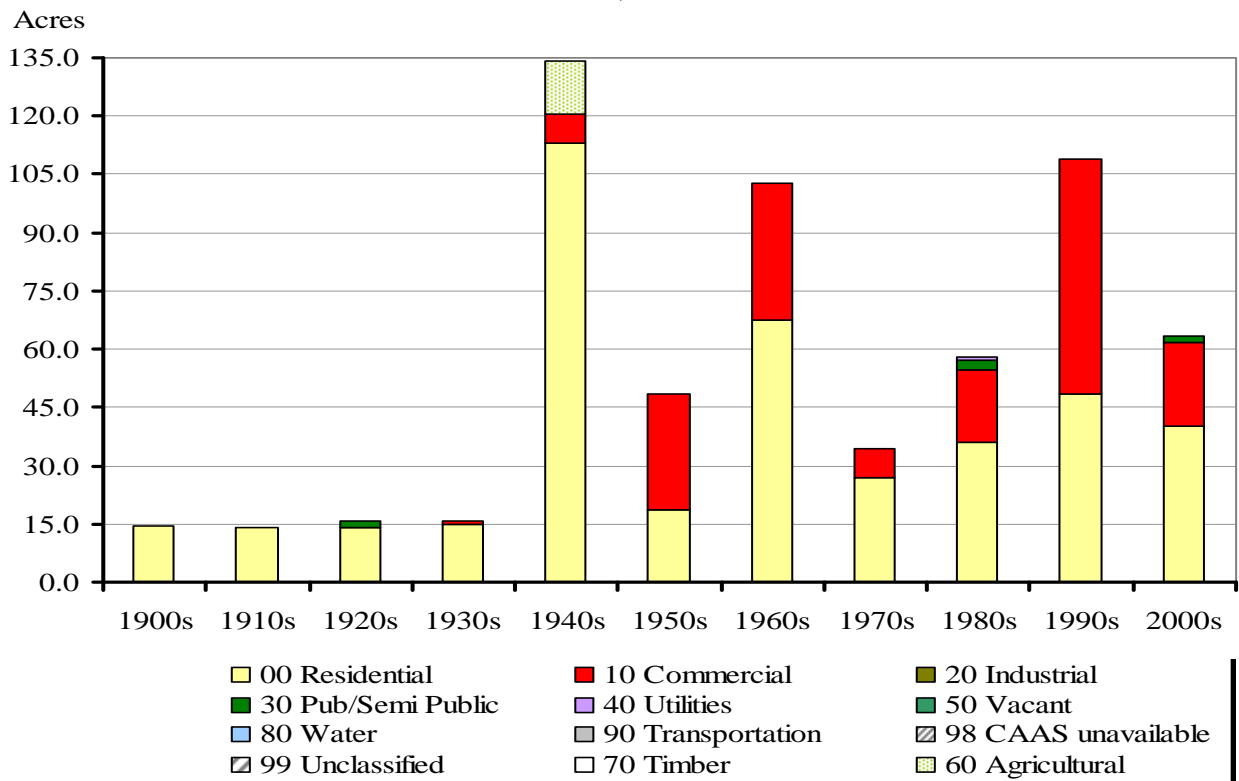
| Land Use Category | 2009 Acres | Percent of Total Area 2009 | Percent of Developed Land Area 2009 |
|-----------------------------------|-------------------|-----------------------------------|--------------------------------------------|
| Residential | | | |
| Single Family..... | 376.9 | 29 | 41.3 |
| Multi-family..... | 24.5 | 2 | 2.7 |
| Duplex..... | 3.1 | 0.24 | 0.3 |
| Mobile Home..... | 22.9 | 2 | 2.5 |
| Total Residential..... | 427.4 | 33 | 46.9 |
| Commercial..... | 219.9 | 17 | 24.1 |
| Public and Semi-Public Uses..... | 44.4 | 3 | 4.9 |
| Utilities..... | 3.2 | 0.24 | .4 |
| Transportation Rights of Way..... | 216.9 | 16.9 | 23.8 |
| Water features..... | 6.4 | 0.48 | .7 |
| Total Developed Land..... | 911.8 | 68 | 100 |
| Vacant | 365.4 | 28 | |
| Constrained | 98.2 | 1 | |
| Unconstrained..... | 267.2 | 7 | |
| Total Vacant Land..... | 365.4 | 32 | |
| Total Area..... | 1285 | 100 | |

Source: The Local Planning Assistance Office derived this land use data by associating digital parcel boundaries from the Tennessee Base Mapping Program (BMP) with parcel attribute data maintained in the Comptroller of the Treasury's Computer Assisted Appraisal system (CASS) database. Each parcel was assigned to one of the land use classes based on attributes contained in these two data sources or from examination and assignment by planning staff. Data sources: BMP dataset, March 2008; CASS database, January 2009.

Land Use Analysis

Land use analysis entails both the current mix of land uses within the city, and the changes that have occurred over time and the implications for the land use policies found in Chapter 5. An inventory of current land uses and their allocation between both total and developed acreage is provided in this section. A land use inventory was completed for the 1986 Land Use Plan; however, the corporate limits have expanded to the east along both sides of Highway 321 and continuing on Highway 73. This expansion creates some issues when comparing the data provided in 1986 and current data. To compensate for the oscillating limits, the actual year built provided in the CASS data was used to depict development patterns since the early 1900s in the Townsend area. Graph 5 illustrates the number of acres with improvements by decade in the Townsend area. Information in this chart will be disseminated throughout this section for applicable land use categories and time periods. The number of acres improved for residential and commercial use between 1986 and 2008 will be analyzed for the area that is now inside the corporate limits of Townsend. Although some of these parcels could have been improved before an annexation occurred, the allocation of these uses and the rate at which they were developed is helpful for determining development trends and demands in the city.

Graph 5
Land Use Improvements by Decade
Townsend, Tennessee



Source: Local Planning Assistance Office

Residential

A parcel is coded residential if one or more dwelling units are located on it. This includes all single-family and multi-family residences, mobile homes, and parcels coded resort residential in the CAAS. In Townsend, a parcel with a single family residence may be used for seasonal and/or vacation rentals. Multi-Family includes any housing complex with over two attached dwellings, including condos. These could either be owner or renter-occupied.

Residential land uses dominate the land area in Townsend with 33 percent of the total area and 47 percent of the developed area. Of the 427 acres categorized as residential, 161 acres consist of single-family parcels greater than five acres. Residential land uses have become more diversified since 1986 with the addition of multi-family and duplex dwellings; although, single-family parcels still dominate. Since that time, 24.5 acres containing 78 parcels have been developed for multi-family use with an additional three acres containing six units used for duplexes. All of the multi-family units appear to be owner-occupied. The Reserve, a recent development project, was classified as a multifamily use for this plan and contains 66 of the 78 multifamily parcels. Although many of the parcels remain vacant, the proposed number of units was included in the above figure, because the possibility of the lots being developed for another land use is unlikely. Table 9 distributes residential land uses among the subcategories and their percentage of both total and developed land area.

Table 9
Residential Land Use : 2009
City of Townsend

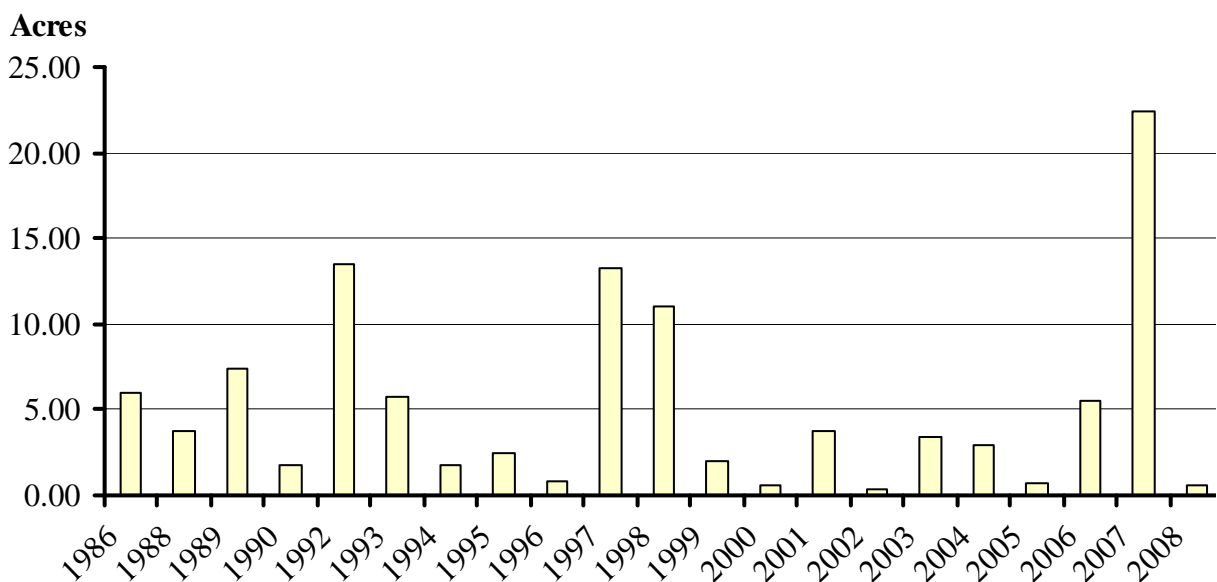
| | Total Acres | Percent of Total Area | Percent of Developed Land Area |
|----------------------------|--------------------|----------------------------------|-------------------------------------------|
| Single Family..... | 376.9 | 29 | 41.3 |
| Multi-family..... | 24.5 | 2 | 2.7 |
| Duplex..... | 3.1 | 0.24 | 0.3 |
| Mobile Home..... | 22.9 | 2 | 2.5 |
| Total Residential.. | 427.4 | 33 | 46.9 |

Source: Local Planning Assistance Office

The land use inventory taken for the 1986 Land Use Plan reported that residential uses totaled 12 percent of the total area and 23 percent of the developed area. Using the CASS data entered by the property assessor's office, the number of acres developed for residential use from 1986-2008 (2009 data was not available) totaled 110 acres within the current city limits, approximately 26 percent of all residential land currently in the city. Graph 6 displays the number of acres

developed for residential use each year from 1986-2008. Most likely, some of these acres would have been improved before an annexation occurred, but this data helps to identify trends. Residential development does not correlate population trends. The difference may be attributed to the number of seasonal or overnight rentals. The 2000 Census reported that 37 percent of dwelling units were for this use. Although the specific number of acres dedicated to non-permanent residences is difficult to determine, the impact on residential land should be explored. Possible consequences include decreasing land availability and housing affordability for permanent residents and local employees or employers.

Graph 6
Residential Land Use Improvements from 1986-2008
Townsend, Tennessee



Source: Local Planning Assistance Office

Current density appears to be approximately .94 units per acre. The density calculation includes those parcels proposed in two large residential developments that have not fully developed (The Reserve and The Residences at Trillium Cove). The number of acres required for residential use in Townsend is increased by the need for subsurface sewage disposal systems. An individual lot must be at least 20,000 square feet to accommodate them. In planned unit developments (PUDs) an individual lot size may be smaller but the density for the over all development must comply with the zoning district's area requirements. Currently, density may be no greater than 2.1 units per acre.

Commercial/Private Services

Commercial and private services include retail stores, offices, recreational businesses, overnight rentals, hotels, and motels. Overnight rentals includes single-family tourist and/or residences developed as Planned Unit Developments (PUDs). In 2009, commercial businesses utilized 219.9 acres comprising 17 percent of the total land area and 24 percent of the total developed land area. Both the share of total land use and the type of commercial use has changed since 1986. Most importantly, the city has a unique retail base of artisans and crafters that are concentrated in unified developments scattered throughout the town and generally located along the Highway 321/73 corridor.

Tourist accommodations were categorized separately in Table 10 so that data from 1986 could be compared. In 2009, of the 219.9 commercial acres, 89.8 acres were used for tourist accommodations, which include hotel/motels, campgrounds, or multiple single-family tourist accommodations located on one parcel. The commercial category in 1986 separated commercial into four divisions: general commercial, motels and cabins, recreation commercial, and campgrounds totaling 83.9 acres. At that time, tourist accommodations covered 19 percent of the developed acres compared to the current 10 percent coverage. Although an increase in acreage devoted to tourist accommodation has occurred, it is small.

Unlike non-tourist commercial uses, tourist residences are mostly scattered throughout the city and may be located among residential neighborhoods; although, some businesses are also located in close proximity to the highway. Some commercial properties within the municipal limits are in need of repairs and could be redeveloped for future uses.

Table 10
Commercial/Private Services Land Use
City of Townsend

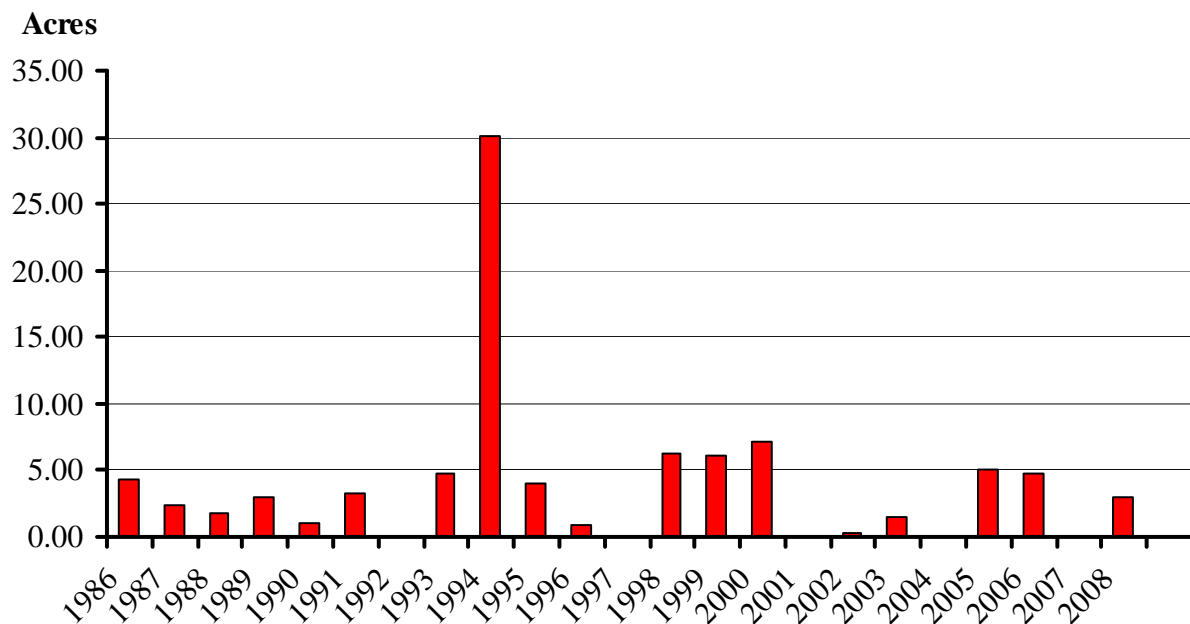
| | 1986 | | 2009 | |
|----------------------------------|--------------|---------------------------|--------------|---------------------------|
| | Acres | Percent of Developed Area | Acres | Percent of Developed Area |
| Commercial/Private Services..... | 17.6 | 4.0 | 130.1 | 14.3 |
| Tourist Accommodations..... | 83.9 | 19.0 | 89.8 | 9.8 |
| Total..... | 101.5 | 23.0 | 219.9 | 24.1 |

Source: Local Planning Assistance Office

The most significant change within the commercial/private services category was growth in commercial acres for non-tourist accommodations. These businesses include retail stores,

restaurants, and recreational businesses. As previously mentioned, larger retail stores were developed since the previous land use plan. To account for the annexation, CASS data for commercial improvements was obtained to determine if the increase in commercial acres since 1986 was due entirely to annexation or if commercial growth occurred. Graph 7 illustrates the number of acres improved for commercial use each year from 1986 to 2008. It appears that actual commercial growth did occur. A total of 89.4 acres were developed for commercial use during this time period in the Townsend area. A large number of acres were development for commercial use in 1994.

Graph 7
Commercial Land Use Improvements 1986-2008
Townsend, Tennessee



Source: Local Planning Assistance Office

Public and Semi-Public

Public and semi-public uses include recreational, cultural, educational, and other similar uses. An addition of a post office, parks, Great Smoky Mountains Heritage Center, and a new elementary school has occurred since the previous land use plan. The category currently comprises 44.4 acres of the total land area.

Townsend has a unique relationship with its public and semi-public uses. The Little River Railroad Museum, the Great Smoky Mountains Heritage Center, the Townsend Visitor's Center,

and others reinforce the motto of Townsend as the “Peaceful Side of the Smokies.” Business owners and local leaders place an importance on preserving Townsend and offering education on traditional ways of life in the “Cove.” The growth of these cultural uses may possibly strengthen the retail businesses that are dedicated to traditional arts and crafts by displaying products that may be found in retail locations and offering demonstrations by local artists. These sites along with commercial sites host festivals that draw tourist and local residents to the city.

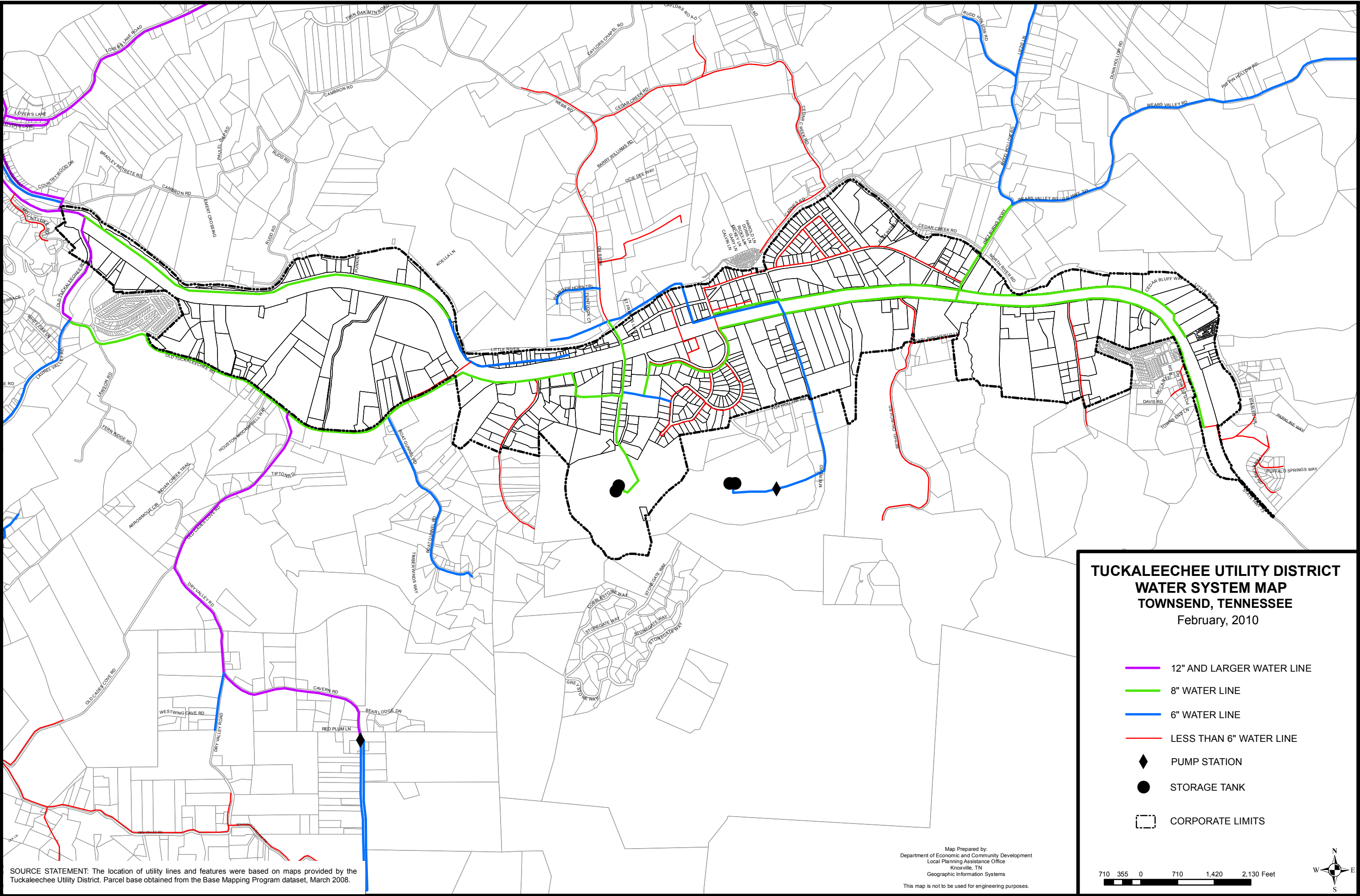
Utilities

Utilities include land on which utility structures or facilities are located. This group includes water tanks, electrical substations, and telephone switching stations. They comprise 3.2 acres in Townsend. The City of Townsend does not provide any utilities and a public sewer system is not available. Both the Sevier County Electric System and the City of Alcoa’s Electric Department supply electric service, and the Tuckaleechee Utility District provides water throughout the entire cove. Along the commercial corridor, the business district is served by an eight inch water line. However, most of the residences are served by a water line less than six inches in diameter, which is the minimum size of water line necessary for fire protection. Illustration 7 displays the locations and sizes of water lines and other components of the water system in the City of Townsend.

The subdivision regulations require approval by the Tuckaleechee Utility District for the installation of water lines and connections to the existing water system. The installed water lines must be capable of providing fire protection. Either community or individual sewerage systems may be used for subsurface sewage disposal. A developer must provide the evidence of approval by the appropriate agency before approval of a subdivision plat or site plan.

Transportation Rights of Way

Rights of ways comprise 17 percent of the total land area and 24 percent of the developed land area. Transportation acres have increased little in the previous 23 years. This small increase was expected due to the large right of way through the town and the insignificant growth of parcels not already served by a right of way. Highway 321/73 occupies approximately 184 acres, 85 percent of this category. More intensive uses should either have frontage along the highway or an access to the highway. Strategically locating these uses will decrease the amount of traffic congestion and maintenance costs on local streets. If the transportation policies within this plan are implemented, then right of ways will probably increase little over the next ten years.



Developed Land

Parcels that have an improvement are considered developed land. The amount of land developed within the city currently totals 68 percent. Table 11 provides the amount of developed acres among each land use category for both 1986 and 2009.

Table 11
Changes in Developed Acres: 1986 and 2009
City of Townsend

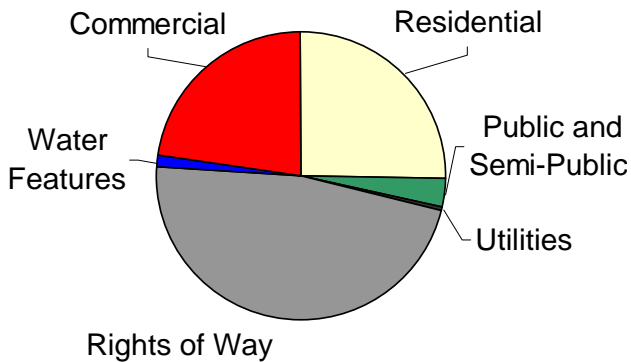
| | 2009 Data | | 1986 Data | |
|----------------------------------|--------------|----------------------------|---------------|----------------------------|
| | Acres | Percent of Developed Acres | Acres | Percent of Developed Acres |
| Residential | 427.4 | 46.9 | 113.60 | 25.8 |
| Commercial..... | 219.9 | 24.1 | 101.50 | 23.0 |
| Public/Semi-public..... | 44.4 | 4.9 | 14.80 | 3.4 |
| Utilities..... | 3.2 | 0.4 | 1.20 | 0.23 |
| Water..... | 6.4 | 0.7 | 6.20 | 1.4 |
| Road/Rail ROW..... | 216.9 | 23.8 | 209.70 | 47.6 |
| Total Developed Land..... | 911.8 | 100.0 | 440.80 | 100.0 |

Source: Local Planning Assistance Office

Graphs 8 and 9 illustrate the overall composition of developed land within the city as reported in the land use inventory completed in both 1986 and 2009. During the time period, the amount of acres within the city increased by 47 percent and the amount of developed acres increased by 107 percent. The CASS data provided for residential and commercial uses in previous sections, supports the assumption that not only has Townsend annexed improved parcels but that many improvements have been made since the previous land use inventory in 1986.

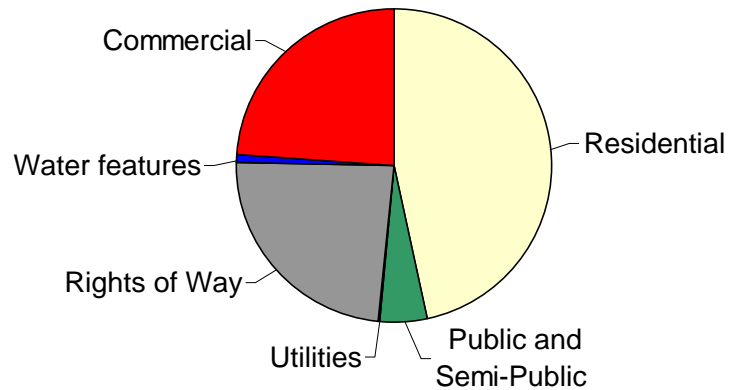
Graph 8

**1986 Developed Land Area
City of Townsend**



Graph 9

**2009 Developed Land Area
City of Townsend**



Source: Local Planning Assistance Office

Vacant Land

As development increases in the city, vacant land decreases. The availability of vacant land determines the amount of land for future development, the importance of redevelopment of blighted property, and the potential loss of open space and public space. As previously stated, the land use model coded non-vacant land as any parcel with a structure. However, some vacant land might have a structure but with an improvement value low enough to classify the parcel as vacant. The availability of vacant parcels may change by the subdivision of large vacant parcels or residential structures divided from acreage.

The percentage of land classified as vacant has decreased from 49 percent of the total land area in 1986 to 28 percent of the current total land area. Currently, 365 acres are vacant but of those acres 98 are constrained. Land with environmental limitations or land protected by a trust qualifies as constrained vacant land. Land trusts generally prohibit any intensive development, so the 13.9 acres recently placed in a trust is classified as an agricultural use. Environmentally restricted land is classified as land in a flood hazard area or with slopes greater than 15 percent. Further restrictions from land use controls apply to the development of vacant land.

Unconstrained vacant land currently totals 267 acres. If residential and commercial development occurs at the same rate over the next 24 years as the previous ones and no subdivision of large tracts occurs, then the only remaining land for other land uses, including vacant, would total 63.6 acres.

Unconstrained Vacant Land by Zoning District

The amount of unconstrained vacant land by zoning district indicates the amount of land available for future uses based on current conditions. Table 12 lists the current zoning districts in Townsend and the amount of unconstrained vacant land in each. An analysis of the unconstrained vacant land by zoning district provides the city with the amount of future land available for specific uses.

Currently, residential zones appear to accommodate future residential land use needs during the 10 year planning period; however, a mix of housing choices is not available. The increasing number of elderly persons may affect the demand for denser development. At this time, no land zoned for multifamily or condominium housing is available.

Land available for residential dwellings totals 215 acres. Current density appears to be approximately .94 units per acre. If the residential development continues at the density level, the residential districts can accommodate an additional 228 units. Assuming the average household size remains at 1.97, an additional 451 persons may be accommodated. If residential development continues at the same density as the last few years, then development will most likely become more compact and support an even larger population.

The amount of available commercial acreage appears to be limited. A total of 66.1 vacant acres is available for new commercial development. For comparison, 89.4 acres was developed within the current municipal limits from 1986 to 2008. If no redevelopment of current commercial property occurs, then the city would be nearing the end of available commercial areas at the end of the 10 year planning period. Additionally, any public or semi public uses may also use this land.

If Townsend wishes to protect open space, preserve vistas, and offer public access to areas with wildlife habitat, scenic value, cultural importance, and recreational opportunities, then a plan for coordinating both public and private investment must be created to optimize remaining vacant land.

Table 12
Unconstrained Land by Zoning District: February 2009
City of Townsend

| Zone | Allowed Uses | Available Non-constrained Vacant Acres | Percent of Non-constrained vacant acres |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|
| R-1 | <ul style="list-style-type: none"> ▪ Tourist residences, ▪ public buildings, ▪ single family residences excluding mobile homes ▪ general farming, ▪ customary accessory buildings, and ▪ customary home occupations. | 198.8 | 71 |
| R-1E | <ul style="list-style-type: none"> ▪ Single family residences excluding mobile homes, ▪ general farming, ▪ customary accessory buildings, and ▪ customary home occupations. | 16.2 | 6 |
| R-2 | <ul style="list-style-type: none"> ▪ Tourist residences, ▪ public buildings, ▪ single family residences except for mobile homes, ▪ general farming, ▪ customary accessory buildings, ▪ customary home occupations, ▪ mobile home parks, ▪ apartment buildings, and ▪ conditional uses- day care centers and boarding houses. | 0 | 0 |
| B-1 | <ul style="list-style-type: none"> ▪ Businesses except for industrial uses, ▪ public and semi-public uses, ▪ tourist residences, and ▪ parks. | 66.1 | 23 |

Source: Local Planning Assistance

Transportation System

The transportation system and land use within a city must be viewed as complementary to one another rather than two separate entities. Improved or new transportation routes can encourage development and sometimes the intensity of land uses can create a need for improved routes. In Townsend, the widening of State Highway 321/73 that traverses the city has allowed for both present and future traffic demands. If necessary, the highway may be expanded if traffic counts rise beyond its current capacity. Currently, Townsend does not have an issue with traffic congestion even though it serves as a gateway to the Great Smoky Mountains National Park. No transportation improvement projects are currently scheduled to be completed during the planning period.

Transportation right of ways consist of 216.6 acres, or 17 percent of the total land area and 24 percent of the developed land area. State Highway 321/73 occupies the majority of this land use. The Tennessee Department of Transportation has reserved some of the right of way for future expansion. The highway has a large amount of green space on either side of it with sidewalks for most of its length inside the city limits.

The Major Road Plan shown on Illustration 8 classifies the roads within Townsend as major arterial, collector, or local streets. Arterial streets may carry large amounts of traffic and all developments generating a large volume of traffic must provide access to these roads to reduce congestion and traffic hazards. US Highway 321, known as East Lamar Alexander Parkway, and Wears Valley Road, and State Highway 73 are the major arterial streets within Townsend. Collector streets carry traffic from service streets to arterials. These include a portion of Old Highway 73, Webb Road, Chestnut Hill Road, and a small portion of Tuckaleechee Road on the west side of town. Service streets should be primarily used for accessing individual properties and may be dead-end, loop, or cul-de-sac streets.

The pavement and right of way width of roads in the city varies from 18 to 26 feet and 30 to 60 feet, respectively. Widths not only vary among roads, but also vary from section to section on some roads. For example, pavement width on Old Highway 73 varies anywhere from 18 to 20 feet with no shoulders and from 30 to 60 feet of right of way. Sections of any road that are no wider than 18 feet with no shoulders present hazardous conditions, and subdivision of land on such portions of road should be limited. Without limitations, the capacity of the road to safely carry traffic will decline as more vehicles use the road.

Although Townsend's Subdivision Regulations and Zoning Ordinances provide guidelines for development by the road classification, no stipulations regarding the affect of traffic generated by a proposed use or subdivision on roads exists. Large traffic generators should not be located on sub-standard roads that do not provide adequate pavement widths and/or shoulders. Safety concerns and potential fiscal burdens on the city should deter the planning commission from approving developments without adequate transportation infrastructure. As part of a capital improvement plan, a road improvement schedule would ensure the improvement of substandard roads in a timely and efficient manner for both existing and future residents.

Automobile Traffic Circulation Patterns

Traffic generally moves along Highway 321/73 within the city limits, but traffic counts taken at different points may show emerging trends. Since Townsend is a gateway community, traffic patterns beyond the city limits are of particular use to planning road expansions and mitigating potential hazardous road conditions. According to the 2008 traffic counts provided by the Tennessee Department of Transportation (TDOT), the most traveled entrance into Townsend is by Lamar Alexander Parkway (Highway 321/73) from Maryville; however, Wears Valley Road (Highway 321/73) is increasingly used as an ingress/egress route. Increasing use of Wears Valley Road may lead to hazardous traffic conditions, because it is a two lane highway with hazardous curves and deep gulches. The traffic station located on Scenic Highway 73 closest to the Great Smoky Mountains National Park declined sharply from 2002 to 2003 and has continued to be the least traveled route through the city. Illustration 9 and Graph 10 provide the location of the TDOT traffic counters and the counts from 1998-2008.

According to the Knoxville Regional Transportation Planning Organization (TPO), future traffic volumes in Townsend should not cause congestions on its roads.²⁵ However, a comparison between the projections and current traffic counts shows that traffic volumes may be increasing faster than predicted. In the TPO's Regional Transportation Alternatives Plan, traffic volumes for traffic station one and three are projected in ten year increments from 2010 to 2030. The base year data was taken in 1999. Although the traffic count has steadily increased for traffic station one west of the city, it appears that the station will not reach the projected amount of traffic at its current rate. However, traffic counts at station three located on Wears Valley Road reached the projected 2010 volume in 2003. Counts have fluxuated over the ten year period, but the volume has steadily increased. The projected traffic volume for 2020 is 6,898 for the average daily traffic. Traffic counts are quickly approaching that number and will most likely reach the projected volume in the near future. The completion of the currently segmented Foothills Parkway might divert some of the traffic currently traversing the city. The purpose of the parkway is to provide scenic vistas of the Great Smoky Mountains and to disperse traffic. The current portion under construction would connect Wears Valley Road and Lamar Alexander Parkway forming a bypass around the city.²⁶

Access management is an important aspect of the circulation pattern in Townsend. Highway 321/73 is a major corridor and most of land fronting this corridor lies in the General Business District. High traffic volume, a minimum lot frontage of 40 feet, and the number of business directly accessed from the highway could potentially cause a number of conflicts. Additionally, the comfort level of pedestrians using the bike path may be diminished by uncontrolled access cuts. Access to each lot is regulated by both TDOT and the city on Highway 321 (Wears Valley Road and Lamar Alexander Parkway). The minimum distances from an intersection and property line for all road classifications are displayed in Table 13.

Table 13
Access Control Requirements

| Townsend Access Control | | | |
|--------------------------------|---------------------------------------------------|----------------------------------------------------|--------------------------|
| Road Classification | Minimum Distance from Access to Intersection (ft) | Minimum Distance from Access to Property Line (ft) | Width of Access Min/Max* |
| Major Arterial | 125 | 40 | 20/40 15/30 |
| Collector | 100 | 30 | 10/25 15/30 |
| Local Street | 25 | - | 10/25 |
| TDOT Access Control | | | |
| Highway 321/73 | 100 | 12.5 | 24/40 |

Adapted by the Local Planning Assistance Office

* Townsend's requirements on based on the use of the property. Uses were assigned to the street classification where they are most likely to be located.

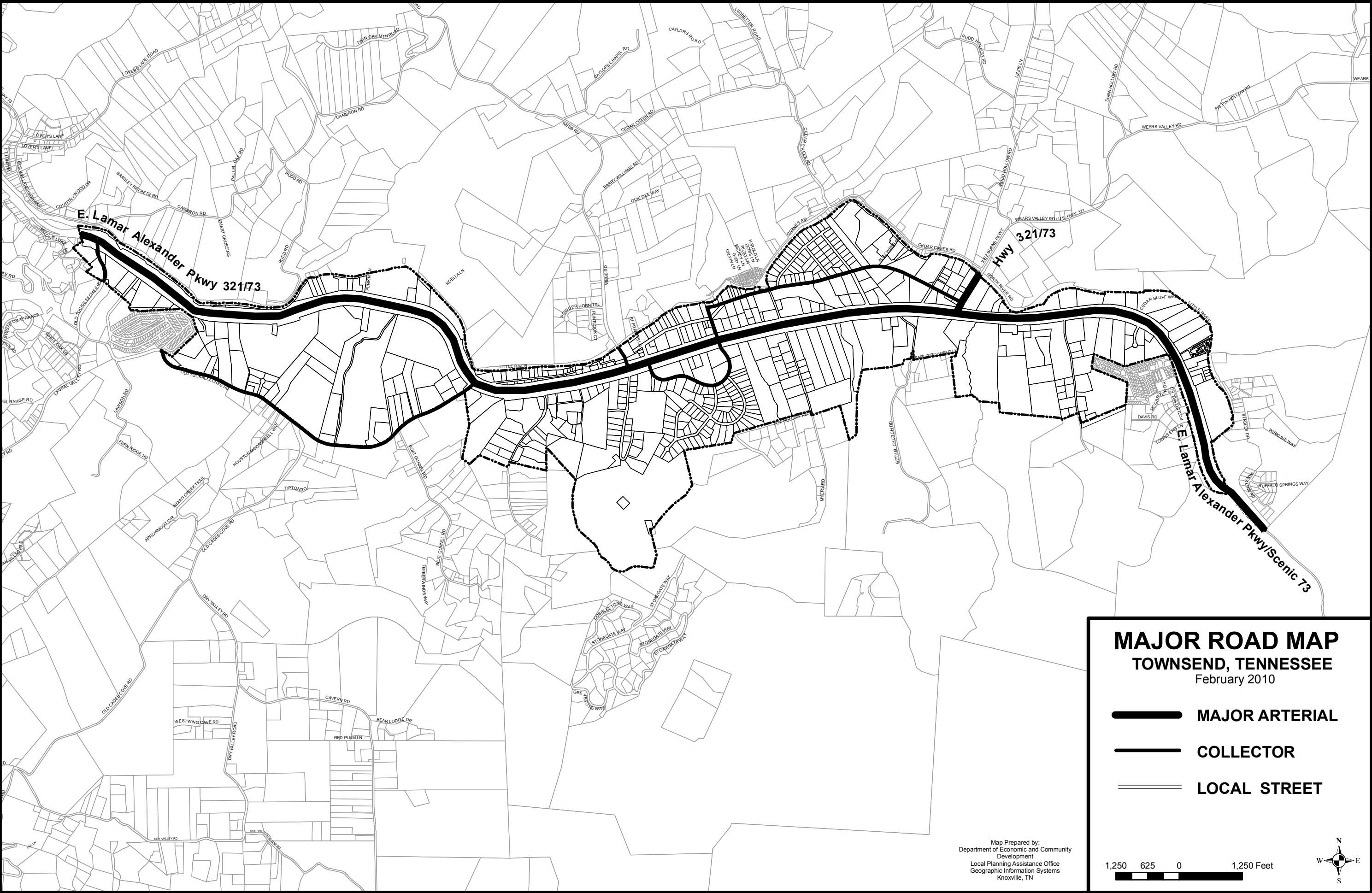


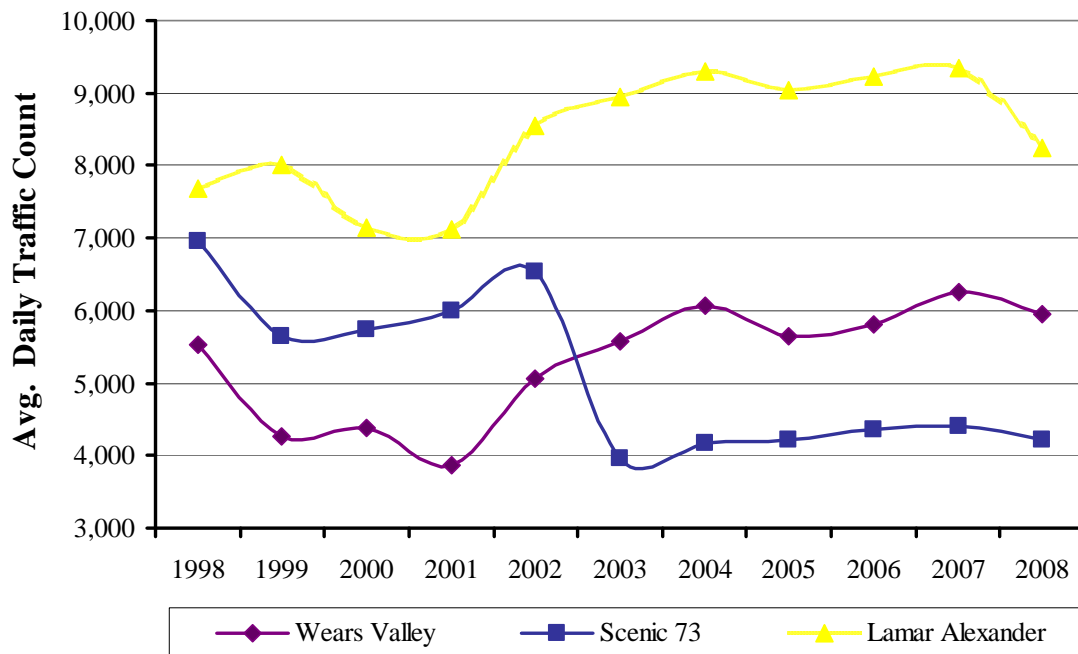
ILLUSTRATION 8

Illustration 9
Townsend Area Traffic Counts



Source: Traffic count data was obtained from the 2008 Tennessee Department of Transportation Annual Average Daily Traffic Counts

Graph 10
Townsend Area Traffic Counts 1998 – 2008



Adapted from the 2008 Tennessee Department of Transportation Annual Average Daily Traffic Map

Most of the largest trip generators have an access point to Highway 321/73; however, Townsend Elementary School and the Townsend Municipal Building only have access to local roads - Chestnut Hills Road and Mountain Avenue. The distance from Highway 321/73 is minimal and traffic peaks around the beginning and end of the school day. Residential areas within the municipal limits remain concentrated around the Chestnut Hills and the Riverview areas and are served by Chestnut Hills Road and Old Highway 73.

Non-automobile Circulation patterns

A path for biking and walking traverses almost the entire length of the corporate limits moving from east to west. Although the path provides a safe alternative to the automobile for the commercial districts, connections to concentrated residential areas have not been provided. Future residential development should provide adequate connections to this existing path. Although hard surface connections would be costly, alternative paths that provide dedicated right of ways or easements through side or back property lines might encourage residents to use the path to connect to the existing pathways. Since the population trend points to an increase of those 65 or older, land use regulations should allow and encourage alternative modes of transportation, so this age cohort may continue to enjoy a high quality of life independent of the automobile.

Conclusion

The following issues will be addressed in the policies according to information in this chapter: the growth of single-family residential uses, the increase cost of housing, the lack of vacant land zoned for multi-family residential uses, the loss of open space to development, the decline in vacant land, and the suitability and location of infrastructure. This chapter built on information provided in the two previous chapters and should provide guidance for the formation of the land use objectives and policies. Natural features identified in chapter two provided the parameters for determining environmental constraints on vacant land. The trends identified and the conclusions reached in chapter three identified future land use needs and guided the land use analysis for this chapter. The conclusions reached in this chapter guided the formation of land use policies in the next chapter.

Single-family residential uses now cover a significant portion of the total area. Population projections that do not include annexation areas and use of single-family dwellings for overnight rentals complicate the calculation of future dwelling needs. Instead of calculating the number of dwellings necessary based on population, the number of dwelling units that may be accommodated by unconstrained vacant land was calculated. This number assumes that development will occur at current density rates and be limited by the dependence on subsurface sewage disposal systems. The amount of land available for residential dwellings is more than enough to accommodate growth in the next 10 years. However, the city lacks housing choices. The private sector has already begun to offer more diverse housing choices; however, the city will need to amend its current regulations to allow for additional multi-family developments.

From 1986 to 2008, the amount of acres improved totaled 89.6 acres for commercial use and 110 acres for residential use. Currently, 66.1 acres are available for commercial development. The

rate of land consumption for this use may not be a concern for the 10 year planning period; however, commercial land may not be available during the next planning period. The majority of individual commercial developments within the city require little acreage. The predominant tourist-oriented businesses are usually found in unified developments or located in close proximity to other similar businesses.

An attempt to reduce the amount of vehicle miles traveled to and from Townsend should be considered for future land use decisions. In the summary of findings in Chapter 3, housing affordability was identified as an issue that should be addressed within Townsend. Generally, a retail or hospitality employee who earns around minimum wage according the Bureau of Labor must commute to Townsend for work. On the other hand, those who may afford housing costs in the city may commute from Townsend to a city with a more diverse employment base. These commuting patterns can become burdensome on employees as gas prices rise. Prices have fluxuated in recent years to the point of nearly reaching five dollars per gallon. Since prices are erratic and wages have remained steady, high gas prices can greatly affect those in Townsend's workforce that must drive further distances to find affordable housing. Reducing the amount of vehicle miles traveled within the city should be a priority for not only the city but also developers, retail shop owners, employers, and citizens. Although personal choice is involved, the city may encourage reduced trips in automobiles by requiring connections to neighborhoods, affordable housing choices, stores supplying daily needs, employment centers, and public and semi-public land uses. The connections between uses may be managed by controlled accesses that reduce the amount of conflicts among automobiles and between automobiles and pedestrians.

Land use patterns in the future should follow historical patterns; however, the introduction of a sanitary sewer system would most likely cause some deviation. Depending on the type of system, density within the city could increase. If this occurs, then Townsend might feel pressure to develop more intensely. Regardless, the subdivision regulations and zoning regulations will guide much of the future development that occurs on this vacant land. "The Development Plan" chapter will provide the city with policies and implementation options based on the findings in this land use plan and best practices in planning programs. The planning commission may choose to amend existing land use controls based on the findings in this plan.

Chapter 5

Development Plan

An effective planning program provides decision makers with the information and guidelines to make informed, intelligent decisions that result in a unified and livable development pattern. Planning provides a city with systemic, decision-making tools that may be used in multiple functions such as commercial and residential development, schools, stormwater, roads, and sustainable environmental management. The development plan provides policies and implementation options for ensuring that the city remains a livable environment balancing the needs and wants of those who live, work, and play in Townsend. The utilization of the plan by the Townsend Board of Commissioners and its duly appointed commissions, boards, committees, and authorities, and by private sector groups provides a reference for rational decision-making based on careful analysis. Development without the plan can bring about uncertainty in future projects and cause programs to be implemented that are not suited for the community needs or assets and likely wasteful of limited resources.

The formation of these objectives and policies were derived from findings within this plan, best practices in planning, and a series of community workshops. During the workshops, community members were invited to share how they would like to see the city develop. Surveys and drafts of the subsequent formation of objectives and policies were made available on the Townsend government website and in the municipal building.

Assumptions

The plan contains general assumptions based on the information provided, objectives based on community input, and policies that provide general guidelines for the implementation of the updated planning program. The goals and policies build upon the basic assumptions, so any change in basic assumptions might necessitate a revision of the affected objectives and policies. The following are the basic assumptions derived from the information provided in this report and input from the Townsend Planning Commission.

1. Townsend will continue to see a rise in the population of persons age 65 and older. The demands of this cohort will be different than previous residents with a desire for more multi-family housing and closer proximity to goods and services.
2. Single-family housing will continue to hold the greatest share of residential land uses.
3. Per capita income will continue to increase at a faster rate than the nation, state, and county. From 1990 to 2000, the per capita income of Townsend's residents has increased at twice the rate of Blount County, Tennessee, and the United States.

4. Townsend, as a Gateway Community to the Great Smoky Mountains National Park, will work closely with the National Park Service and the Tennessee Department of Transportation to accommodate the traffic flowing through the city.
5. The tourism industry, especially tourist accommodations/restaurants, recreation/entertainment, retail, and real estate/rental establishments, will dominate the economic base in the city.
6. Tourist-oriented retail trade will continue to increase through the addition of small businesses that sell hand-crafted goods, local art, and convenience items.
7. Until the City of Townsend is served by a public sewer system, the density of development will be limited.
8. Townsend's proximity to the Little River and focus on water quality issues within Blount County will support stricter regulations for the preservation of the county's drinking water supply.
9. The community will support measures that enhance the character of Townsend as the "Peaceful Side of the Smokies."
10. Development within Townsend will reinforce the theme of Townsend as the "Peaceful Side of the Smokies."
11. Implementation of the plan, will support the city's measures to develop in a logically, planned manner so that citizens can continue to live in an aesthetically pleasing environment.
12. The City of Townsend will work cooperatively with Blount County to develop and implement a Green Infrastructure Plan.

Objectives and Policies

Objectives are specific, measurable statements formed by community input. Policies represent rules or courses of action that will allow the city to obtain the objectives of the plan. The objectives and policies contained in this document represent the public policy guidelines concerning land use and transportation matters. The policies are presented as guidelines to be followed by developers, builders, neighborhood groups, civic organizations, and other private and public interests engaged and concerned about growth and development in the community. The policies are also presented so that interested individuals and groups can better anticipate the City's decisions on future matters. Policies and objectives for both general development and particular land use categories are provided in the following sections.

General Development and Growth Management Objectives

The citizens of Townsend have strived to maintain the image of the city as the “Peaceful Side of the Smokies.” The city must balance this desire along with the inevitable growth that accompanies its location as a gateway community to the GSMNP and its visitors. The costs and benefits of continued growth have emerged as public issues. There is often hesitation over accommodating future development with its consequences of increased costs for residential services, economic expansion, rapid consumption of land, and alteration of the natural environment. However, most cities understand that growth is necessary for long-term viability and most encourage growth to varying extents.

The general development and growth management objectives provide guidelines for encouraging development that provides economic benefits for those undertaking the risk to begin or expand business ventures in the community and at the same time ensuring that the entire community does not pay for any external costs of that development. Development by both private and public entities should result in a livable community for all citizens of Townsend.

Objective: Protect the function and inherent integrity of the natural environment by implementing measures to minimize the adverse impacts of development to soils, slopes, vegetation, wetlands, and other natural features.

Policies

1. All pre- and post-development permits should be obtained at the appropriate development stage.
2. A drainage plan should be submitted for all developments to ensure that pre-development run-off discharge rates are equal to or less than post-development rates, flood risks within the drainage basin are minimized, water quality is not compromised, and drainage patterns are not altered.
3. Increased canopy cover can decrease the amount of water run-off on a site; therefore, a policy to encourage preservation, replacement, and establishment of trees during the development process is encouraged.
4. All topsoil should be set aside during any development of a site and later used on the same site.
5. Natural features should be preserved and if possible enhanced on any development site. Mature trees and vegetation should be retained and marked as such during the construction process.

6. The city shall develop appropriate criteria or measures to ensure the protection of its natural resources, environmentally-sensitive areas, and other valuable areas.

Objective: Townsend should continue to develop its unique sense of place by preserving its character as a rural mountain town.

Policies

1. Development regulations should be amended to include minimum landscaping requirements, which should include standards for deciduous trees and native plants.
2. Maintain a limited building height in the city to preserve vistas of the surrounding areas.
3. Promote open space where possible.
4. The city should consider the institution of a design review commission to ensure that site and architectural design reflect an appropriate rural mountain theme.

Objective: Each development proposal should be scrutinized for its potential impact on the natural environment, existing infrastructure, scenic views, and quality of life on current and future residents of Townsend.

Policies

1. Where it appears that unsuitable conditions exist, the potential developer shall have the responsibility for undertaking the necessary studies to prove the feasibility of the land to support the proposed development.
2. Areas of excessive slope should be conserved as open space if development would cause soil and/or water degradation.
3. Areas with slopes in excess of twenty-five percent should only be developed where engineering documentation is available to prove that no adverse affects will occur to housing construction, road stability, drainage, and erosion.
4. All development should be visually unobtrusive in the landscape.

General Development and Growth Management Implementation Strategies

| Implementation Strategy | Responsibility | Planning Document/ LU Control | Comments |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adopt a landscaping ordinance that requires tree preservation and planting | Planning Commission, Board of Commissioners | Zoning Ordinance, Municipal Ordinance | The requirement would increase canopy cover in the city. The planting of evergreens should be encourage to reduce run-off rates during the spring. |
| Development regulations should include topsoil conservation and preservation of natural features | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | Minimal disruption to natural drainage patterns and natural systems can reduce stormwater runoff and minimize public expenditures for natural disasters. |
| A design review commission should be established | Board of Commissioners | Municipal Ordinance | Appropriate guidelines should be identified by both the community and professionals. Then the commission may be established according to TCA 6-54-133. |
| Developments should conduct land suitability analysis | Planning Commission | Zoning Ordinance, Subdivision Regulations | The analysis should identify water bodies, slopes, tree stands, and all other natural features. |
| Parking areas should adapt to the natural environment and the transportation circulation system | Planning Commission, Board of Commissioners | Zoning Ordinance | Parking areas should not be the most prominent features in the landscape or obstruct circulation. |
| Both pre-and post-development permits should be required | Board of Commissioners, Building Inspector | Municipal Ordinance, Zoning Ordinance, Subdivision Regulations | Development of land that is restricted by natural features such as slope should require a post development permit stamped by the appropriate professional |

Residential Land Use Policies

Residential land uses comprise 427 acres or 33 percent of the total area in Townsend. An adequate amount of land is available in current residential zoning districts to accommodate dwelling units for a permanent population during the planning period. Findings from previous chapters stated that a greater mix of housing choices will be needed in the future to provide affordable dwelling units and to meet the demands of an aging population. The use of single family residences for overnight rentals is a unique aspect of Townsend's residential land use needs.

Objective: Provide for a variety of housing types and densities for a wide range of family incomes, sizes, and lifestyles.

Policies

1. Townsend should encourage an expansion of the affordable housing stock to mitigate potential negative impacts of a growing gap between household income and housing costs.
2. Artist live/work spaces should be encouraged in developments that highlight or retail their work.
3. The city encourages the development of multi-family and condominium units where appropriate physical conditions and infrastructure exist.

Objective: Residential developments should not increase any strain on existing public services and transportation systems or adversely impact the public health, safety, morals, convenience, order, prosperity, and general welfare of existing or future residents.

Policies

1. Multi-family or high-density residential developments should be located near existing goods and services. These developments can also be used as buffers between low-density residential and commercial areas.
2. All residential developments should have internal circulation systems and pedestrian connections to existing sidewalks.
3. No lot within the city shall be less than 20,000 square feet if served by a sub-surface disposal system. Lots served by an approved advanced treatment system must follow the requirements set forth in all applicable federal, state, and local requirements.
4. Townsend should adopt regulations limiting the visual impact of developments on higher elevations seen by those in the "Valley."

Objective: Residential development should be prohibited or appropriately erected on land subject to topographical conditions, flood hazards, or other natural restrictions.

Policies

1. The building permit should require the appropriate stamp(s) by a certified engineer and/or surveyor when hazardous conditions exist on the home site.
2. A letter shall be submitted to the building inspector certifying that all improvements were made as intended by the appropriate certified engineer or surveyor.
3. All structures built within the flood hazard area shall abide by the Flood Damage Prevention Ordinance.

| <i>Implementation Strategies for Residential Land Use Policies</i> | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Implementation Strategy | Responsibility | Planning Document/ Land Use Control | Comments |
| Mixed Use Developments should be allowed and encouraged | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | Mixed Use Developments promote pedestrian activity and access to goods for residents |
| Residential dwellings should be allowed above retail shops | Planning Commission, Board of Commissioners | Zoning Ordinance | May provide owner with flexible financing options and a 24 hour on-premise presence at the store |
| Higher density development should have some form of a pedestrian connection and be placed near goods and services | Planning Commission, Board of Commissioners | Zoning Ordinance | Decreases the need for the automobile and provides housing for those who cannot or do not want to drive |
| Initiate a housing study focused on issues related to affordable/workforce units, seasonal housing, and diversified housing choices | Planning Commission | Housing Study | This study should highlight housing trends and offer suggestions for ensuring that housing is affordable for both long-time and new residents |
| Dwellings located on constrained land require building permits to have post-built certification by engineer | Board of Commissioners, Building Inspector | Building Permit Municipal Code | Development on constrained land has the potential to affect the entire community, so a safeguard should be established to ensure that the development was built accordingly |
| New Developments require pedestrian connections to existing pedestrian transportation system | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | The existing sidewalk needs to be used to its highest potential. Either sidewalks or alternative pedestrian connections should be provided to encourage pedestrian traffic |
| Require screening of housing above certain elevations | Planning Commission, Board of Commissioners | Zoning | Townsend's economic prosperity relies on tourism traffic attracted by the natural beauty of the area |
| Adopt ordinance with conservation design subdivision requirements | Planning Commission | Subdivision Regulations | This design encourages open space contiguous to other open space or natural areas and reduces stormwater runoff by limiting impervious surfaces |

Commercial Land Use Policies

Townsend's commercial district lies along the Highway 321/73 corridor. The majority of businesses cater to the tourism industry offering accommodations, restaurants, retail, and recreation. Land dedicated to commercial use has increased mainly due to the growth of these businesses. No large industrial businesses exist, so the economic well-being of Townsend depends on the tourism-related economy. From 1986 to 2008, the amount of acres improved for commercial use nearly equaled that of residential use. Commercial development in Townsend must balance the opportunity for growth and the natural environment.

Objective: Any development or redevelopment should be aesthetically-pleasing and harmonize with the rural character of Townsend.

Policies

1. Alternatives to strip commercial malls and similar land-consuming developments should be encouraged in the city.
2. Cluster developments such as Planned Unit Developments should be encouraged in a way that limits ingress and egress points.
3. The use of open space and appropriate building height should be included to maximize the surrounding viewshed.
4. All commercial developments shall be designed in compliance with appropriate site development standards.
5. The Mayor and Board of Commissioners should appoint a Design Review Commission as enabled by TCA § 6-54-133 to ensure that new developments conform with the rural mountain theme of the city.
6. Commercial developments should enhance not detract from the aesthetical qualities of the community. Screening and buffering with natural colors and/or native landscaping is desired.
7. Landscaping shall be located along public boundaries of the site, within parking areas, around buildings, and at building entries to create a sense of natural surroundings to the structure.
8. Nuisance screening for loading areas, dumpsters, utility boxes, detention ponds, and any other unsightly objects should be utilized.

Objective: Mixed Use District(s) should be allowed within the City of Townsend.

Policies

1. The Zoning Regulations should specify the various uses allowed in each mixed use district.
2. A detailed set of stipulations for the application of the zone should be developed for each district.
3. These districts should allow a mix of commercial and residential units in the same development.
4. Live/work units for the local arts and crafts community are encouraged.
5. The district should enhance the use of alternative transportation modes by requiring the appropriate mix of internal pedestrian, bicycle, and low to medium speed motorized vehicles within the district and connecting to the existing transportation system.

Objective: Commercial development should not negatively impact existing development or put undue strain on services provided by the city.

Policies

1. All proposed developments should be located and accessed on roadways designed to carry the expected daily car loads of both existing and proposed developments.
2. All proposed developments should minimize negative impacts to the existing transportation system.
3. All proposed developments should be served by adequate infrastructure connections capable of supporting the development.
4. Parking lots should be designed according to those policies established by the City of Townsend.

Implementation Strategies for Commercial Land Use Policies

| Implementation Strategy | Responsibility | Planning Document/ Land Use Control | Comments |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mixed Use Developments should be allowed and encouraged | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | Mixed Use Developments promote pedestrian activity and access to goods for residents |
| Site plans should be flexible enough to promote environmentally sustainable site planning | Planning Commission, Board of Commissioners | Zoning Ordinance | The site plan should conserve open space networks, mature existing tree stands, steep slopes, floodplains, priority wildlife habitats, and significant natural features |
| Initiate a green infrastructure study that highlights Townsend's ecological, wildlife, cultural, and environmental features | Planning Commission | Green Infrastructure Study | The study provides plans for maintaining, repairing, and improving the natural system within Townsend and beyond. |
| Amend parking regulations to require the least amount of visual and environmental impact possible | Planning Commission, Board of Commissioners | Zoning Ordinance | A variety of methods should be used to screen parking lots and limit their impact on the environment including landscaping, screening, berms, and bioswales. |
| New developments that do not access Hwy 321/73 should not be placed on substandard roads | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | The developer should provide an estimate of the amount of daily trips generated by the proposed use. If the road cannot bear the extra trips then it should be brought up to the standards provided in the subdivision regulations. |

Public, Semi-public, Open Space, and Recreational Land Use Policies

Even though these public and semi-public facilities usually only consume a relatively small percent of an area's total development, these facilities are extremely important land uses within a community. These uses should be convenient to the population and enhance the community's appearance, while at the same time creating the least possible conflict with adjacent land uses.

During the site design process for public and semi-public facilities, particular attention should be paid to the following items: the location of buildings in relation to parking and service areas, the relationship of buildings to existing and proposed streets, adjoining land uses, and the natural beauty of surrounding areas.

Open Space is an area in public ownership or control intended for a specific purpose or it may be there to enhance the general aesthetic quality of the community. Open spaces permit either visual or physical access. They include, but are not limited to, parks, general recreation areas, water bodies, areas too steep for construction, large institutional sites, floodplains, historic sites, scenic routes or sites, and wildlife refuge. Townsend's dependence on its beauty and rural character for attracting tourism makes vacant land and open space all the more valuable.

Objective: For the enjoyment of its citizens and visitors and for the preservation of scenic vistas, Townsend should create a plan for recreation and open space acquisition and/or preservation.

Policies

1. Priority for any public resource expenditures shall be given to areas that provide access to cultural and natural resources.
2. An inventory of all publicly-owned land should be first analyzed to see if any additional recreational uses would be compatible on the existing public property.
3. This plan should include both passive and active recreational opportunities.
4. Attention should be paid to kid-friendly facilities accessible by nearby neighborhoods and/or semi-public and public buildings.
5. Townsend should consider preserving public land and/or acquiring land within officially designated floodways for a recreation or open space program.

Objective: A plan should be developed for the preservation and restoration of historical sites and structures within the planning area.

Policies

1. Construction, rehabilitation, and restoration shall be controlled through encouragement of individuals and historical groups.
2. Historical buildings and sites should, where possible, be adapted for present day uses. Open space areas of historical importance should also be maintained and integrated into Townsend's recreational and open space program.

Objective: Provide safe public access along the Little River.

Policies

1. Public access to the river should be systematically connected when possible to provide for an uninterrupted pathway along the river.
2. When possible, the city should develop or encourage the development of a park by the river with appropriate public facilities where residents and visitors can enjoy water-related activities.

Objective: To maintain the rural character of Townsend and maximize the surrounding viewsheds, open space is encouraged in the city.

Policies

1. Both residential and commercial developments should include dedicated open space.
2. When possible, open space should be contiguous to other areas of open space either on the same parcel or adjacent parcels.
3. All publicly-owned land shall be examined for its potential open space or recreational use before being sold or disposed of by the town.
4. Current vacant lands with significant scenic vistas, wildlife corridors and habitats, and water bodies should be conserved or compatible uses encouraged on the site.
5. Townsend should promote the practice of donating land with significant historical significance or scenic vistas to a land conservancy or similar organization.

Objective: Ensure that appropriate standards and guidelines are followed for development of vacant land and for the provision of open space.

Policies

1. Areas of excessive slope should be conserved as open space, when possible, if development would cause significant soil and/or water degradation or where the terrain possesses special scenic or recreational value.
2. If no appropriate alternatives are available, filling and excavation in flood hazard areas shall only occur when compliant with the National Flood Insurance Program Regulations.
3. Townsend should ensure that adequate amounts of open space areas are available for future population.

Objective: Provide a plan for green infrastructure within the City of Townsend.

Policies

1. Townsend should work cooperatively with Blount County for the development of the Green Infrastructure Plan.
2. Areas providing corridors for wildlife and scenic views, of historical and cultural significance, containing prime farmland soils, affecting water quality, and with valuable recreation opportunities should be identified.
3. The city should work cooperatively with Blount County to obtain funds for the preservation, and when possible, acquisition of significant areas identified within the plan.

Implementation Strategies for Public, Semi-Public, Open Space, and Recreational Land Use Policies

| Implementation Strategy | Responsibility | Planning Document/ LU Control | Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prepare a recreation and open space plan | Planning Commission, Board of Commissioners | Recreation and Open Space Plan | A plan would inventory current open space and recreational areas and recommend strategies for connecting the areas to form connections among public, commercial, and residential areas. |
| Prepare a capital improvement plan | Planning Commission, Board of Commissioners | Capital Improvement Plan | The plan would provide monetary strategies to both maintain fiscal health and implement land use policies. |
| Historical houses should be identified and allowed to function as residential structures | Planning Commission, Board of Commissioners | Zoning Ordinance | The loss or degradation of historical houses due to land use policies should not be continued. |
| Areas that provide access to the Little River should take priority in the open space and/or recreation space acquisition | Planning Commission, Board of Commissioners | Capital Improvement Plan | The open space and capital improvements plan could both identify strategic areas and provide guidelines for acquiring public land. |
| Development of both public and private projects should be consistent with an open space or green infrastructure plan | Planning Commission, Board of Commissioners | Zoning Ordinance Subdivision Regulations | This requirement would be one strategy of implementing the open space program. |
| Any open space, buffer zones, or conservation easements should be contiguous to one another | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | Contiguous areas of trees decrease the stormwater run-off rate and non-development areas should be large enough to provide for wildlife habitat |
| A green infrastructure plan should be completed, so critical areas with wildlife habitat, scenic value, cultural importance, and recreational opportunities can be identified | Planning Commission | Green Infrastructure Plan | Once the areas are identified then the city can require new developments to adhere to the plan and contribute to the conservation of Townsend's natural resources and assets. New or redeveloped properties would no longer be disconnected to each other. |

Utilities Land Use Policies

Land Development without the extension of adequate utilities is costly to the general public. The planning commission will most likely make decisions concerning utilities during the subdivision process. It is extremely important to coordinate the provision of utilities with the community's general plan in order to prevent a development from becoming a liability or creating conditions adverse to the safety and health of residents.

Objective: Provide adequate and efficient public utility facilities.

Policies

1. All new development, whether public or private, should have adequate utilities which shall be properly installed at the expense of the developer.
2. The city should monitor the water system to ensure that the system is adequate to meet current and future needs.
3. Future development should encourage the use of underground utilities.
4. A long-range plan for the implementation of a public sewage treatment system should be developed.
5. The town should apply for a grant that would cover the cost of moving utility poles along Highway 321/73 underground.

Objective: Require that the appropriate standards and guidelines for extension and maintenance of utilities are followed.

Policies

1. The use of underground electrical utilities should be required wherever feasible.
2. Use of subsurface sewage disposal systems and alternative sewage treatment systems in Townsend should not compromise the quality of the Little River and other water bodies flowing into the river.
3. The water distribution system should be periodically evaluated to ensure that water lines are of adequate size to provide adequate pressure for fire fighting.
4. Fire hydrants should be present in all developed areas where appropriate water lines are located.

5. Proposed developments shall be required to appropriately locate, install, and size all utilities.
6. The location of utility structures for storage of equipment, pumps, or similar materials should be adequately buffered and landscaped so as not to detract from the surrounding area.

| <i>Utility Land Use Policies Implementation Strategies</i> | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Implementation Strategy | Responsibility | Planning Document/ LU Control | Comments |
| Require fire hydrants in new developments if the area is not currently served or if the new development will necessitate new hydrants | Planning Commission | Subdivision Regulations | All developments should be adequately served by fire protection. A six inch water line is required for fire hydrant installation. |
| All utility structures, including on-site waste treatment systems, should be screened | Planning Commission, Board of Commissioners | Zoning Ordinance, Subdivision Regulations | Specification for screening should be detailed. |
| All utility extensions and expansions shall be approved by the planning commission as established in the state enabling legislation | Planning Commission | Mandatory Referral | Compliance with TCA 13-4-104 requiring planning commission review of public projects. |
| Review the subdivision regulations and revise as necessary to ensure that the appropriate standards for utilities are included | Planning Commission | Subdivision Regulations | The subdivision regulations should conform to the standards or best practices used by utility companies, the city, emergency management agencies, etc. |

Transportation Policies

Commercial land follows along Lamar Alexander Parkway. Since businesses in Townsend are generally tourist-oriented such as tourist lodgings, retail, and restaurant establishments, development will most likely continue along the commercial corridor. Highway 321/73 may be viewed as a fiscal asset to the City of Townsend. Road maintenance is often one of the most costly line items in a city's budget. Although the city does maintain eight miles of roads within Townsend, the most used thoroughfare Highway 321/73 is maintained through state and federal funds. Townsend should optimize this fiscal asset by requiring large developments to provide safe access to this highway with TDOT's approval. Non-automobile connections among commercial, residential, and semi-public and public uses will promote multiple transportation options within the city.

Objective: Provide a transportation system that will adequately meet the future needs of Townsend.

Policies

1. All new development whether public or private should have an adequate transportation system which shall be properly installed at the expense of the developer.
2. All new major streets should be located in a manner that will minimize disruption to neighborhoods, open space, recreational areas, or commercial areas.
3. All new streets should be designed to incorporate storm water drainage systems, either built or natural, which are adequate in size to handle runoff from anticipated development.
4. All segments of the transportation system should be designed and located to meet future as well as present demands.
5. Older streets in the city should be upgraded or improved through a road improvement program.

Objective: Each development proposal should be scrutinized for its potential impact on the existing and future infrastructure.

Policies

1. Growth shall be coordinated with adequate existing or planned transportation facilities.
2. Land use will be planned in concert with transportation facilities. Low-density uses will be planned in areas not efficiently served by transportation facilities,

and compatible higher densities may be planned in areas that can be efficiently served with transportation facilities.

3. When feasible, if a proposed development appears to increase traffic congestion or increase daily trips beyond capacity of road classification, to produce hazardous curb cuts, or to create a hazard to pedestrian circulation systems, then the planning commission should either require appropriate corrective actions or deny the proposal.
4. No development causing a significant increase in daily trip generation should be placed on substandard roads.

Objective: Ingress and egress points are safely located and designed.

Policies

1. Ingress to and egress from points along Highway 321/73 should be placed at safe distances according with both TDOT and transportation engineering standards.
2. Proper driveway placement should minimize conflict points and ensure safe distance between conflict points to allow drivers adequate response time.
3. Driveways should be located as far as possible from major intersections.
4. Shared driveways in conjunction with cross parcel access are promoted.
5. Driveway crossings over pedestrian pathways should be designed so that both the pedestrians and the drivers are able to use them safely.

Objective: Provide appropriate design guidelines for the construction of new streets and other transportation facilities.

Policies

1. Beautification efforts by the town and/or concerned citizen groups are encouraged. Projects should conform to any applicable regulations.
2. Gateway entrances to the city should be clearly distinguished by either built or landscaped markers along the major highway entrances.
3. Additions to the transportation system should be designed to incorporate appropriate landscaping to heighten the aesthetic qualities of Townsend.

4. The city should provide a connected circulation system through land use controls.

Objective: Future or reconstructed parking areas should strive to reduce the visual impact of the areas on the landscape.

Policies

1. Parking areas should be screened from view using a variety of practices such as berms, trees, topography, and similar practices.
2. Parking for a development should be designed so as to minimize the amount of parking between the structures and the street and/or sidewalk.
3. Internal landscaping in a parking lot should be used to reduce visual impact and retain run-off from the parking lot.
4. Landscaping and screening for parking lots shall be immediately adjacent to the lot and preferably within the required green space area.
5. Large parking lots should have pedestrian links between the structure and the sidewalk clearly marked and free from any obstructions. The width of the sidewalk connection should be adequate to serve those accessing the structure.

Objective: Provide more transportation opportunities for alternatives to automobile use.

Policies

1. All new developments shall be required to provide pedestrian pathways and connections to existing residential and commercial developments. If possible, they should connect to existing sidewalks to increase their use for daily trips.
2. The city should promote pedestrian safety for school kids, recreational walkers, and general use.
3. The use of low speed/medium speed vehicles should be promoted throughout the city through designated lanes or public awareness.
4. Bike lanes should be designated on Highway 321/73 through Townsend.
5. When possible, sidewalks and bike lanes should be developed on all arterial and collector streets.

Objective: Ensure that the goals and policies set forth in this plan are recognized in all transportation projects within the city and cooperation among governmental entities are promoted.

Policies

1. The Townsend Planning Commission shall be informed and provide input to any major road projects as enabled by T.C.A. §13-4-104.
2. Townsend should work out agreements concerning the use of right of ways with the Tennessee Department of Transportation.
3. The city should maintain contact with the National Park Service to promote cooperation between the two agencies.
4. The city should encourage a suitable location of a trolley system serving Cades Cove in Townsend for convenience.
5. The city should promote efforts that encourage visitors to use Townsend as a gateway to the national park and as a destination to park and ride or hike into the national park.

Implementation Strategies for Transportation Systems Policies

| Implementation Strategy | Responsibility | Planning Document/ Land Use Control | Comments |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Prepare a road inventory and street improvement program, so substandard roads may be identified | Planning Commission, Board of Commissioners | Road Inventory , Capital Improvement Program (CIP) | The road inventory will identify those streets in need of improvement. The CIP would address the schedule for street repair. |
| Require integration of natural stormwater controls for managing stormwater runoff for all proposed road projects | Planning Commission, Board of Commissioners | Municipal Code, Subdivision Regulations | Use of native grasses in culverts, rain gardens, bioswales, and other natural implements that are both functional and attractive. |
| Coordinate enforcement issues and use of public funds with Tennessee Department of Transportation and the National Park Service. | Planning Commission, Board of Commissioners | Planning Commission Meetings | A large right of way and proximity to GSMNP often leads to conflicts and resolution may only be reached through active cooperation. |
| Prepare an access management plan. | Planning Commission, Board of Commissioners | Access Management Plan | This plan would provide a comprehensive review of current access management policies and recommendations for any necessary changes. |
| The planning commission should use Mandatory Referral to promote land use objectives and policies adopted by the City | Planning Commission | | The land use plan should guide all development within the municipal boundary. |
| Both residential and commercial developments should connect to existing sidewalks | Planning Commission, Board of Commissioners | Zoning Ordinance, Municipal Ordinance | Townsend should take full advantage of the existing pedestrian circulation system. |
| Any road improvements should provide for non-automobile circulation | Planning Commission, Board of Commissioners | Municipal Ordinance Subdivision Regulations | Non-automobile circulation may include alternative pedestrian paths, wide shoulders, sidewalks, etc. |
| The designation of lanes for low-medium speed vehicles should be encouraged through land use controls and mandatory referral | Planning Commission, Board of Commissioners | | This may increase mobility options for residents especially, the elderly. |

Chapter 6

Implementation Methods

In this chapter, several tools and methods for implementing the recommended objectives, policies, and implementation strategies in this plan are reviewed. Many of these methods for implementation are already being utilized by the City of Townsend; however, the planning commission and board of commissioners should examine the effectiveness of current regulations and practices to meet the objectives and policies previously stated. If the following methods are not currently used, then the commissions should consider implementing them in the future. The planning program is administered and enforced by the planning commission, board of zoning appeals, and the building inspector.

The City of Townsend currently employs several tools including but not limited to zoning, subdivision regulations, growth management plan, code enforcement, mandatory referral, and an active planning commission; however, the regulations or policies contained within these tools require amendments from time to time to reflect best practices and current conditions. This chapter will provide an overview of the importance of these implements and how they may be amended to better accomplish the objectives in the previous chapter.

Planning Commission Project Review/Mandatory Referral

Under Tennessee Code Section 13-4-104, Mandatory Referral Act, after the adoption of a land use plan, no public improvement project can be authorized or constructed in the municipality until and unless the location and extent of the project have been submitted to the planning commission for review. This review authority enables the planning commission to ensure that all public improvement projects are in compliance with the plan. The commission may provide comments on the project referring to the policies stated in this plan.

Zoning

A zoning ordinance established zoning districts, identifies uses allowed in each district, and establishes standards for new developments. Specifically, each zone or district regulates the location, height, bulk, and size of buildings and other structures, the percentage of the lot that may be occupied, the sizes of yards, courts and other open spaces, the density of the population, and the uses allowed within the zone. The intent of the ordinance is to promote the public health, safety, morals, convenience, order, prosperity and general welfare within the city. The zoning ordinance often serves as a guide for property owners and developers who wish to improve land. Zoning is most effective when aligned with the land use policies.

Site plan requirements within the zoning ordinance should provide guidance for new land development that corresponds with the policies within this plan. Site plan requirements ensure that the regulations within the zoning ordinance are applied to new or expanding developments.

Subdivision Regulations

The subdivision of land is the initial process in the development of a city. When land is subdivided and roads and utilities are constructed, a development pattern is established that is unlikely to be changed. Subdivision regulations, used in a coordinated manner with zoning, are a legal mechanism to carry out the recommended implementation strategies in this plan and should reflect the previously stated policies. Subdivision of land permanently alters the land use pattern and the quality of life for residents and those who live in a subdivision development. The quality of subdivisions and the standards that are required determine the form and character of an area. Subdivision of land and subsequent development may affect the hydrology within a watershed, water quality, wildlife habitat, tree canopy, and availability of prime agricultural farmland. The regulations may be amended to include the policies regarding these natural features.

Controls over the subdivision of property ensure the installation of adequate utilities that may be economically serviced and maintained. Premature development may lead to increased costs regarding the transportation system, utilities, public services, and schools. Additionally, the fiscal health of a city may be damaged if development does not correspond with land use policies. These controls are also used in providing a coordinated street system and ensuring sufficient and strategic open space for recreation, wildlife habitat, and public services.

Codes Enforcement

Townsend currently employs a part-time codes enforcement agent/building inspector. This person is given the ability to enforce several codes including those in the zoning ordinance, the flood hazard ordinance, and in the building code. The system of codes functions by active inspection system. Code enforcement ensures the adequacy of new residential, commercial, and industrial structures while also detecting and preventing deterioration of existing facilities through periodic inspection. By reducing blight, property values become more stable and the health and welfare of the community is protected.

Capital Improvements Plan

A Capital Improvements Plan (CIP) provides the means through which the local government can effectively undertake a properly planned and programmed approach toward utilizing its financial resources in the most efficient way possible to meet the service and facility needs of the community. A CIP identifies recommended capital improvements, estimates their costs, and identifies possible financing alternatives. The plan develops and schedules a way to finance the recommendations for implementing the land use policies and other public projects.

Growth Management and Annexation

In compliance with the Growth Management Act 1101 enacted in Tennessee in 1998, Townsend, along with Blount County and the other municipalities that lie therein, adopted a county-wide growth plan. Each jurisdiction identified those areas outside of the municipal limits where they

were most able to provide urban services. Three districts are identified in each growth plan. Cities propose “urban growth boundaries,” and counties propose “planned growth areas” and “rural areas.” In Townsend, annexation is limited to its urban growth boundary. If the city wishes to annex beyond the boundary, a revision to the map must be completed along with all supporting documentation.

Townsend proposed urban growth areas that lie just beyond the municipal limits but did not include all parts of the Tuckaleechee Cove area. The “Cove” area is geographically isolated from other parts of Blount County. Annexation of additional areas in Townsend should only occur if the area positively affects the health, welfare, and prosperity of residents with the city and in the annexation area. Annexation should be regarded as a tool to implement land use policies, provide unified zoning and planning, and to provide or to reduce the cost of public services.

Planning Staff

Planning staff from Local Planning Assistance Office serves the planning commission and the community by providing recommendations to the commission that conforms to the land use policies. Staff members are responsible for informing the commission on matters related to the land use plan in every day decisions. One of the greatest tools available in implementing the plan is the Annual Design and Program Report (ARPD). Staff is guided by the land use policies and recommended implementation strategies as the annual work program is created.

Citizen Participation

Citizen participation is an important factor in determining the success of a land use plan. An informed citizenry that is willing to work to achieve the goals, objectives, policies, and implementation strategies set forth in the plan is an invaluable asset. Citizens can offer support for programs designed to achieve community goals. Successful citizen participation can be achieved through a public education program designed to inform the community of the various purpose and reasons for the actions of both the planning commission and the legislative body. Educating the public may be achieved through newspaper articles, public hearings, and workshops on areas of concern.

Committees

As a city with limited staff and financial support, Townsend residents may also serve the city by participating in committees that advise the planning commission and the legislative body. The recommended implementation strategies in this plan could take years to implement with no full-time planning staff at the city. However, committees focused on gathering input from stakeholders and community members, building on research and information provided by local planning assistance office staff, and presenting their recommendations to the planning commission may lead to a timelier implementation of the land use policies.

Local Leadership

The Townsend Board of Commissioners has the authority to amend regulations that must be changed in order to conform to the recommended implementation strategies and land use policies. Therefore, the legislative body should maintain a close working relationship with the planning commission so that the planning process is coordinated and effective. The commissioners have the authority to adopt the appropriate implementation strategies that will fulfill the goals, objectives, and policies developed in this plan.

Appendix A

Land Use Goals Survey

Thank you for your participation. If you are time constrained, then feel free mail, email or fax your responses to the contact information below. I must receive all responses by April 30, 2009.

Using your knowledge of the area, historical trends, and the presentation tonight, please identify three development goals under each land use category below.

Residential

1. Development Goal: _____

Implementation Strategy: _____

2. Development Goal: _____

Implementation Strategy: _____

3. Development Goal: _____

Implementation Strategy: _____

Commercial

1. Development Goal: _____

Implementation Strategy: _____

2. Development Goal: _____

Implementation Strategy: _____

3. Development Goal: _____

Implementation Strategy: _____

Public and semi-Public, Recreation, Cultural

1. Development Goal: _____

Implementation Strategy: _____

2. Development Goal: _____

Implementation Strategy: _____

3. Development Goal: _____

Implementation Strategy: _____

Vacant Land and Open Space

1. Development Goal: _____

Implementation Strategy: _____

2. Development Goal: _____

Implementation Strategy: _____

3. Development Goal: _____

Implementation Strategy: _____

Utilities

1. Development Goal: _____

Implementation Strategy: _____

2. Development Goal: _____

Implementation Strategy: _____

3. Development Goal: _____

Implementation Strategy: _____

Transportation

1. Development Goal: _____

Implementation Strategy: _____

2. Development Goal: _____

Implementation Strategy: _____

3. Development Goal: _____

Implementation Strategy: _____

Thank you for your participation. My contact information is provided below.

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Appendix B

North American Industry Classification System (NAICS)

| Retail (44-45) | Accommodation & Food Service (72) | Real Estate & Rental (53) | Arts, Entertainment, & Recreation (71) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ▪ Other building material dealers ▪ Supermarkets & other grocery ▪ Baked goods stores ▪ Gasoline stations with convenience stores ▪ Jewelry stores ▪ Sporting goods stores ▪ Hobby, toy, & game stores ▪ Gift, novelty, & souvenir stores ▪ Liquefied petroleum gas (bottled gas) dealer ▪ Used & General merchandise stores | <ul style="list-style-type: none"> ▪ Full-service restaurants ▪ Hotels (except casino hotels) & motels ▪ Limited-service restaurants ▪ All other traveler accommodation ▪ RV parks & campground | <ul style="list-style-type: none"> ▪ Residential property managers ▪ Lessors of residential buildings & dwellings ▪ Offices of real estate agents & brokers ▪ Nonresidential property managers ▪ Other activities | <ul style="list-style-type: none"> ▪ Nature parks & other similar institutions ▪ All other amusement & recreation industries ▪ Museums |

Source: U.S. Census Bureau, NAICS

Notes

Chapter 2: Natural Features

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