

Unicoi County

Tennessee

Land Use

&

Transportation Plan

2008-2020

PREPARED FOR:

THE UNICOI COUNTY REGIONAL PLANNING COMMISSION

ASSISTANCE PROVIDED BY:

UNICOI COUNTY MAYOR'S OFFICE

JOINT ECONOMIC DEVELOPMENT BOARD OF UNICOI COUNTY

STATE OF TENNESSEE LOCAL PLANNING ASSISTANCE OFFICE

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INTRODUCTION

PURPOSE OF PLAN

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

Another purpose for this document is to meet Three-Star program requirements under the Planning and Infrastructure section of the program. The Three-Star program helps rural and urban Tennessee communities achieve excellence in community development by emphasizing foundational steps and targeting community strengths to improve quality of life and grow jobs. This plan was developed to meet the minimum informational requirements as outlined in the Three-Star program.

The Unicoi County Land Use and Transportation Plan covers a 20-year planning period from 2008-2020. The information presented in this plan can be used as a framework to guide local officials, community leaders and others as they make decisions which affect the future growth and development of Unicoi County. The plan is not intended to supersede the responsibility or authority of local officials and department heads. Instead,

it is designed to give the public and private sectors a basis to constructively use the interdependencies which exist between the various elements and organizations in the community. The overall plan should be periodically reviewed and updated as necessary to reflect more recent data and unanticipated occurrences or trends.

SCOPE OF PLAN

This Land Use and Transportation Policy Plan is designed to formulate a coordinated, long-term development program for Washington County and its municipalities. This plan recognizes the importance of the Town of Erwin, the county seat, and the Town of Unicoi, as centers for development and providers for urban services. Each of these municipalities has their own separate long-range plans, which provide more detailed plans for their expected growth.

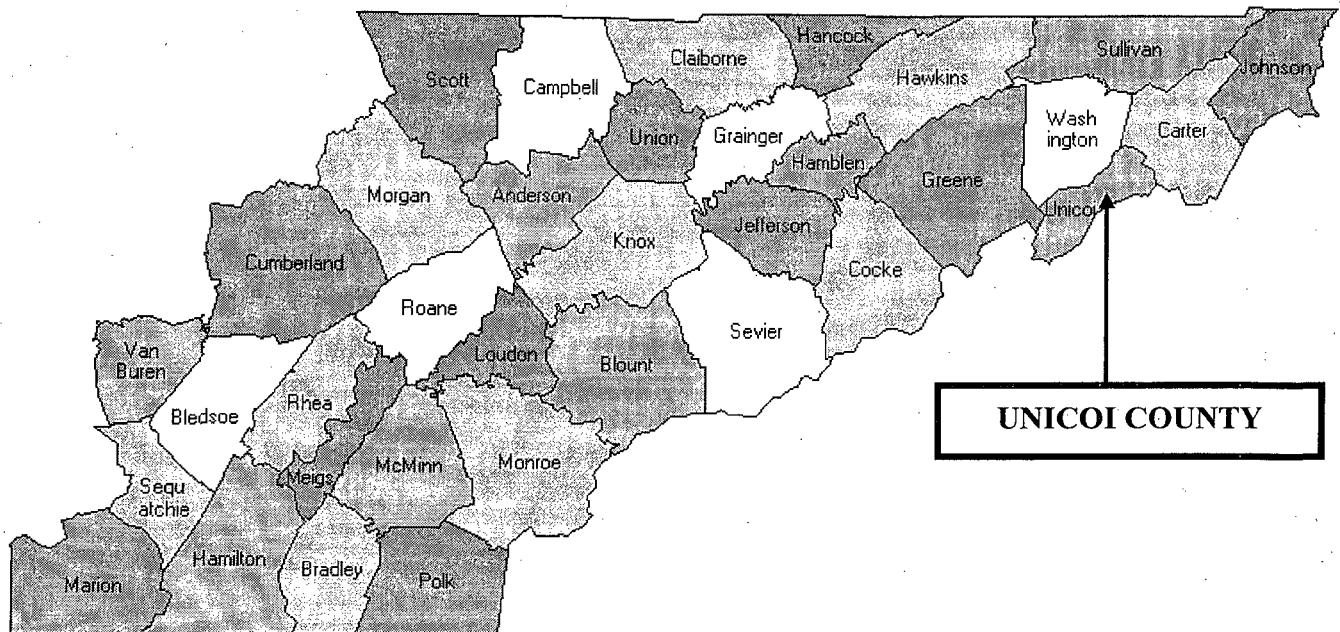
The preparation of this plan requires the gathering and analysis of a vast amount of data. Existing land uses, physical environment, county public facilities and services, demographics, employment, and transportation are examined herein. These are studied to determine how they have and will continue to affect land use and transportation facilities.

SECTION I

LAND USE ANALYSIS AND DESCRIPTION

As a prerequisite to preparing a plan for future land use and transportation, a survey and analysis of the existing patterns and characteristics must be completed. The data from this Chapter's existing analysis when integrated with information pertaining to natural factors affecting development, the population, economic factors, and transportation facilities is vital in determining what areas are best suited for the various land uses and transportation facilities over a planning period. Illustration 1 shows the location of Unicoi County in relation to other counties in East Tennessee.

ILLUSTRATION 1
UNICOI COUNTY, TENNESSEE
LOCATION MAP



Existing Land Use

Before a county can determine its future land use requirements, it is necessary that an inventory and analysis of existent land uses be completed. This land use inventory identifies and analyzes the various uses by categories and the amounts of land devoted to each.

The Local Planning Assistance Office developed a land use model to automate the process of coding the land use of parcels in an effort to standardize and improve the efficiency of deriving land use maps for counties/cities, which utilizes data from the Tennessee Base Mapping Program (TNBMP) and the Comptroller's Computer Aided Assessment System (CAAS). The tabular data generated from the model will be used for the land use inventory in this Chapter. Illustration 2 depicts the various land uses in the unincorporated areas of the county.

Residential: Land on which one or more dwelling units are located. This includes single family (less than 5 acres), single family (5 acres or larger), duplex, multi-family, mobile home, and mobile home park.

Commercial: Land on which retail and wholesale trade activities and/or services occurs. This category includes general commercial, office (professional/medical/general), motel/hotel, general commercial-residential split, golf course, nursing home, and other.

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

Public/Semi-Public: Land on which educational facilities, and all federal, state, and local governmental uses are located. Land on which museums, libraries, parks, and similar uses are located.

Industrial: Land on which the assembly, processing or fabricating of raw materials or products takes place, and warehousing.

Transportation: Land on which there is highway or road right-of-way.

Undeveloped Land: Land on which there is a vacant lot (less than 5 acres) or a vacant tract (5 acres or larger).

Water: Land on which there is a river, lake, or pond.

Agricultural: Land whereby there is an agricultural tract which is unimproved, with a single family residence, with a mobile home, with a single family and mobile residence, and multi-family residence.

Timber/Forest: Land which is a timber tract unimproved (no single family residence).

Land Use Analysis

Natural factors, which are discussed in Chapter 3, have significantly affected the location of land use in the county. Conflicting land uses are generally well separated from each other in the county.

Within the entire Unicoi County, there are approximately 119,493 acres, or 186.7 square miles of land. For the purpose of this plan, only the unincorporated area of Unicoi County has been analyzed. Of this total land area, approximately 106,438 acres, or 166.3 square miles are within the unincorporated area of the county. An estimated 11 percent or 11,344 acres are developed. Residential land comprises 5,601.6 acres, or 5.3 percent of the total land. Commercial uses occupy 48.1 acres of the developed land area. Industrial uses occupy 38.4 acres of the developed area. Public/Semi-Public uses occupy 3,190.4 acres or 3 percent of the developed land area. Utilities occupy 8.1 acres of the developed land area. Water occupies 200.2 acres of land area. Approximately 2,257.6

acres or 2.1 percent is used for transportation. Table 1 reflects the general land use by category for the unincorporated area of Unicoi County.

TABLE 1
GENERAL LAND USE BY CATEGORY
UNICOI COUNTY (UNINCORPORATED)

Land Use Category	Acreage	Percentage Total
Residential	8,517.4	5.3%
Commercial	48.1	-
Industrial	38.4	-
Public/Semi-Public	3,190.4	3.0%
Utilities	8.1	-
Undeveloped	93,944.8	88.3%
Water	200.2	0.2%
Road/Rail ROW	2,257.6	2.1%
Unclassified	1,149.3	1.1%
Total	106,438	100.0%

A more detailed land use by category is provided in Table 2.

TABLE 2
DETAILED LAND USE BY CATEGORY
UNICOI COUNTY (UNINCORPORATED)

Land Use Classification	Acreage	Percent of Total
Residential		
Single Family Residential (SFR) - less than 5 acres	1,991	1.9
Single Family Residential - 5 acres or larger	2,072	2.0
Duplex	15	*
Multi-Family	4.5	*

Mobile Home	1,502	1.4
Mobile Home Park	17	*
Commercial		
General Commercial	33	*
Office (Professional/Medical/General)	4.5	*
General Commercial – Residential Split	5.6	*
Nursing Home	4.8	*
Industrial		
Light Industrial / Warehousing	38	*
Public	3,037	2.9
Semi-Public	154	0.1
Utilities		
Utilities	8	*
Vacant		
Vacant Lot - less than 5 acres	1,202	1.1
Vacant Tract - 5 acres or larger	27,881	26.2
Agricultural		
Agricultural Tract Unimproved	847	0.8
Agricultural Tract w/ Single Family Residential	607	0.6
Agricultural Tract w/ Mobile Home	34	*
Agricultural Tract w/ SFR & Mobile Home	272	0.3
Timber / Forest		
Timber Tract Unimproved (No SFR)	46,407	43.6
Timber Tract w/ Single Family Residential	13,107	12.3
Timber Tract w/ Mobile Home	1,648	1.5
Timber Tract w/SFR & Mobile Home	3,089	2.9
Water		
River	200	0.2
Transportation		
Highway / Road Right-of-Way	2,227	2.1
Railroad Right-of-Way	31	*
Total	106,438	100.00%

*Percentage had no impact on totals (99.9% actual without these percentages)

The majority of the total land area, approximately 95,094 acres, or 89 percent is undeveloped land, with a large percentage of this land lacking adequate infrastructure necessary for medium to high density development. Furthermore, a significant portion of the undeveloped land is either susceptible to flooding, has excessive topographic limitations, soil limitations, and/or has excessive slope. The natural factors that shaped the developed lands also limit the development potential of undeveloped land. The predominant developed land use is in the form of residential uses.

Goals, Policies, and Implementation

Residential: The County should provide for a variety of housing types and densities for a wide-range of family incomes, sizes, while protecting and maintaining the quality of life and property values in existing residential areas. The following policies are made part of this plan:

- ◆ The County should promote the location of new residential developments in areas least affected by natural factors.
- ◆ The County should allow for a broad range of housing types including single-family structures, two family structures, multi-family developments, and mobile homes.
- ◆ Residential developments of varying types and densities should be encouraged in locations with adequate infrastructure.
- ◆ In response to erosion and drainage considerations, steep hillside developments with slopes of 15 percent or greater should be developed at densities that minimize negative impacts.
- ◆ The County should encourage the rehabilitation of existing residential areas.
- ◆ The County should encourage sound development in suitable areas by maintaining and improving transportation facilities.

Commercial: Appropriate measures should be taken to promote Unicoi County and its municipalities as a regional destination for commercial and private service land uses in the Upper East Tennessee Region. The following policies are made part of this plan:

- ◆ In cooperation with the municipalities and the Chamber of Commerce, the County should strive to recruit and retain business and service enterprises that fulfill local market demands.
- ◆ The County should promote areas of the county with adequate infrastructure for commercial and private service activity.
- ◆ Commercial development should be designed so as to minimize potential negative impacts to the existing transportation system.
- ◆ Clustering of commercial developments should be encouraged, with strategic entrance and exit points.
- ◆ Commercial uses which are high intensity traffic generators should be located on adequate roadway systems.

Industrial: It is essential that the county retain and maintain its existing industrial base.

The following policies are made part of this plan:

- ◆ The County should support all practical efforts, both public and private, to maintain and improve existing industrial site locations.
- ◆ Existing industrial sites should be provided adequate transportation, electric and digital services, as well as water and sewer services, with additional services being provided as needed.
- ◆ The County Commission and Planning Commission should support appropriate highway and road improvements at locations suitable for the expansion of the County's existing industrial base.
- ◆ Coordination should be strongly fostered between all public officials, industrial boards, and the Chamber of Commerce to attract industrial prospects to the area, and to retain and promote the expansion of existing industries.
- ◆ Industrial uses should locate near major highways and roads that offer the access needed by the industry. Such uses should not exceed the capacity of the existing road network.
- ◆ If at all possible, landscaping or other type of screening should be provided between industrial uses and other land uses to reduce the potential conflicts between such uses.

Public and Semi-Public: The County should provide for adequate and efficient public services which meet accepted national and regional planning standards and guidelines, and provide a diversity of quality cultural and recreational opportunities. The following policies are made part of this plan:

- ◆ The County should prepare an abbreviated Community Facilities Study based on accepted national and regional planning standards and locational criteria, in order to determine the adequacy or level of service provision of existing facilities and services.
- ◆ Public facilities and services should be improved and expanded in accordance with an approved Public Improvements Program and Capital Budget.
- ◆ Decisions concerning the provision of recreational facilities should be guided by accepted national and regional planning standards.
- ◆ The County should promote the joint use of educational and recreational facilities.
- ◆ The County should enhance the opportunities for passive recreation through expansion of existing greenway systems, as well as promoting new greenway systems in strategic areas of the county, which includes hiking and biking trails.
- ◆ The County should encourage the development of public recreation land through coordination with federal, state, and local officials.
- ◆ The County should promote efforts to document, preserve, and protect historic sites and structures.
- ◆ The County should support and encourage the promotion of its community-wide festivals to all parts of Tennessee and abroad.

Utilities: The County should support and encourage the provisions of adequate and efficient public utility facilities to as many county citizens as is possible, and encourage appropriate locational and design standards for utility facility improvements and extensions. The following policies are made part of this plan:

- ◆ To meet the future needs and provide for future growth, long range plans for expansion and enhancement of public utility facilities should be encouraged by each of the responsible agencies.
- ◆ The County should ensure that the water, electric, and natural gas systems serving the unincorporated areas are adequate to meet current and future needs.
- ◆ The health of residents shall be protected through the production of State approved potable water.
- ◆ Adequate utilities should be extended into various areas of the county on a priority basis, with such extensions meeting optimum health and safety standards.
- ◆ The location of utility structures for storage of equipment, pump stations, or similar structures should be adequately screened so as not to detract from the surrounding area.
- ◆ The water distribution system should be periodically evaluated to ensure that water lines are of adequate size to provide adequate pressure for fire fighting, and that a suitable number of fire hydrants are present in developed areas.

Undeveloped Land/Open Space: The County should ensure that adequate open space is provided in the county to enhance its aesthetic quality. The following policies are made part of this plan:

- ◆ Appropriately located public open spaces and general recreational uses should be provided to serve county residents as well as visitors. These areas should be readily available and designed to serve all age groups.
- ◆ Places of rare natural beauty and areas of historic interest should be preserved and maintained.
- ◆ All publicly-owned land should be examined for its potential open space or recreational use before being sold or disposed of by the County.

Transportation: The County should provide a transportation system that will adequately meet the future needs of the county for growth and development, and support appropriate

planning for the construction of new roads and other transportation facilities. The following policies are made part of this plan:

- ◆ New development, whether public or private, should have an adequate transportation system, as stipulated within the county's subdivision regulations which should be properly installed at the expense of the developer.
- ◆ New highways and roads should be located in a manner that will minimize disruption to residential areas or open space-recreational areas.
- ◆ Roads should be upgraded or improved through coordination with the county's Highway Department.
- ◆ Highways and roads should be related to the topography and designed to minimize the points of traffic conflict and turning movements.
- ◆ All highways and roads shall be designed to minimize interference to natural drainage ways.
- ◆ All new highways and roads shall be designed and located in a manner that offers the maximum protection from potential flood hazards and erosion damages.

SECTION III

DESCRIPTION AND ANALYSIS OF THE LOCAL PHYSICAL ENVIRONMENT

Location

Unicoi County is in the northeastern part of Tennessee and has a total area of 185 square miles. North Carolina forms the southeastern boundary of the county. Erwin, the county seat, is near the Nolichucky River, approximately 15 miles south of Johnson City and 120 miles east of Knoxville.

Climate

In Unicoi County in winter, valleys are very cool and have occasional cold and warm spells; upper slopes and mountaintops are generally cold. In summer, valleys are very warm and frequently hot, and mountains that are warm during the day become cool at night. Precipitation is heavy and evenly distributed throughout the year. Summer precipitation falls chiefly during thunderstorms. In winter, precipitation in valleys is chiefly snow, although rains are frequent. Snow cover does not persist except at the highest elevations. Average seasonal snowfall is 21 inches. On an average of 6 days, at least 1 inch of snow is on the ground. The number of such days varies greatly from year to year.

In winter, the average temperature is 37 degrees Fahrenheit, and the average daily minimum temperature is 25 degrees. The lowest temperature on record, which occurred at Unicoi on December 13, 1962, is -18 degrees. In summer, the average temperature is 70 degrees, and the average daily maximum temperature is 83 degrees. The highest recorded temperature, which occurred on June 23, 1964, is 94 degrees.

Of the total annual precipitation, 28 inches, or 55 percent, usually falls in April through September, which includes the growing season for most crops. In 2 years out of 10, the rainfall in April through September is less than 18 inches. The heaviest one-day rainfall during the period of record was 3.85 inches at Unicoi on March 12, 1963. Thunderstorms

occur on about 46 days each year, and most occur in summer. Heavy rains from prolonged storms, at any time of the year, occasionally cover the entire county and adjacent counties and cause severe flooding in valleys.

The average relative humidity in mid-afternoon is less than 55 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The prevailing wind is from the west-southwest. Average windspeed is highest, 8 miles per hour, in March.

Physiography

Unicoi County lies within the Unaka Mountains of the Blue Ridge Province. In Unicoi County, the Unaka Mountains generally consist of two parallel subordinate beds, which are separated by a long straight valley called Greasy Cove. The eastern bed is designated the Bald Mountains and the western, the Buffalo and Rich Mountains.

Stratigraphy, which is a branch of geology, studies rock layers and layering (stratification). It is primarily used in the study of sedimentary and layered volcanic rocks. The stratigraphy of the county is very complex. Much folding and faulting has occurred. Deep gorges and valleys have been cut by geologic erosion, leaving very steep slopes, cliffs, and areas of rock material.

Elevation ranges from about 1,600 feet, where the Nolichucky River leaves the county at the Unicoi-Washington county line, to 5,516 feet at the summit of Big Bald Mountain. The mountain ranges make up about 80-85 percent of the county. The southern tip of the county, which is underlain by granite, gneiss, and schist, takes in approximately 20 percent of the total land area. The topography of this area is generally very rough and steep. The soils are moderately deep and loamy.

Part of the Unaka Range in Unicoi County is made up of the Ocoee Series. In this series are the Snowbird Group and the Sandsuck Formation. The Snowbird Group is made up of siltstone, feldspathic sandstone, phyllite, slate, and feldspathic quartzite. The Sandsuck Formation consists mainly of micaceous shale with some sandstone and

conglomerate. Soils in these areas are generally shallow to moderately deep, loamy, and steep.

The Unicoi, Hampton, and Erwin Formations make up much of the mountain ranges on both sides of Greasy Cove. The Unicoi is made up of feldspathic sandstone, arkose, conglomerate, shale, and siltstone. The Hampton Formation consists of micaceous shale, siltstone, and feldspathic quartzite. The Erwin Formation is made up of shale, siltstone, sandstone, and quartzite. The soils in Greasy Cove are shallow to moderately deep, steep, loamy, and in places, stony.

Three dolomite formations underlie the valley; the Shady, Knox, and Honaker Formations. They are associated with a large band of sandstone, siltstone, shale, dolomite, and limestone called the Rome Formation. Large areas of these formations are covered by deep soils formed in colluvium from the adjacent mountains and alluvium from the larger streams.

Most of Unicoi County is drained by the Nolichucky River and its tributaries. The largest of these tributaries are the North and South Indian Creeks, Clark Creek, Bumpass Cove Creek, and Scioto Creek. Buffalo Creek drains the northeastern part of the county and flows into the Watauga River in Carter County.

Drainage

As a result of the mountainous region, drainage in Erwin and Unicoi County is well developed. A major portion of the county is drained by the Nolichucky River, which flows north through the central part of the county. South Indian Creek, which is fed by many small tributaries, flows northeast into the Nolichucky River draining the west central and southwestern sections of the county. The extreme northwest region section of the county is drained by Clarks Creek, and the Bumpass Cove Creek. These creeks flow northward and empty into the Nolichucky River in Washington County. The eastern, central and southeastern parts of the county are drained by North Indian Creek and its tributaries. This creek flows through the central portion of the county to the southwest,

and empties into the Nolichucky River north of Erwin. The extreme northeastern part of the county is drained by Buffalo Creek, which flows to the northeast and empties into the Watauga River in Carter County. As previously mentioned, most of the county is located in a mountainous region with rugged topography. Most of the development in Unicoi County, therefore, has been in the valley areas, which were created by these drainage ways.

Flooding

There has been periodic flooding in Unicoi County, Erwin and Unicoi. They all participate in the National Flood Insurance Program (NFIP). The Federal Emergency Management Agency (FEMA) accepted the county into the flood plain management program on January 3, 1985. This made county residents eligible to purchase flood insurance through local insurance agents. This program controls development in areas subject to flooding. The flood plain management program sets standards so that new construction will be above the 100 year flood or be flood-proofed. This ordinance is enforced and implemented by the Unicoi County Mayor's Office.

Detailed flood boundaries and flood elevations may be obtained from the Flood Boundary and Floodway Maps, and Flood Insurance Rate Maps prepared for Unicoi County and incorporated places by FEMA. Of significance relating to flood mapping in Tennessee, including Unicoi County, is the Map Modernization Program being initiated throughout the State. FEMA in FY-2003 entered a renewed effort through its Flood Hazard Mapping Initiative to develop a modernized flood map inventory on a national basis. This initiative proposed to update the nation's flood risk identification maps to a digital format and streamline FEMA's map operations in response to improved technologies and more sophisticated state and local systems. In March of 2004, the State of Tennessee through the Local Planning Assistance Office of the Department of Economic and Community Development prepared and submitted to FEMA its Business Case for the implementation of the Map Modernization Program. Unicoi County provided representatives with a list of priority areas in need of restudying and/or at minimum, providing base flood elevation information. This digitized information

overlay used in conjunction with the Tennessee Base Mapping Program will provide more accurate flood information on a parcel by parcel basis. The new maps will become effective September 3 2008. The County Commission is scheduled to adopt these maps and accompanying Flood Damage Prevention Resolution on July 28, 2008. Further information relative to the Map Modernization Program may be obtained through FEMA and the Local Planning Assistance Office in Johnson City, Tennessee.

The principal sources of flooding in Unicoi County, Tennessee, are the Nolichucky River, North Indian, South Indian, Rock, Martin, Buffalo, and Scioto Creeks, and Odom Branch.

Nolichucky River

Information about major floods on the Nolichucky River extends back to 1900. Since then major floods have occurred in 1901, 1977, 1940, 1902, 1916, 1963, 1965, and 1973.

The largest flood since 1900 occurred on May 21, 1901. At the U.S. Geological Survey stream gage site at Embreeville, downstream from Unicoi County at mile 89, the flood crest elevation was 1543.0. The estimated discharge of 120,000 cubic feet per second (cfs) has a recurrence interval of approximately 200 years.

The November 6, 1977 flood, with a recurrence interval of approximately 100-years, was the largest flood since 1901, reaching elevation 1540.8 at the Embreeville gage. Discharge was 110,000 cfs. In the vicinity of Erwin flood elevations were about 7 feet below those of the 1901 flood as a result of channel changes associated with construction of bypass Highway 19W – 23 prior to the 1977 flood. At mile 95.9 a church was flooded and a radio transmitting tower was destroyed.

Intense rainfall in mid-August of 1940 produced flooding which at Embreeville crested 5 feet below the 1901 flood. The estimated peak discharge of 82,500 cfs has a recurrence interval of about 40 years. The crest at mile 93.9 reached elevation 1611.6.

Another large flood occurred on February 28, 1902. At Unaka Springs, 3 miles upstream from Erwin, the flood crested only 1.5 feet lower than the 1901 flood, while at Embreeville the crest was 6 feet lower. Estimated discharge at the Embreeville gage was 80,000 cfs with a recurrence interval of about 30 years.

The flood of July 16, 1916 reached elevation 1536 at Embreeville and had an estimated peak discharge of 75,000 cfs with a recurrence interval of about 25 years. The Clinchfield Railroad and railroad fills near Erwin were badly damaged.

Floods in early March of 1963 flooded bottom lands, roads, and bridges downstream from Erwin. The estimated peak discharge of 47,900 cfs on March 12 reached elevation 1532.1 at the Embreeville steam gage, with a recurrence interval of approximately 10 years. Minor Floods in March of 1965 and 1973 crested at the Embreeville gage 1 and 3 feet below the 1963 flood and 12 and 14 feet below the 1901 flood respectively. Farmlands downstream from Erwin were flooded on both occasions. The March 1965 flood also damaged 14 miles of county roads and several bridges.

North Indian Creek

Little information is available regarding flooding on North Indian Creek before 1944, when a steam gage was installed 3.3 miles upstream of the study reach at mile 10.8. The flood of 1935, while not a large flood in the region, was reported by local residents in 1948 to have been the largest since at least 1915. Direct comparison to floods since 1948 cannot be made because of channel changes caused by sand and gravel removal and by channel erosion in the November 1977 flood. Since Steam gage records began in 1944 major floods have occurred in 1977, 1965, 1973, and 1963. The largest flood on North Indian Creek since 1944 occurred November 6, 1977. The peak gage discharge of 980 cfs has a recurrence interval of approximately 20 years and reach elevation 2214.3. High flows near the mouth of the creek lowered the streambed and changed the stream channel considerably. Floods in March of 1965, 1973, and 1963 reached elevation 2214.2 at the gage and had discharges of 800 cfs with a recurrence interval of approximately 10 years. The March 16, 1973 and March 12, 1963 floods damaged roads and bridges.

South Indian Creek

Information on past South Indian Creek floods is limited to highwater marks of floods in 1977, 1965, 1973, and 1963. Based upon streamflow records on nearby North Indian Creek these floods are probably the largest since 1944. The November 6, 1977 flood reached elevation 1648.8 at mile 0.34 with a recurrence interval of over 100 years based upon current frequency profiles. Widespread damage occurred including mudslides, road and bridge washouts, loss of personal property, and flooding in several homes (Reference 8). No damage estimate is available. The flood of March 26, 1965 reached elevation 1684.0 at mile 1.63 and had a recurrence interval based upon current frequency profile of about 30 years. Homes in the vicinity of Flag Pond and Ernestville were flooded and several bridges were washed out near Riverview. Peak discharge was estimated at 8,000 cfs. Roads and bridges were damaged in the March 16, 1973 flood which, like the 1965 flood, had a recurrence interval of about 30 years. The stream crested 0.1 foot lower than the March 1965 flood at mile 1.63.

Rock Creek

Little information about past floods is available for Rock Creek. The flood of November 6, 1977 reached elevation 1940.2 at mile 1.82 with an estimated recurrence interval of about 10 years based upon current frequency profiles.

Martin Creek

Little information about past floods is available for Martin Creek. The November 6, 1977 flood reached elevation 1639.5 at mile 0.90 with an estimated recurrence interval of about 10 years based upon current frequency profiles.

Other Steams

Little information regarding past floods is available for Buffalo and Scioto Creeks, and Odom Branch. Highwater marks for the November 1977 flood were within banks throughout most of the study reaches of these streams.

Air Quality

Currently, Unicoi County is classified as meeting attainment for ground-level ozone. On July 18, 1997, the U.S. Environmental Protection Agency (EPA) revised the national standard for ground-level ozone from a 0.12 ppm (parts per million) 1-hour "peak" standard to a 0.08 ppm 8-hour "average" standard. This new standard is commonly referred to as the 8-hour ozone standard. Currently, all areas of Tennessee attain (meet) all national ambient air quality standards (NAAQS), including the 1-hour ozone standard. However, when implemented, the 8-hour ozone standard could result in a number of areas of the State being determined not to meet the 8-hour standard and being designated as non-attainment for ground-level ozone. When the non-attainment designation occurs, the State must recommend to EPA the boundaries of the areas that are not in compliance with the ground-level ozone standard, and must submit a plan to EPA that demonstrates how the State will bring those areas back into attainment. Also, when non-attainment designations occur, areas are subject to General and Transportation Conformity and non-attainment New Source Review requirements.

Water Quality

In December 2000, the U.S. Environmental Protection Agency (EPA) under the Clean Water Act published a rule that requires certain small municipal separate storm sewer systems (MS4) to participate in the National Pollutant Discharge Elimination System (NPDES) program and obtain a storm water permit. This rule, commonly referred to as NPDES Phase II, extends the current NPDES permitting program to communities with a population of 10,000 or more and/or areas with a population density of more than 1000 people per square mile. Unicoi County is not mandated to comply with the Phase II regulations (predominantly water quality based); however construction activities that involve grubbing, clearing, grading or excavation of one (1) or more acres of land within

the unincorporated area of the county may require a storm water permit through the Tennessee Department of Environment and Conservation (TDEC), which would include the developer and/or owner submitting a detailed Storm Water Pollution Prevention Plan. An EPA approved final list of streams, rivers, reservoirs, and lakes that do not meet water quality standards in 2008, referred to as the 303(d) List, can be found by contacting TDEC.

The 303(d) List is a compilation of the streams and lakes in Tennessee that are "water quality limited" or are expected to exceed water quality standards in the next two years and need additional pollution controls. Water quality limited streams are those that have one or more properties that violate water quality standards. They are considered impaired by pollution and not fully meeting designated uses. Additionally, the 303(d) List prioritizes impacted streams for specialized studies called Total Maximum Daily Load (TMDL). The 2008 303(d) List replaces the previous one published in 2006. Once a stream has been placed on the 303(d) List, it is considered a priority for water quality improvement efforts. These efforts include traditional regulatory approaches such as permit issuance, but also include efforts to control pollution sources that have historically been exempted from regulations, such as certain agricultural and forestry activities. If a stream is on the 303(d) List, TDEC cannot authorize additional loadings of the same pollutant(s). In extreme cases, it may mean that dischargers will not be allowed to expand or locate on 303(d) listed streams until the sources of pollution have been controlled. For the purpose of this plan, only Unicoi County information relative to streams not meeting water quality standards in 2008. The chart that follows was extracted from the Final Year 2008 303(d) List, June 2008, Tennessee Department of Environment and Conservation, Division of Water Pollution Control.

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	Cause/TMDL Priority	Pollutant Source
TN0601010 8010-1910	Spring Creek	Unicoi	1.7	Other Anthropogenic Substrate Alterations Solids	Discharges from MS4 area Aquaculture (permitted)
TN0601010 8010-6000	Nolichucky River	Unicoi	2.06	Loss of biological integrity due to siltation	Source in other State (NC)
TN0601010 8029-0900	Tate Springs	Unicoi	1.0	Suspended Solids	Aquaculture
TN0601010 8010-1900	Martins Creek	Unicoi	8.3	Alteration in stream- side or littoral vegetative cover	Discharges from MS4 area
TN0601010 8029-0300	Scioto Creek	Unicoi	14.8	Loss of biological integrity due to siltation	Land Development
TN0601010 8029-1000	North Indian Creek	Unicoi	8.0	Loss of biological integrity due to siltation	Discharges from MS4 area

Summary of Findings

Like many communities in Tennessee, the pattern of land use or development in Unicoi County has been significantly affected by natural factors. What is significant and perhaps unique to the county is the degree and range of natural factors that have affected development. A combination of flooding, extreme slope, and physiographic constraints has significantly restricted areas for growth and development. Areas for future development in the county that are not negatively affected by natural factors are limited. The predominant residential land use in the unincorporated area of the county is single family dwellings on small to large farms with septic systems. Higher density development within the county may be possible with the availability of public sanitary sewer, which will depend heavily on the feasibility and expense of sewer line extensions. Historically, the concentration of development has occurred in the Towns of Erwin and Unicoi (incorporated in 1994). Despite environmental constraints, Unicoi County has few waterbodies that have water quality issues; therefore the county rates overall very well relative to water quality. Also, the county rates very well relative to air quality. The

Unicoi County Regional Planning Commission has periodically received educational training through the Local Planning Assistance Office on issues relative to subdivision developments located in areas of steep topography.

Goals, Policies, and Implementation

- ◆ Unicoi County should continue to administer and enforce their flood program, thus maintaining compliance with FEMA's National Flood Insurance Program.
- ◆ The Unicoi County Regional Planning Commission should receive educational training specifically addressing the potential developmental impact of mountainous type developments on the physical environment.
- ◆ Unicoi County should be proactive when receiving reports on potential water quality issues affecting waterbodies within the county, and take appropriate steps in reporting such issues to the proper regulatory agency, i.e. TDEC.
- ◆ Unicoi County should strive to maintain their "attainment" status for air quality, and be proactive in taking steps to address any air quality issues that may arise.

SECTION IV

UNICOI COUNTY PUBLIC FACILITIES AND SERVICES

County Offices

The Unicoi County Courthouse is located on Main Avenue in Erwin, Tennessee. The courthouse was built in 1975, and includes the offices of the county mayor, county clerk, register of deeds, tax assessor, trustee, clerk and master, circuit court clerk, road superintendent, soil conservation, agriculture extension service and the District Attorney General. The courthouse also includes two courtrooms and a conference room. Approximately 50 people are employed in the courthouse. The existing courthouse is large enough to meet the long-range needs of the community. However, parking near the courthouse is minimal. Our goal is to obtain property in the downtown area to accommodate parking on heavy court dates.

Election Commission

The office of the Election Commission is located on Nolichucky Avenue. The building was completed in 2007. The building is comprised of an office, which employs 4 people, voting chambers, and storage for voting machines. Adequate parking facilities are adjacent to the building.

The existing office for the Election Commission is large enough to meet the long-range needs of the community.

Courthouse Annex

The Courthouse Annex is located adjacent to the Unicoi County Courthouse on Main Avenue in Erwin, Tennessee. The annex houses offices for the Unicoi County Sheriff's Department, 911 offices and the Unicoi County Jail.

Sheriff's Department: The Sheriff employs 60 full-time employees. The ratio between the number of officers and the number of county residents is 1 officer per 566 residents. The sheriff's department has 25 vehicles including cruisers.

All dispatching is coordinated through the Unicoi County 911 office. The sheriff's department has a current budget of \$1,200,000 according to the current budget. The cost for police protection in Unicoi County is \$67.43 per person.

911: The Unicoi County Annex houses the 911 office, which employs 17 persons. The office is adequate for the equipment and personnel to serve as the county's emergency response center.

Jail: Currently, the Unicoi County Jail has a capacity for 60 inmates, kitchen facilities, office space, holding area, and video visitation facility.

Based on state requirements, the Unicoi County Jail does not meet the standards for an accredited jail. The county commission has taken steps to expand the jail facilities, in order to retain state accreditation. Completion of the new extension should be in the fall of 2009.

County Highway Department Garage

The garage for the Unicoi County Highway Department is located on N. Industrial Blvd. The County Highway Department maintains approximately 400 miles of roadway, according to the Road Superintendent and has a current budget of \$1,673,230. Thirty persons are employed by the County Highway Department. The Highway Department provides all the normal road maintenance, including paving, signage, mowing, drainage, litter and emergency repairs. 16.64 miles were paved this year and the 5 year plan includes 80 to be paved.

Schools

Unicoi County is served by one school system. The Unicoi County School System operates a total of seven schools: Unicoi County High School, Unicoi County Middle School, Vocational School, Love Chapel Elementary School, Rock Creek Elementary School, Temple Hill Elementary School and Unicoi Elementary School. Total enrollment is approximately 2,500.

The Unicoi County School System also operates a central office on N. Elm Avenue, two bus garages, Pre-K facility, Baseball complex, football stadium, and own approximately three acres of green space, which is used as an outdoor biology classroom.

Based on high enrollment, Unicoi County School System recommends construction of an additional middle school to serve grades 5 and 6. The current middle school will house grades 7 and 8. Estimated cost of the new facility is \$15,000,000.00. It is anticipated that construction of the new middle school will begin in 2010.

Health Facilities

The Unicoi County Memorial Hospital is owned jointly by the Town of Erwin and Unicoi County. The Hospital serves the county and surrounding areas. The hospital consists of 48 hospital beds and 46 nursing home beds. Emergency services are contracted with Emergency Coverage Corporation located in Knoxville, Tennessee. Ambulance service is provided by Professional Medical Transport and is dispatched through the Unicoi County 911 office. Also, the Johnson City Medical Center provides major medical services for the region.

While there are limited health care facilities located within the county, the county has ready access to quality health care facilities in nearby cities.

Services

Electrical

Erwin Utilities provides electrical service to approximately 9,000 customers throughout the county. The sections of the extreme north and south Unicoi County are served by Mountain Electric and French Broad Electric

Our goal is to eventually have all residences served by Erwin Utilities.

Gas

The Unicoi County Gas Utility District provides gas service to 4,000 customers throughout the county and has the capacity to expand services to the urban growth area. The Unicoi County Gas Utility District serves the needs of the county. Services are provided upon request and some of the cost to extend gas utility service is consumer based.

Water

Water for domestic, commercial and industrial use is provided by Erwin Utilities, Unicoi Water and Johnson City Water. There are approximately 5,000 water customers in Unicoi County. The average daily water use is approximately 1,910,000 gallons. The existing treatment plants have the capacity to treat about 4,111,000 gallons per day.

Sewer

Erwin Utilities provides sanitary sewer service. There are approximately 4,000 customers currently receiving sewer service.

Major funding assistance would be required for expanding sewer coverage to all of Unicoi County.

Solid Waste Collection

Unicoi County operates three solid waste collection sites. Operation of the sites is contracted to private individuals. Disposal of the solid waste collected is at Iris Glen Environmental Center (landfill) located in Johnson City.

Solid waste collection service in Unicoi County is adequate to serve the needs of the county.

Recreation

Unicoi County boasts a wealth of natural recreation opportunities. The Appalachian Trail traverses Unicoi County and Unicoi County is abundant with good streams and rivers for trophy fishing. The Cherokee forest also provides a variety of recreational activities for local residents, as well as area visitors. Unicoi County operates and maintains the Gathering Place, a small park in downtown Erwin. The area is beautifully landscaped, provides picnic tables and a serene setting for public enjoyment. During the summer, planned monthly activities are scheduled at the park, such as movies, concerts, etc.

Realizing that the county is deficient in recreational opportunities, we are faced with a lack of funding to create a recreation department with planned county. However, current plans are to extend the linear park from the Erwin city limits to the Appalachian Trail. The county is also working with the Forest Service to provide recreation areas throughout the forest in Unicoi County, and with the Town of Unicoi in the development of a culture/heritage center.

Fire

Unicoi County is served by two volunteer fire departments: Southside Fire Department and Unicoi Fire Department. Unicoi County contributes a total of \$45,000 to the departments.

SECTION V

DEMOGRAPHICS

According to the 2000 U.S. Census, the total population of Unicoi County was 17,667. Historically, as reflected in Table 1, Unicoi County's population has continued to grow nearly every decade between 1900 and 2000, except for a decrease in population from 1950 to 1960.

TABLE 1
HISTORY OF POPULATION CHANGES FROM 1900-2000
UNICOI COUNTY

1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000
5,851	7,201	10,120	12,678	14,128	15,886	15,082	15,254	16,362	16,549	17,667

Source: U.S. Bureau of the Census - Tennessee Population of Counties by Decennial Census: 1900 to 2000.

As reflected in Table 2, Unicoi County is projected to experience an increase in population between 2000 and 2025, with five year increments.

TABLE 2
POPULATION PROJECTIONS FOR UNICOI COUNTY
AND INCORPORATED PLACES 2000 to 2025

	Census 2000	2005	2010	2015	2020	2025
Unincorporated	8,538	8,841	9,209	9,534	9,801	10,062
Town of Erwin	5,610	5,675	5,885	6,064	6,203	6,339
Town of Unicoi	3,519	3,649	3,804	3,938	4,051	4,159
County Total	17,667	18,165	18,898	19,536	20,055	20,560

Source: Tennessee Advisory Commission on Intergovernmental Relations, Center
for Business and Economic Research.

Estimated population by single race classification:

White alone	96.86%
Black or African American alone	0.90%
American Indian and Alaska Native alone	0.28%
Asian alone	0.07%
Native Hawaiian, Pacific Islander alone	0.03%
Some other race alone	1.29%
Two or More races	0.56%

The gender of the population is estimated to be 48.58% male and 51.42% female. The median age of all county residents is 42.7 years, with the largest age group being 45-59 years.

There are approximately 7,800 households in Unicoi County. The median household income is \$34,796.

SECTION VI

EMPLOYMENT

Unicoi County has a strong industrial base. At the present time Riverview Industrial Park is the only industrial park in Unicoi County and contains most of the new industry. Located on the south end of Erwin, the Park is nearing its capacity. A new park will be needed in the near future. If other industrial opportunities present themselves, the county and cities should consider participating in providing infrastructure paid for by the prospect, or by use of grants or other means that do not burden the finances of the county governments.

In 2007, the average unemployment rate for Unicoi County was 5.2%.

Breakdown of Employment by Industry

Total Nonagricultural	4,807
Goods Producing	1,985
Manufacturing	1,595
Construction, Mining, Forestry	389
Service Providing	2,822
Trade, Transportation & Utilities	621
Financial Activities	96
Services	1,887
Public Administration	218

Although Unicoi County has experienced a small number of industry closings, the number of available jobs has increased due to industry expansions and/or location of new industry.

Unicoi County is challenged with the lack of available land suitable for industrial development. Our main focus is on retention and expansion of current facilities, as well as recruitment of new jobs.

Our present goal is to obtain funding for an additional railroad spur into the Industrial Park and the widening of Fender Lane. The railroad spur will open up the possibility of new industry and improvement to Fender Lane will allow current industry to expand their businesses.

Family Ministries recently broke ground on a new assisted living facility in Unicoi County. The facility will provide 55 new jobs. It is anticipated that the additional 100+ residents will necessitate additional support opportunities in the county, such as retail, medical and recreational.

Objective -A

Retain the existing light industrial base and provide areas for some industrial development in the industrial park or at suitable sites elsewhere.

Policies

1. The Legislative Bodies should support improvements in the local economy by maintaining industrial site locations and improving existing industrial site locations.
2. The existing industrial park should be provided adequate service and be expanded as needed; new industrial parks and sites should be planned and developed as needed.
3. To provide for additional industrial land and employment in Unicoi County.
4. The Legislative Bodies and Planning Commissions should support appropriate road and traffic improvements at existing industrial locations and at other areas suitable for the expansion or location of industry.

5. Public Officials should cooperate with, and actively support, the Joint Economic Development Board of Unicoi County in its effort to attract industrial prospects and to retain and promote the expansion of existing industries.
6. Based on locally developed criteria, industrial land uses known or suspected of having harmful impacts on the health, safety and welfare of people, and those activities and uses which would degrade, retard, or otherwise harm the natural environment, or the economic potential of the community, shall be discouraged from locating in the county.

Objective -B

Provide appropriate standards and guidelines for new industrial development and for expansion of existing industrial uses.

Policies

1. All industrial developments shall be designed in compliance with appropriate site development standards.
2. Industrial uses should locate near transportation facilities that offer the access required by industry. Such uses should not be allowed to create demands which exceed the capacity of the existing and future transportation network.
3. Industrial development should locate within the county consistent with the phasing plan for infrastructure, where the proper sizing of facilities such as water, sewer and transportation has occurred or is planned.
4. To the extent feasible, landscaping or other screening shall be provided to reduce the conflict and soften the impact between industrial uses and other land uses.

Objective -C

To recognize tourism and recreational opportunities as a leading industry in Unicoi County.

Policies

1. Decisions concerning the provision of recreation facilities shall be guided by a Community Facilities Plan for such facilities, and shall be consistent with the Capital Budget. A special recreation plan may help direct detailed attention of both recreational facilities and programs.
2. The County should promote the joint use of parks and other public facilities, especially schools.
3. The county should enhance the opportunities for passive recreation through the continued development of greenbelt/green-way system. The system should eventually tie into the Appalachian Trail.
4. The County should maximize the use of public recreational land through close coordination with federal, state and local officials.
5. The County should promote efforts to document, preserve and protect historic sites and structures in Unicoi County.

SECTION VII

TRANSPORTATION ANALYSIS

Unicoi County currently has 326.32 miles of roadways: 26.78 miles of interstate, 43.91 miles of state highways, 39.31 miles of city streets and 216.32 miles of county roads.

The County's current transportation plans include:

- A. Tennessee welcome center, which is scheduled to open in late 2008 (probably 2009), at the Clear Branch exit.
- B. Plan to extend biking path from Erwin Linear Trail to Appalachian Trail
- C. Construct railroad overpass on Second Street. Project is planned for 2010.
- D. Widen and install shoulders on SR 81 from Second Street to SR 107.
- E. Install rail spur at Industrial Park
- F. Widen and improve Fender Lane

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

Objective A

Provide a transportation system that will adequately meet the future needs for growth and development

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 segments of the transportation system should be designed and located to meet future as well as present demands.
4. Older roads in the county should be upgraded and improved through a road improvements program.

Objective B

Provide appropriate standards and guidelines for the construction of new streets and other transportation facilities.

Policies

1. Roads should be related to the topography and designed to minimize the points of traffic conflict and turning movements.
2. All new roads and other public ways shall be designed to incorporate storm water drainage systems, which are adequate in size to handle runoff from anticipated developments.
3. All roads and other public ways shall be designed so as to provide the least interference with natural drainage ways.
4. All new roads and other public ways shall be designed and located in a manner, which offers the maximum protection from flood and erosion damage.
5. Future roadways should be designed to incorporate appropriate landscaping to heighten and aesthetic and functional appeal both to motorist and surrounding residents.
6. Street signage and other safety features should be required at the time of development.

SECTION VIII

PLAN IMPLEMENTATION

Introduction

In this chapter several methods for implementation of the objectives and policies developed in this plan are reviewed. Many of these methods for implementation are already being utilized in Unicoi County. The Planning Commission and the County Commission may need to examine the effectiveness of current practices or regulations in achieving the stated objectives and policies. Where the identified methods are not currently being used, the county should consider taking the appropriate steps to do so.

Also, in this section an implementation schedule is presented. It is intended to provide specific strategies for implementing the objectives and policies recommended in this plan. The implementation schedule proposes individual strategies for each of the specific land use categories, establishes time frames for completion, and identifies those responsible for implementation.

Methods for Implementation

Each method for plan implementation identified for Unicoi County is reviewed in this section of the plan.

Planning Commission Project Review

Under *Tennessee Code Annotated*, Section 13-3-104, after the adoption of a plan, no public improvement project can be authorized or constructed in the county until and unless the location and extent of the project have been submitted to the Planning Commission for its review. This review authority enables the Planning Commission to ensure that all public improvement projects are in compliance with the plan. Therefore, the planning commission should continue to review road projects and make an effort to review utility district proposals to expand water and sewer lines.

Public Chapter 1101 of 1998 – Growth Plan

The growth plan encourages counties to develop policies that limit sprawl. Moreover, cities generally hold the trump card of offering public sewer. Without public sewer, county developments rely upon State approved subsurface sewage disposal systems (septic systems), which ultimately reserve more land that becomes unbuildable through field beds and duplicate reserve areas. Municipalities, through the adoption of growth plans and annexation agreements, have been encouraged not to extend public services outside of these boundaries, in order to curb sprawl. Public sewer, then, could promote higher densities farther away from urban centers. It has become difficult to offer rural residents the qualities of life afforded to city residents, wherein shopping, schools, and work are near their homes.

Subdivision Regulations

Subdivision Regulations, used in a coordinated manner with flood regulations, is a mechanism to carry the recommendations of this Plan. These regulations promote the safe and harmonious development of subdivisions of land. They serve as guidelines for the conversion of raw land into building sites. Subdivision regulations provide the guide by which a Planning Commission can review proposed plats for subdivision in an equitable manner. These controls are necessary if sound, economical development is to be achieved. Through these regulations, the design and quality of subdivisions will be improved, resulting in better living conditions and greater stability of property values for the individual property owner. These regulations promote the installation of adequate utilities that may be economically serviced and maintained. These regulations are also used to provide a coordinated street system and to ensure sufficient open space for recreation and other public services.

The Unicoi County Regional Planning Commission first adopted subdivision regulations in 1989, with subsequent minor text amendments throughout the years. These regulations are currently up-to-date. These regulations should be reviewed for consistency with the objectives and policies outlined through this plan.

Storm Water Regulations

In December 2000, the U.S. Environmental Protection Agency (EPA) under the Clean Water Act published a rule that requires certain small municipal separate storm sewer systems to participate in the National Pollutant Discharge Elimination System (NPDES) commonly referred to as Phase II. Mandated by the EPA and directed by Tennessee Department of Environment and Conservation, Washington County is one of many communities required to comply with the regulations of the Phase II Program to reduce the amount of water pollution entering into the waters of the State. The Washington County Zoning Administrator is charged with administering and enforcing the Phase II Program, and currently, the county is fully compliant.

Floodplain Regulations

Unicoi County recently adopted new floodplain regulations and new flood maps to maintain compliance with FEMA's National Flood Insurance Program. The new maps provided by the Federal Emergency Management Agency become effective September 3, 2008.

Utility Extension Policies

Another significant tool for effective land use planning is the control over the extension of publicly owned and operated utility services. Utility extension policies can be used for controlling the location and timing of development in a rational, coherent and efficient fashion. Since utility services, such as water and sewer, are so important to any major development, the refusal to extend such services into an area generally assures that only limited development can occur.

Within Unicoi County, the extension of utilities is generally the responsibility of the developer. As land is subdivided it is the responsibility of the developer to pay for utility extensions in his development and to pass the cost on to the lot buyers.

In strategic areas where Unicoi County is seeking growth, the county should consider cost sharing utility extensions to achieve the objectives and policies outlined within this plan.

Infill Development

Utilization of existing, developable, vacant land within a county is a much-overlooked mechanism to implement a land use plan. In most cases, these areas tend to be served by existing infrastructure such as streets, water, sewer, electric and gas; thereby eliminating normal costs associated with additional development. An abundance of vacant developable land is a costly luxury to a community. It results in under utilization of infrastructure due to low-density development. Infill development of serviced areas will expand the local tax base while better utilizing the infrastructure system. This was the intent behind PC 1101. It is a goal of this plan that most new development in Unicoi County be in the form of infill development to meet the objectives and policies of this plan.

Citizen Participation

Citizen participation is an important factor in determining the success of the Land Use and Transportation Plan. An informed citizenry and development community, that is willing to work to achieve the goals, objectives, and policies set forth in this plan, can be a tremendous asset. Citizens and developers 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 purposes and reasons for the actions of both the Planning Commission and the County Commission. Specific efforts should be taken to obtain input from the general public and developers through organizational public meetings, public hearings, and surveys. News articles should also be utilized to educate the public regarding the objectives and policies detailed within this plan.

Local Leadership

The Unicoi County Regional Planning Commission bears most of the responsibility for implementation of this Plan through its Subdivision Regulations. The County Commission has the responsibility for plan implementation through the formulation of a Public Improvements and Capital Budget Plan. As the policy-makers, both entities have the authority to adopt appropriate implementation strategies that will fulfill the goals,

objectives and policies developed in this plan. It is important that the County Commission and Planning Commission maintain a close working relationship so that the planning process is properly coordinated to assure the implementation of the objectives and goals within this plan.

Implementation Schedule

The Unicoi County Land Use and Transportation Plan is an advisory document intended to serve as a guide for the development of the county over the next twelve years and beyond. Specific strategies for policy implementation are necessary if the goals and objectives of this Plan are to be achieved. The implementation schedule provides an outline of the methods for achieving the goals and objectives and implementing the policies established in the Development Plan. It presents individual strategies for each of the specific land use categories, establishes time frames for completion, and identifies those with primary responsibility for plan implementation.

- ◆ Planning Commission – Review/adopt plan (2008)
 - Highway/road improvement review (on-going)
 - Utility improvements (on-going)
- ◆ Subdivision Regulations – Text review (on-going)
- ◆ Floodplain Regulations – Adopted (2008)
- ◆ Utility Extension Policies – System review (2009)
- ◆ Infill Development – System review (2009)
- ◆ Citizen Participation – Public meetings (2009)
- ◆ Local Leadership – Education/training (2008/on-going)

Summary of Recommendations

Based on plan findings and goals of the county, the following summary of plan recommendations is provided to serve as a guide for Unicoi County Leaders and developers in making future decisions regarding land use, transportation and community facilities important to the economic development of Unicoi County.

- ◆ Encourage new residential, commercial, and industrial growth in Unicoi County.
- ◆ Seek to improve the fire insurance rating for Unicoi County. Work with the Insurance Services Office to determine the fire equipment and hydrant needs required for the improved rating.
- ◆ Obtain additional land for expansion of industrial facilities and for future industrial growth areas.
- ◆ Maintain, through planning, subdivision and floodplain regulations, the spacious open character of Unicoi County as it grows residentially, commercially, and industrially.
- ◆ Maintain an active planning commission to make formal land use recommendations to the county commission.
- ◆ Work with land developers and sub-dividers for the construction of adequate roads in developments.
- ◆ Promote infill development on vacant lands with infrastructure currently in place.
- ◆ Remain in compliance with FEMA's National Flood Insurance Program.
- ◆ Work with all county departments in the development of a five-year capital budget program.
- ◆ Review all local regulations for compliance with the objectives and policies established within this plan.