

NORTHWEST COUNTY SECTOR PLAN

DRAFT BACKGROUND REPORT

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This document is a draft for public review as part of the development of the Northwest County Sector Plan.

To find out more about this plan go to www.knoxmpc.org. If you have any questions about the Background Report please contact Liz Albertson at 215-2500.

DRAFT - Section 1: Background Report

This is an update of the Northwest County Sector Plan. This plan was last updated 11 years ago, and resulted in adoption by the Knoxville City Council and the Knox County Commission in September 2003. The Northwest County Sector Plan was amended through the adoption of the Tennessee Technology Corridor Development Authority Comprehensive Development Plan in 2009 and the Knoxville – Knox County Park, Recreation, and Greenway Plan in January 2010.

A. Comprehensive Planning Process Overview

Comprehensive planning in Knoxville and Knox County can be viewed as a series of plans that start with regional areas and broad goals and objectives that gradually address smaller parts of the city and county in more detail and with greater specificity.

The **Northwest County Sector** covers an area mostly in Knox County, but portions of the sector are also within the City of Knoxville. The Metropolitan Planning Commission (MPC), under state law, is directed to create a comprehensive plan to provide recommendations for:

- Roads and other transportation systems;
- Parks and other public property;
- The general location and extent of public utilities, including sanitation and water;
- The general character and location of community areas and housing development;
- Uses of land for trade, industry, housing, recreation, agriculture, and forestry; and
- Appropriate zoning relating to the land use plan, outlining permitted uses and the intensity of those uses, such as height and locations of buildings on their parcels.

Plan East Tennessee (PlanET), recently concluded in 2014, was a three-year regional planning process that focused on Anderson, Blount, Knox, Loudon, and Union counties (See the [PlanET Website](#)). There were many valuable results of the planning process, but the two products most connected to the sector planning update process include:



Image 1. Knox County and the City of Knoxville are divided into twelve planning sectors.

- The *Regional Playbook* is a high-level roadmap whose aim is to ensure our region remains beautiful, becomes healthier, and offers pathways to success for our residents. The Playbook is the result of several years of work and the efforts of over 30 organizations and thousands of people from the five-county PlanET region.
- *Community Indicators* tell the story of our area, helping us to clearly see our strengths and challenges, and focus our efforts to improve our community. The 87 indicators on this site track critical aspects of our region’s economy and quality of life. Each measure includes a description of the indicator, a brief analysis of trends, a chart displaying trends over time, and tables providing data for our counties, plus comparisons to the state and nation.

The **Knoxville • Farragut • Knox County Growth Plan**, adopted in 2000, is mandated under the Tennessee Growth Policy Act (Public Chapter 1101), and requires that city and county governments prepare a 20-year Growth Plan for each county ([See the Growth Policy Plan Map](#)). At a minimum, a growth plan must identify three classifications of land:

- “Rural Areas” are to include land to be preserved for farming, recreation, and other non-urban uses.
- “Urban Growth Boundaries” (UGB) must be drawn for all cities and towns. The land within the UGB must be reasonably compact, but adequate to accommodate all of the city’s expected growth for the next 20 years.
- “Planned Growth Areas” (PGA) must be reasonably compact, but large enough to accommodate growth expected to occur in unincorporated areas over the next 20 years.

The **Knoxville – Knox County General Plan 2033**, adopted in 2003, is the official 30-year comprehensive plan for Knoxville and Knox County that outlines a long-range vision and policy framework for physical and economic development. The plan includes the Growth Plan, twelve sector plans, corridor and small area plans, and system-wide plans.

Sector Plans provide a detailed analysis of land use, community facilities, and transportation for 12 geographical divisions in Knox County. The focus is to take goals contained in the General Plan and draft a sector plan that is to guide land use and development over a 15-year period. Also included is a five-year plan with recommended capital improvements and other implementation programs.

Corridor Plans primarily cover land use and transportation recommendations along existing transportation corridors. These plans are more detailed than sector plans because they have a smaller geographical area. Recommendations often deal with economic development, aesthetics, and public safety.

Small Area Plans are neighborhood-based and address more detailed concerns like revitalization or special environmental considerations. These plans are developed as a result of some immediate development pressure on the area and are usually requested by the elected bodies.

System-Wide Plans cover specific systems such as greenways and parks or hillside and ridge top protection.

All plans are developed through citizen participation, including workshops, surveys, and public meetings. Plans are adopted by the Metropolitan Planning Commission, Knoxville City Council, and Knox County Commission and serve as a basis for zoning and land use decisions.

B. A Summary of Recent Projects

The 2003 Northwest County Sector Plan proposed several objectives including land use updates to align development efforts in regard to land use, environmental protection, transportation, and community facilities. The following is a summary of the objectives and list of the proposals that have been implemented or are in the process of being implemented, as well as other major changes in the sector since the 2003 sector plan:

Parks and Greenway Improvements:

- By 2005, Knox County had also completed the Northwest Sportspark adjacent to the intersection of Oak Ridge Highway and Karns Valley Drive, which provides football field, baseball fields, soccer fields, and a play area, was completed.
- In 2007, the City of Knoxville and Knox County opened Ten Mile Creek Greenway, our community's first joint city/county greenway. The greenway extends along Ten Mile Creek for 1.2 miles from the Cavet Station Greenway in the Northwest City Sector into the Northwest County Sector area and terminates at the Carmike Wynnsong 16 Theater in Cedar Bluff.
- In 2010, the Knoxville – Knox County Park, Recreation, and Greenway Plan was adopted by the Knoxville City Council and the Knox County Commission, which also amended the Northwest County Sector Plan. Key recommendations of the 2010 plan that impact the Northwest County Sector are provided later in this report.
- Harrell Road Stormwater Park, in the Beaver Creek Watershed, is currently under construction and expected to be completed by 2015.
- In the summer of 2014, the Knoxville Regional Transportation Planning Organization and the Smoky Mountains Greenway Council initiated a planning process for a greenway connecting Anderson, Knox and Blount Counties, which will traverse the Northwest County Sector.



Image 2. The Ten Mile Creek Greenway was opened in 2010 and provides pedestrian and bicycle connections to residential and commercial uses in the area.

Land Use Changes:

- In 2008, Knox County Schools constructed a new high school, Hardin Valley Academy.
- The Tennessee Technology Corridor Comprehensive Plan was updated in 2008 and adopted in early 2009.
- In 2011, the Solway Greenwaste site was sold by Knox County to a private owner, Natural Resources Recovery of Tennessee.
- The Knoxville-Knox County Park, Recreation and Greenways Plan was adopted in 2010.
- In an effort to conserve the steep slopes and ridges across Knox County, including those in the Northwest County Sector, the Knoxville-Knox County Hillside and Ridgetop Protection Plan was adopted in 2011.
- The Karns Senior Center, adjacent to the Northwest Sportspark, should be completed by spring of 2015.

Major Road Projects

- A portion of Middlebrook Pike from Hardin Valley Rd to Cedar Bluff road was widened from 2 lanes to 4 lanes with a median and a sidewalk.
- Hardin Valley Road between Campbell Station Rd to Pellissippi Parkway was widened from 2 lanes to 3 lanes and a sidewalk.
- Sections of Dutchtown Road from Pellissippi Parkway to Cedar Bluff Road have all been improved to include additional lanes and a sidewalk.
- The proposed Knoxville Regional Parkway (“Orange Route” or State Route 475) that would have traversed the Northwest County Sector was eliminated by the Tennessee Department of Transportation (TDOT) in 2010.
- In 2007, phase one of the Karns Connector was completed which connected Oak Ridge Highway to Emory Road, however phase two is currently under construction and is expected to be completed in 2015 finishing the link between Hardin Valley Road and Oak Ridge Highway.
- The Schaad Road extension is underway, portions have been completed from Oak Ridge Highway to Olive Branch Lane, but additional sections are still in progress and are expected to be completed around 2024 making the connection complete to Ball Camp Pike near Hitching Post Drive. The extension and subsequent portions consist of a 4-lane facility with sidewalks and bike lanes.
- The Oak Ridge Highway/Western Avenue Project is scheduled to be completed in 2015. The proposed project consists of reconstructing the existing two lane roadway to a five-lane facility and includes a sidewalk, between Schaad Road and I-640.
- As of 2013, the Outlet Drive to Snyder Road extension has been completed, connecting Lovell Road to North Campbell Station Road on the north side of I-40.
- The interchange area of Dutchtown Road at Pellissippi Parkway to Murdock Road was widened with 4 lane with a center turn lane and westbound right turn lane to the southbound ramps of the Pellissippi Parkway.
- A Dutchtown Road extension with sidewalks was also completed between Cedar Bluff Road and Park Village Road.

C. Community Population Profile

The Northwest County Sector remains the most populated of all city and county sectors with a 2010 population of 77,002. From 1990 to 2000, Northwest County's total population increased by 27.2 percent. However, the following decade experienced a lower growth rate of 22.5%. Reflective of national trends, the population of this sector is aging, with the most significant growth occurring among those aged 45 and older, the "baby boom" generation. The next most significant population growth has occurred among those aged 5 to 34 years, also representing a continuing trend from the previous decade, with young families moving into the area.

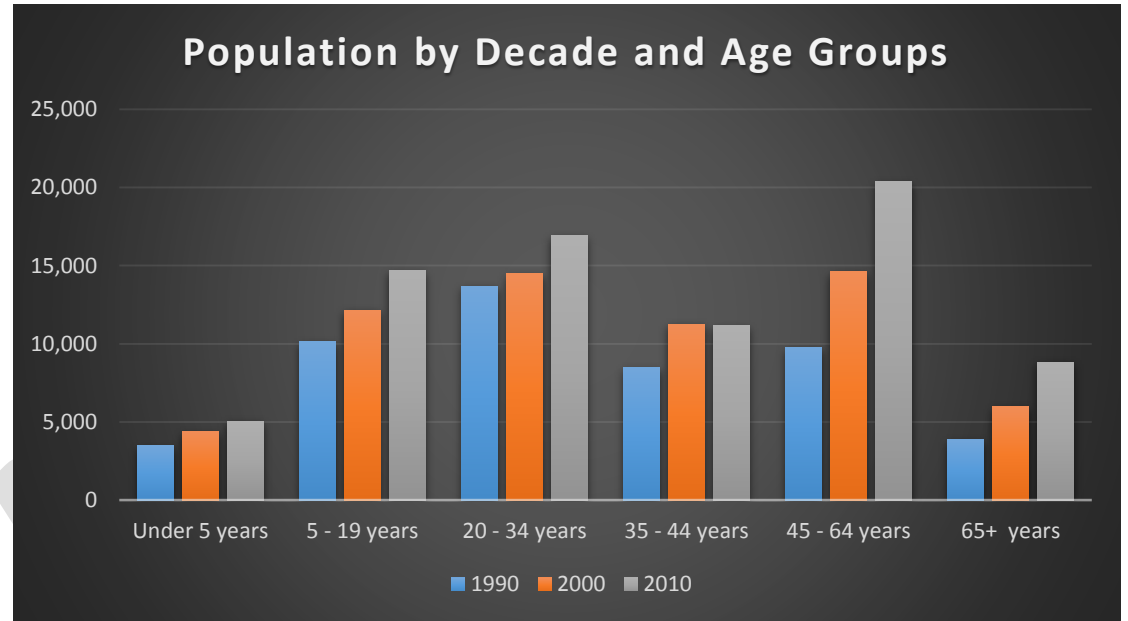


Figure 1. This graph represents population by decade and age group since 1990. As of the 2010 census those age 45 to 64 has risen the most in the Northwest County Sector.

Table 1: Northwest County Sector Population by Age and Sex

Age	1990	2000	% Change	2010	% Change
Under 5 years	3,501	4,382	25.2	5,067	15.6
5 - 19 years	10,133	12,173	20.1	14,676	20.6
20 - 34 years	13,701	14,481	5.7	16,905	16.7
35 - 44 years	8,466	11,253	32.9	11,155	-0.9
45 - 64 years	9,763	14,602	49.6	20,376	39.5
65+ years	3,840	5,973	55.5	8,823	47.7
TOTAL	49,404	62,864	27.2	77,002	22.5
Male	24,056	30,584	27.1	37,613	23.0
Female	25,348	32,280	27.3	39,389	22.0

In the last twenty years, the majority of the population has shifted from the City to the County with over 58 percent of the population residing in the county as of the 2010 census. At the Knox County level, from 1990 to 2010 the total population grew 28.7 percent, while the city of Knoxville’s population grew only 5.3 percent and the county balance has grown 52.6 percent. Since 1990, Knox County’s population has shifted from 50.6 percent found within the City of Knoxville to only 41.4 percent in 2010.

Table 2. Knox County Population

	1990	Share (%)	2000	Share (%)	2010	Share (%)
Northwest County	49,404	14.7	62,864	16.5	77,002	17.8
Knox County	335,749		382,032		432,226	
City of Knoxville	169,761	50.6	173,890	45.5	178,874	41.4
County Balance	165,988	49.4	208,142	54.5	253,352	58.6

The Northwest County sector has remained the most populated sector for the last 20 years, with the next highest population being the Southwest County sector. Population growth has leaned significantly toward the western part Knox County in the last twenty years. The third most populous sector is North County, but it is significantly lower in total population with the sector being comprised of over 20,000 less persons. The most significant population growth in the county sectors generally follows the corridors of interstates and major arterials, particularly in sectors bordering adjacent counties.

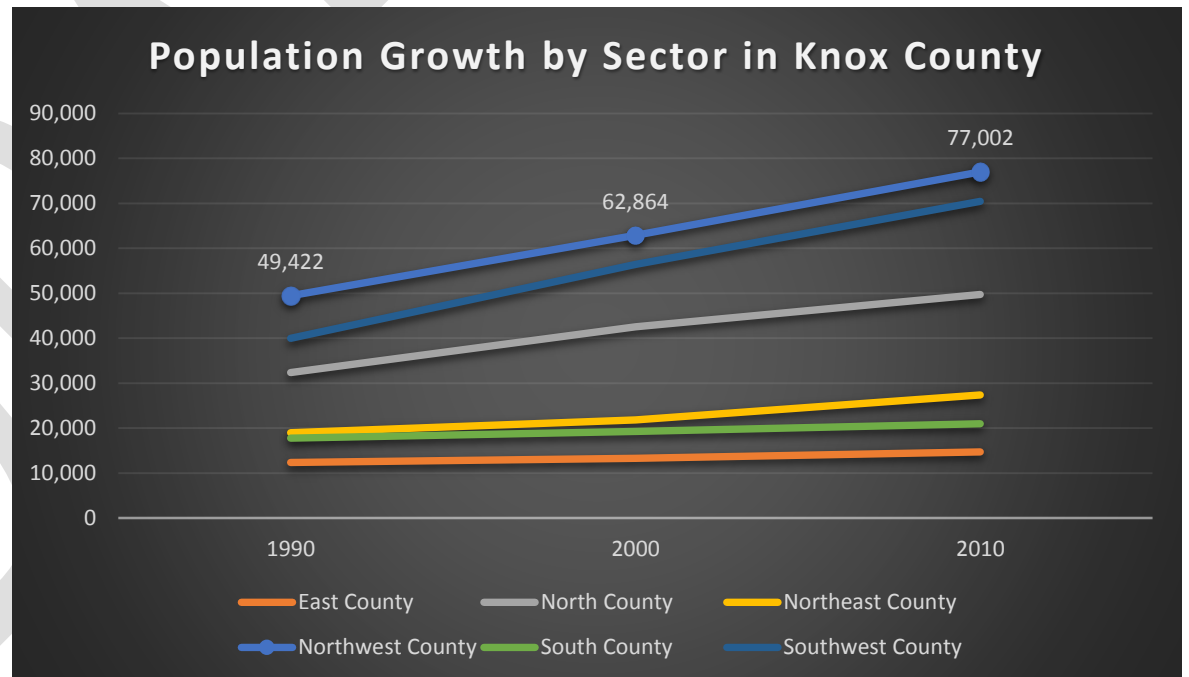


Figure 2. The Northwest County Sector has the largest population of all city and county sectors, the second largest population is found in the southern adjacent sector, the Southwest County Sector.

Table 3. Knox County Sector Populations

County Sectors	1990	Share (%)	2000	Share (%)	2010	Share (%)
East County	12,357	7.2	13,313	6.2	14,699	5.6
North County	32,391	19.0	42,557	19.7	49,754	19.1
Northeast County	18,993	11.1	21,816	10.1	27,386	10.5
Northwest County	49,422	28.9	62,864	29.1	77,002	29.6
South County	17,759	10.4	19,236	8.9	20,988	8.1
Southwest County	39,990	23.4	56,419	26.1	70,459	27.1
TOTAL	170,912		216,205		260,288	

D. Public Facilities and Infrastructure

Schools

The Northwest County Sector is served by thirteen elementary schools, five middle schools, and four high schools. Total enrollment numbers for the Northwest Sector show an increase in enrollment over the past six years, which would be expected with the sizable growth in young families. Most elementary, middle, and high schools showed a steady increase in enrollment from 2008 to 2013. Karns High School lost students; this can be explained by the addition of the Hardin Valley Academy in 2008. West High School showed a decline until last year. Cedar Bluff Elementary showed significant gains due a merger with Cedar Bluff Intermediate School. In 2006, Amherst Elementary was opened along the Schaad Road Extension. Currently, Knox County Schools has no plans for any new schools in the sector.

The Northwest County Sector also has the largest concentration of private schools in the county. These schools include Catholic High School, Christian Academy of Knoxville, Episcopal School of Knoxville, Grace Christian Academy, and Webb School.



Image 3. Hardin Valley Academy opened in 2009 and is now the largest high school located within the Northwest County Sector. The adjacent Hardin Valley Elementary is also the largest elementary school in the sector.

Table 4. Enrollment of Schools Servicing the Northwest County Sector Population

School Name	2008	2009	2010	2011	2012	2013
Amherst Elementary	710	754	760	737	765	815
Ball Camp Elementary	429	435	437	446	453	495
Bearden Elementary	315	318	322	328	361	386
Cedar Bluff Elementary	583	986	1,270	1,327	1,350	1,423
Cedar Bluff Intermediate <small>(Merged with Cedar Bluff Elementary in 2010)</small>	538	200	NA	NA	NA	NA
Farragut Intermediate	1,030	1,061	1,110	1,067	1,074	1,079
Farragut Primary	1,003	992	939	975	1,020	951
Hardin Valley Elementary	881	971	1,034	1,033	1,122	1,176
Karns Elementary	1,112	1,087	1,067	1,109	1,129	1,016
Pleasant Ridge Elementary	354	384	367	364	363	351
Pond Gap Elementary	330	349	332	327	344	347
Powell Elementary	858	929	940	930	949	967
West Hills Elementary	696	692	741	765	760	807
Elementary Schools Total						
Bearden Middle	1,124	1,065	962	996	1,118	1,261
Cedar Bluff Middle	536	538	594	594	606	605
Karns Middle	1,211	1,207	1,216	1,228	1,326	1,317
Northwest Middle	772	755	777	824	723	847
Powell Middle	933	925	889	918	1,038	1,002
Middle Schools Total						
Bearden High	1,984	1,884	1,894	1,932	1,896	1,958
Hardin Valley Academy <small>(Opened in 2009)</small>	NA	1,207	1,739	1,899	1,872	1,908
Karns High	1,981	1,417	1,273	1,254	1,262	1,317
West High	1,462	1,335	1,287	1,223	1,223	1,311
High Schools Total						

Northwest County Sector
Elementary School Enrollment,
2008-2013:
7,809 to 8,734
+ 11.85%

Northwest County Sector
Middle School Enrollment,
2008-2013:
4,576 to 5,032
+ 9.97%

Northwest County Sector
High School Enrollment,
2008-2013:
5,427 to 6,494
+ 19.66%

The Knox County School Board makes decisions regarding school construction and maintenance. Currently, the capital improvement program for almost all Knox County's schools revolves around maintenance and upgrading of existing facilities, such as a school's electrical, heating, and cooling systems.

Libraries

The Northwest County Sector is served by four Knox County branch libraries. The Karns and Cedar Bluff Libraries are located inside the Northwest sector while the Powell and Farragut Libraries are located outside the sector but still serve Northwest Knox County residents. Pellissippi State Technical Community College also has a 40,000 square foot library with 35,000 titles that is primarily used by students and faculty but is open to visitors.

As the population increases within this area, the need for an additional branch library will also increase. Several factors influence the location of a future branch library including existing branch locations, a desirable service radius and accessibility based on topography and roadways. Presently, there are no plans by Knox County Libraries to build additional or new libraries.

Public Safety

Police protection in the sector is primarily provided by Knox County Sheriff's Department, except for the areas that are located within the City of Knoxville. The Tennessee Highway Patrol also provides support for police services when needed. Those areas are covered by the Knoxville Police Department. Fire protection services are provided primarily by the Karns Volunteer Fire Department, which consists of both volunteer and paid firefighters and emergency response and life support teams. However, areas outside of the Karns Volunteer Fire Department's Response Area are provided by Rural/Metro Fire Department. Areas of the sector within Knoxville's city limits are provided by the City of Knoxville Fire Department.



Image 4. The Karns Volunteer Fire Department Station 2 was constructed in 2013 to better serve the growing population in the Hardin Valley area.

Parks and Greenways

With over 75,000 residents, the Northwest County Sector has the largest population in the county. The greatest needs are to develop close-to-home parks that can be reached by biking or walking and to continue to make greenway connections. Proposals for the sector include: developing a recreation center and park with both indoor and outdoor recreation, acquiring land between the middle school and elementary school in Hardin Valley, developing a Northwest District Recreation Center, and possibly expanding the Melton Hill Community Park. Most of Knox County's suburban area neighborhood parks – those within walking distance of residents – were never created. So, in turn, the 2010 Knoxville-Knox County Park, Recreation and Greenways Plan calls for neighborhood parks and greenway extensions to alleviate this situation. Conner Creek, Cate Road, Yount Road, Emory Road Neighborhood, Yarnell Road, Beaver Valley, Lobetti Road, and West Ridge are all targeted locations for neighborhood parks in the park plan. This will relieve the reliance on having to drive to community parks for recreation.

Table 5. Northwest County Sector Park Acreage

Park Classification	Acreage
Neighborhood	20.23
Community	287.26
District/Regional	261.35
Private/Quasi Public (Total)	135.31
Open Space/Natural Area	121.76
Total Acreage	825.92
Acres Close-to-home Parks/1,000 population	4.54
Total	1,656.37



Image 5. The Northwest SportsPark was completed in 2005 providing baseball, softball and soccer field facilities. Photo provided courtesy of Knox County Parks & Recreation Department.

The Metropolitan Planning Commission (MPC), the City of Knoxville and Knox County collaborated on the Knoxville-Knox County Park, Recreation, and Greenways Plan. See Appendix A for excerpts for the recommended park and greenway improvements in the Northwest County Sector Plan.

In summer 2014, the Great Smoky Mountains Regional Greenway Council, the Knoxville Regional Transportation Planning Organization (TPO), along with Knox County, the City of Oak Ridge, the City of Knoxville, Oak Ridge National Lab (ORNL) and Tennessee Technology Corridor Development Authority (TTEDA) initiated a planning process to link West Knoxville and Knox County to Oak Ridge via greenway trails. This planning process is currently underway and is expected to be completed by December 2014. For additional information regarding this planning process please contact Ellen Zavisca with the TPO at ellen.zavisca@knoxtrans.org or Shauna Godlevsky at Knox County at shauna.godlevsky@knoxcounty.org.

Public Utilities

Electricity in the Northwest Sector is provided by the Knoxville Utilities Board (KUB) and the Lenoir City Utilities Board (LCUB). KUB provides service to the eastern part of the sector while LCUB provides service to the western part of the sector, which includes a portion of the Town of Farragut.

Water and wastewater service are provided to the sector through four different utility companies (see [Existing Wastewater](#) and [Water Service Maps](#)). West Knox Utility District serves the majority of the Northwest County sector. Hallsdale-Powell serves the northeastern section of the sector, and Knoxville Utilities Board (KUB) serves the southeastern section of the sector. First Utilities District provides service to a small area east of Pellissippi Parkway and south of Yarnell Road. Water mains are depicted in the [Existing Water Service map](#). It is clear that public water and wastewater service is primarily provided in the areas that are experiencing steady suburban growth. Generally extensions of water and wastewater service extensions are constructed by developers when needed for a project, local utility districts inspect the work and the lines are then turned over to the utility district. When capacity and pollution problems exist, some utilities will seek grant money to address areas of concern, such as the provision of sanitary sewer services to the Ball Camp community, an area that had been heavily reliant on septic systems. The West Knox Utility District completed installation of the sewer network to the Ball Camp community through the use of American Recovery and Reinvestment Act (ARRA) grants and a State Revolving Fund loan to help fund the extension of sewer services to reduce fecal contamination in local waterways.

Urban Agriculture

Knox County is home to the first food policy council in the world. The Food Policy Council was created in 1982 and includes appointees made through the Knoxville and Knox County mayors. Along with the appointed members, there are associate members; together they work to address issues of food security, access and equity.

Recently, interest has been building in food systems planning, including food access and urban agriculture. Public health impacts, such as rates of obesity, diabetes and heart disease have demonstrated strong correlations with lack of access to healthy affordable food. Burgeoning interest in local food, including the growth of farmers' markets and community gardens, is creating a robust local food economy. Cities across the world, including Knoxville, are looking at reuse of blighted properties for urban agriculture, as a means of job creation and neighborhood stabilization. These neglected spaces have the capacity to become income generators as well as providing a space for social interaction to further strengthen connections between neighbors.

The Knox County Health Department, the City of Knoxville and other organizations have been working to address these challenges and interests. A recent focus has been addressing the problem of "food deserts," which are areas where populations are challenged by low income and poor access to a supermarket or large grocery store. While the majority of US Department of Agriculture (USDA) designated "food deserts" are within city sectors, the more rural and suburban areas of Knox County have the capacity to retain and redevelop our local agricultural economy by preserving prime agricultural soils for farms and farming. Landowners have the option to use agricultural conservation easements and/or conservation subdivision development, as well as other tools that help preserve farmland for future generations of local farmers. (See the [Agricultural Soils and Greenbelt Program Parcels Map](#).)

E. Transportation

The 2040 Long Range Mobility Plan for the Knoxville Region was adopted by the Transportation Planning Organization Executive Board in 2013. The Mobility Plan lays out the vision for transportation in our region for the next 27+ years. All transportation projects that receive federal funding or are regional in nature must first be included in this plan. The following projects, or portions thereof, are in the Northwest County Sector (See the [Planned Roadway Improvement Map](#)).

Table 6. Northwest County Sector Long Range Mobility Plan Projects (2015-2040)

Project Name	Termini	Length (miles)	Project Description	Horizon Year
Pellissippi Parkway (I-140) Restriping	I-40 to Dutchtown Road	0.4	Re-stripe to add one lane on northbound I-140	2015
Pleasant Ridge Road / Merchants Drive Widening, Phase 2	Knoxville City Limits (Country Brook Lane) to Merchant Drive / Pleasant Ridge Road to Wilkerson Road	1.6	Add center turn lane	2019
Schaad Road Widening	Oak Ridge Hwy (SR 62) to Pleasant Ridge Road	1.5	Widen 2-lane to 4-lane	2019
Pellissippi Parkway (SR 162) / Hardin Valley Road Interchange Improvements	Interchange at Hardin Valley Rd	0	Interchange at Hardin Valley Rd	2019
Karns Connector - New Road Construction	Westcott Blvd to Oak Ridge Hwy (SR 62)	0.8	Construct New 2-lane road with center turn lane	2019
Lovell Road (SR 131) Widening	Cedardale Ln to Middlebrook Pike (SR 169)	1.7	Widen 2-lane to 4-lane with median, bike lanes, sidewalk	2019
Schaad Road Extension / New Road Construction	Middlebrook Pike (SR 169) to west of Oak Ridge Hwy (SR 62)	4.6	6 Construct new 4-lane road with median, 6' sidewalks, 2 grade separated rail crossings	2024
Oak Ridge Highway (SR 62) Widening	Oak Ridge Hwy (SR 62) Widening	4.2	Widen 2-lane to 4-lane with TWLTL most likely as well as bike lanes and sidewalks	2024

Pellissippi Parkway (SR 162) at Lovell Rd (SR 131) Interchange Improvements	Interchange at Lovell Rd (SR 131)	0	Reconfigure existing interchange to improve safety and operations	2024
Byington-Beaver Ridge Rd (SR 131) Railroad Underpass	At One-Lane Railroad Underpass	0.2	Widen railroad underpass	2024
Campbell Station Road Widening	Snyder Rd to Yarnell Rd	1.8	Widening to include addition of center turn lane, bike/pedestrian facilities	2024
Pellissippi Parkway (SR 162) Widening	Edgemoor Rd (SR 170) to Dutchtown Rd	6	Widen from 4-lane to 6-lane	2034
Emory Road (SR 131) Widening	Oak Ridge Hwy (SR 62) to Clinton Hwy (US 25W / SR 9)	5	Add center turn lane	2029
Oak Ridge Highway (SR 62) Widening	Byington-Beaver Ridge Rd (SR 131) to Pellissippi Pkwy (SR 162)	4.2	Widen 2-lane to 4-lane	2029
Vanosdale Road Widening	Buckingham Rd to Middlebrook Pike (SR 169)	0.9	Add center turn lane	2040
I-40/75 Widening	I-40 / I-75 Interchange to Lovell Rd (SR 131) Interchange	6.7	Widen 6-lane to 8-lane	2040

The Major Road Plan for the City of Knoxville and Knox County was adopted by MPC, City Council, and County Commission in 2011. It views each road as part of the overall transportation system and identifies its functional classification (such as freeways and arterial roads). It assigns right-of-way requirements based on the purpose and function of the road, future road improvements, future pedestrian improvements, traffic counts, and anticipated development. The recommendations contained in the Major Road Plan are brought forward into the sector plan.

The Major Road Plan for the City of Knoxville and Knox County, Tennessee was adopted by MPC, City Council and County Commission in 2004 and updated in 2011. It views each road as part of the overall transportation system and identifies its functional classification. It assigns right-of-way requirements based on the purpose and function of the road, future road improvements, future pedestrian improvements, traffic counts, anticipated development, and policies and goals contained in plans (including the sector plan, long-range transportation plans, and the [Knoxville-Knox County General Plan](#)). The [Planned Roadway Improvements map](#) was developed using data from the [Long Range Mobility Plan](#) and the [Major Road Plan](#).

Transit, Sidewalks and Bike Facilities

Residents' ability to use transit, sidewalks and bike facilities to walk to schools, parks, and shopping is limited ([See the Sidewalks, Greenways, Transit Routes and Parental Responsibility Zones Map](#)). Only a small portion of the sector is serviced by transit, primarily the Cedar Bluff area. Sidewalks and greenways are also quite limited; however, Middlebrook Pike has a sidewalk running from the Bearden Middle School area all the way to Ball Camp Pike. Hardin Valley Road also has a sidewalk running primarily from Pellissippi State Community College past Hardin Valley Academy to the Food City Shopping Center at the intersection of N. Campbell Station Road. A portion of the Ten Mile Greenway is located in the Northwest sector and the Pellissippi Greenway runs along the Pellissippi Community College through a portion of the Tennessee Technology Corridor. In 2013, Knox County completed the Karns Road sidewalk linking Karns Elementary School, a commercial center, the Lions Club Ball fields, and swimming pool facility.



Image 6. The Karns Road sidewalk was completed in 2013 and helps provide a safe route for children walking to Karns Elementary School.

F. Environmental Constraints

Topography

The Hillside and Ridgetop Protection Plan is the result of the Joint City/County Task Force on Ridge, Slope and Hillside Development and Protection. The plan was adopted in 2011 and 2012 by the Knoxville City Council and Knox County Commission. The Hillside and Ridgetop Protection Area (HRPA) addresses primarily areas with a slope of 15 percent or greater. The intent is to reduce the intensity of development in the HRPA and encourage/incentivize the transfer of development intensity to less environmentally sensitive areas, which helps to reduce the quantity of stormwater runoff and maintain the quality of the area's water resources.

Public safety is also a concern in relocating the intensity of development. Sloped areas have greater susceptibility for soil slippage and failure. Many of the soils along slopes are considered unstable, and removal of vegetation that secures the soil promotes further slope failure.

The Hillside Plan policies (as of 2012) regarding development on steep slopes and ridgetops within the HRPA are as follows:

Residential densities within slope categories for purposes of calculating an overall density in the planned residential zones:

- 15 to 25 percent slopes: 2 dwelling units per acre
- 25 to 40 percent slopes: 1 dwelling unit per 2 acres
- Slopes greater than 40 percent: 1 dwelling unit per 4 acres
- Densities on ridgetops are determined on a case-by-case basis.

Other criteria:

- Medium-density residential and office development on 15 to 25 percent slopes: clear no more than 50 percent of the HSPA and structures should have a footprint no more than 5,000 square feet.
- Commercial development that extends into 15 to 25 percent slopes should include slope restoration and reforestation of cut-and-fill areas.
- Industrial development is not recommended on slopes that exceed 15 percent.
- Non-residential uses in the HSPA should use planned development zones during the review process.

The Northwest County sector is characteristic of the ridge and valley geology that dominates the East Tennessee landscape. Beaver Ridge runs the entire length from east to west in the Northwest County Sector. It is the steepest and most significant elevated landscape feature in the sector, with slopes greater than 40-50 percent. The steepest areas of Beaver Ridge remain largely undeveloped. Copper Ridge and Black Oak Ridge are also prominent steeply sloped features in the sector. These ridges have seen encroachment of more intense land uses such as medium density residential, office and commercial, and industrial. Physical constraints such as steep slope, floodplains, and sink holes limit development activity. The [Environmental Constraints map](#) provides a picture of the land that has the fewest constraints for development. Development is also constrained by lack of infrastructure such as adequate roads and sanitary sewer services, as identified in the [Existing Wastewater](#) and [Water Service Maps](#).

Flood Prone Areas

FEMA's Flood Insurance Study - Knox County, Tennessee and Incorporated Areas (2007) identified Beaver Creek, Hickory Creek, Connor Creek, Turkey Creek, Ten Mile Creek, Sinking Creek and Plumb Creek as principal flood sources. These waterways are subject to continuing suburban development and hydrology modification, which increase storm water runoff and limit soil infiltration.

Water Quality

There are nine sub-watersheds intersecting the Northwest County sector. These watersheds include Beaver, Clinch River, Conner, Fourth, Grassy, Hickory, Ten Mile, Third, and Turkey. These sub-watersheds are part of the larger watershed of the Upper Tennessee. The health of the sub-watersheds and their respective drainage areas vary across the sector. Leaking septic systems, poor development practices, and agricultural activities are the primary contributors to poor water quality found in the some of the streams.



Image 7. The Harrell Road Stormwater Park is 15 acre site in the Beaver Creek Watershed behind the Painter Farms subdivision. Once completed this park will provide walking trails and wildlife viewing, as well as serving as a teaching tool for alternative stormwater management techniques, such as constructed wetlands. Conceptual drawing provided courtesy of East Tennessee Community Design Center.



Image 8. Ten Mile Creek is considered impaired according to the most recent TDEC water quality status list, also known as the 303(d) list.

The largest sub-watershed in the Northwest County sector is Beaver Creek ([See Watershed and Impaired Streams Map](#)). The Beaver Creek Task Force (BCTF) was established in 1998 to address watershed issues and improve the overall health of the creek. According to the 2012 Tennessee Department of Environment and Conservation (TDEC) 303(d) list (which is a list of impaired streams), Beaver Creek remains impaired due to alterations and degradation of biological functioning of the creek's habitat. Beaver Creek and many other streams in the sector continue to be listed as impaired because of siltation from runoff from construction sites, high velocity of runoff from impervious areas, and the presence of fecal contamination. However, the EPA has approved siltation and pathogen Total Maximum Daily Loads (TMDLs) that address some of the known pollutants.

The pathogen E-coli is a cause of fecal contamination and is often found in several settings such as rural areas with inadequate septic systems and/or large concentrations of livestock and in urban areas that have wastewater collection system failure. Aside

from Beaver Creek, the Turkey, Fourth, Third, Ten Mile, and Grassy Creek Watersheds are

all contaminated with E-coli. Agricultural runoff and a reliance on septic tanks in more rural areas have influenced the quality of these streams. Land use and water quality are integrally linked. Best management practices for stormwater infiltration to reduce runoff and preventative measures to retain sediment on construction and agricultural sites and vegetated buffers around water bodies can help make streams safe and usable again for fish and humans.

Agricultural Soils and Greenbelt Program Parcels

More than 35% of the sector's land use is composed of agricultural, forest, and vacant land. The prime and locally important farmland soils are located along Beaver Creek ([See the Agricultural Soils and Greenbelt Program Parcels Map](#)). The State of Tennessee's Greenbelt Program applies to parcels where the property owner has elected to limit the use of land to agriculture or forest production practices. By doing so, a land owner's property tax is based on the value as farm or forest land and not on market value for residential or commercial purposes. The Greenbelt program does not guarantee permanent farmland protection; owners can opt out and redevelop after paying rollback taxes. In the Northwest County sector, a substantial portion of land is protected under the Greenbelt program ([See the Agricultural Soils and Greenbelt Program Parcels Map](#)), and a vast majority of this land is west of Pellissippi Parkway.

G. Existing Land Use

Existing Land Use refers to the actual use of land based on its observable characteristics. It describes the predominant use that takes place in physical or observable terms (e.g., farming, shopping, manufacturing, vehicular movement, etc.). The existing land use classification definitions ONLY apply to this existing land use section.

Agriculture/Forestry/Vacant - Includes land that is used for agricultural or forestry purposes. This classification also incorporates vacant land that is not used in conjunction with adjacent parcels, and includes single family residential on ten or more acre lots.

Commercial - This classification includes land uses that have sales and services, not including personal services such as real estate and banking services, which are classified under office.

Industrial/Manufacturing - Includes all manufacturing and assembly uses. This category is used as a catch-all for uses commonly found in industrial areas, excluding wholesale/warehousing.

Multifamily - Includes residential developments commonly associated with development that is denser than single family development, including condominiums, planned unit development, mobile home parks, group quarters, and multifamily housing.

Office - Typical office uses should be categorized here including those that are primarily office-use in character. The use includes some uses that may sometimes be considered commercial uses, such as banks and real estate offices. Use this category as a catch-all designation for all office-type uses.

Private Recreation - Includes cultural or natural exhibition, amusement, recreation activities, resorts, and camps.

Public Parks - Includes public parks.

Public/Quasi Public Land - Includes government owned land, religious institutions, public gathering places, educational services.

Right of Way/Open Space - Includes public rights of way that have no major structures.

Rural Residential - Includes residential uses that are located on two to ten acre parcels.

Single Family Residential - Includes residential uses that are located on two or less acre parcels.

Transportation/Communication/Utilities - This is a catch-all category comprising transportation, communication, and utilities for essential facilities.

Under construction/Other Uses - Includes uses under construction, contract construction, and other uses that cannot be categorized.

Water – Includes permanently watered areas such as lakes, rivers, large sink holes, and creeks.

Wholesale and Warehousing –

Wholesaling is an intermediate step in the distribution of merchandise. Wholesalers either sell or arrange the purchase of goods to other businesses and normally operate from a warehouse or office. They may be located in an office building or a warehouse. Unlike retailers, their warehouses and offices have little or no display of merchandise.

Warehousing includes storage facilities for general merchandise, refrigerated goods, and other warehouse products. They provide the facilities to store goods but do not sell the goods they handle. They may also provide a range of services related to the distribution of goods, such as labeling, breaking bulk, inventory control and management, light assembly, order entry and fulfillment, packaging, pick and pack, price marking and ticketing, and transportation arrangement.

Mining and Landfills - These establishments extract natural mineral solids (coal and ores), liquid minerals (crude petroleum), and gases (natural gas). Mining includes quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparations customarily performed at the mine site, or as a part of mining activity. Also classified in this category are landfills and resource recovery facilities.

Although Northwest County is experiencing steady suburban growth, 35.5% of existing land use is still primarily composed of agriculture, forest, and vacant land. Another 6,000 acres of rural residential land add to the rural character of some sector areas. Most of the agricultural and rural residential land is found west of Pellissippi Parkway ([See the Existing Land Use Map](#)).

Single family residential uses are becoming more extensive, accounting for more than 18% of the sector's land use. Most of the single family residential land use lies in the southwestern part of the sector and along major transportation routes such as W. Emory Road, Oak Ridge Highway, and Middlebrook Pike.

Public and quasi-public land now represents over 1,600 acres of the sector, which is 3.02% of the sector's land use area. The success of the TN Technology Corridor and medical facility development is reflected in the 1,166 acres of office uses (2.14%). The 308 acres of transportation/communications/utilities include a long swath of land set aside by TVA along Melton Hill Lake. Commercial land, which includes retail and wholesale uses, comprises 1.33% of the sector's land use and is found primarily just north of Interstate 40/75.

Table 7. Northwest County Sector Land Use (2013)

Land Use Categories	Acreage	Percent Share
Agriculture/Forestry/Vacant Land	19,341	35.5
Commercial	722	1.3
Industrial (Manufacturing)	317	0.6
Multifamily Residential	1,532	2.8
Office	1,166	2.1
Private Recreation	266	0.5
Public Parks	611	1.1
Public/Quasi Public Land	1,644	3.0
Right of Way/Open Space	9,955	18.3
Rural Residential	6,118	11.2
Single Family Residential	10,158	18.7
Transportation/Communications/Utilities	308	0.6
Under Construction/Other Uses	113	0.2
Water	1,795	3.3
Wholesale	76	0.1
Mining and Landfills	338	0.6
TOTAL	54,458	



Image 9. Several attached housing and multifamily residential developments have been constructed in the Hardin Valley area near Pellissippi State Community College and Hardin Valley Academy.

Residential Building Permits

Northwest County had an increase of 7,029 residential units between January 2003 and June 2014. This increase in units accounted for 21 percent of the permit value for residential new construction in all sectors.

Table 8. Northwest County Sector Residential Building Permits for New Construction (January 2003 - June 2014)

Housing Type	Northwest County		NW County as Percent of All Sectors	
	Number of Units	Permit Value	Number of Units	Permit Value
Mobile Homes	318	N/A	20.0%	N/A
Attached Housing (Condos/Townhouses)	952	\$80,285,816	21.8%	20.46%
Detached Housing Units	4,380	\$574,639,909	25.4%	22.44%
Multi-family Units (Apartments/Rental Duplexes)	1,379	\$66,028,679	18.4%	14.04%
TOTAL	7,029	\$720,954,404		21.04%

Non-Residential Building Permits

Northwest County had 351 permits issued for non-residential new construction, representing 21.5 percent of the building permit value for these uses in all sectors.

Table 9. Northwest County Sector Non-Residential Building Permits for New Construction (January 2003 – June 2014)

Construction Type	Northwest County		NW County as Percent of All Sectors	
	Number of Permits Issued	Permit Value	Number of Permits Issued	Permit Value
Commercial	332	\$284,101,773	18.9%	22.3%
Industrial	19	\$11,976,000	12.9%	11.7%
TOTAL	351	\$296,077,773		21.5%

Residential Subdivisions

From 2003 to 2013, Northwest County gained 5,140 residential lots distributed among 675 new subdivisions and 4,078.6 acres. The sector also accounted for 30.4 percent of all residential subdivision lots compared to all county sectors during this time.

Table 10. Northwest County Sector Residential Subdivision Permits (2003 – 2013)

	Northwest County	All County Sectors	Share (%)
Subdivision acreage	4,078.6	15,277.0	26.7%
Subdivisions	675	1,834	36.8%
Number of Lots	5,140	16,900	30.4%

Non-Residential Building Permits

Between 2003 and 2013, Northwest County registered 332 commercial and 19 industrial building permits. The sector’s share of commercial and industrial building permits was second highest among all county sectors: more than 27 percent of commercial permits and over 29 percent of industrial permits were located in the Northwest County Sector. Of all sectors during this time, Northwest County had the second highest activity of non-residential permits during this time. See the [Building Permits for New Construction Map](#) for the distribution of these permits within the sector.

Table 11. Non-Residential Permits County Sectors (2003 – 2013)

	Commercial	Share (%)	Industrial	Share (%)
East County	60	5.0%	30	45.5%
North County	166	13.8%	5	7.6%
Northeast County	53	4.4%	9	13.6%
Northwest County	332	27.5%	19	28.8%
South County	85	7.0%	3	4.5%
Southwest County	510	42.3%	0	0.0%
TOTAL	1206	100.0%	66	100.0%

Housing

The housing composition (types of homes) for the Northwest County sector has also changed slightly over the past two decades. Detached housing units accounted for 63.2% of all housing units in 2010, which is down from 64.8% in 1990. Attached housing units accounted for 8.9% of all units in 2010, which is up from 2.9% in 1990. Multi-dwelling units have decreased from 22.8% in 1990 to 20.3% in 2010. Mobile home units have decreased from 9.0% in 1990 to 7.6% in 2010. The sector as a whole has seen a 28.3% increase in housing units since 2000.

Table 12: Northwest County Housing Unit Types

	1990	% of Housing Units 1990	2000	% of Housing Units 2000	% Change 1990-2000	2010*	% of Housing Units 2010*	% Change 2000-2010 *
Detached	13,213	64.80%	17,558	64.40%	32.90%	22,109	63.20%	25.90%
Attached	584	2.90%	1,928	7.10%	230.10%	3,118	8.90%	61.70%
Multi-dwelling	4,640	22.80%	5,549	20.40%	19.60%	7,081	20.30%	27.60%
Mobile Home	1,832	9.00%	2,212	8.10%	20.70%	2,654	7.60%	20.00%
Total	20,394	100%	27,247	100%	33.60%	34,962	100%	28.30%

*2010 housing unit type data is based on the American Community Survey (2006-2010)

Building Conditions

Most of the housing in the Northwest County sector is in good to excellent condition. This is expected because so many subdivisions are relatively new. The “picture” formed by the yellow and red patterns on the [Residential Building Conditions Map](#) is not alarming because several older units on large parcels visually over-emphasize the extent of less-than-good housing.

Not surprisingly, the majority of the sector’s commercial, industrial and office buildings in the sector are in good to excellent condition because they are also relatively new (see [Commercial and Industrial Building Conditions Map](#)). The office and technology development buildings in the Pellissippi Corridor are generally less than 25 years old and were created via stringent design guidelines. That is also the case for the industrial and warehouse/distribution in West Bridge Business Park and the medical buildings along Sherrill Boulevard. Large parcels that have buildings in poor condition are not cause for alarm; these parcels generally have only one or two buildings on them. For example, the red rectangle on Schaad Road is a golf course with a couple of maintenance sheds considered to be in poor condition.

The source of the following information is compiled from the 2013 Knox County Tax Assessor’s data. MPC is presenting the “big picture” in the following tables, text and maps. In other words, the general patterns and percentages are discussed.

Commercial – Industrial – Office Buildings: The patterns of conditions are depicted on the following “Commercial and Industrial Building and Conditions” map. The majority of commercial and industrial buildings are rated as “fair/average” or “good/very good/excellent.” There are fifteen parcels that contain buildings rated as “very poor/poor” ([See the Commercial and Industrial Building Conditions Map](#)).

Table 13: Northwest County Sector Commercial-Industrial-Office Building Conditions (2013)

Building Conditions	Number of Structures	Total Square Feet
Poor	15	100,309
Fair/Average	571	8,769,025
Good/Very Good/Excellent	481	6,884,696

Residential Buildings: The patterns of conditions are depicted on the [Residential Building Conditions Map](#). The majority of residential structures are rated as good/very good/excellent or fair/average. There are 289 residential structures on parcels that are rated unsound/very poor/poor.

Table 14: Northwest County Sector Residential Building Conditions (2013)

Building Conditions	Dwelling Units	Apartment Buildings	Mobile Home Units
Unsound/Very Poor/Poor	222	2	65
Fair/Average	6,331	420	882
Good/Very Good/Excellent	16,025	100	72

Growth Policy Plan

The majority of the area is in the unincorporated area of Knox County. A few small areas have been incorporated as part of the City of Knoxville including land on Francis Road, Middlebrook Pike, and McKamey Road and several parcels off Dutchtown Road, Cross Park Drive and Sherrill Boulevard. The city has the right to request annexations in several areas that are adjacent to the aforementioned locations (see Urban Growth Boundary, shaded blue on the [Growth Policy Plan map](#)).

Within Knox County's unincorporated area, the designated Rural Area (shaded green on the [Growth Policy Plan map](#)) makes up a majority of the western part of the sector. This designation is made, under provisions of state law, to conserve agricultural, forest and other natural resources. The Planned Growth Area (shaded yellow on the [Growth Policy Plan map](#)) is designated to foster low to moderate forms of development. It primarily follows Pellissippi Parkway, Middlebrook Pike, Oak Ridge Highway, W. Emory Road, and Lovell Road. Several factors were taken into account in defining the Planned Growth Area, including the extent of public water and sanitary sewer services and the provision of adequate roads, schools, parks and related facilities.

H. Northwest County's Historic Resources

The 1986 county-wide historic inventory reveals that 288 historic structures and sites are located within the Northwest County Sector. A comprehensive update of that inventory has not occurred since that time. However, MPC staff recently conducted several field visits to some of the structures and sites within the sector that were part of the original inventory, and estimated that roughly 60 percent of the properties have been demolished or are in such a state of severe neglect that restoration does not appear feasible. Two structures have been demolished, including the Masonic-Temple Church at 3610 Copper Ridge Road and the Painter Property Barn at 5716 W. Beaver Creek Drive. In the 1986 inventory, nine structures were determined eligible for the National Register of Historic Places. In 2004, the Airplane Service Station at 6829 Clinton Highway was listed on the National Register of Historic Places ([See the Historic and Related Resources Map](#)).

A few of the highlights of the historic resources in this sector include:



Figure 3. Airplane Service Station (c. 1930)

Airplane Service Station 6829 Clinton Highway

In 1930, brothers Elmer and Henry Nickle built the Airplane Service Station on Clinton Highway. This structure is exemplary of the mimetic or “fantasy” style of architecture that occurred nationwide during this era.



Image 10. Fox-Duncan / Hillbrook House (c. 1834)

Fox-Duncan / Hillbrook House 3800 Copper Ridge Road

The two-story brick home was built c.1834 by August A. Fox, Sr., who moved to Knox County from North Carolina.



Image 11. Gallaher Ferry House (c. 1870)

**Gallaher Ferry House
12719 Manning Lane**

This c. 1870 house is marked by vernacular styling with Italianate influenced details. The two-story house also has a second-story balcony.



Image 12. Lockhart Place (c. 1798)

**Lockhart Place
2516 Gray Hendrix Road**

An early log house (c. 1798) is now encapsulated in a two-story frame East Tennessee vernacular with neoclassical detailing. Two outbuildings are built of railroad ties with Tudor Revival stylistic influences.



Lones-Dowell House
6341 Middlebrook Pike

This house is believed to have been built by Charles Lones in 1857-1859. The house itself is important because of the architecture and the illustration of early settlement pattern. It was recently restored by Knox Heritage and converted to an office use as part of the Dowell Springs Business Park.



Williams Bend House
3115 Williams Bend Road

This two-story frame and log house (c. 1875) is an example of early river valley settlement.

Image 14. Williams Bend House (c. 1875)

I. Tennessee Technology Corridor

Unique to the Northwest County Sector is the Tennessee Technology Corridor, which covers approximately 7,000-acres and stretches through west Knox County along the Pellissippi Parkway, extending north of I-40/75 to the Solway area ([See the Technology Corridor Map.](#)) The Corridor was established in 1983 by state legislation creating the Tennessee Technology Corridor Development Authority (TTCDA). The corridor was created to encourage technology-based economic development along an access-controlled freeway and the establishment of the Pellissippi State Technology Community College while preserving the area's forested ridges, rolling hills, and broad valleys. Currently, the "Technology Overlay" zoning within the corridor allows most types of office and light industry, with some limits on retail development. A comprehensive development plan and design

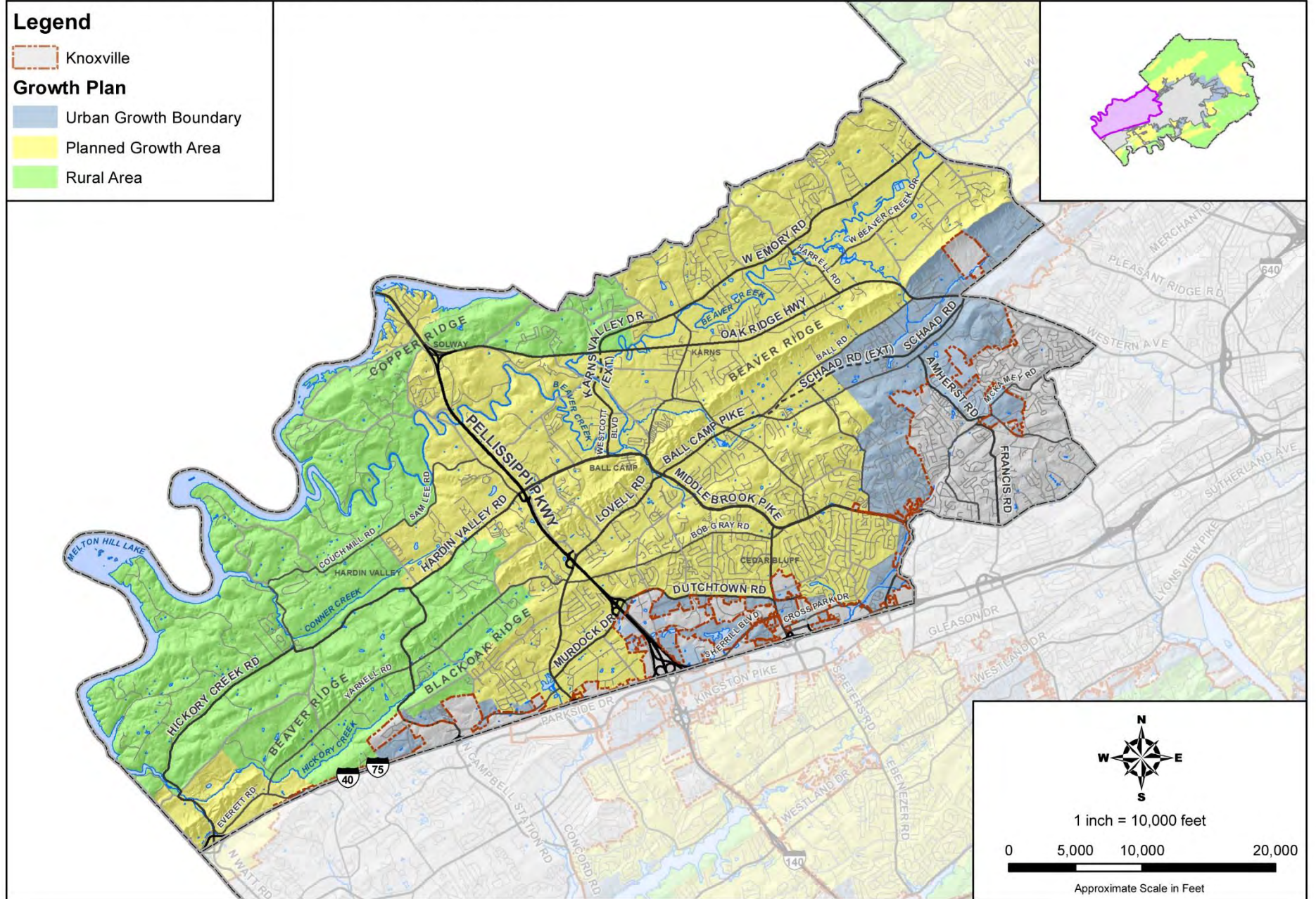
guidelines for the zoning overlay address land use, setbacks, lot coverage, signs, landscaping, lighting, access, and architecture intended to retain the corridor for technology related firms and employment centers given its proximity to Oak Ridge National Laboratory.

In 2008, twenty-five years after the establishment of the corridor, an update to the comprehensive development plan was completed to address changes in the corridor since its inception. Of particular note was the then potential construction of State Route 475, also known as the “Orange Route.” This road project would have created a major intersection in the Technology Corridor. SR-475 would have intersected with the Pellissippi Parkway south of the intersection with Oak Ridge Highway and north of the intersection with Hardin Valley. However, the proposal for SR-475 was eliminated by TDOT in 2010 after extensive public review of the project. The proposed land use plan for the area surrounding the “Orange Route” was modified as part of the TTCDA Comprehensive Development Plan 2008 Update, which in turn amended the 2003 Northwest Knox County Sector Plan ([See the Technology Corridor Land Use Plan Adopted 2008 Map](#)).

Removal of State Route 475



Prior to the adoption of the TTCDA Comprehensive Development Plan’s land use update, the areas at the proposed SR-475 interchange had been designated primarily for Agricultural/Rural Residential, Business Park, Technology Park and Mixed Use proposed land uses ([See the Technology Corridor Pre-2008 Land Use Plan Update Map](#)). With the updated land use plan in 2008, the areas then became designated for Transportation, in the areas surrounding the proposed right-of-way, Mixed Use, Office and Medium Density Residential & Office proposed land uses. Consideration of the removal of the SR-475 proposal and the impact that it will have on the land use update with the Northwest County Sector Plan will be analyzed and discussed in the forthcoming plan section of this document.

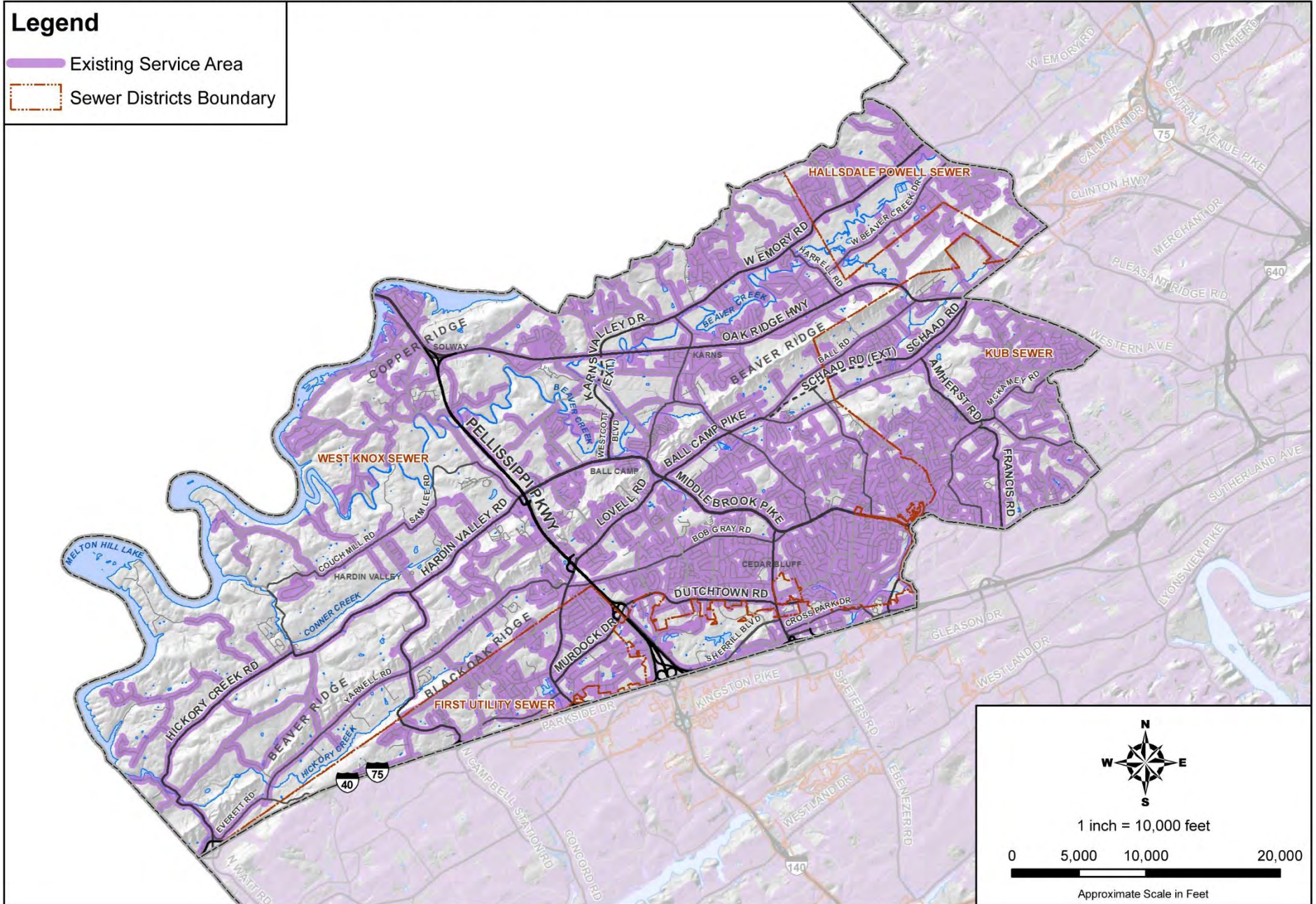
Northwest County: Growth Policy Plan



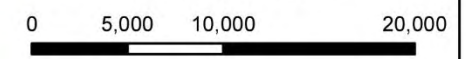
Northwest County: Existing Water Service

Legend

-  Existing Service Area
-  Sewer Districts Boundary

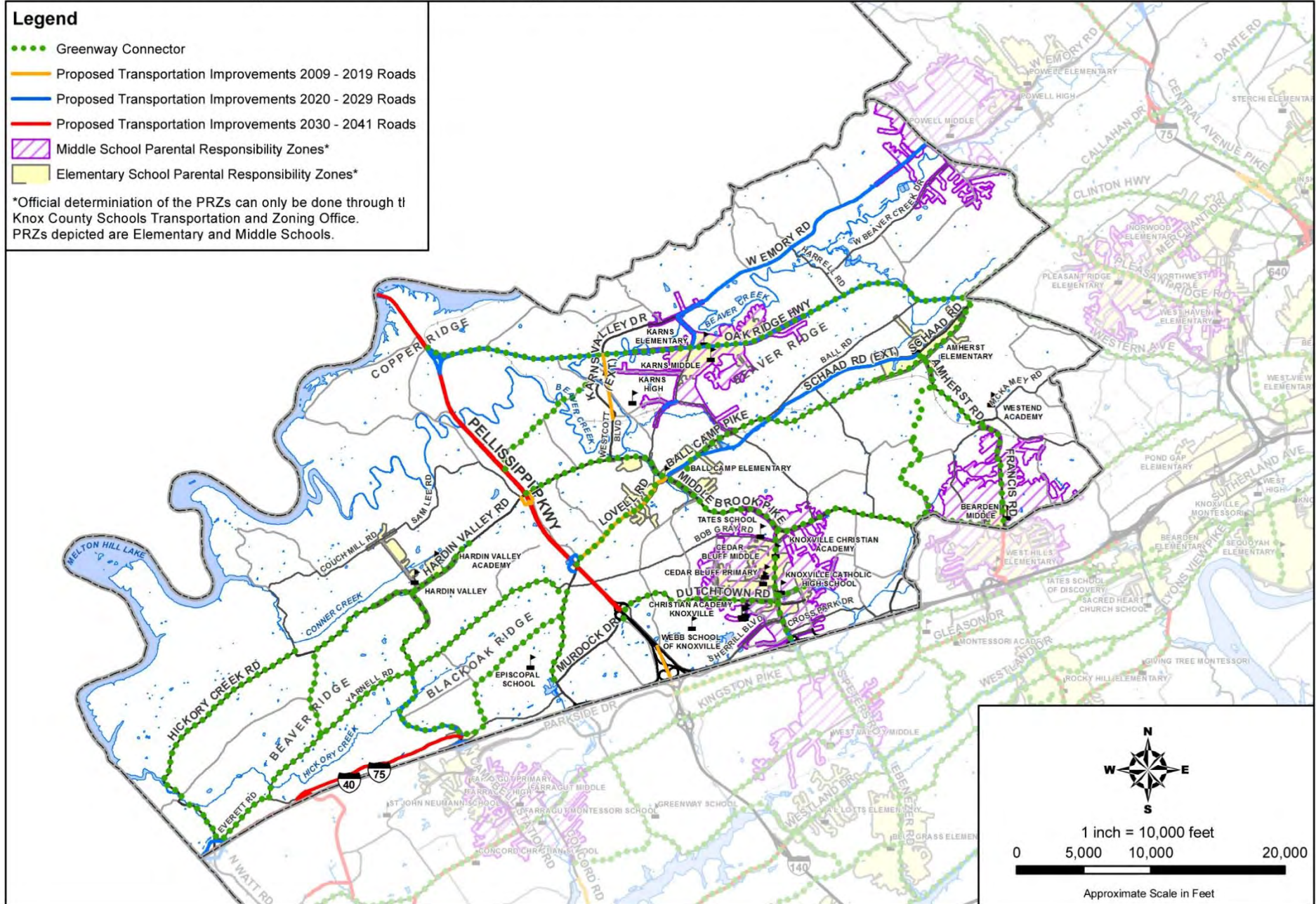


1 inch = 10,000 feet



Approximate Scale in Feet

Northwest County: Planned Roadway Improvements

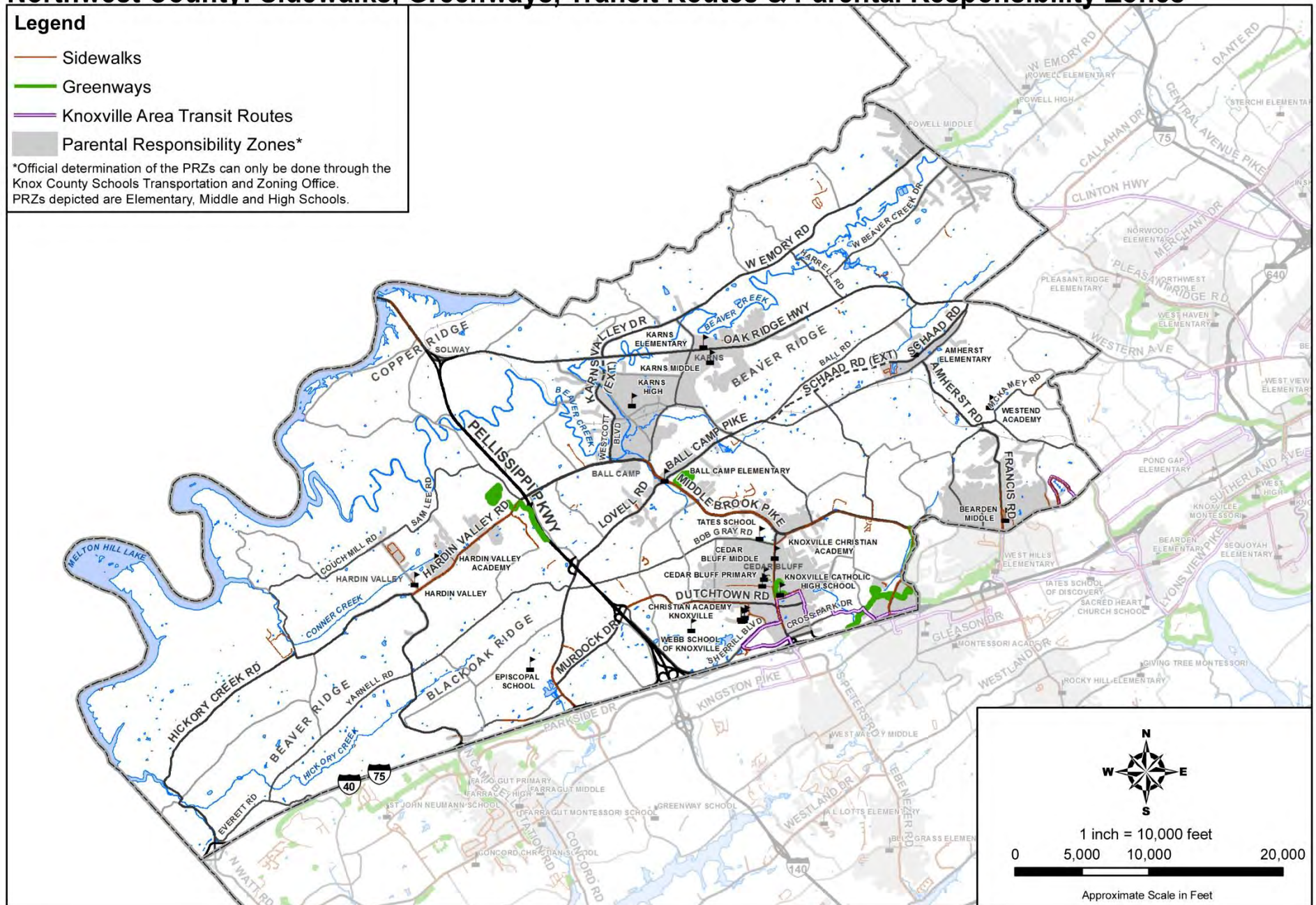


Northwest County: Sidewalks, Greenways, Transit Routes & Parental Responsibility Zones

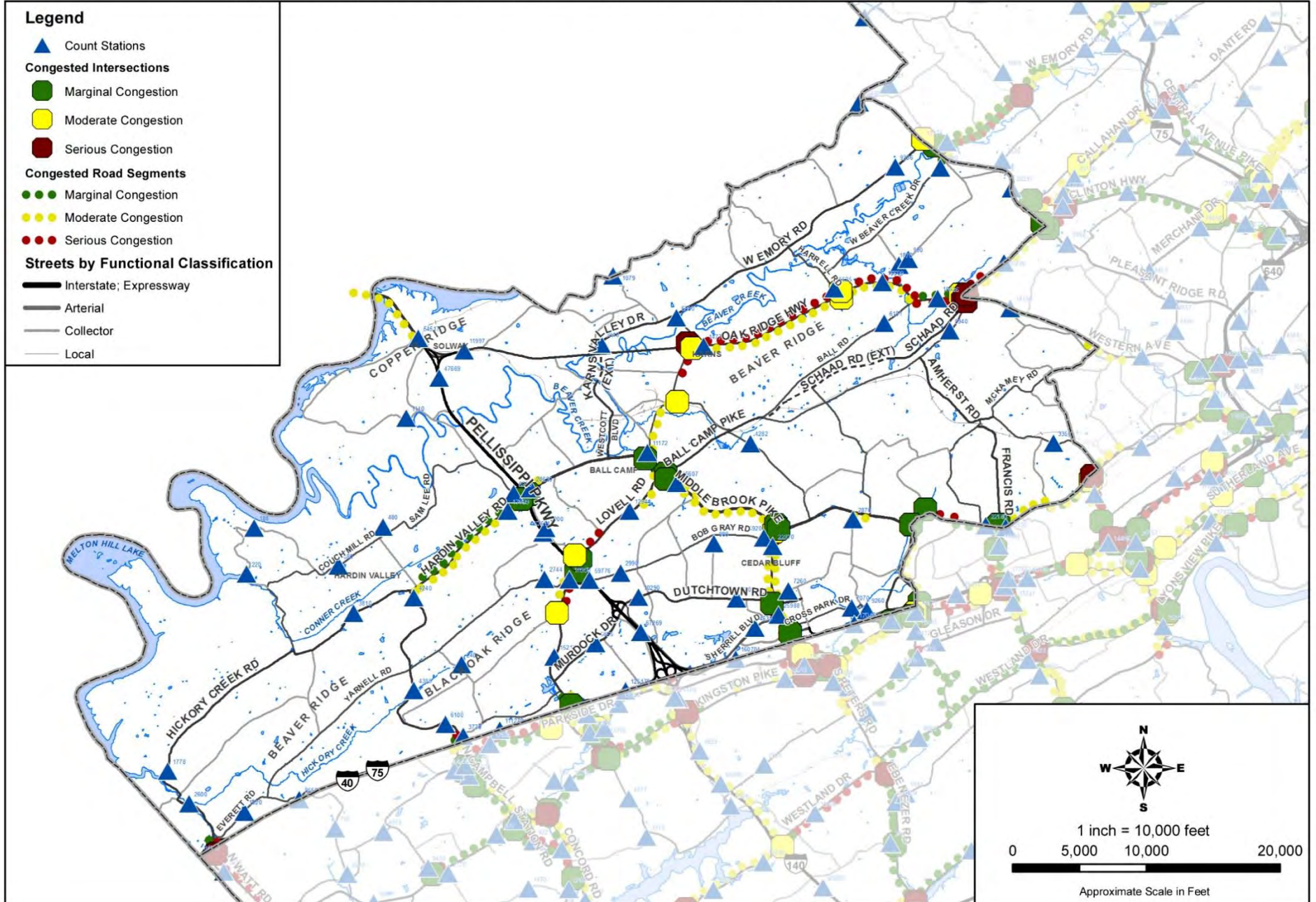
Legend

- Sidewalks
- Greenways
- Knoxville Area Transit Routes
- Parental Responsibility Zones*

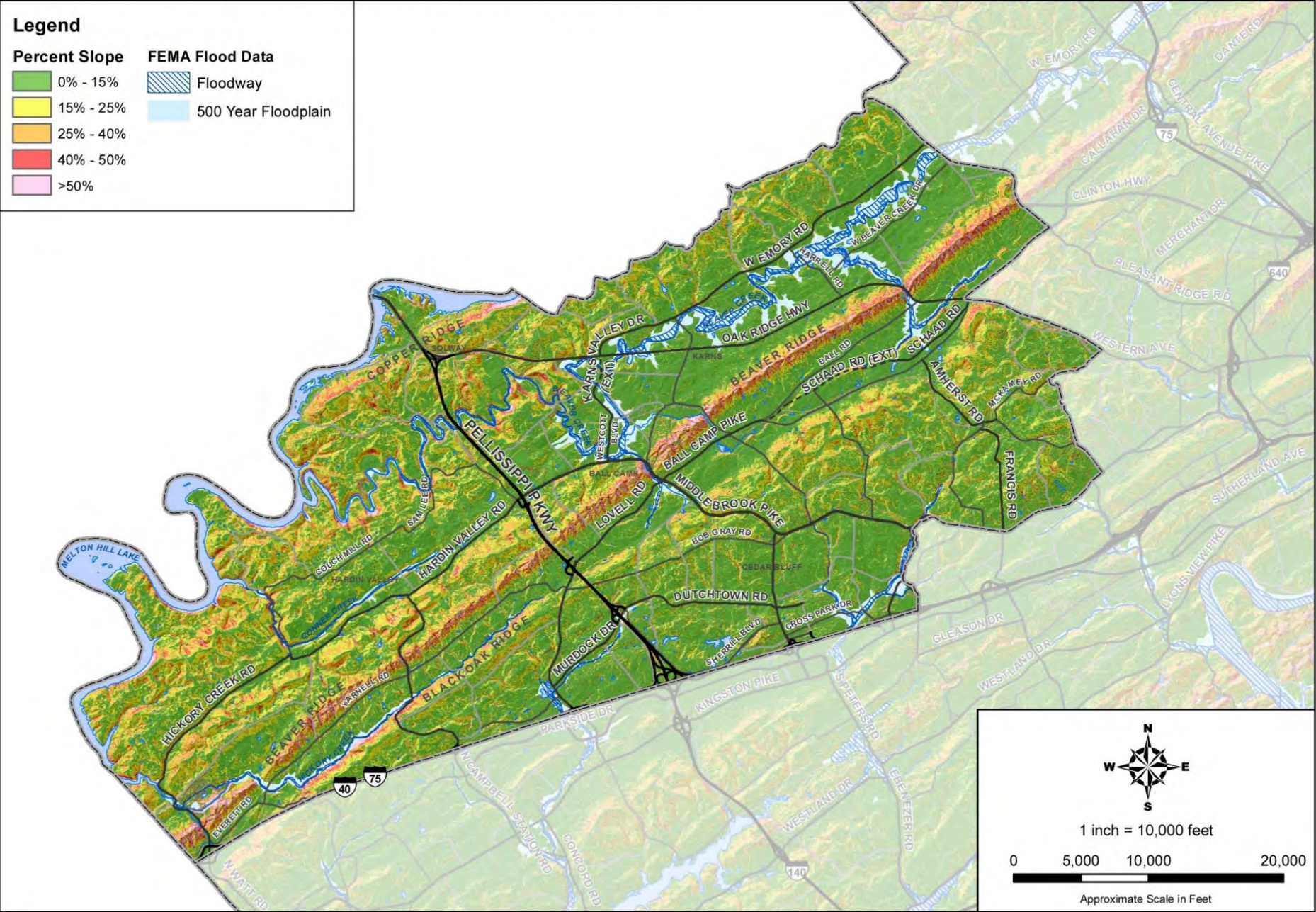
*Official determination of the PRZs can only be done through the Knox County Schools Transportation and Zoning Office. PRZs depicted are Elementary, Middle and High Schools.



Northwest County: Road Classes and Traffic Congestion



Northwest County: Environmental Constraints



Northwest County: Watersheds and Impaired Streams

Legend

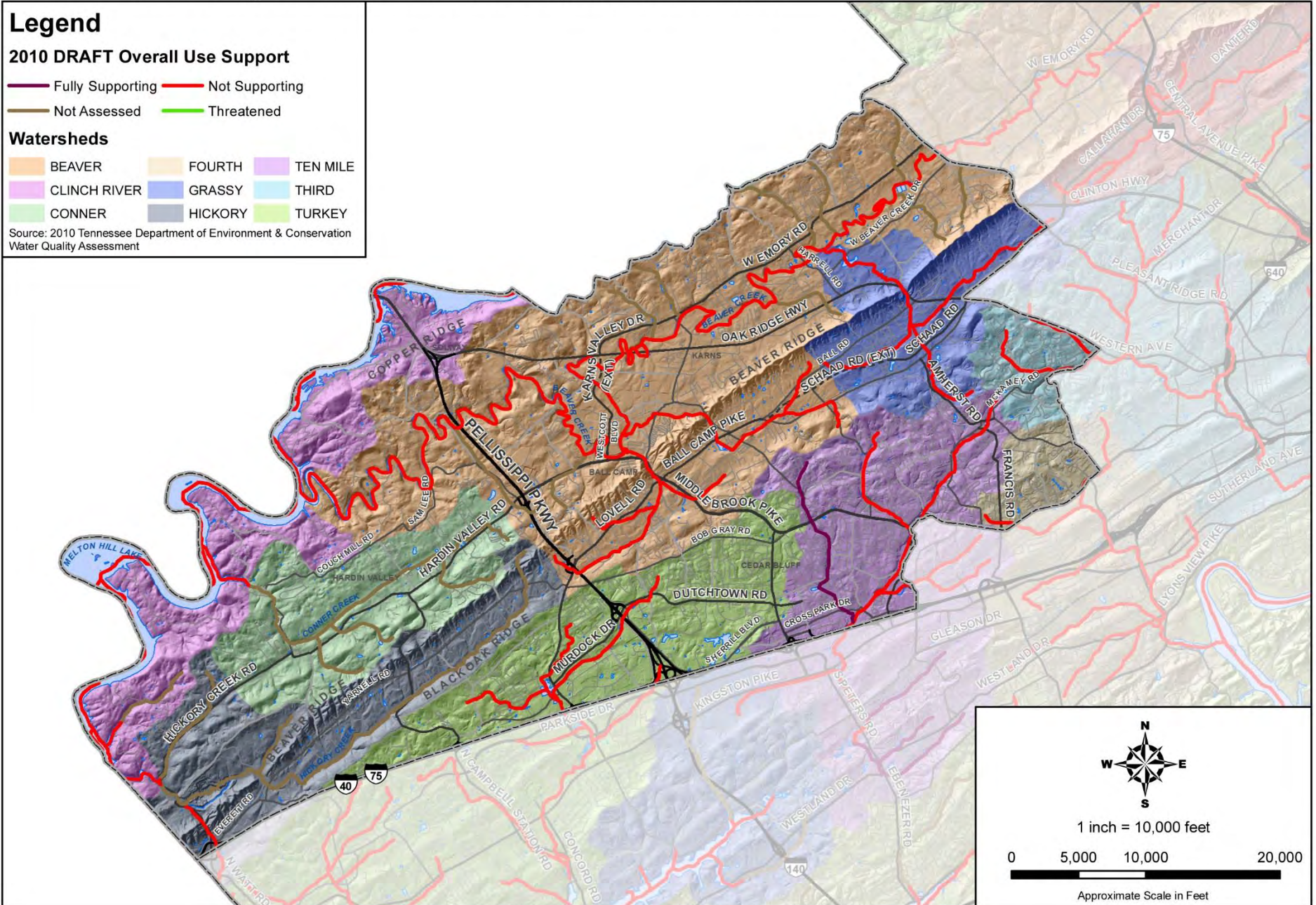
2010 DRAFT Overall Use Support

- Fully Supporting
- Not Supporting
- Not Assessed
- Threatened

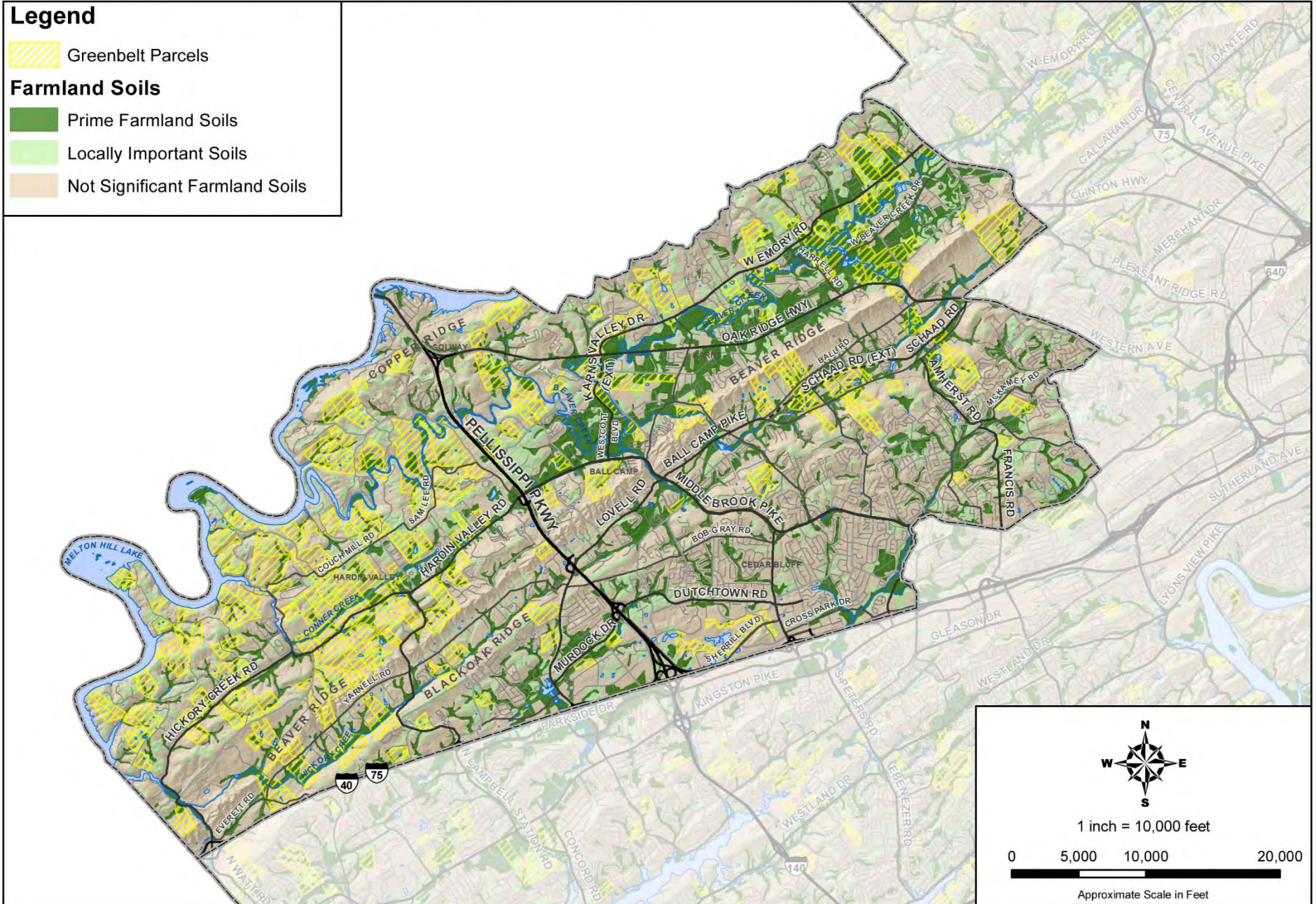
Watersheds

- | | | |
|--|---|--|
| BEAVER | FOURTH | TEN MILE |
| CLINCH RIVER | GRASSY | THIRD |
| CONNER | HICKORY | TURKEY |

Source: 2010 Tennessee Department of Environment & Conservation Water Quality Assessment



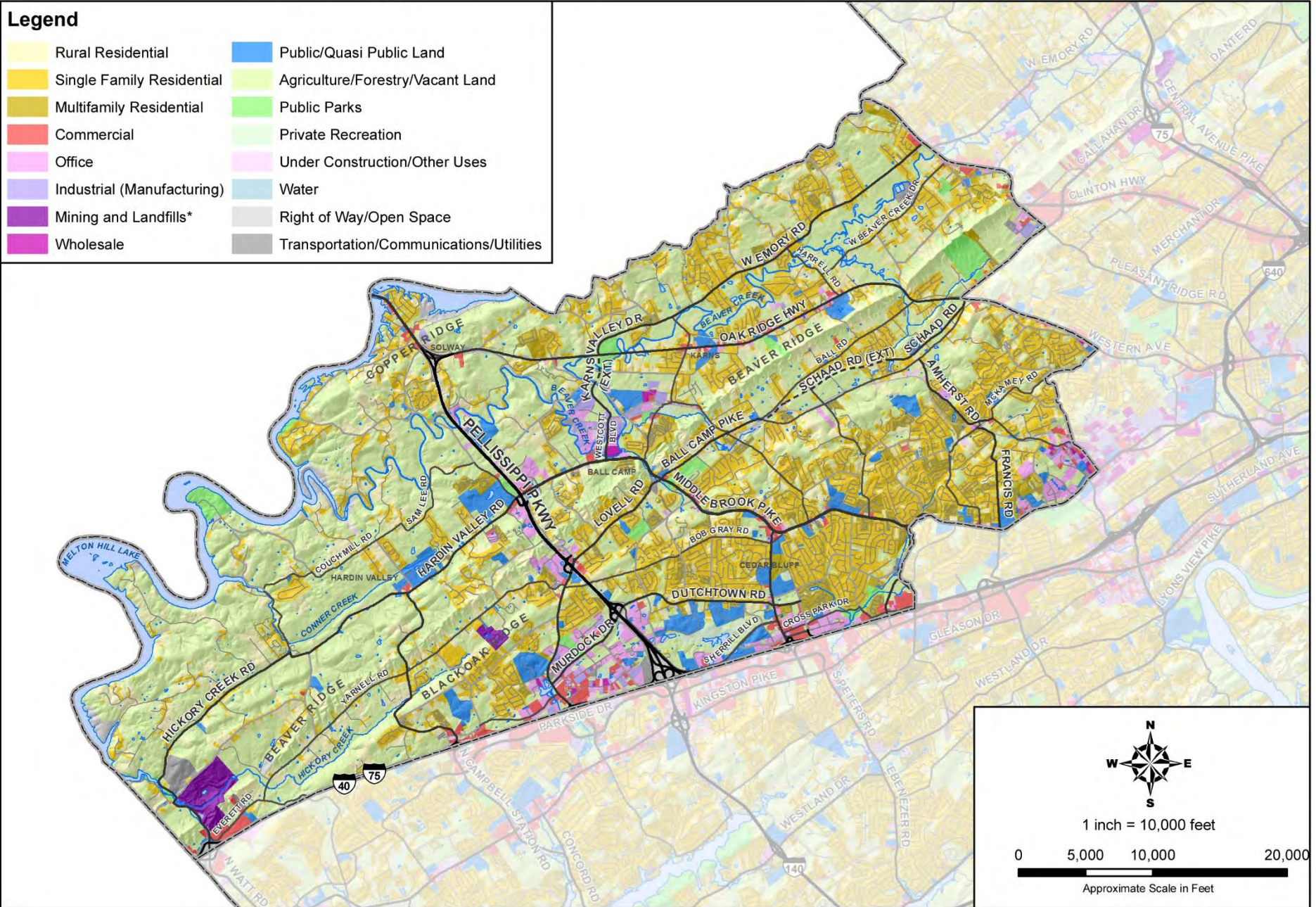
Northwest County: Agricultural Soils and Greenbelt Program Parcels



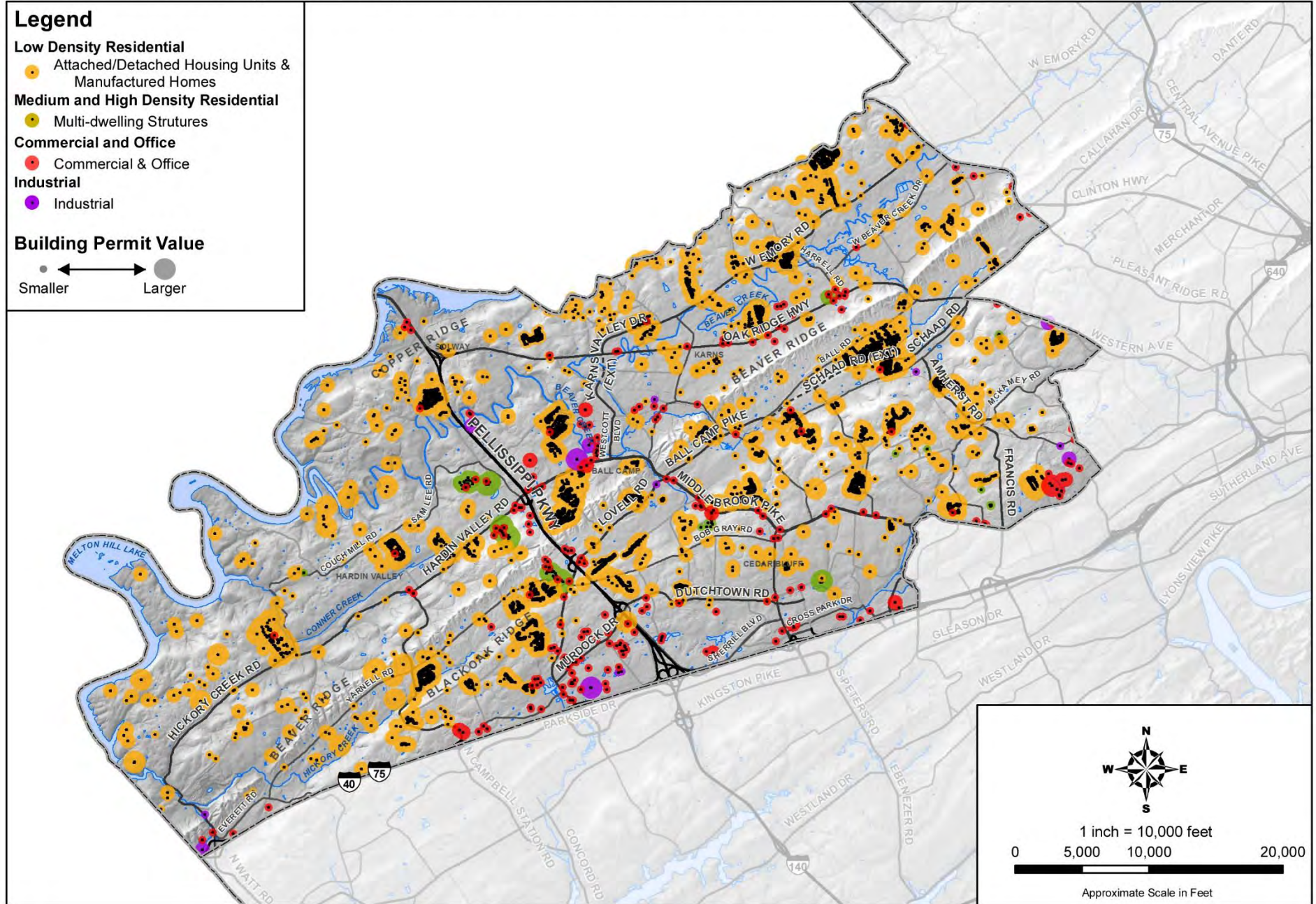
Northwest County: Existing Land Use

Legend

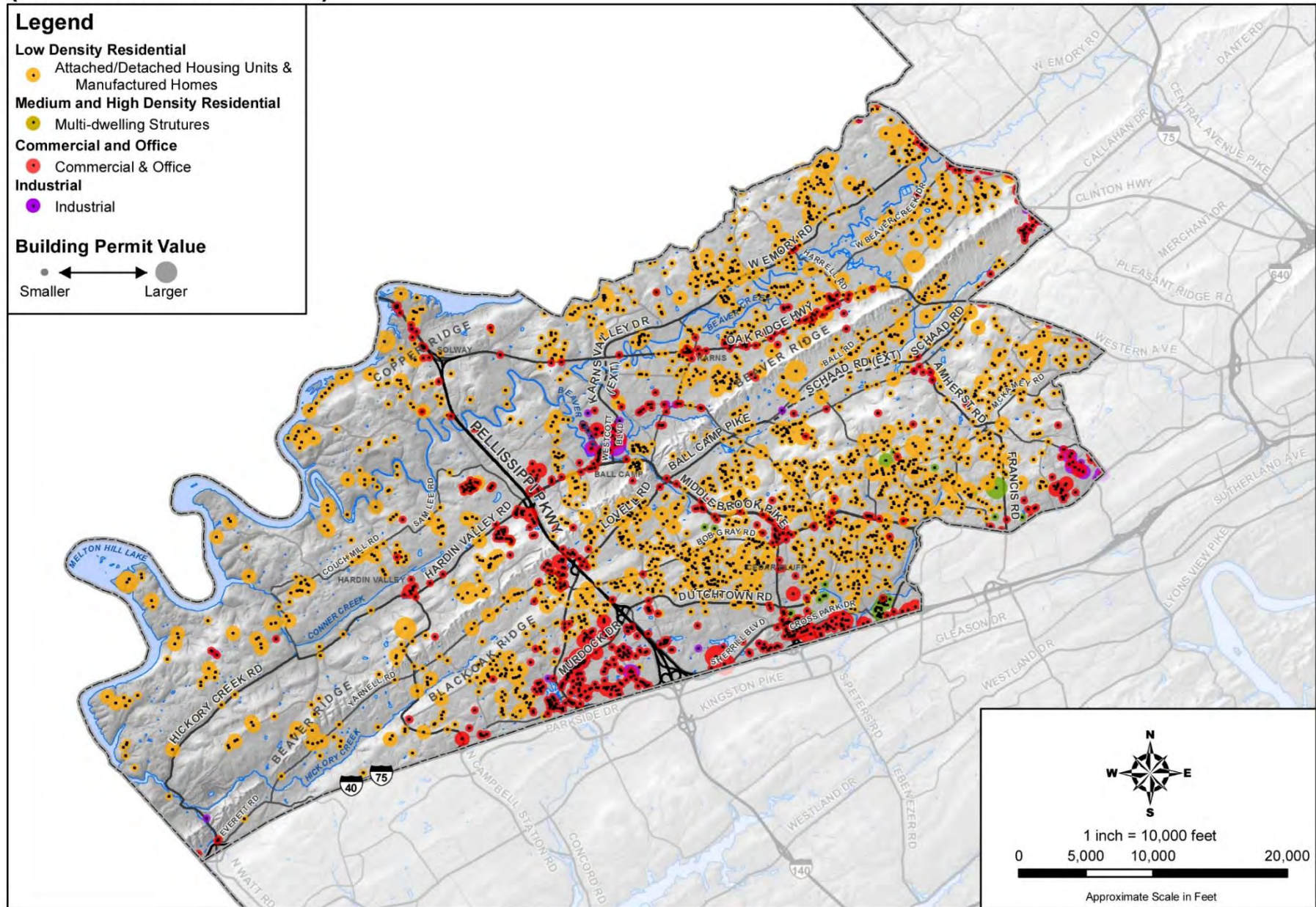
	Rural Residential		Public/Quasi Public Land
	Single Family Residential		Agriculture/Forestry/Vacant Land
	Multifamily Residential		Public Parks
	Commercial		Private Recreation
	Office		Under Construction/Other Uses
	Industrial (Manufacturing)		Water
	Mining and Landfills*		Right of Way/Open Space
	Wholesale		Transportation/Communications/Utilities



Northwest County: Building Permits for New Construction (Jan 2003 - June 2014)



Northwest County: Building Permits for Renovations, Alterations, Additions (Jan 2003 - June 2014)

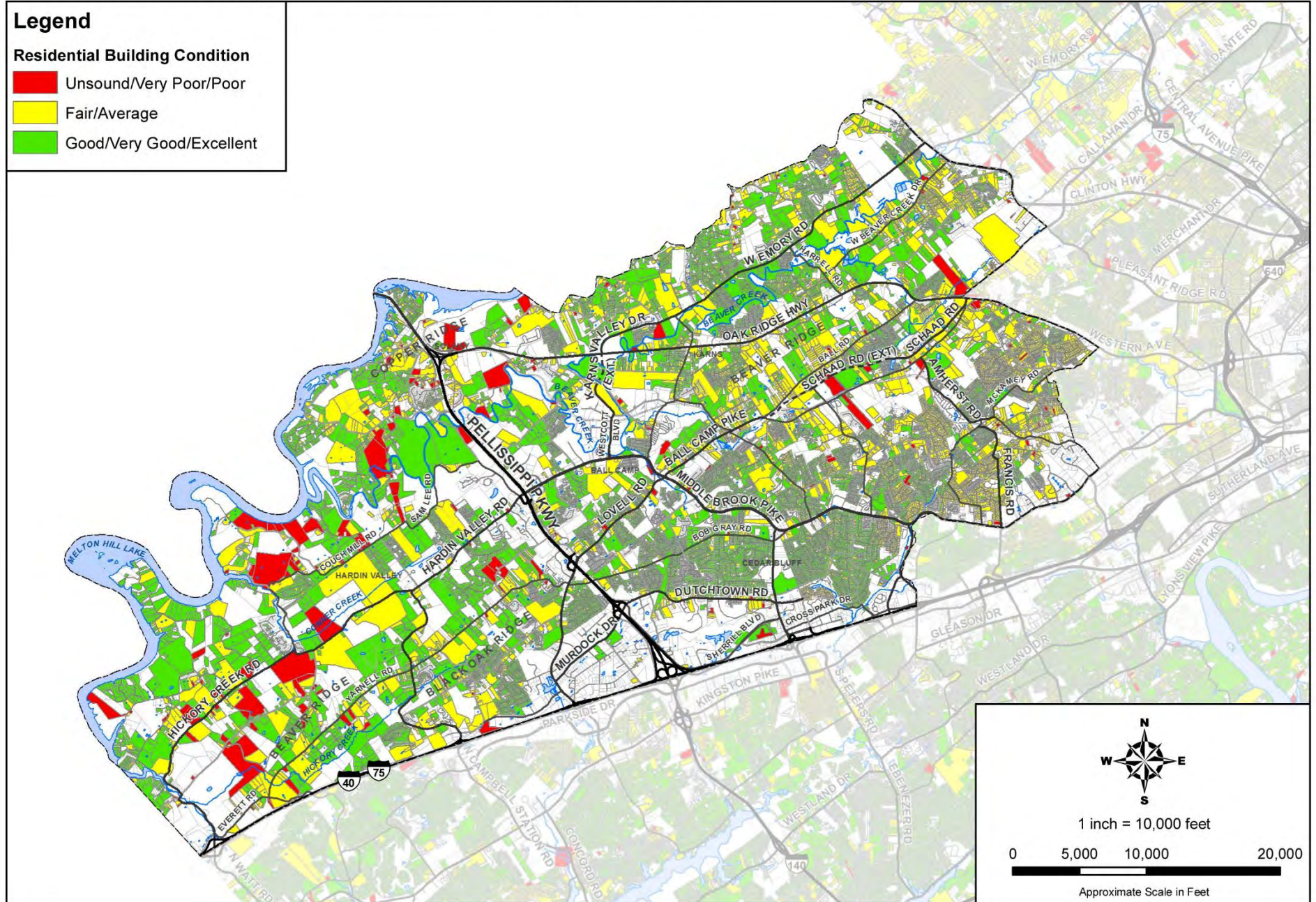


Northwest County: Residential Building Conditions

Legend

Residential Building Condition

- Unsound/Very Poor/Poor
- Fair/Average
- Good/Very Good/Excellent



1 inch = 10,000 feet

0 5,000 10,000 20,000

Approximate Scale in Feet

Northwest County: Historic and Related Resources

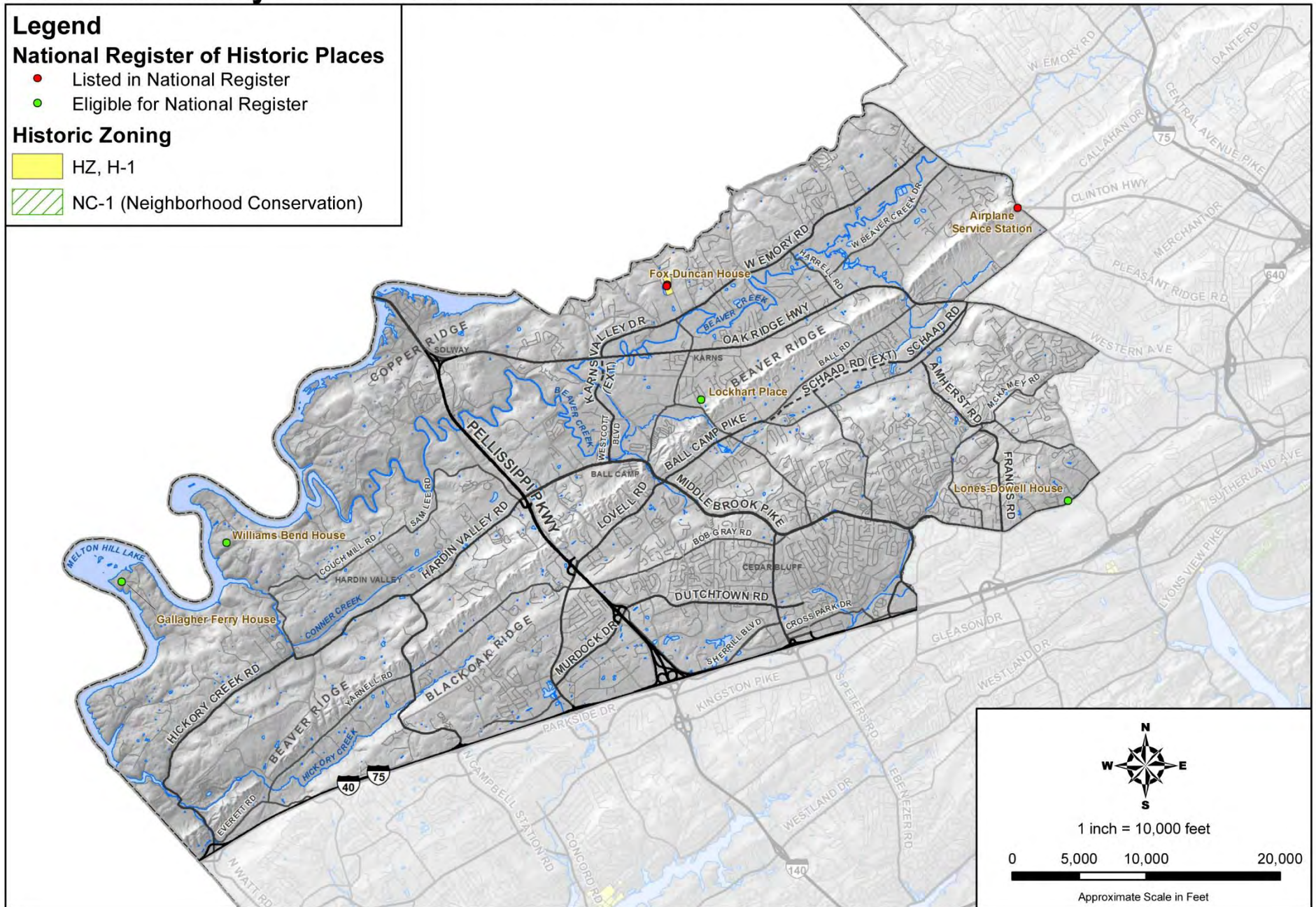
Legend

National Register of Historic Places

- Listed in National Register
- Eligible for National Register

Historic Zoning

- HZ, H-1
- NC-1 (Neighborhood Conservation)

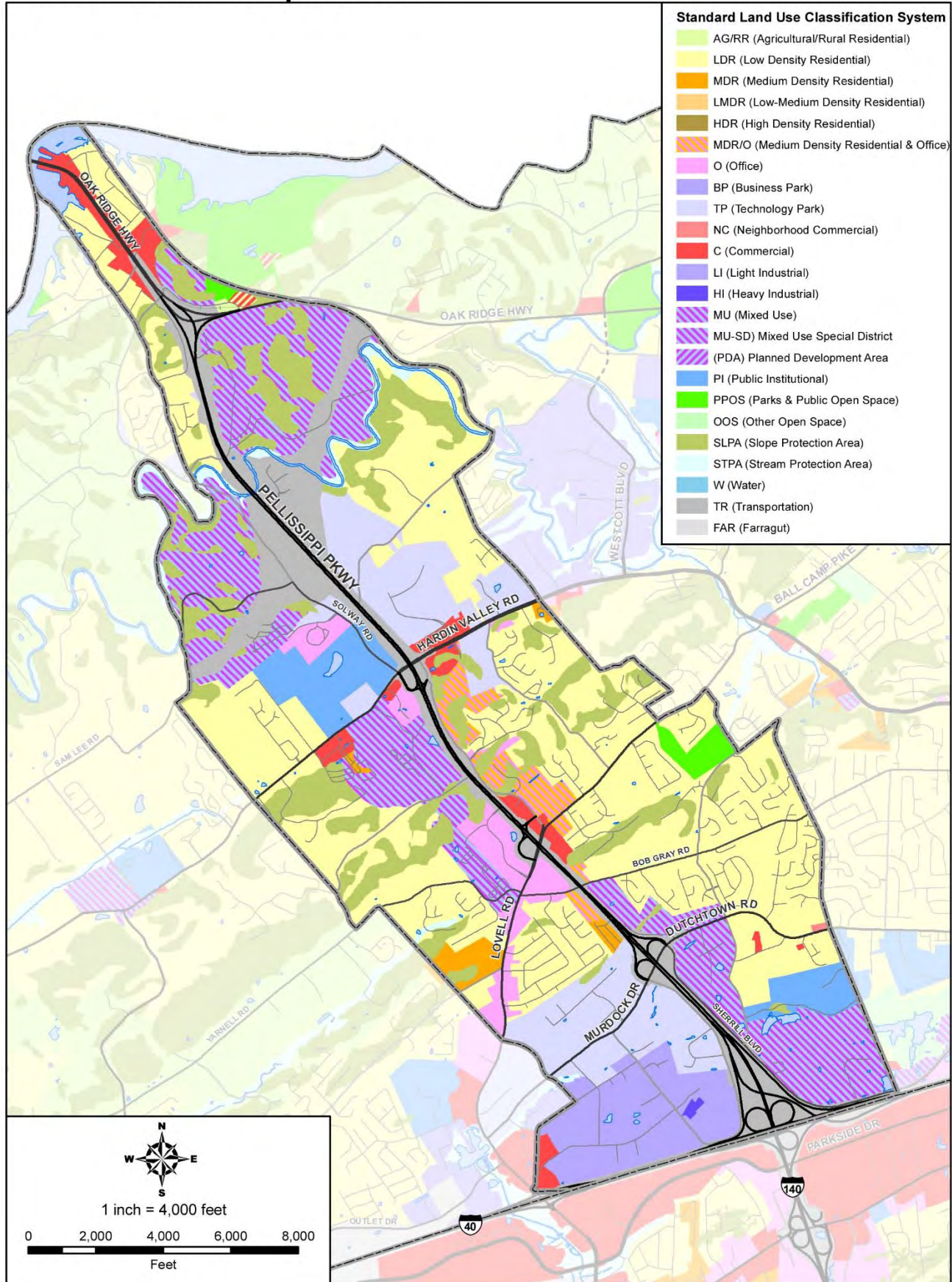


1 inch = 10,000 feet

0 5,000 10,000 20,000

Approximate Scale in Feet

Northwest County - Technology Corridor: Land Use Plan Adopted 2008



Northwest Sector - Technology Corridor: Pre-2008 Update Land Use Plan

