EXISTING CONDITIONS STUDY & HAZARD VULNERABILITY ASSESSMENT 2025

Swannanoa Small Area & Resilience Plan











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CHAPTER 1: INTRODUCTION

Purpose

The purpose of the Existing Conditions Study is to document the current community, demographic, physical, and environmental conditions in the Swannanoa, North Carolina area at the time of the study.



Photo credit: Harrison Keely

This study is an addendum to the Swannanoa Small Area & Resilience Plan and does not include recommendations. The study will be used as part of the planning process to better understand the area in order to draft a plan to be used by the local government to help direct future growth, conservation, and resilience priorities.

An Existing Conditions Study provides a snapshot of the study area at the beginning of the planning process. The study summarizes information about current demographics, housing, transportation, land use, infrastructure, economics, education, and other topics. It also summarizes existing plans that may impact the area, as well as local ordinances, policies, and projects that are already in place. The study is based off a combination of local, state, and federal government data, information from local organizations and stakeholders, and in-field data collection by Buncombe County staff. The information from the study will be used to understand the baseline existing conditions of the area in order to help guide the planning process to develop policies and action recommendations for Swannanoa.

Planning Process

The Existing Conditions Study is one of the early steps in the planning process to create the Swannanoa Small Area & Resilience Plan. Community engagement is an integral part of the process, and is included in each of the following planning steps:

Step 1: Design the planning process

Step 2: Determine the study area boundaries

Step 3: Complete an Existing Conditions Study & Hazard Vulnerability Assessment

Step 4: Identify the Vision statement

Step 5: Create a Future Land Use Vision Map

Step 6: Identify Policies and Actions

Step 7: Draft the Plan document

Step 8: Adopt the Plan

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Study Area Setting

From May to July 2025, Buncombe County residents were asked through an in-person and online poll to select the boundaries that would be used to complete the Existing Conditions Study for the Swannanoa Plan. The poll provided four pre-existing boundary options to choose from, including: The historic Swannanoa Township, Swannanoa School District, Swannanoa Fire Service District, and two U.S. Census Tract areas. The Swannanoa Township received the most votes and is the basis of this study.

Swannanoa is an unincorporated area of Buncombe County, located east of the City of Asheville in Western North Carolina (WNC). The Swannanoa Township is roughly 30,332 acres of land (around 7.2% of Buncombe County's 420,480 acres). The Township consists of mountainous topography, and a vast watershed area feeding into the Swannanoa River located in the Swannanoa River Valley. It also includes a major transportation corridor running from east to west, consisting of Interstate 40 and US 70 Hwy that stretches from Asheville to the Town of Black Mountain, and eventually connects Western North Carolina to the rest of the state. Swannanoa is enclosed to the north by the Blue Ridge Parkway, and to the south by the Fairview community.

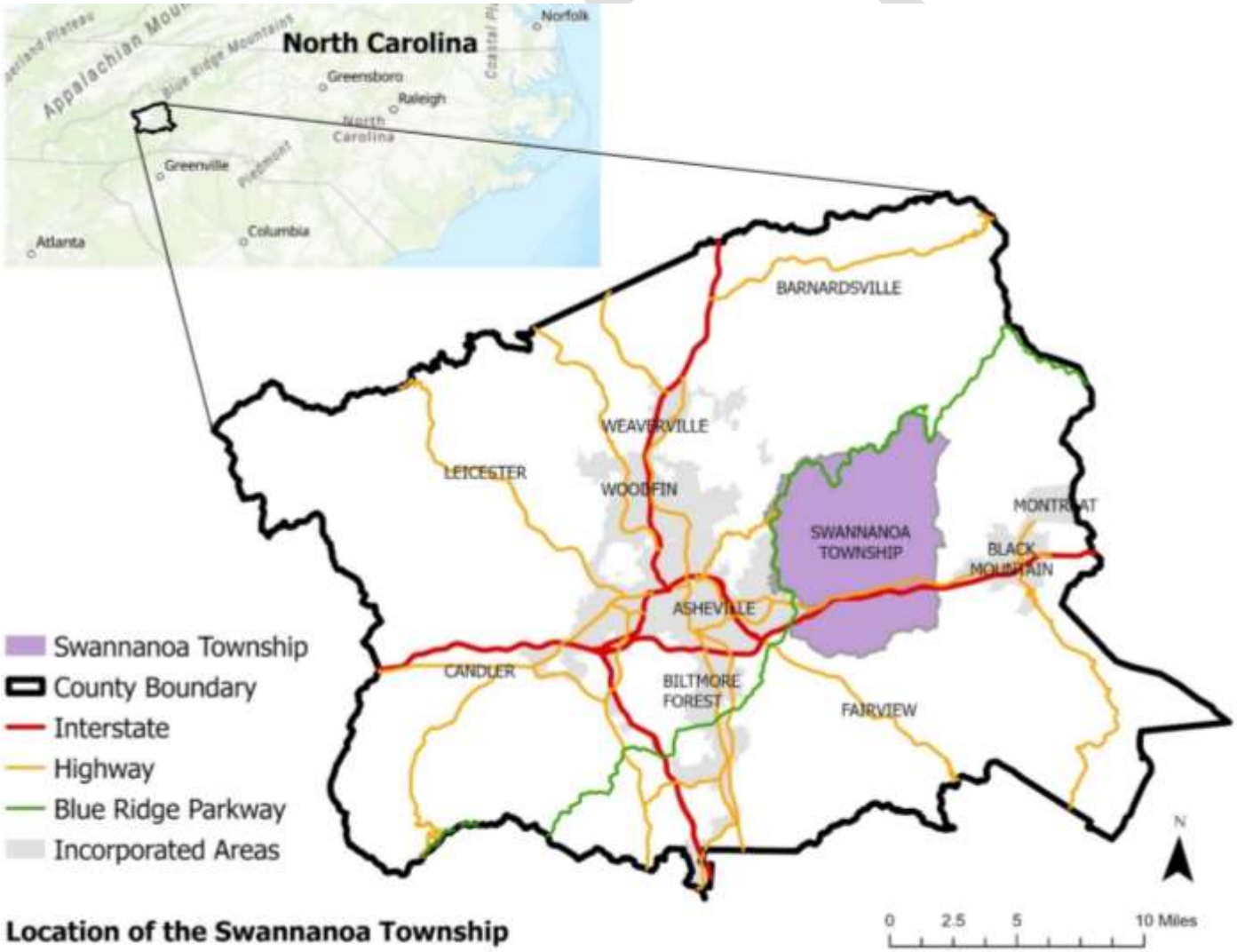


Figure X: Swannanoa Township Boundary

In addition to the Township boundary, other mapped areas intersect with Swannanoa. These areas are used by various agencies to provide services and track data.

Table X: Boundary Areas Overlapping the Swannanoa Township	
Boundary Areas	**Portions in Swannanoa**
Zip Codes	28805, 28778 (Smaller areas in 28804, 28787, 28730)
Fire service districts	East Buncombe, Swannanoa, Riceville, Reems Creek, and Reynolds
Census Tracts	3001 (Contains 4 block groups), 3002 (Contains 5 block groups)
School Districts	W.D. Williams & Bell Elementary (Portions in Weaverville and Haw Creek)

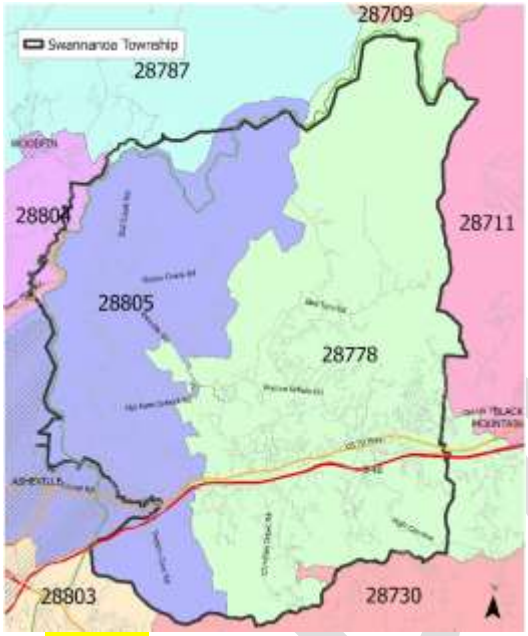


Figure X: Zip Code Areas, Swannanoa



Figure X: Fire Service Districts, Swannanoa

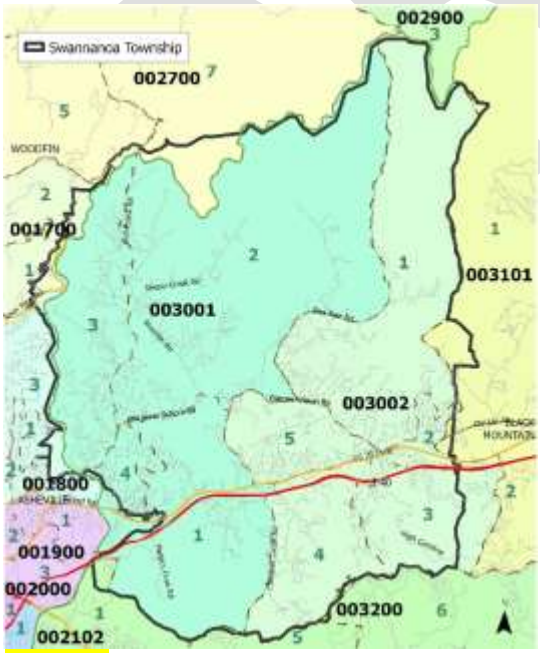


Figure X: Census Tracts & Blocks, Swannanoa



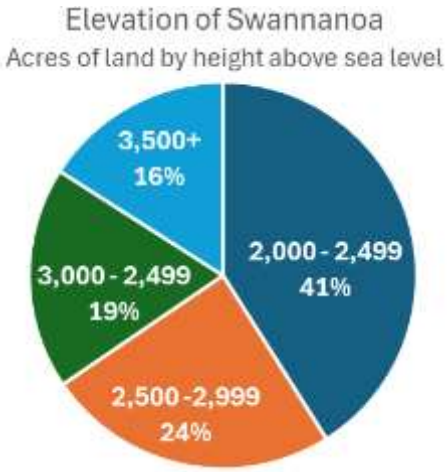
Figure X: School Districts, Swannanoa

CHAPTER 2: Landscape

The Landscape section summarizes the physical environment of Swannanoa, including its topography, watershed, hazard areas, soil types, prime farmlands, and ecosystems.

Elevation

The Swannanoa Township contains a relatively gently sloping, narrow valley that runs from east to west which is surrounded by steep mountainous terrain from the north and the south. There is a difference of over 3,100 ft in elevation between the lowest point (2,045 ft above sea level) and the highest point (5,235 ft).



Over 59% of the Swannanoa Township is located above 2,500 feet in elevation. The highest elevation areas exist in the northeast section within Pisgah National Forest, near the Blue Ridge Parkway. Flatter, more usable lands exist primarily to the north of Interstate 40, within the Swannanoa River Valley.

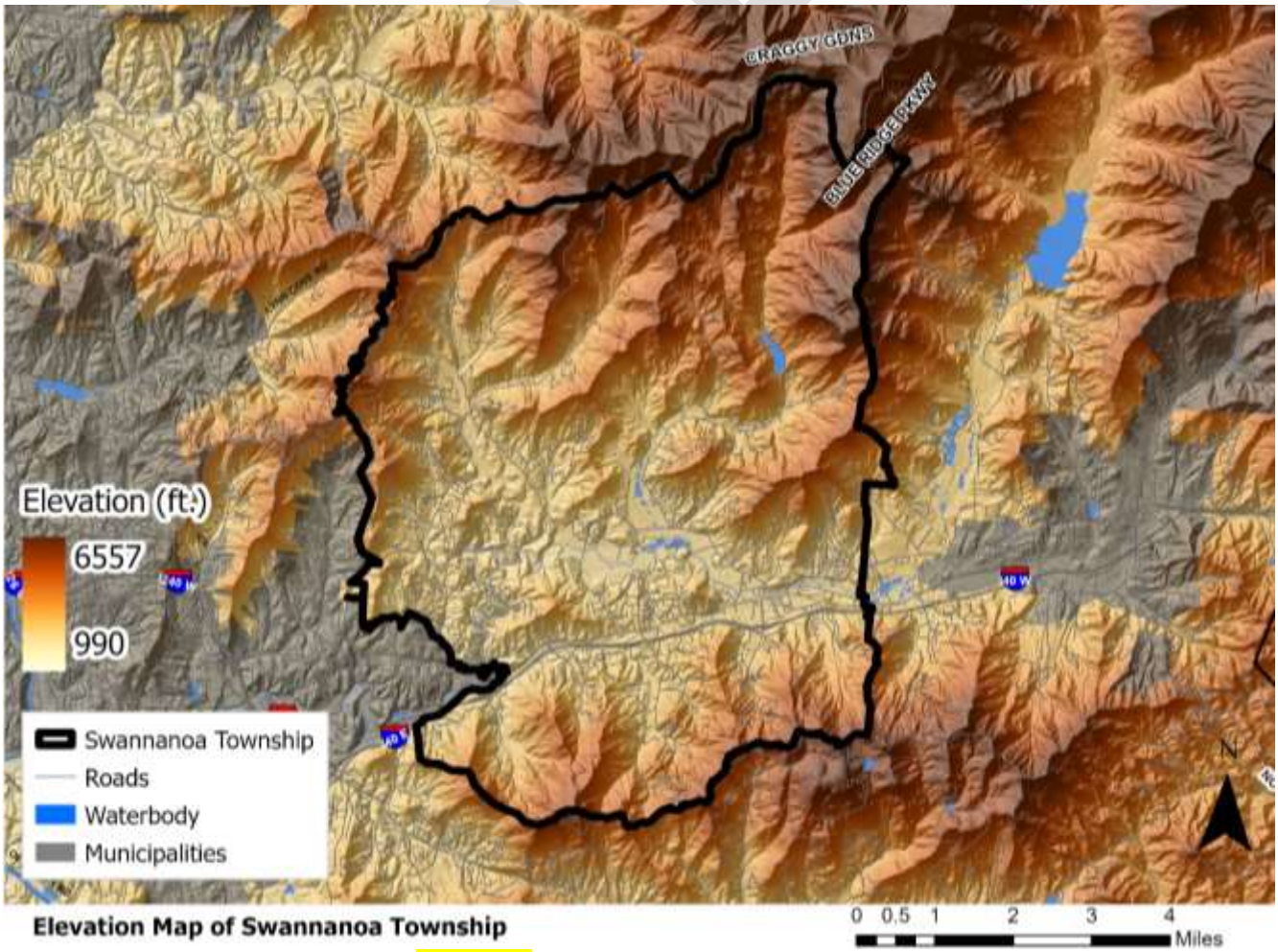


Figure X: Swannanoa Elevation Map

Watershed

The Swannanoa Township contains a vast network of wetlands, streams, rivers, and floodplain areas that make up the interconnected watershed. A watershed is an area of land that directs rainfall and snowmelt into the creeks, streams, and rivers within it. In Swannanoa, the geographic constraints of mountain ridges and other topography acts as the dividing boundaries between watershed areas.

The hydrology of Swannanoa is fed from natural springs, snow melt, and rainwater runoff from four major watershed areas: the North Fork and Upper, Middle, and Lower Swannanoa River Watersheds. These areas include two main water supply reservoirs for the County: The Bee Tree and North Fork reservoirs. The towns of Black Mountain and Montreat, and eastern portions of the City of Asheville, also fall within the Swannanoa River Watershed.

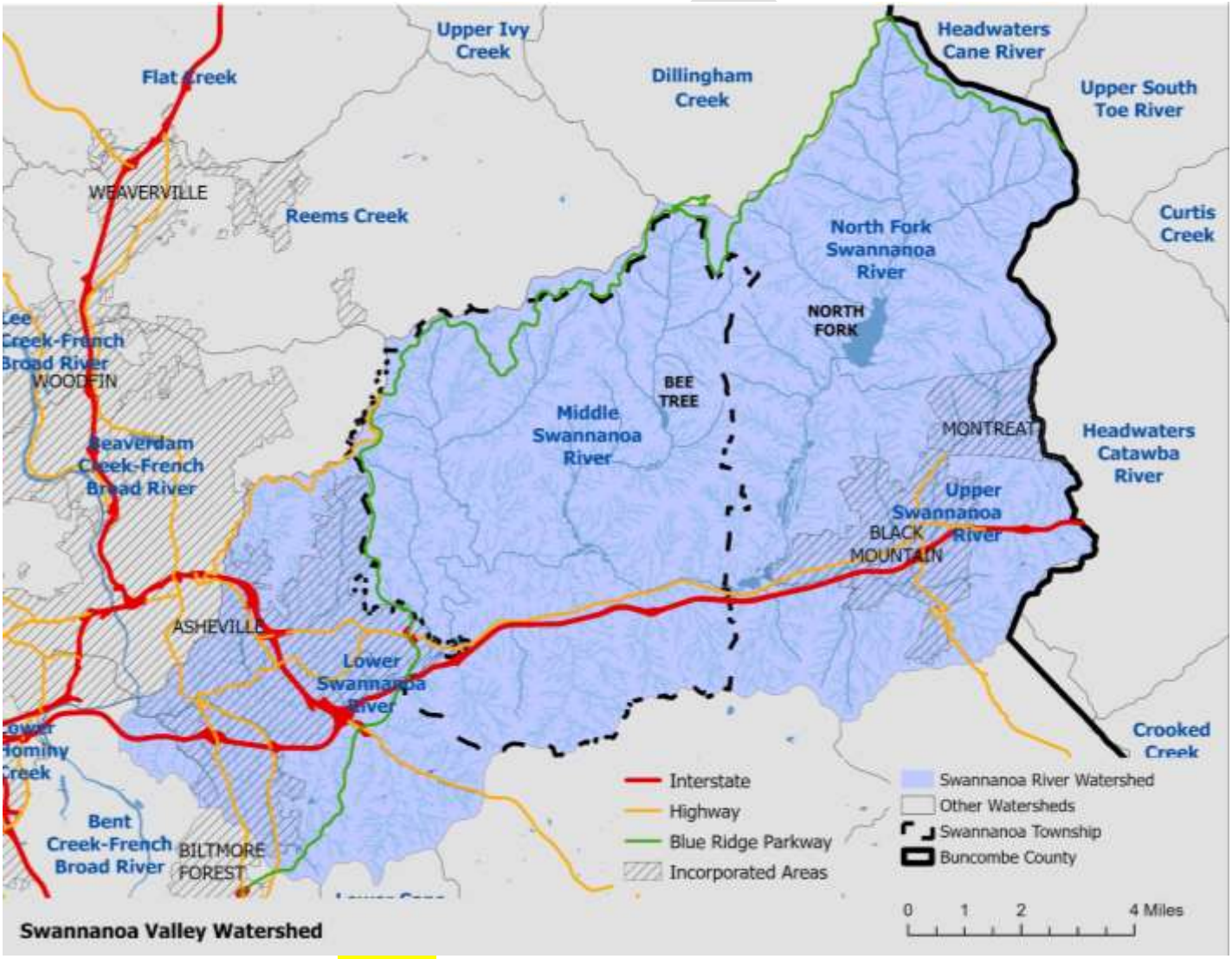


Figure X: The Swannanoa Valley Watershed Area

The Bee Tree Reservoir, located to the northeast section of the Swannanoa Township, receives water from 7.62 square mile drainage area and has a 500 million gallon water capacity. The North Fork reservoir is significantly larger. The reservoir is supported by a 23.8 square mile pristine watershed and has the ability to hold 5.7 billion gallons of water. The reservoir watershed is considered one of the most protected and clean water supply watersheds in the country.


Figure X: Bee Tree Reservoir

While the North Fork reservoir is located outside of the Swannanoa Township, it feeds the North Fork Swannanoa River, a third-order tributary, and flows directly into the Swannanoa River The reservoir dam contains a flood water release mechanism that allows excess water to be released under extreme weather conditions to protect the integrity of the dam embankment. This mechanism, called the auxiliary spillway, was automatically activated during Tropical Storm Helene by the elevation of the reservoir pool reaching XX over the normal elevation.


Figure X: North Fork Reservoir

The flood water release caused an extreme volume of water to suddenly discharge into the Swannanoa River and resulted in catastrophic flooding of the floodplain valley. However, if the reservoir dam had breached, flooding in the downstream communities would have likely been in the orders of magnitude more devastating and deadly.

The Swannanoa River is the primary natural water body in the area, bisecting Swannanoa from east to west as it flows through the Swannanoa Valley. The river is primarily defined as a "rapidly flowing stream with a rocky bed, consisting of boulders, cobbles and gravel. In relatively level places there are quiet pools with sides and a bed of sand, silt or clay."

A combination of numerous surface streams, and shallow, connected groundwater systems means that groundwater quality is vulnerable to surface contaminants.

Soil Types

Soils can tell us a lot about the history and conditions of an area. For example, soils can reveal characteristics of the geologic material below. They can also indicate how landslides, flooding, and other geologic and manmade events have shaped the landscape. The impacts of deforestation, agriculture, or industry on the land can be interpreted through soils as well.

Soil materials can vary greatly across relatively small areas, impacting what types of development are possible, where hazards may exist, and how sites should be designed to mitigate issues. Detailed soil survey data is available for the Swannanoa area from the United States Department of Agriculture. There are a wide variety of soils in the Swannanoa area, with no single soil type comprising more than 11% of the area. The process of mapping soil types and the subsequent digitization of those maps has resulted in soils data that may vary in accuracy at smaller scales. **Soils maps are not updated regularly, and changes to soils from flooding and landslides during Tropical Storm Helene in 2024 means greater care is needed when making decisions based on the existing soils maps.** Any soils-based decision making related to development or conservation should rely on field-verification rather than current soil maps.

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Key Concepts about Swannanoa's Soils:

- Overall, Swannanoa's soils are well-draining and stony or bouldery, making both agriculture and development difficult.
- The prevalence of rock outcrops poses a serious impediment to construction, increases development costs, and is a barrier for traditional septic system installation.
- Erosion is a common problem in higher slope areas, with loamy soils and runoff contributing to the loss of soil, especially where there has been land disturbance from development.
- Soils near rivers are likely to have poor drainage, high water tables, and low-oxygen conditions due to repeated saturation.

Limitations for Development:

- Shallow depth to bedrock, which limits septic options and increases construction costs.
- High rock fragment content or boulders, which complicate grading and utility installation.
- High erosion hazard ratings, particularly on steeper slopes with loamy soils, which are common in the area and contribute to runoff and sedimentation if not properly managed.

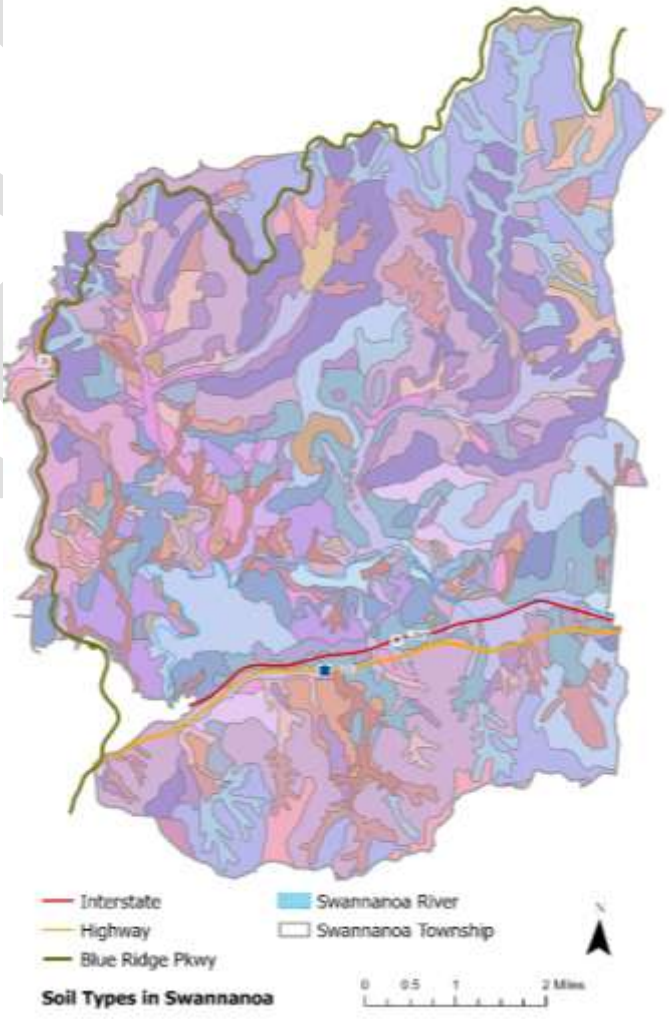


Figure X: Soil Types in Swannanoa

Superfund, Hazardous Waste, and Brownfield Sites:

A Superfund site is an area of land that is contaminated by hazardous waste, posing risks to the environment and human health. There is one (1) Superfund site in Swannanoa, Chemtronics, Inc, which is a 1,065-acre site located on Old Bee Tree Road in the middle of Swannanoa. Listed on the National Priorities List (NPL), the superfund portion includes a 535-acre section of the property. The site was used to manufacture explosives, propellants, incapacitating agents, and other specialty chemicals. Manufacturing occurred primarily in the Front Valley portion of the property, with testing and waste disposal occurring primarily in the Back Valley section. The site has not been used for manufacturing since 1994. Contaminated groundwater and soil on the site resulted in its Superfund status in 1983, and remediation efforts primarily capped and fenced all contaminated areas.

A hazardous waste site is a property where hazardous materials have been stored, released, treated, or disposed of. These sites may pose risks to human health and the environment. Unlike a Superfund site, a hazardous waste site does not necessarily include contamination of the land. There are 9 active hazardous waste sites and 8 inactive hazardous waste sites in Swannanoa, several of which are located along the US 70 Hwy corridor.

A brownfield site is a piece of land that is suspected to have experienced contamination from past commercial or industrial uses, but which has future development potential and can be remediated to make the site safer for users. Remediation can include environmental assessments to determine the type and extent of contamination, and cleanup of the site, such as through removal of materials and contaminants, surface-sealing, immobilization of heavy metals, and more. The historic Beacon property is designated as a Brownfield site.



Historic photo of Beacon Manufacturing. *Photo credit: Citizen-Times*

Prime Farmland

Preservation of farmland is an important goal for sustaining regional food security, access to high quality food and farm products, and supporting local farmers and the industries that serve them. The North Carolina Cooperative Extension estimates that Buncombe County will lose 15 to 30% of its agricultural land to development by 2040.



During the creation of the Buncombe 2020 Farm Protection Plan, farmers were asked about their top obstacles for success in agriculture. The following reasons were given: high start-up costs; costs of input – seed, fertilizer, etc.; finding farm labor; lack of young farmers; lack of affordable farmland; lack of public awareness and understanding of agriculture; availability of land with prime soils; low income from farming; low commodity prices; taxes; invasive plants and depredation wildlife; and lack of local services such as slaughterhouses and feed mills.

Farming activities in the Swannanoa 28778 Zip Code are summarized in the data below. Loss of cropland was one factor seen, with possible reasons being market volatility for row crops, extreme weather patterns resulting in unreliable income streams, conversion to forestry use for timber harvesting, and an overall increase in livestock production. In addition, there is a trend in larger farms being broken into smaller sized farms, with some being used for hay or pasture rather than cropland. Information about Swannanoa's agriculture is outlined in the data below:

6,425+/- total acres of working farms and forestry land *(21% of Swannanoa's acreage)*

- 650+/- acres are harvested cropland
- 868 acres are protected through the County's Voluntary Farmland Preservation Program

7 new farms from 2007 to 2022:

- 3,325 acre increase in farmland (such as for grazing)
- 350 acre *decrease* in cropland harvested

23 individual farm operations with sales in the area

$800,000 total estimated farm sales, with 87% of the area's farms earning less than $50,000 each in sales per year *(In 2022)*

Products produced by these farms:

- *Plants:* Vegetables, potatoes, barley, grain corn, hay and haylage, wheat, landscape plants, plant starts, herbs, medicinal herbs, and flowers
- *Animals:* Sheep, goats, pork, beef, poultry including eggs
- *Value-added products:* Salves, crafts, teas, seasonal wreaths, handspun yarn

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The North Carolina Department of Agriculture and Consumer Services maintains agricultural land scores to prioritize the preservation of important working lands.

Scores are from Tier 1 (Highest Priority agricultural lands) to Tier 5 (Lower priority). The Swannanoa area contains several Tier 4 rated agricultural areas as shown in Figure X, most of which are located to the northwest of US 70 Hwy. The largest area is located on the Warren Wilson College campus.

Note: VAD stands for Voluntary Agricultural District, which is a state program to preserve prime farmland, and includes non-binding conservation agreements. EVAD stands for Enhanced Voluntary Agricultural District, which includes a legally binding, irrevocable conservation agreement for at least 10 years.

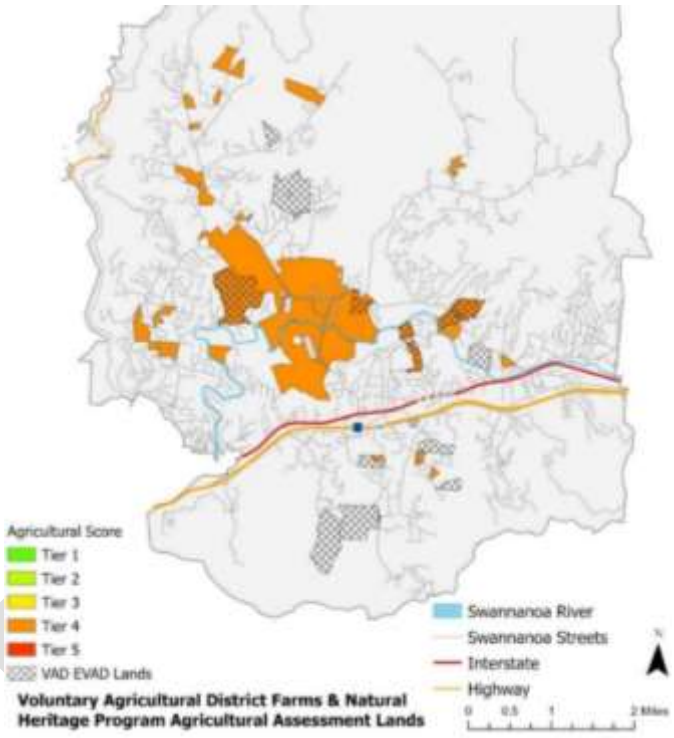


Figure X: VAD/EVAD Farms (hatched) and Natural Heritage Program Agricultural Lands (orange).

Wildlife Habitat, Biodiversity, & Conserved Lands

Biodiversity and Wildlife Habitat Assessment

The Biodiversity and Wildlife Habitat Assessment is a map that represents the highest priority areas for conservation of wildlife habitat and biodiversity in North Carolina. The areas with a relative conservation value of very high (7) to maximum (10) are the most sensitive with the rarest species and habitats. These are the most important areas to conserve, buffer, and connect for wildlife purposes.

Many of the highest ranked areas within the Swannanoa Township (Figure __) overlap with NC Natural Heritage Program Natural Areas and Managed Areas. It is important to note that most of the areas with very high relative conservation values (7) are the watersheds throughout the Township, indicating the important stream buffer recommendations for those river systems. The highest value areas in Swannanoa are categorized in the following table:

Table X: Highest Value Biodiversity & Wildlife Habitat in Swannanoa

RATING	AREA
9-10	Within the Pisgah National Forest; Along the Blue Ridge Parkway from Bull Gap to Ln. pinnacle and Tanbark Ridge; and Around Porter Cove Rd. and Jim Branch
9-10	Bull Creek and its tributaries
7-8	All stream buffers
8	Areas around High Carolina Parkway and White Oak Forest Road to the southeast
6	Areas in the northern 1/2 of the township; Areas south of Interstate 40

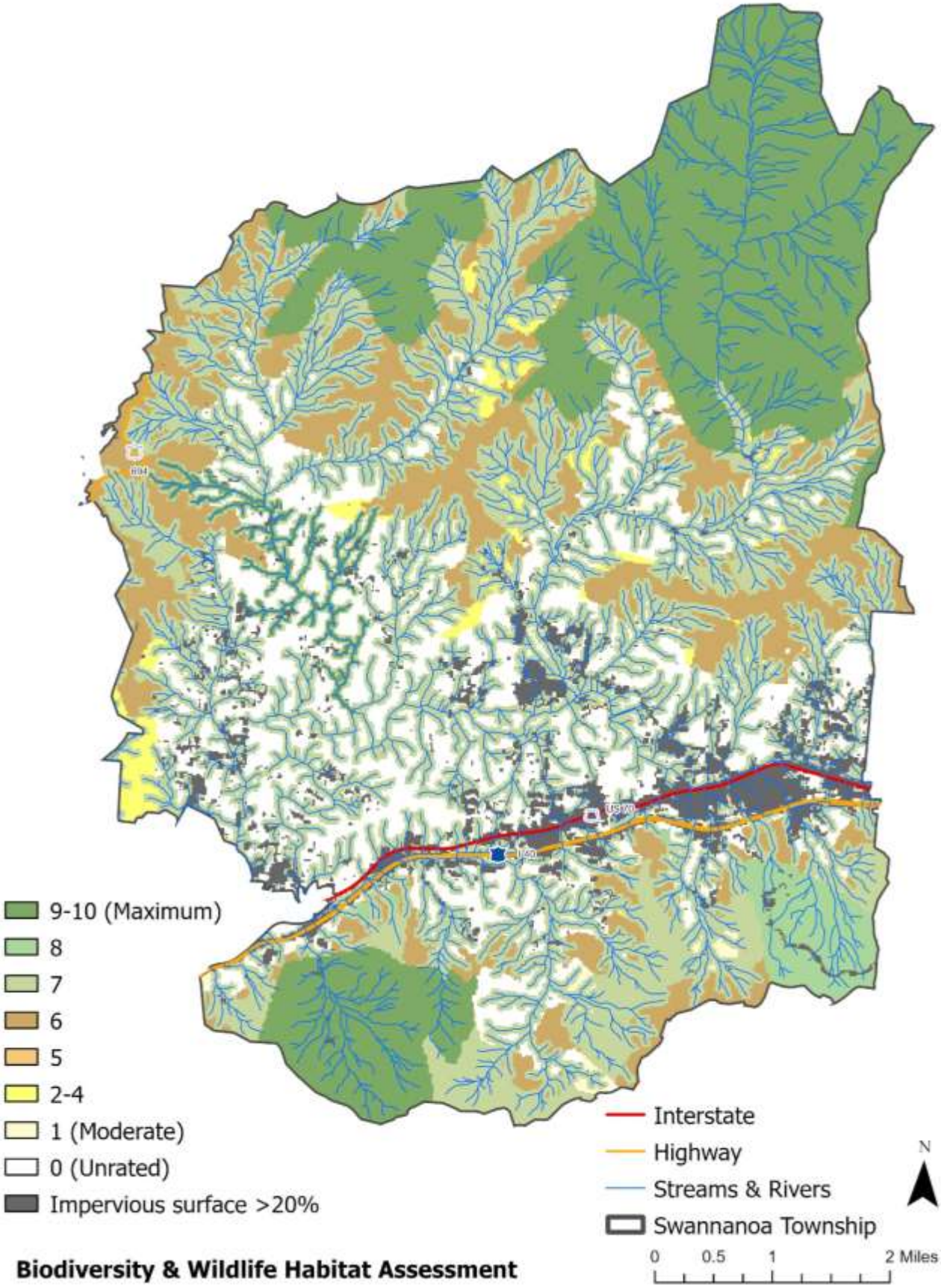


Figure X: Biodiversity & Wildlife Habitat Assessment

Conservation Priority Areas

Natural Heritage Natural Areas

The North Carolina Natural Heritage Program designates terrestrial and aquatic habitats of special biodiversity significance as "natural areas" to indicate the need for conservation action priority. These areas have no legal protection unless properties are protected through land acquisition or other conservation action, such as a conservation easement. Landowners may also enter voluntary agreements with the NC Natural Heritage Program to designate their property as a Registered Heritage Area for the purposes of protecting biological diversity and habitat quality.

The Swannanoa Township contains eight natural areas, two of which are Registered Heritage Areas: Cedar Cliff/Little Cedar Mountain Registered Heritage Area and High Swan Registered Heritage Area. Table X lists the Natural Heritage Natural Areas and their conservation priority ratings. A large portion of the Natural Areas in Swannanoa are protected for conservation (City of Asheville Open Space, Blue Ridge Parkway, Pisgah National Forest, easements, etc.), while some portions of the Natural Areas remain unprotected.

Table X: Conservation Priority Areas in Swannanoa Township (See Figure X Map)

Priority	Acres	Description	Protected Status	Map #
Exceptional (Highest)	4,592	Within the Pisgah National Forest starting at Rock Knob and Bee Tree Reservoir to the south and heading north towards the Parkway. (North of I-40)	Majority within government-owned lands	1
	1,663	Along the Blue Ridge Parkway from Bull Gap to Lane pinnacle, and including Tanbark Ridge (North of I-40)	Most within government-owned land, except for the Tanbark Ridge area	2
	1,565	Around Porter Cove Road and Jim Branch. (South of I-40). A large portion of this area is the Billy Graham Training Center/The Cove.	Most have no protected status except for 123+/- acres under a State Natural Heritage Program.	3
Very High Priority	107	North of Cedar Cliff mountain peak.	Entirely within a State Managed Area	4
Moderate Priority	1,175	Around High Carolina Parkway and White Oak Forest Road	Not protected as a managed area	5

Managed Areas / Protected Lands

For the purposes of this inventory of natural assets in the Swannanoa Township, managed areas are defined as those properties protected through land acquisition or easement for the purpose of protecting natural areas and habitats from noncompatible land uses and/or managing for conservation. These protected areas include properties acquired by local land trusts, local government open space programs, such as with the City of Asheville, Buncombe Cunty, and the Town of Weaverville, state government properties through the NC Departments of Natural and Cultural Resources, Environmental Quality, and Public Safety, and federal government properties through the US National Park and US Forest Service.

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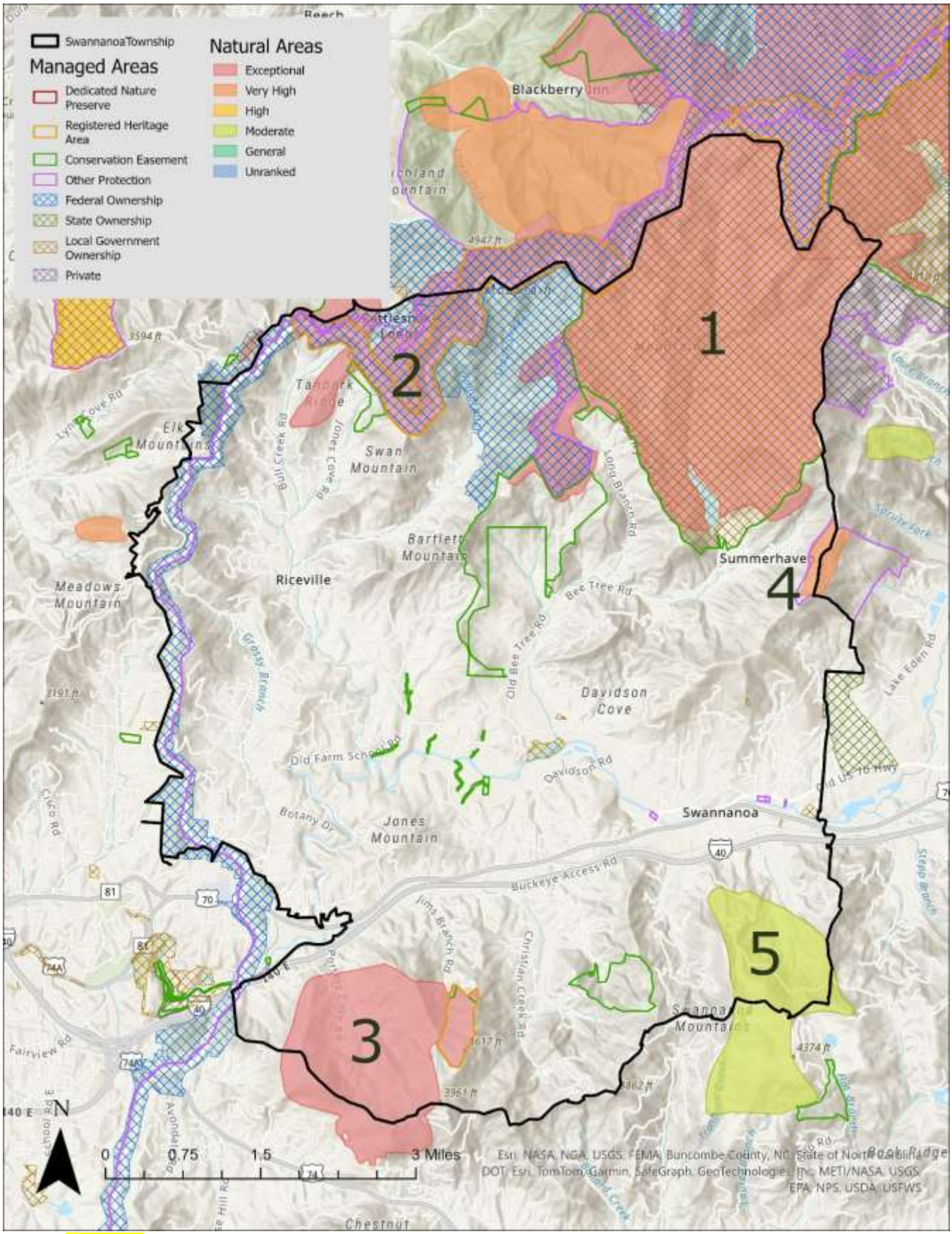


Figure __NC Natural Heritage Program Natural Areas and Managed Areas of Swannanoa Township

Natural Communities and Habitats

The Swannanoa Township contains several different natural community types that occur from the aquatic systems of the creeks, streams, and Swannanoa River to the high peaks of the mountains included in the Townships boundary. Many of the state's natural community types cover large areas and are well represented, while others cover less area and may be more at risk from loss of biodiversity when considering local and regional threats (i.e., invasive species, land use change, development). Given the richness of their biodiversity, the ecosystem services they support, and the benefits they provide to wildlife (including species of greatest conservation need (SGCN) and other priority species), certain natural community types are of higher priority for land conservation action because they are more imperiled according to the NC Wildlife Action Plan.

Those natural community and habitat types found in the Swannanoa Township include all riparian and floodplain communities, all streams and rivers, and the high-elevation habitats of northern hardwood forests, montane oak forests, and heath balds. Below are descriptions of the natural communities identified within the Swannanoa Township prior to Hurricane Helene. Impacts of the storm on the wildlife and habitats within Swannanoa have not been fully surveyed as of September 2025.



Cove Forest: Cove forests occur on sheltered, moist, low to moderate elevation sites and are characterized by a dense forest canopy of moisture-loving trees with a lush herb layer and relatively few shrubs. These communities are extremely important habitats for many animal species, including high numbers of endemic salamanders, due to a high diversity of vegetation, and topographic and microclimatic conditions.
(Photo credit: Ruffed Grouse Society)



Northern Hardwood: Northern hardwood forests are found on high mountain slopes with a cool climate and high levels of rainfall. Northern hardwood forests are dominated by combinations of moist-site hardwoods such as Yellow Birch, American Beech, Yellow Buckeye, and Sugar Maple. The herb layer is often lush and may range from low to fairly high diversity.
(Photo credit: Jess Schaner, NC Natural Heritage Program)



Montane Oak Forests: These forests are dominated by a variety of oak species depending on soil moisture and location on or above the Blue Ridge escarpment or in the foothill mountains. Mountain oak forests are on open slopes, ridge tops, spur ridges, and low rises and flats in valleys and make up the majority of the middle elevation landscapes. Several different types of montane oak forests occur in Swannanoa Township, including high elevation red oak forest, montane oak-hickory forests, and chestnut oak forests.
(Photo credit: Jess Schaner, NC Natural Heritage Program)

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Low Elevation Basic Glade: Glades are communities where bedrock is near the surface, so that shallow soil limits tree cover. Those located in the Mountain ecoregion are adapted to a cooler, moister climate and may be more drought tolerant. They occupy a wide variety of sites that have in common that they limit tree cover without being predominantly bare rock.
(Photo credit: Jess Schaner, NC Natural Heritage Program)



Heath Bald: Balds are treeless shrub- or herb-dominated communities of the high Mountains. Heath balds are dense thickets of tall shrubs with Catawba Rhododendron and Mountain Laurel as the most common dominants.
(Photo credit: Jess Schaner, NC Natural Heritage Program)



Carolina Hemlock Forest: Hemlock forests are a type of mountain dry coniferous woodland that occurs at middle to lower elevations in specialized sites that are drier than most environments. These bluffs occur in settings like pine–oak/heath, but usually more on steep bluff-like side slopes. Hemlocks dominate the canopy with a more open shrub and herb layer.
(Photo credit: Jess Schaner, NC Natural Heritage Program)



Floodplains and Riparian Areas: Floodplains and riparian areas are forested communities that vary in width from the stream/river edge based on slope of the surrounding area. Smaller streams may not have floodplains, but do have riparian zones within other habitats such as isolated patches of wetland communities. These areas provide significant habitat and are often utilized as travel corridors by animals. They also provide important ecosystem services by reducing downstream effects of floodwaters and improved water quality.



Coldwater systems: Coldwater systems are designated based on temperature regime and fish community structure. These are especially important for many sensitive species, including eastern hellbender and native brook trout. Several tributaries in the Swannanoa Township have been identified as wild brook trout waters and eastern hellbenders were identified in the Swannanoa River.

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Protected Public & Private Lands

Some priority conservation areas are located within managed (protected) lands, such as under Government ownership or private conservations or easements, while others are not under protected lands. Federal and state protected lands account for around 7,258 acres of Swannanoa's land. This includes sections of Pisgah National Forest, the Blue Ridge Parkway corridor, and a handful of small parcels owned by Buncombe County Government and the City of Asheville. The Parkway and accessible portions of National Forest lands provide unique recreation opportunities, economic benefits from tourism, critical environmental and ecosystem services such as water purification, and wildlife habitat.

In addition to protected lands, there are around 1,221 acres within permanent conservation easements in Swannanoa. These conserved lands include development restrictions that typically prohibit subdivisions, commercial or industrial uses, and construction of new buildings. Restrictions may permit uses like agriculture, forestry, or habitat restoration, and run with the land indefinitely. Combined, conservation easements and protected public lands makes up around 8,480 acres in Swannanoa (28% of the total area).

Species of Greatest Conservation Need

North Carolina is home to some of the highest biodiversity in North America, especially in the Mountain Region. The Southern Appalachians are considered a significant biodiversity hotspot. The Swannanoa Township has had some surveys for Species of Greatest Conservation Need (SGCN).

Table X lists SGCN species that have been identified within Swannanoa Township and does not indicate multiple sightings of each species. Those species with a federal status are protected by the Endangered Species Act or proposed for listing. Those species with state status have been recognized as SGCN on the state level, but do not have the same federal protection.

It is important to note that most of the Swannanoa Township has not been surveyed for SGCN, but certain species may occur within its boundaries. For example, several SGCN occur within one mile of the Swannanoa Township that have not been reported within the boundary, including cerulean warbler (*Setophaga cerulea* – state special concern), Carolina northern flying squirrel (*Glaucomys sabrinus coloratus* – federally endangered), and rusty-patched bumble bee (*Bombus affinis* – federally endangered), just to name a few.



French Broad Crayfish (Threatened)



Gray bat (Endangered)



Blotched chub (Threatened)

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Table X: List of Species of Greatest Conservation Need Reported in Swannanoa Township			
Group	**Common Name**	**Scientific Name**	**Status**
Amphibian	Mole Salamander	*Ambystoma talpoideum*	State: Special Concern
Amphibian	Eastern Hellbender	*Cryptobranchus alleganiensis alleganiensis*	State: Special Concern Federal: Proposed Endangered
Crustacean	French Broad Crayfish	*Cambarus reburrus*	State: Threatened
Fish	Banded Sculpin (H)	*Cottus carolinae*	State: Special Concern
Fish	Blotched Chub	*Erimystax insignis*	State: Threatened
Fish	Blotchside Logperch	*Percina burtoni*	State: Endangered
Lichen	Rock Gnome Lichen	*Gymnoderma lineare*	State & Federal: Endangered
Lichen	Virginia Loop Lichen	*Hypotrachyna virginica*	State: Special Concern
Mammal	Gray Bat	*Myotis grisescens*	State & Federal: Endangered
Mammal	Northern Long-eared Bat	*Myotis septentrionalis*	State & Federal: Endangered
Mammal	Tricolored Bat	*Perimyotis subflavus*	State: Endangered Federal: Proposed Endangered
Reptile	Timber Rattlesnake	*Crotalus horridus*	State: Special Concern
Vascular Plant	Climbing Fumitory	*Adlumia fungosa*	State: Special Concern
Vascular Plant	Allegheny Onion	*Allium allegheniense*	State: Special Concern
Vascular Plant	Hairy Rockcress	*Arabis adpressipilis*	State: Endangered
Vascular Plant	Divided-leaf Ragwort	*Packera millefolium*	State: Special Concern
Vascular Plant	Northern Rein Orchid	*Platanthera herbiola*	State: Special Concern
Vascular Plant	Shooting Star	*Primula meadia*	State: Special Concern
Vascular Plant	Mountain Catchfly	*Silene ovata*	State: Special Concern
Vascular Plant	Glade Bluecurls	*Trichostema brachiatum*	State: Endangered

Wildlife Crossings

The U.S. Department of Transportation's Federal Highway Administration estimates there are one to two million vehicle accidents involving large wildlife every year in the U.S., resulting in at least 29,000 human injuries and 211 deaths. The financial cost is at least $1 billion/year in property damage, and up to $8 billion when you also consider hospital bills and other costs. Studies show that roads are one of the primary reasons for the decline of certain species, in addition to major habitat fragmentation. Reducing conflicts between vehicles and wildlife is crucial for protecting the environment and increasing safety for people.

A 2023 study by the French Broad River MPO identified several high priority recurring wildlife crash locations along US 70 Highway within Swannanoa. Mitigation in these areas could include deflective fencing along roadsides, lower vehicle speeds, warning signage for drivers, and other measures to reduce vehicle accidents and wildlife injury and death. Colored dots in the figures below represent recurring crash locations, with animal signs representing proposed warning sign locations from the report.



Figure X: Wildlife crash cluster locations, Areas: BunCo8 - Co11 maps

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Threats to Wildlife Habitat

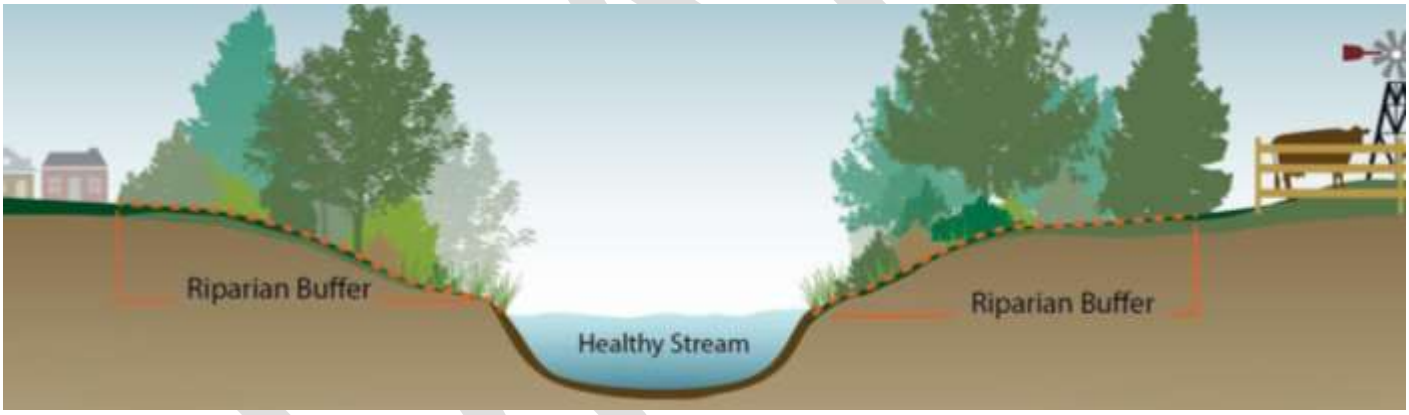
Between agricultural production, deforestation, industrial pollution, and the construction and maintenance of the railroad line, Swannanoa's landscape has continued to change over time, impacting ecosystems and wildlife habitat along the way. Historical reports speak of fish die-offs from chemical runoff into the Swannanoa River as far back as the 1930s, chemical-laced smog from coal plants and other ventures in the 1960s, soil erosion from farming causing land to become unusable, and pig waste being directly piped into the river until at least the 1970s. Between 1850 to 1890 sightings of gray wolf, cougars, elk, and bison were still possible within Buncombe County.

The Environmental Protection Agency lists the Swannanoa River as a polluted waterway. Stream buffers are important to habitat as they work to slow erosion, stabilize stream banks, absorb pollution to protect water quality, absorb flood waters, and provide food and sanctuary for wildlife.

Stream buffers in Swannanoa are threatened by development and invasive species including kudzu, tree of heaven, and mimosa. Development near buffers, such as clearing of vegetation, turf grass, paving, and structures all threaten the protective qualities and habitat potential of stream buffers and associated water bodies and groundwater.



Natural riparian buffers



Example of stream buffers

Other threats include habitat fragmentation from inefficient, sprawling development patterns, erosion from stormwater runoff, roadway construction, and landslides triggered by building in steeper slope areas. In addition, the changing climate has resulted in hotter summers, milder winters, and more extremes between droughts and flooding, which ecosystems and wildlife are not always capable of tolerating.

Climate change trends, outlined in the Swannanoa Hazards Vulnerability Analysis, indicates that average snowfall is decreasing in the area. These temperature changes can result in habitat areas shifting north as temperatures rise, causing disruption to wildlife and plant populations, increasing problems with pests that thrive in warmer climates, and reducing water supplies from less snow melt.

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CHAPTER 3: Community Profile

The Community Profile section summarizes the demographic, health, education, and employment characteristics of the Swannanoa community.

Demographic Analysis

The demographic analysis section includes an overview of population changes and trends, and information about households, age, race and ethnicity, language, disability, social vulnerability, health and human services, food access, income and poverty, health insurance, and food stamps.

Population Changes and Trends

Table X: Demographic Comparison by Area (2013-2023)						
	Swannanoa			Buncombe		
	2013	2023	% change	2013	2023	% change
Population	15,614	17,193	10%	241,801	271,790	12.4%
Median Age	40.4	43.1	7%	40.8	42.4	4%
Median HH Income	$41,796	$71,114	70%	$44,713	$71,525	60%

In 2023, there were 17,193 people living in the Swannanoa Township. The area's population has grown roughly 10% since 2013 and is expected to continue to grow.

Swannanoa's population represents around 6% of the County's overall population. Over the next 20 years, the population of Swannanoa is expected to reach approximately 21,000 people based on an average rate of growth of 1% annually.

It is unclear how the impacts of Tropical Storm Helene may affect the rate of growth.

Geographic Distribution

The population in the Swannanoa Township is primarily clustered in neighborhoods around the US 70 Hwy transportation corridor, Grovemont, Bee Tree Road, and the Riceville area.

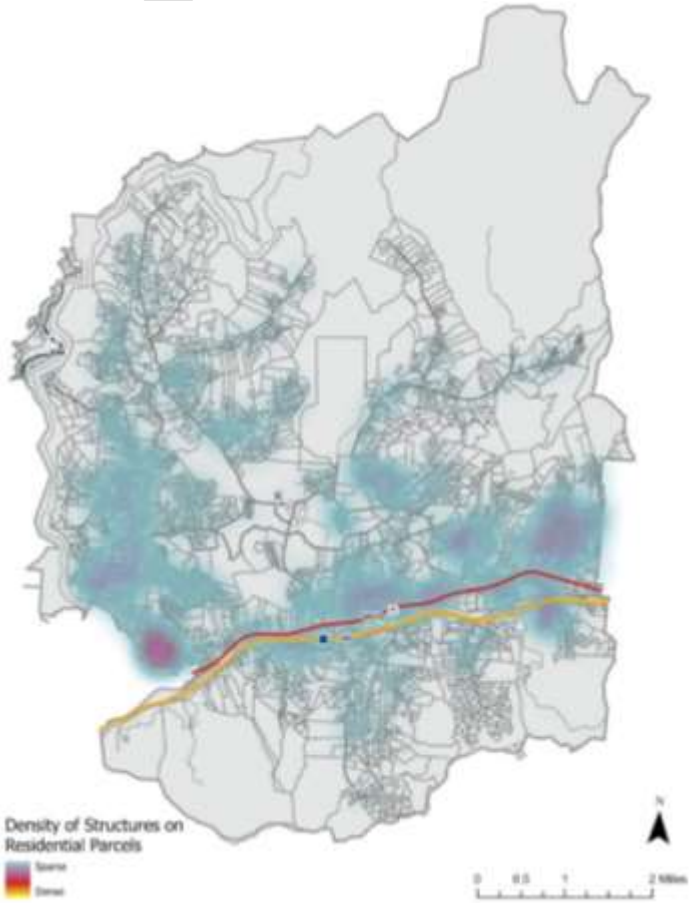


Figure X: Residential Density in the Swannanoa Township

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Households

Between 2013 to 2023, the number of households in Swannanoa decreased, but the average number of people in a household increased. The overall percentage of households with an individual living alone decreased, but households which are 65 years or older and living alone increased. Paired with other data points, these statistics suggest that as the population has aged, more elderly residents are living alone.

Table X: Households in the Swannanoa Township			
	2013	2023	% Change
Total Households	6,357	5,987	-5.8%
Non-family household size	2.32 people	2.75 people	18.5%
Family household size	2.92 people	3.4 people	16.4%
% of households with individual living alone	31.7%	27.3%	-13.9%
Households 65 years+ and living alone	10.1%	15.5%	53.5%

Age

In Swannanoa, the proportion of residents aged 65 and older has increased since 2013 from 16.2% to 20.8%. This is still lower than the overall county proportion of 22% of the population over 65 years+.

Table X: Resident Age Trends in the Swannanoa Township			
	2013	2023	% Change
Proportion of residents aged 65+	16.20%	20.80%	4.60%
Highest population age bracket (60-64)	11.20%	11.20%	0%
Second-highest population age bracket (40-44)	9%	9%	0%
Median age	40.4 yrs	43.1 yrs	6.7%

One notable trend is the change in the "age dependency ratio". This ratio quantifies the number of dependents (child or elderly, or both) in relation to the number of working-age population, usually as a ratio of dependents per 100 working-age residents. The ratios of child dependents and elderly dependents can be added to get a combined ratio.

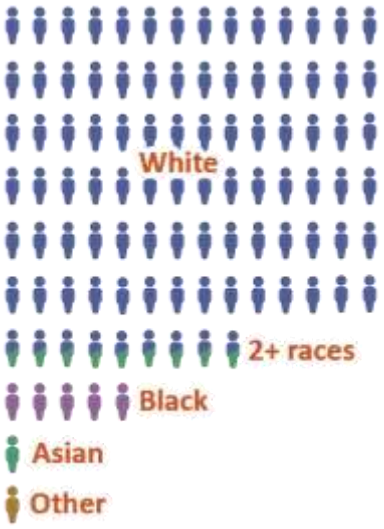
Table X: Dependency Ratio for Swannanoa Township		
Dependent	2013	2023
Children	28.8	30.9
Elderly	24.9	34.5
Combined dependents per 100 working age residents	**53.7**	**65.4**

Swannanoa saw an increase in the ratio over a 10-year period, reinforcing other data that points to an aging population.

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Race & Ethnicity

Based on U.S. Census data, the demographics of Swannanoa are similar to Buncombe County overall. The majority of the population in Swannanoa is white-only, with almost 9% of the population (1,532 people) being a mix of two or more races.



The 2013-2023 period saw a decrease in the white-alone population from 92.9% to 84.7%, and a smaller increase in the Hispanic population from 4% to 6%. Some of the change may result from an increase from 1.8% to 8.9% in those identifying as two or more races.

Table X: Demographic Characteristics (2023)				
	Swannanoa		Buncombe County	
Race	Number	Percent	Number	Percent
White	14,555	84.7%	225,935	83.1%
Black or African American	778	4.5%	14,702	5.4%
White and some other race	728	4.2%	13,208	4.9%
White and Black or African American	573	3.3%	3,678	1.4%
Asian	225	1.3%	3,144	1.2%
White and American Indian and Alaska Native	206	1.2%	2,078	0.8%
Other Race	101	0.6%	5,800	2.1%
White and Asian	25	0.1%	1,404	0.5%
American Indian and Alasa Native	2	0%	565	0.2%
Black or African American & American Indian or Alaska Native	0	0%	241	0.1%
Native Hawaiian or Pacific Islander	2	0%	95	0.0%
Black or African American & Some Other Race	0	0%	73	0.0%

Table X: Hispanic or Latino Characteristics in Swannanoa (2023)				
	Swannanoa		Buncombe County	
	Number	Percent	Number	Percent
Hispanic or Latino	1,025	6%	22443	8%
Not Hispanic or Latino	16,168	94%	249347	92%

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Language

In 2023, the majority of individuals in Swannanoa (93.9%) spoke English, with 6.1% of the population speaking some other language, primarily Spanish. Since 2013, there was an increase in Spanish-at-home speakers (3.2% to 5%) along with a corresponding decrease in English speakers (95.7% to 93.9%).

Disability

From 2013 to 2023, the percentage of individuals with a disability in Swannanoa increased from 17.3% to 18.8%. The growth in the disabled population has outpaced the growth in the population overall. Cognitive difficulties were the highest incidence of disability, followed by hearing impairment and self-care difficulties. Prevalence of disabilities in Swannanoa is around 4% higher than in Buncombe County overall. The community had the following disability characteristics:

Table x: Disability Characteristics in Swannanoa (2023)

Disability Type	# with a disability	% with a disability
Hearing impaired	1,413	8.3%
Vision impaired	1,037	6.1%
Cognitive difficulty	1,529	9.4%
Ambulatory difficulty	835	5.1%
Self-care difficulty	1,030	6.3%
Lives in independent living facility	1,603	11.6%
Total with a disability	**3,204**	**18.8%**

Social Vulnerability Index

The Social Vulnerability Index (SVI) was developed by the Centers for Disease Control (CDC) to identify communities that would be most vulnerable to disruption by a hazardous event. This could be a severe weather event like a hurricane or a human-made event such as a chemical spill. The SVI uses census tract level data to show the social vulnerability of the community through certain metrics which are associated with a lack of resiliency to these disasters. These metrics include high poverty, high unemployment, the presence of individuals with disabilities, lack of a vehicle, racial and ethnic minority status, residence in a mobile home, etc.

The SVI metrics used in this report are calculated as an index and compared to the measures for the other 99 counties or 2,192 census tracts statewide. Each county or tract is assigned a score between 1.0 and 0.0, with 1.0 representing the most vulnerable areas, and 0.0 representing the most resilient areas. (CDC/ATSDR SVI 2022). The maps below represent this data as lowest to highest vulnerability. The Swannanoa Township has varying levels of social vulnerability, with lower vulnerability to the north in less populated areas, low to medium vulnerability to the west in the Riceville and Cove areas, and medium to high vulnerability towards the eastern part of the Township. The overall SVI Map in Figure X includes all 16 themes that comprise the individual themed maps shown in Figure X.

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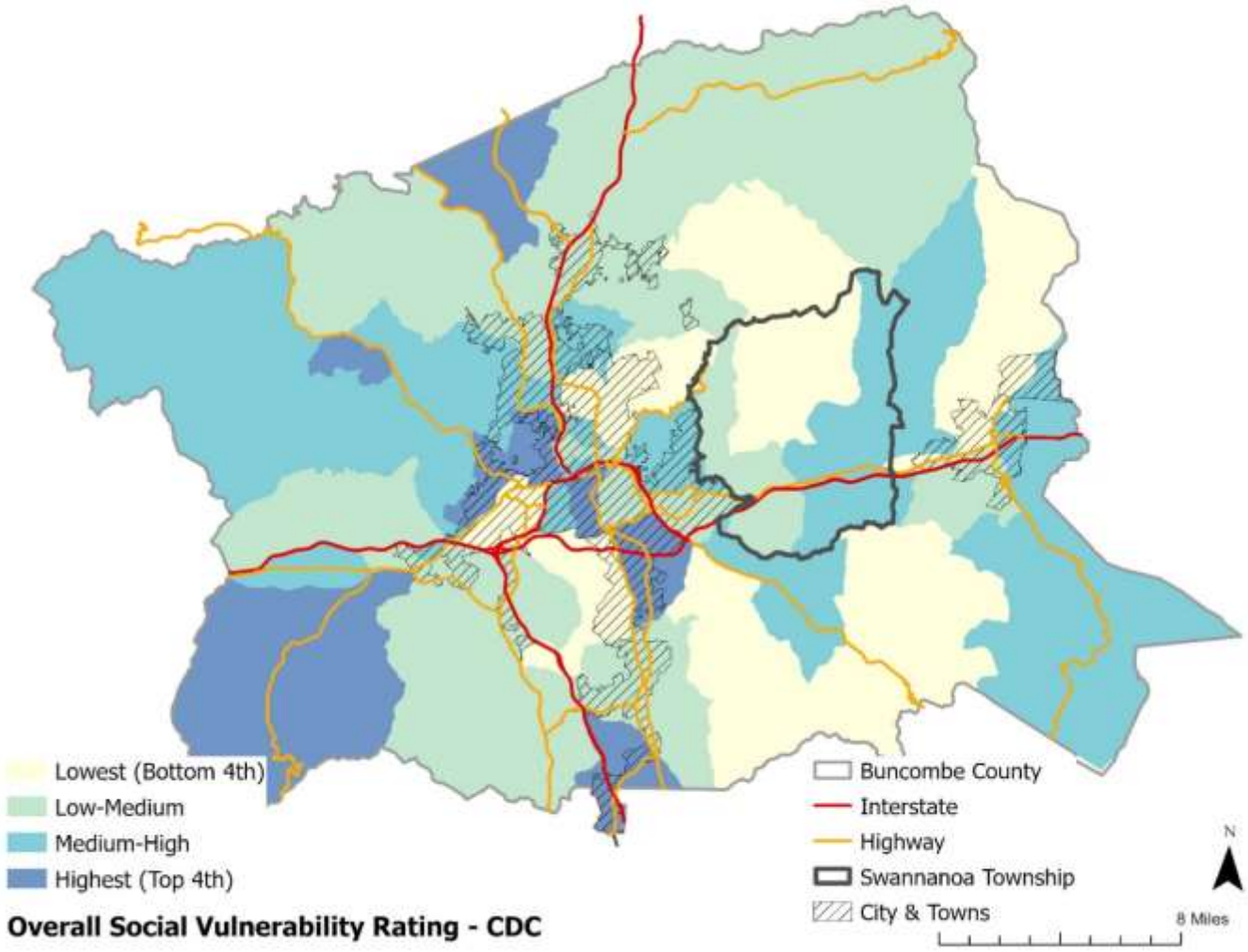


Figure X: Overall Social Vulnerability Rating - Buncombe County

Parts of the Swannanoa Township rank as having the *second-highest* vulnerability status on the Overall map, Socio-economic status map, and Household characteristics map. It is ranked as having the *lowest* in vulnerability on the Racial and Ethnic Minority Status map and the *highest* in vulnerability on the Housing Type/Transportation map. As mentioned above this is compared to all the other census tracts/communities in the state.

Swannanoa has a high rate of vulnerable housing types, such as manufactured homes. Manufactured homes are considered “naturally occurring affordable housing” and have made home occupation and ownership possible for lower-income portions of the population. While this housing is considered vulnerable, options exist to increase the resilience of manufactured homes to future disasters.

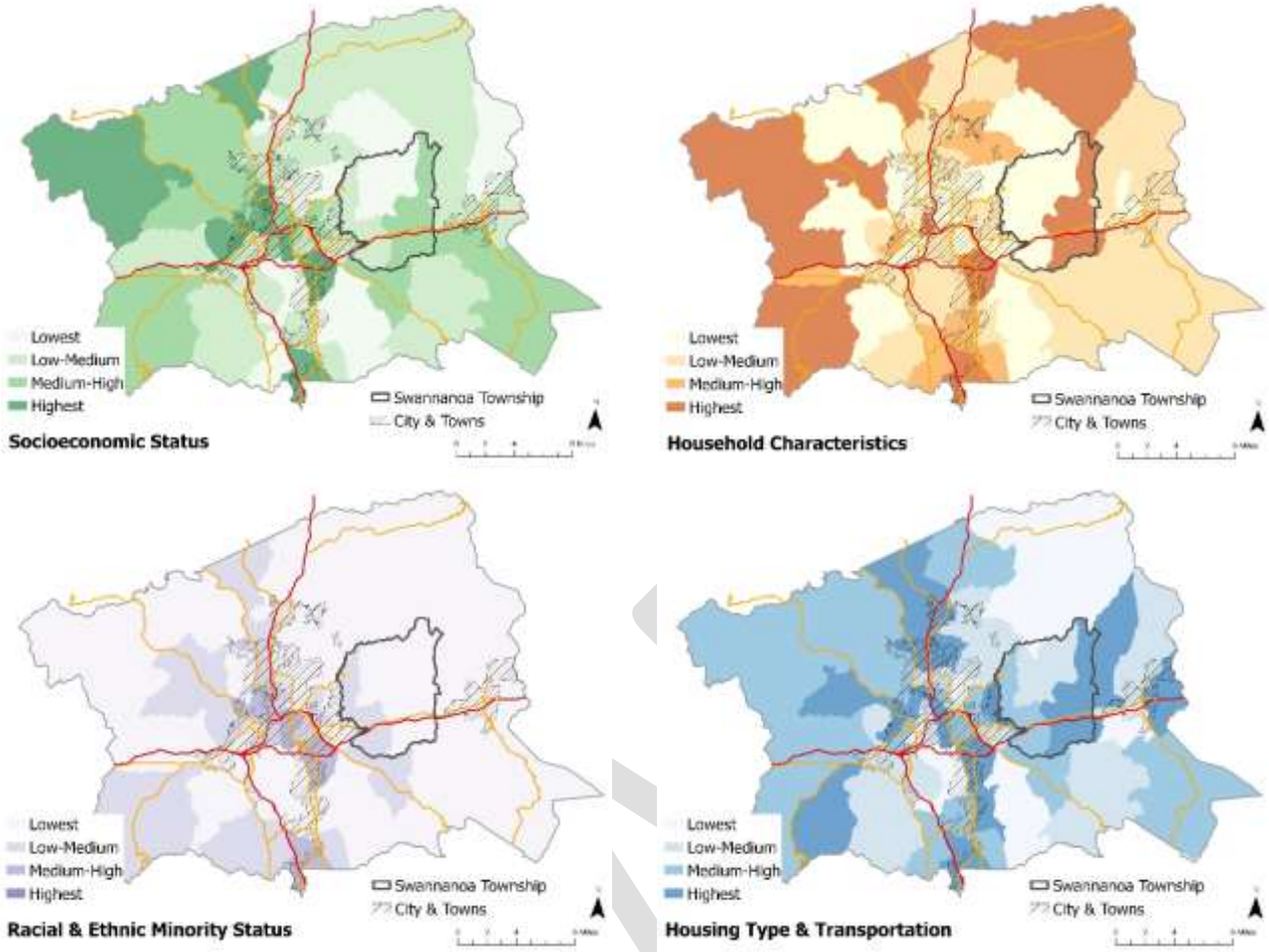


Figure X: CDC Social Vulnerability by Theme

Household Income & Poverty

According to MIT's Living Wage Calculator, a single adult with no children would need to make $49,629 per year ($23.86 per hour working full time) in order to live in Buncombe County. A household with 2 working adults and 2 children would need to make $109,907 per year ($26.42 per hour, per person).

In 2023, the median household income for all family types in Swannanoa was $71,114 (a 52% increase from the 2013 amount of $41,796, and in-line with the county overall). For married-couple families the median income was $94,128 compared to $43,667 for nonfamily households. This median income is lower than what is considered a livable wage.

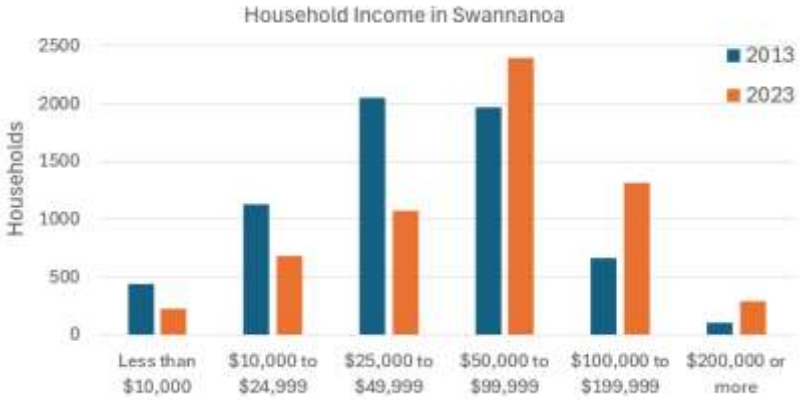


Figure X: Household Income in Swannanoa, 2013 and 2023

Table X: Median Income by Occupation	
Occupation	**Median Income**
Health Care & Social	$88,035
Waste Management Services	$80,355
Administrative Support	$80,355
Manufacturing	$73,642
Retail	$68,375
Construction	$61,723
Education	$48,784
Transportation and Warehouse	$41,538
Professional, Scientific and Technical Services	$40,089

Over the 2013-2023 period, the number of overall households making less than $49,999 decreased, while households making over $50,000 increased. Per-capita income (the average income earned per person) in 2023 was $32,846, around 22% less than the per-capita income in Buncombe County overall.

The highest median incomes by occupation are in the health care and social services, waste management, and administrative support fields (Figure X).

The number of households receiving public income assistance decreased from 1.08% in 2013 to 0.81% in 2023. Some households struggle to afford enough food to feed themselves and their families. The federal Supplemental Nutrition Assistance Program (SNAP), commonly known as the food stamps program, provide payment to allow low-income people to purchase food. Of the 5,987 households in the Swannanoa Township, about 6.6% receive food stamps, a decrease from 12% in 2013. In 2023 the majority (52%) of food assistance recipients were female-headed households with children and no spouse present.

In 2023, 14% of Swannanoa's population lived below the Federal Poverty Level. This is much higher than most other Townships in Buncombe County.

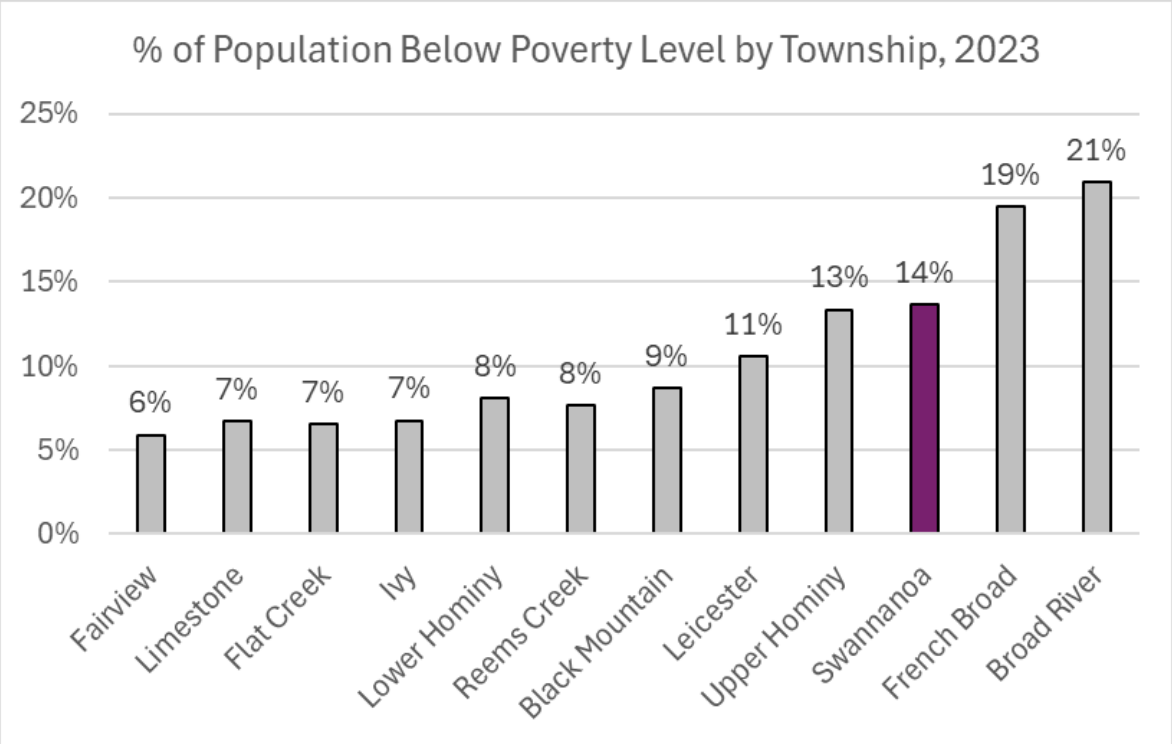


Figure X: Percent of population below poverty level by Township, 2023.

Health & Human Services

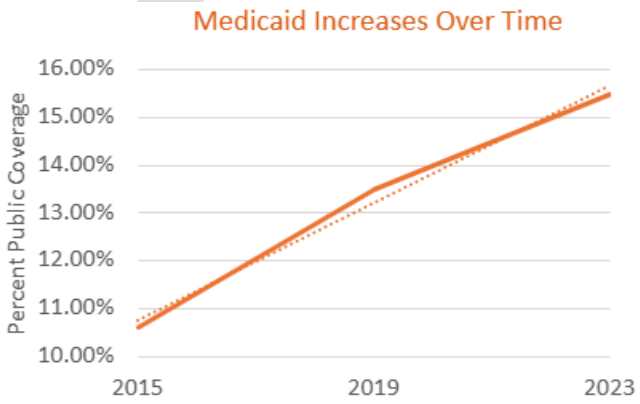
Health and Human Services is a broad term that covers many types of services administered by both the public and private sector. More health data can be found at the county-level in the 2022 Factbook developed for the Buncombe 2043 Comprehensive Planning process.

Most of the available health care services are located in the City of Asheville, including through Mission Hospital, with some options in nearby Black Mountain. Options in Swannanoa include a limited amount of aging services, veterinary care, childcare resources, disability services, medical facilities and services, social services, and youth services. There are currently no urgent cares in Swannanoa and residents must travel to Black Mountain or Asheville to access one.

Health insurance

In 2023, 87.4% of the overall population of Swannanoa was insured. The White-only population was insured at a rate of 91.3%, the Black-only population at 79.8%, and the Hispanic/Latino insurance rate as 36.8%.

While there was a decrease in the percentage of insured people from 2019 to 2023, there are still more insured people in 2023 than in 2015.



The percentage of people on Medicaid has increased over time from 10.6% in 2015 to 15.5% in 2023. This is a 46.2% increase, outpacing the overall population increase of 13.3% in 2023.

Food Access

Prior to Tropical Storm Helene in 2024, Swannanoa contained one major grocery store, Ingles Supermarket. Damage from the storm caused the store to close temporarily, with plans to rebuild and re-open after 2025. For people with access to a vehicle, the drive distance to get to a grocery store may be an inconvenience, but for those who rely on walking or public transportation, regular food access presents more of a challenge. As of 2025, plans for a new neighborhood-scale grocery store, called Rite Buy Grocery, were underway for a property in the downtown Swannanoa area. This store will bring much needed access to fresh produce, meat, dairy, and other pantry staples.

Table X: Grocery Options closest to Swannanoa

Grocery Store	Distance from Swannanoa Center
La Bamba Burrito Express (Limited)	0.6 miles
Hopey & Co.	2.8 miles
United Grocery Outlet	4.2 miles
Ingles, Black Mountain	5.2 miles
Ingles, Oteen	5.7 miles

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Education

The Education section provides an overview of the educational attainment for the people living in the Swannanoa Township as well as school location and enrollment information. An individual's educational attainment impacts their potential earnings over their lifetime.

Educational attainment

For the population in Swannanoa that is 25 years and over in 2023, 89.7% have a high school education or higher which has stayed consistent since 2013. The percentage of people with less than a 9th grade education doubled from 2013 to 2023. Those with Graduate or professional Degrees increased slightly over the same period.

The median earnings for a high school graduate are $35,363, compared to $55,139 with a bachelor's degree, or $63,403 with a graduate degree.

Table X: Educational Attainment for Population 25 years and older in Swannanoa

Level of Education	2013	2023
Less than 9th Grade	3.4%	6.8%
9-12th no diploma	7.3%	3.4%
High School Graduate	30.8%	28.3%
Some College, no Degree	19.5%	14.9%
Associate's Degree	8.3%	10.7%
Bachelor's Degree	19.6%	21.5%
Graduate or professional Degree	11.0%	14.3%

When compared to Buncombe County overall and the State of North Carolina, Swannanoa has a lower percentage of the population that has a high school diploma or higher. It also has a higher percentage of the population with less than a 9th grade education. These measures are significant to note since "no high school diploma" is one of the measures of vulnerability in the CDC's Social Vulnerability Index.

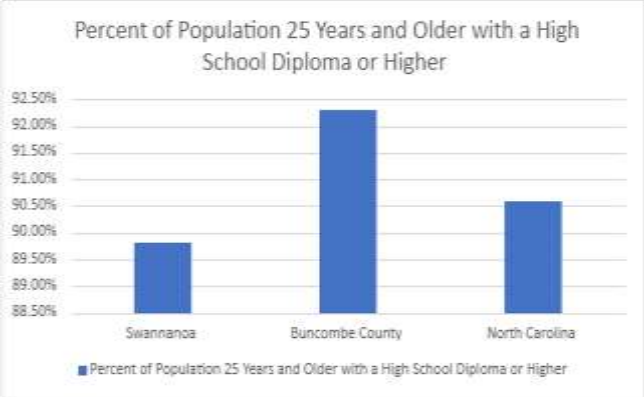


Figure X: Percent of population over 25 years old and having a High School Diploma or Higher

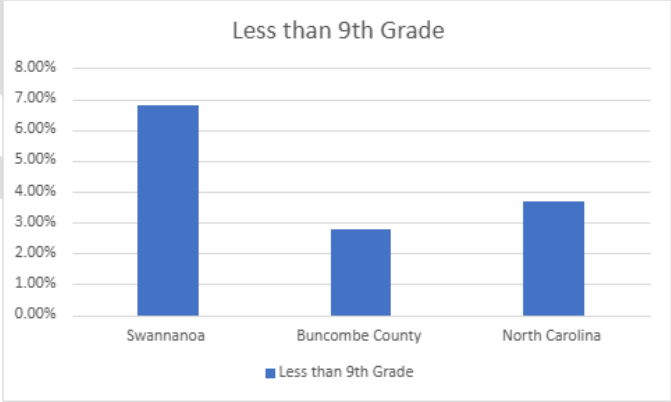


Figure X: Percent of Population with Less than a 9th grade Education

School Enrollment

In 2023, about 97% (4,057 out of 4,173 people) of school aged people in Swannanoa were enrolled in school. Of those, 3.4% were enrolled in pre-school, 35.2% were enrolled in elementary school (grades 1-8) and 17.5% were enrolled in high school. The population enrolled in college or graduate school was about 40.1% of the population enrolled in school. Warren Wilson College is had 797 students for the 2023 academic year, including both undergraduate and graduate students.

School Location and Districts

Swannanoa is bisected by a number of school district boundaries, as shown in Figure X below. The WD Williams Elementary district comprises the largest district within the Swannanoa Township. Bell Elementary District is the second largest district.

Schools within those two districts include Charles D. Owen Middle School, WD Williams Elementary, Charles C Bell, ArtSpace Charter School, Asheville Christian Academy, and Warren Wilson College.

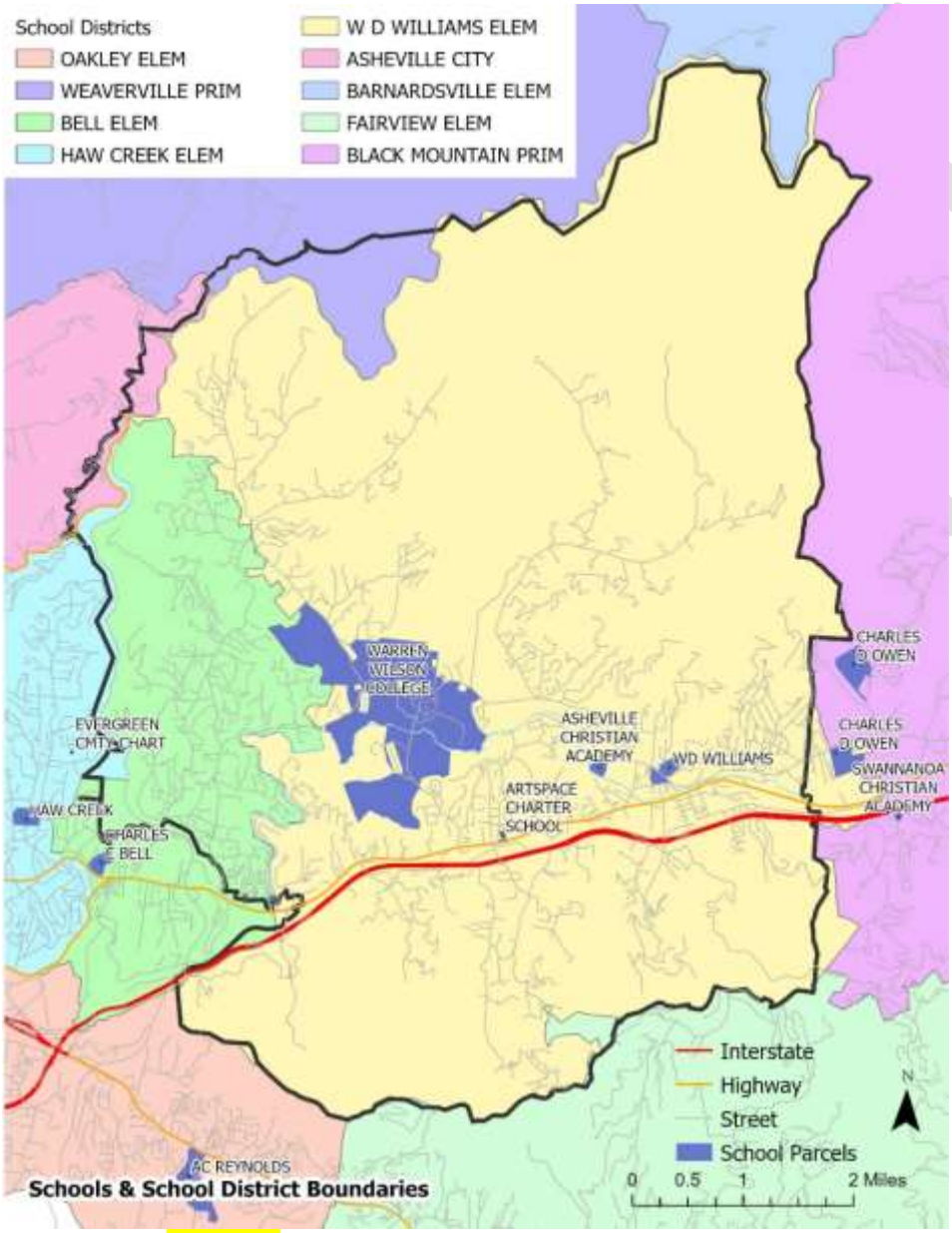


Figure X: School locations and District Boundaries



W.D. Williams Elementary



ArtSpace Charter



Asheville Chrisitan Academy



Warren Wilson College



Charles. D. Owen Middle



Charles C. Bell Elementary

Sources of Education data:

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CHAPTER 4: Land Use, Housing, and Transportation

The Land Use, Housing, and Transportation section summarizes data and existing conditions about the built environment, housing, commercial and industrial development, hazard impacts, historic resources, parks and open space, and transportation infrastructure in the Swannanoa Township.



Lands along the US 70 Hwy Corridor, Swannanoa

Land Uses

Development Patterns

Swannanoa contains a mix of urbanizing areas and suburban and rural communities. Remnants of a historic mill town, called Beacon Village, is located near the center point of Swannanoa between the City of Asheville and Town of Black Mountain. The old village area sits between US 70 Hwy to the north, and Interstate 40 to the south. Much of the original grid pattern from the former village remains in place, as well as several communities of small, single-family housing, originally built for mill workers. Further from the main corridor you can find newer and historic planned communities, subdivisions, manufactured home parks, and individual single-family homes.

Between 2015 to 2025, Swannanoa experienced an increase in the number of acres used for residential, commercial, and parks land uses, and a decrease in industrial lands. Industrial acreage experienced the most extreme change, decreasing from 1,211 acres in 2015 to 658 acres in 2025.

The likelihood that areas within Swannanoa will continue to urbanize over the next 35 years is low to moderate (2-25% chance) based on data from the North Carolina Wildlife Resources Commission. Urban development sprawl is most likely to occur within the Warren Wilson Road loop to the north of US 70 Hwy, and around Bee Tree Road and Riceville Road.

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Use Types

The highest land use types in Swannanoa by number of parcels are residential uses (76% of all Swannanoa parcels), and vacant land (21%). Of residential parcels, the majority are single-family homes, with 8.4% of parcels containing a manufactured home. Commercial uses make up only 2% of all parcels. Swannanoa contains 11% of all residential parcels in Buncombe County, and 30% of all manufactured home parks.

Table X: Land Use in the Swannanoa Township

LAND USE	# OF PARCELS	% OF ALL SWANNANOA PARCELS	ACRES IN 2025	% OF SWANNANOA ACRES
Residential:	6,276	76.0%	10,279	39.0%
Single-Family residential	*5,172*	*62.7%*	*9,302*	*35.3%*
Manufactured Home	*690*	*8.4%*	*746.93*	*2.8%*
Manufactured Home Park (3+ units)	*51*	*0.6%*	*177*	*0.7%*
Condominium	*21*	*0.3%*	*0*	*0.0%*
Townhome	*326*	*3.9%*	*20*	*0.1%*
Apartments	*8*	*0.1%*	*8*	*0.0%*
Group Homes	*0*	*0.0%*	*0*	*0.0%*
Low Income Housing	*3*	*0.0%*	*14*	*0.1%*
Adult Care Home	*5*	*0.1%*	*11*	*0.0%*
Vacant	1,724	20.9%	8,208	31.2%
Commercial	163	2.0%	346	1.3%
Recreational	3	0.0%	26	0.1%
Community Service	72	0.9%	2,761	10.5%
Industrial	7	0.1%	658	2.5%
Public Service	6	0.1%	3,989	15.1%
Parks	4	0.0%	79	0.3%
TOTAL	**8,255**		**26,348**	



Single-family homes south of I-40



Apartments on US 70 Hwy



Mobile homes north of US 70 Hwy

Looking at the type of uses based on parcel acreage (size) rather than number of parcels shows a slightly more even distribution of land uses, with residential uses accounting for nearly 40% of the area's acreage, vacant land at 31%, and public services accounting for 15% (See Figure X below).

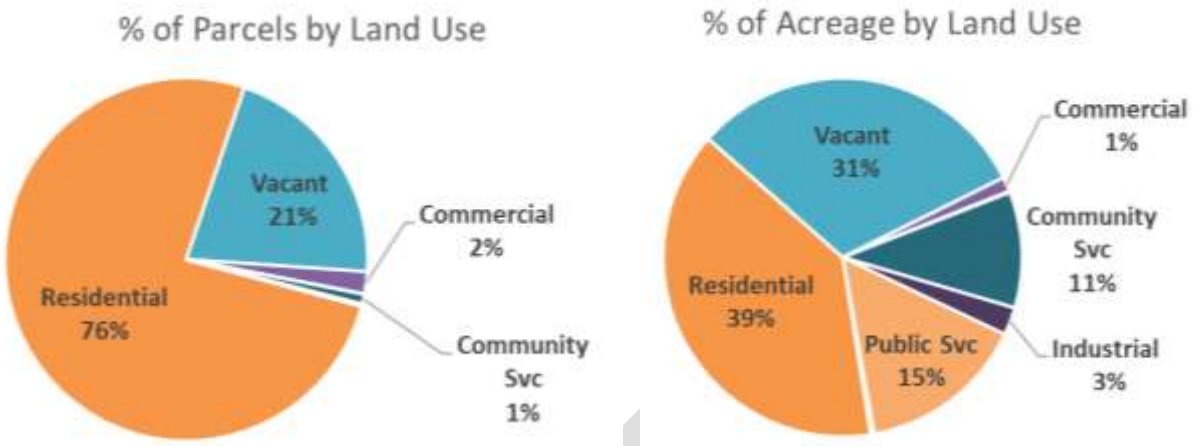


Figure X: Percent of Land use by # of parcels and by acreage.

The majority of commercial and industrial uses are located along the US 70 Hwy corridor, with some also around Warren Wilson Road. The Warren Wilson College campus and The Cove represent the largest Community Service designated land uses.



Industrial buildings on Warren Wilson Rd.



Commercial buildings on Whiston Ave.



Commercial buildings on US 70 Hwy

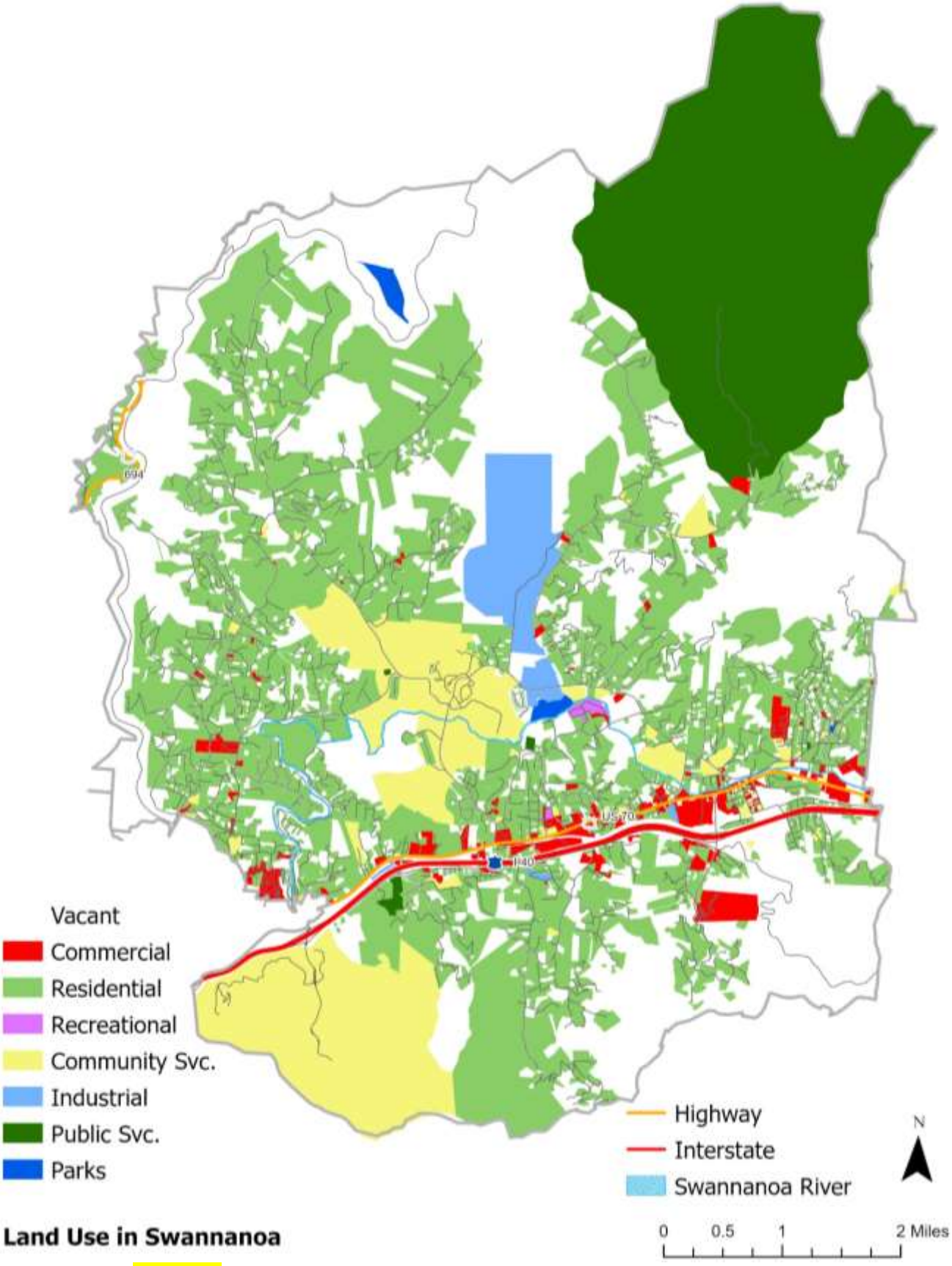


Figure X: Existing Land Uses in Swannanoa based on property tax records.

Low density, single-family housing dominates the residential development pattern. Parcels containing manufactured homes, as well as several manufactured home parks, are spread throughout the Township.

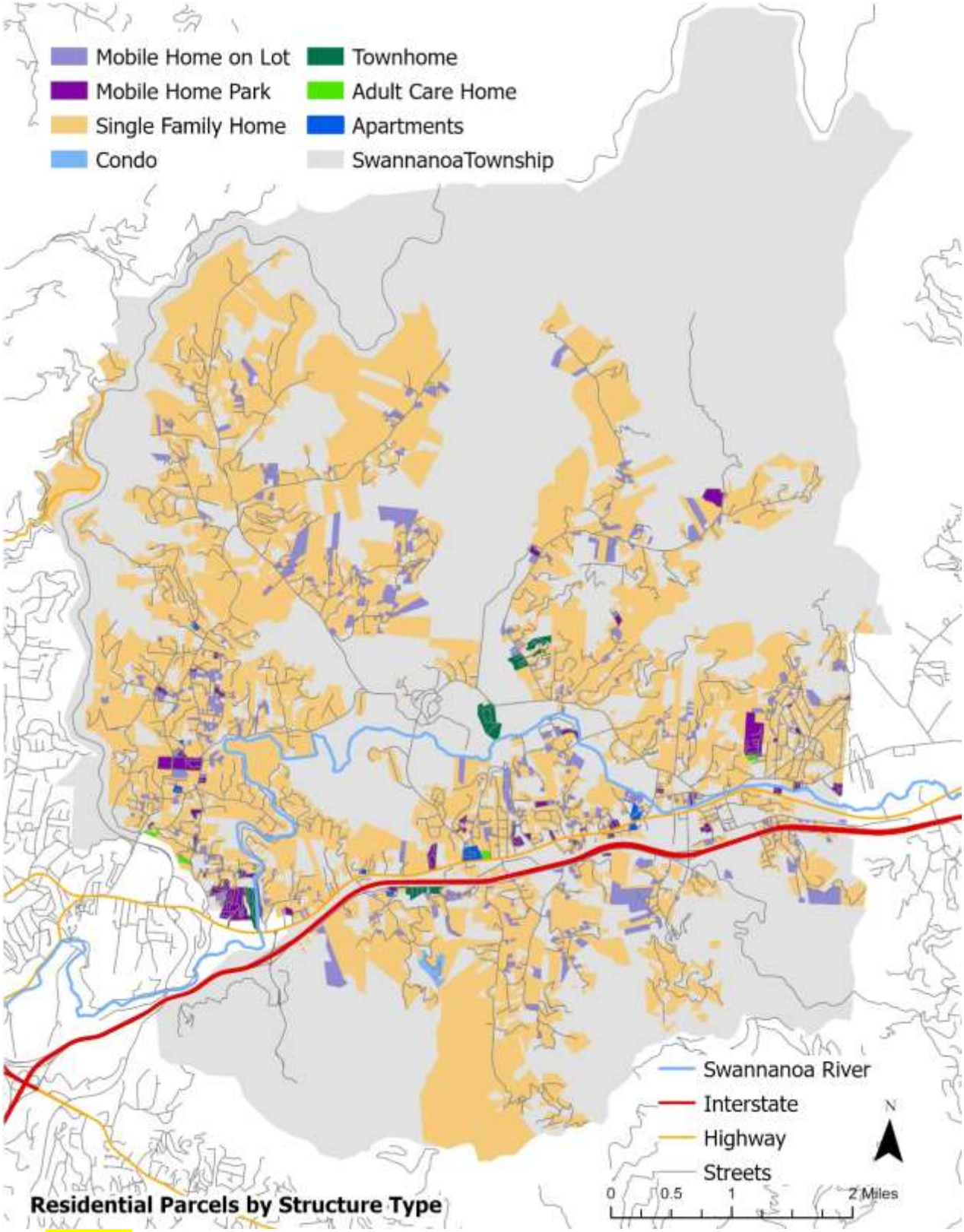


Figure X: Existing Residential Land Uses by Structure Type based on property tax records.

Lot Utilization

Lot utilization refers to how much of a property is being used for development rather than being vacant. In urbanizing areas, this can help explain whether land is being used to its highest potential, or if it may be underutilized, such as in the case of low density uses that have access to expensive public infrastructure, such as public water and sewer. Lot utilization can also help identify whether an area can support walkability and a range of services.

Low-density development patterns often do not generate enough tax revenue to cover the cost of the services, infrastructure, or amenities that may serve them. In more rural areas, understanding the amount of lot utilization may indicate whether an area is experiencing development sprawl or habitat fragmentation. Within the Swannanoa Township, the availability of public sewer is a major factor in the type and density of uses that can be built. Sewer lines run primarily along US 70 Hwy, and snake from east to west just south of the Warren Wilson College campus.

An analysis of the lot utilization rate was completed for parcels with the majority of their acreage located within 2,000 feet of both sides of US 70 Hwy (4,000 feet total buffer width). This location was chosen based on the availability of sewer along the corridor, with easy access to Interstate 40, and close proximity to both the Town of Black Mountain and City of Asheville. These factors make this corridor more appropriate for mixed-use, commercial, industrial, and medium to high density residential development patterns compared to more rural areas of Swannanoa. ***Parcels containing the majority of their land within a Steep Slope/High Elevation Overlay District or in the regulated 100-year Flood Hazard or Floodway Area (zones A or AE) were not included in this analysis and are not shown in the Lot utilization map in Figure X.***

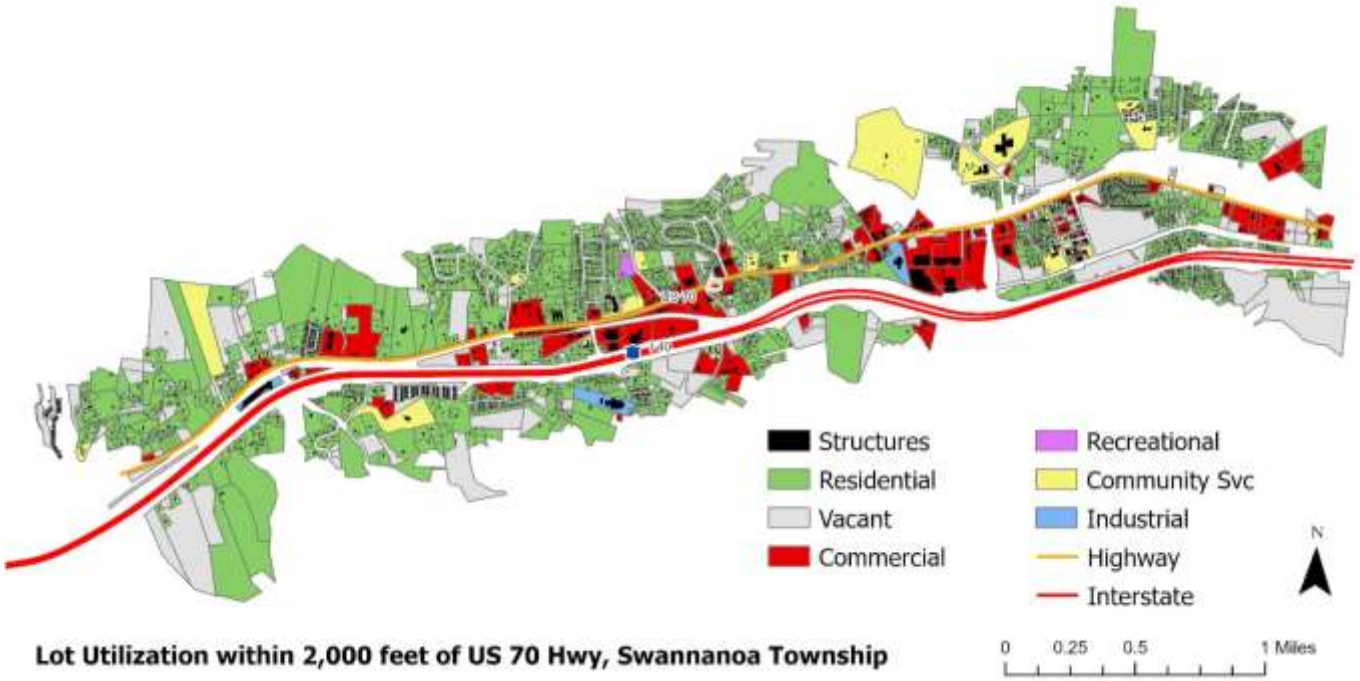


Figure X: Lot Utilization within 2,000 feet of US 70 Hwy in Swannanoa.

Parcels within 2,000 feet of both sides of US 70 Hwy had an average lot utilization rate of 8% (B*ased on structure footprints and does not include other impervious surfaces, such as parking lots*). Almost 75% of parcels include residential structures, accounting for more than half the acreage of the area. The average lot utilization rate for residential parcels is 6%, indicating the prevalence of low-density development. 22% of parcels are vacant, accounting for almost a quarter of the acreage. Commercial and Industrial parcels account for only 7% of all parcels in use, and 12% of the total acreage, but have the highest utilization rates of all use types, with an average 14% lot utilization for commercial and 26% for industrial uses.

Table X: Lot Utilization within 2,000 feet of both sides of US 70 Hwy

Current Use	# of parcels	% of parcels in buffer	Total Acreage	% of acreage	# of buildings	Building footprint acreage	Avg. Lot utilization
Residential	1,330	74.6%	1,097	57.9%	2,424	68.9	6%
Commercial	119	6.7%	228	12.0%	264	33.0	14%
Recreational	1	0.1%	3	0.2%	3	0.1	3%
Community Svc	25	1.4%	132	7.0%	63	8.4	6%
Industrial	3	0.2%	17	0.9%	6	4.4	26%
Vacant	306	17.2%	419	22.1%	*n/a*	*n/a*	*n/a*
TOTAL	**1,784**		**1,896**		**2,760**	**115**	**8%***

Light Pollution

According to the Dark Skies Association, 'Light pollution is the human-made alteration of outdoor light levels from those occurring naturally.' Studies show that light pollution negatively impacts the health and safety of both humans and wildlife, contributing to accidents, poor health, and disruption of natural cycles such as sleep, migration, and more. Light pollution can be minimized through the type of lighting that is installed, and consideration for mounted height, location, shielding, and aiming.

City glow, defined as the brightness of the sky over built-up areas, impacts most of Swannanoa to varying degrees, with light pollution increasing as you get closer to Interstate 40. The least impacted areas are located along the Blue Ridge Parkway and Pisgah National Forest to the north.

Almost all of Swannanoa is categorized by the 2022 Light Pollution Atlas as having an artificial sky brightness between 1 to 9 on a scale of 0.01 (Dark) to over 46.77 (Bright). Compared to cities, these numbers are relatively low, though the ability to view stars is reduced, and milky way features may be hard or impossible to see depending on location. Clouds will often appear bright against the night sky, further reflecting light from development below. As development increases, the amount of light pollution is expected to also increase unless regulations are put in place to address potential impacts.

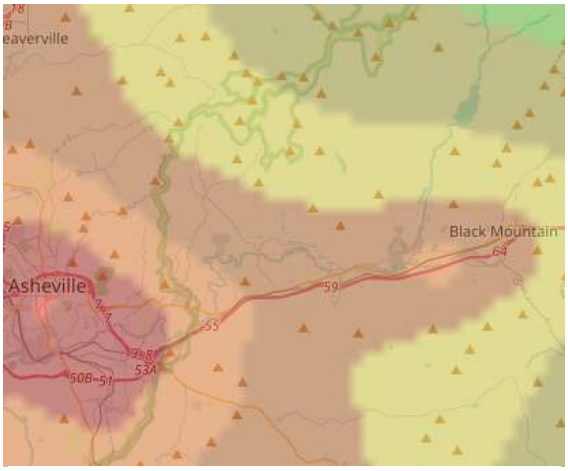


Figure X: Light Pollution Around Swannanoa

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Housing

Housing availability, affordability, and accessibility are key concerns throughout Buncombe County, but are particularly pressing in Swannanoa due to the large number of homes lost and damaged during Tropical Storm Helene in 2024. Like many places in the U.S., Buncombe County continues to experience insufficient housing stock to meet demand, as well as surging home prices and increasing rents for existing units. See section X for information about housing impacts from Tropical Storm Helene.

Housing Units, Households, and Occupancy Type in the Swannanoa Township (2023)

There were 7,717 housing units (6% of Buncombe's housing), and 5,987 households (HH).
Housing units increased annually by an average of 3% between 2010-2023, with the sharpest increase occurring in the years after 2019. During the same period, the number of households increased on average by 1 to 2% per year until 2016 but began to decrease by an average of 3% from 2016-2023. In other words, after 2016, housing units continued to increase while the number of households decreased.



Figure X: Housing Units & Households

Most housing in Swannanoa consists of single-family detached units (75%) with 2 or 3 bedrooms that are 25 years old or older. 16% of housing was manufactured homes. 22% of units were vacant, of which 40% were for-sale, and 21% were seasonal or recreation homes. There were four apartment complexes in the area: Holly Tree (8 market-rate units); Jasper (84 affordable units); East Haven (95 affordable units); and Villas at Swannanoa (60 affordable units). Other housing characteristics of the area are as follows:

Bedroom Composition:

- 84% contain 2 or 3 bedrooms
- 12% contain 4 or more bedrooms
- 4% contain 1 or fewer bedrooms

Heating source:

- 67% use electricity
- 22% use utility or other bottled, tank, or LP gas
- 11% use fuel oil, kerosene, or other types of fuel



Occupancy Type:

- 83% were owner-occupied
- 21% were renter-occupied

Vacancy Status

- 1,730 vacant housing units (22% of units)
- 40% of vacant housing was for-sale
- 21% was for seasonal or occasional use


Jasper Apartments, Swannanoa

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Table X: Occupied Housing Units in Swannanoa (2023)		
Unit Type	***# units***	***% total***
Single-Family		
1, detached (stand-alone)	4,485	75%
1, attached (duplex)	160	3%
Mobile home or other type	940	16%
Multi-Family		
2 unit apartments	57	1%
3 or 4 unit apartments	155	3%
5 to 9 unit apartments	83	1%
10 or more unit apartments	107	2%
Total units	**5,987**	**100%**

Housing Affordability in Swannanoa, 2023

Price per acre

From 2005 to 2020, the median residential sales price per acre in Swannanoa saw significant changes compared to Buncombe County overall. Prior to 2019, prices in Swannanoa either decreased or had modest increases compared to the overall County. This could be from a combination of continued recovery from the 2008 Housing crisis, changes in zoning regulations, supply increases from new subdivisions, or reduced demand from builders and buyers as lenders tightened credit requirements. From 2020-2025, prices in Swannanoa grew on average 22% faster than the county overall, rising from a median sales price per acre of $381,840 to $733,333.

Table X: Median Residential Sale Price Per Acre, Percent Change		
Years	**Swannanoa**	**Buncombe County**
2010-2014	-17.31%	9.95%
2015-2019	7.18%	21.59%
2020-2025	92.05%	69.84%

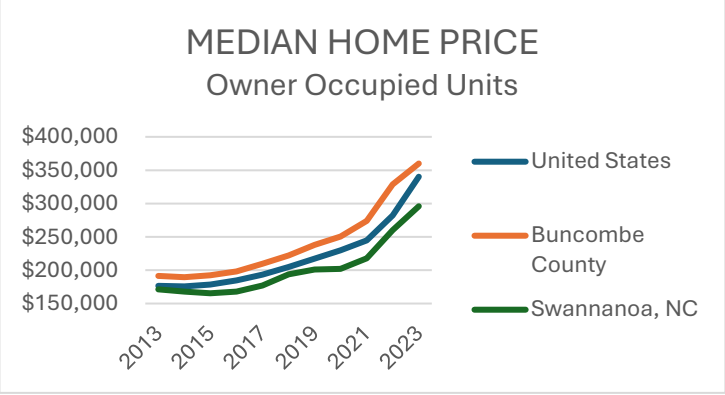
Rent

From 2019 to 2023 the median gross rent increased 58%, from $908/month to $1,438 for a 3-bedroom unit. This was slightly lower than in the county overall, which experienced rent increases of 64% ($2,517 per month rent for a 3-bedroom unit).

Table X: Households spending more than 30% of their income on housing	
Renters	**Owner-Occupied**
56% cost burdened	14% cost burdened

Median Home Prices

Between 2013 to 2019, Swannanoa experienced a modest average increase in median home prices of 3%, but starting in 2019 there were massive changes in home prices, with up to a 50% increase in average prices in a single year. Overall, from 2013 to 2023 (10 years) the median price of an owner-occupied home increased 73%.



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Commercial & Industrial

Commercial

In 2023, there were 163 commercial parcels of land (2% of all Swannanoa parcels), spread across 346 acres (1.3% of the area's acreage).

The Swannanoa office market is essentially full - with a 0.2% vacancy rate there is almost no space available, and tenants are renewing at a rate of 96%. Commercial availability and inventory in Swannanoa had a lower vacancy rate than the county overall, and less available inventory as a percent of total.

Table X: Commercial Availability & Inventory (2024)

	Swannanoa	Buncombe
Vacancy rate	0.2%	2.4%
Availability rate	0.4%	2.7%
Available space	6,700 sq. ft	943,000 sq. ft
Market asking Rent	$10.86 sq. ft	$19.76 sq. ft
Occupancy rate	99.8%	97.6%
Existing buildings	113	3,130
Market sales price	$107 sq. ft	$175 sq. ft
Pop. Growth 5 Yrs	4.8%	3.8%
For-sale listings	4	69

Asking rents were also lower by around $9 less per square foot compared to the county. Vacancy rates and availability in Swannanoa are currently at their lowest levels compared to the last 25 years, which may indicate high demand and low inventory.

Table X: % Median Commercial Sale Price Per Acre

Years	Swannanoa	Buncombe
2010-2014	16%	32%
2015-2019	-45%	-17%
2020-2025	110%	15%

Between 2020-2025 the average commercial sales price per acre in Swannanoa was $493,891 ($271,318 median sales price per acre). From 2015-2019, the median sales price per acre decreased dramatically in the overall County but was especially steep in Swannanoa.

This could be due to factors occurring during that time period, such as the ongoing crash in global oil prices that reduced demand for office space, rising federal interest rates, tax reforms that impacted the real estate market, and increased construction costs.

From 2020-2025, Swannanoa's price per acre increased 110% compared to the County's 15% rate of change (see table x). Cap rates at 8.2% suggest investors were looking for roughly an 8% return on investment in this area.

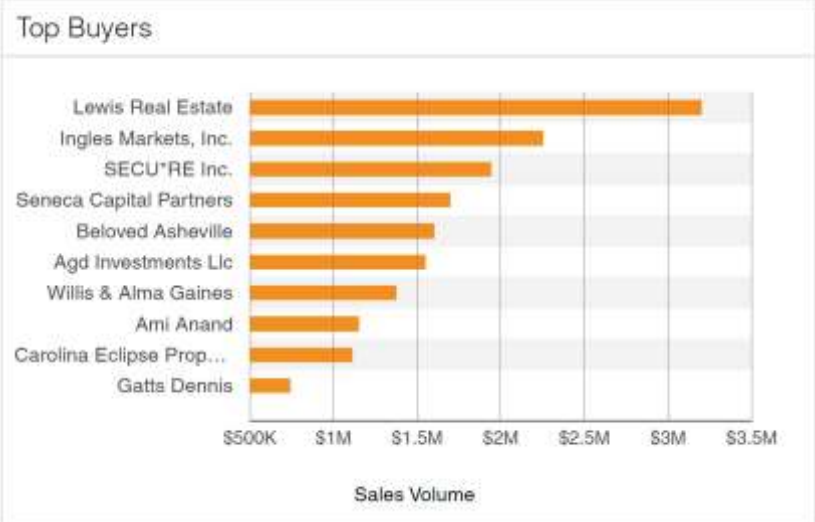


Figure X: Top Buyers by Sales Volume in Swannanoa, 2025.

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Commercial vacancy rates declined dramatically from 2015 to 2018, while market asking rent per square foot gradually increased through 2024 (Figure X). Commercial sales, by price per square foot has continuously risen since 2015. As of August 2025, Lewis Real Estate, Ingles Markets, Inc., and SECU*RE Inc. were the 3 top buyers of real estate based on sales volume in the area (Figure X). Many buyers were not local (67% national, 32% local).



Figure X: Commercial Vacancy and Market Asking Rent Per SF, Swannanoa. 2025



Figure X: Sales Volume & Market Sale Price per SF, Swannanoa. 2025

Industrial

In 2023, there were 7 industrial use parcels spread across 658 acres (2.5% of Swannanoa's acreage) based on land use tax records. Over the last decade, there was no new industrial development in the Swannanoa area, and no available sales data for industrial acreage. The largest industrial user in the Swannanoa Township in terms of acreage or employment numbers was EcoLabs (formerly National Wiper Alliance).

Table X: Industrial Property Owners, Swannanoa Township

Owner	Acreage
Gotham Properties	3.28
Linter North America Corp.	5.71
Dyna-Digger LLC	37.91
WYSIWYG LLC	41.47
Chemtronics Inc.	539.38
Blue Ridge Industrial Support Co.	7.79
Carben LLC (EcoLabs)	22.5

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Tropical Storm Helene, 2024 Impacts

Note: See Figure X for structure and infrastructure damage, and landslide locations.





3% of Swannanoa's housing was destroyed

27% of homes required habitability or major repairs

Based on FEMA housing assistance applications after T.S. Helene, roughly 26% of the households living in the Swannanoa Zip Code (1,542) reported that they had been displaced or were living somewhere other than their primary dwelling unit at some point during the year following the storm.

Of those, 62% were living elsewhere not due to a home repair need, 20% had minor/habitability repairs needed, 10% had major damage, and 8% had their home destroyed (Figure X). The majority of displaced residents were living with family or friends (56%), in a hotel/motel (19%), or in a permanent or temporary rental unit (11%) (Figure X).

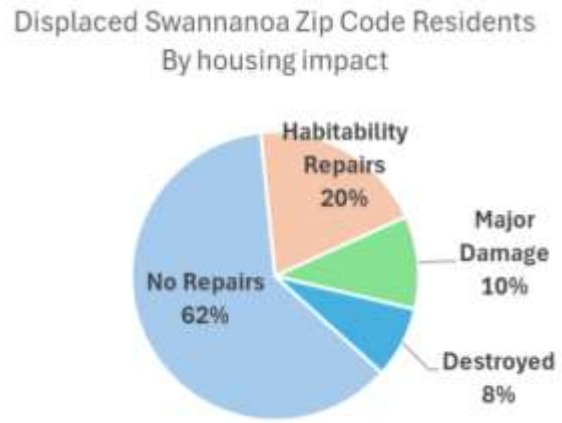


Figure X: Displaced Swannanoa Zip Code Residents by Housing Impact

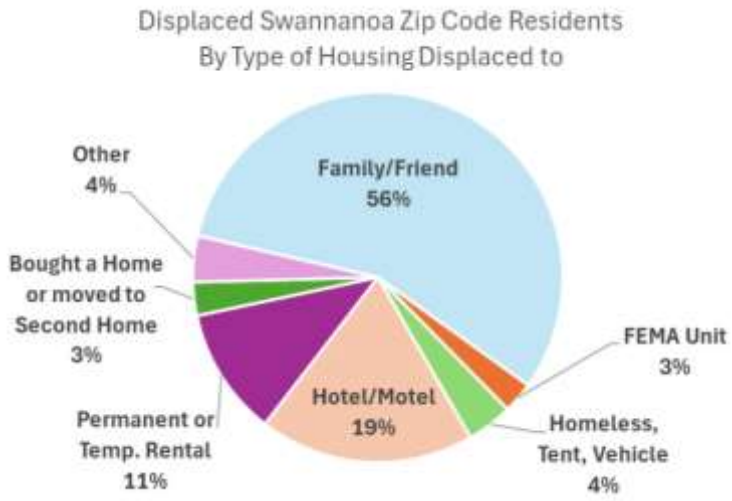


Figure X: Displaced Swannanoa Zip Code Residents by Type of Housing Displaced to

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Structure Damage

The Swannanoa Zip Code had the highest number of residential units impacted, and the most units destroyed compared to all other zip codes in the county.

Structure damages were reported in many areas of Swannanoa, with clusters around River Knoll Drive to the west, the Beacon Village/US 70 Hwy corridor to the east, and along Bee Tree Road to the north. Swannanoa accounts for 24% of all major damage and 31% of all destroyed homes in the county.



Structure damage from T.S. Helene

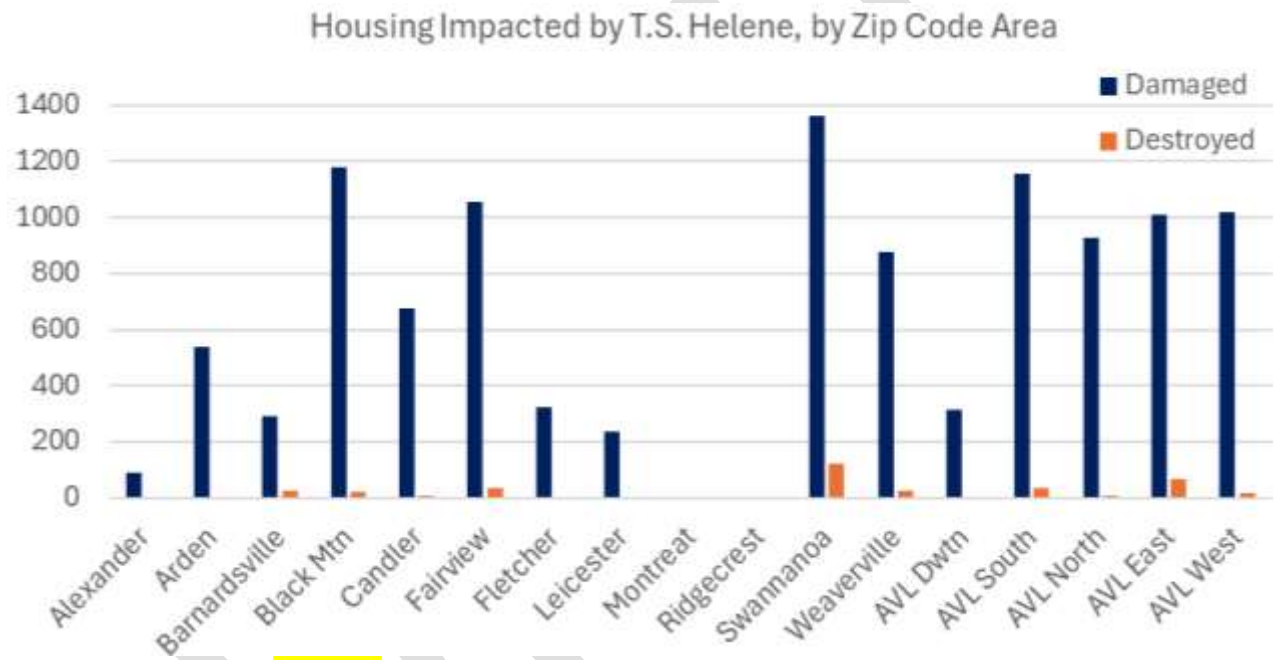


Figure X: Housing impacted by T.S. Helene by zip code Area.



Before Helene, US 70 Hwy



After Helene, US 70 Hwy

84% of structural damage in Swannanoa was to residential units, and 14% was commercial units. 35% was deemed restricted and 44% was deemed unsafe. Most homes damaged were single-family homes and manufactured housing, as those two types of housing make up the majority of home types in the area.

Table X: T.S. Helene Residential Structure Impacts by 28778 Zip Code				
Residence Type	**Habitability Repairs Needed**	**Major Damage**	**Destroyed**	**Total**
Apartment	10	2	0	12
College Dormitory	2	0	0	2
Condo	10	0	0	10
House - Single/Duplex	825	107	37	969
Mobile Home	213	71	74	358
Other	12	1	1	14
Townhouse	20	7	0	27
Travel Trailer	12	4	11	27
Total	**1,104**	**192**	**123**	**1,419**
% of all County Res. Impacts	**10%**	**24%**	**31%**	**12%**
% of all 28778 Housing	**23%**	**4%**	**3%**	**29%**

Infrastructure Damage

Similar to the rest of the county, infrastructure damage in the Swannanoa area was significant and widespread, with electricity being cut off for up to 7.5 weeks or more. Damage to the public water system throughout the county resulted in a lack of potable water for nearly 3 weeks, with most residents using bottled water for drinking and cooking, and other sources of water (such as swimming pools, rain barrels, and streams) for non-drinking purposes. The lack of electricity and water meant that stores could not operate to sell food and supplies, making it necessary to bring in resources from outside of the community once roads became passable.

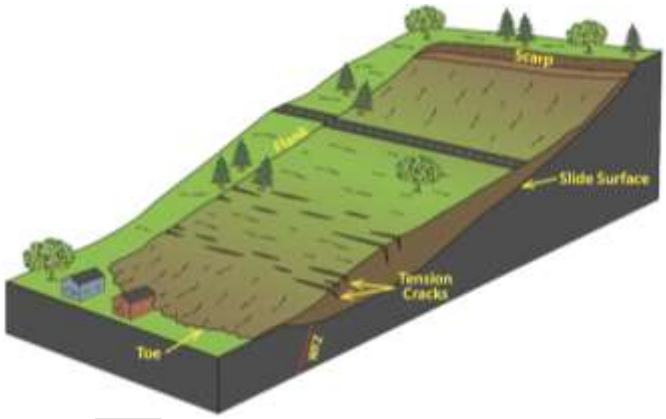
In the Swannanoa area, damage to public and private bridges, and culverts, not to mention trees falling on the roads, wreaked havoc on the transportation network. Many roads were impassable, and many homes were inaccessible for both residents and emergency services except by foot.



Helene-damaged Whitson Avenue Bridge, Swannanoa 2024

Landslides

There were a total of 47 documented landslides in the Swannanoa Fire District, with 28 slides impacting one or more residential structures, and many causing damage to roads and driveways. While landslides are a natural process in mountainous terrain, development in these areas has put lives and property at risk. A cluster of 9 landslides have formed above the Grovemont neighborhood on the eastern side of the Swannanoa Township. These landslides are within a known debris flow pathway, indicating a history of past and potential future slides in this area. See Figure X in the Hazard Vulnerability Assessment for more information about future landslide risk.



Landslide features

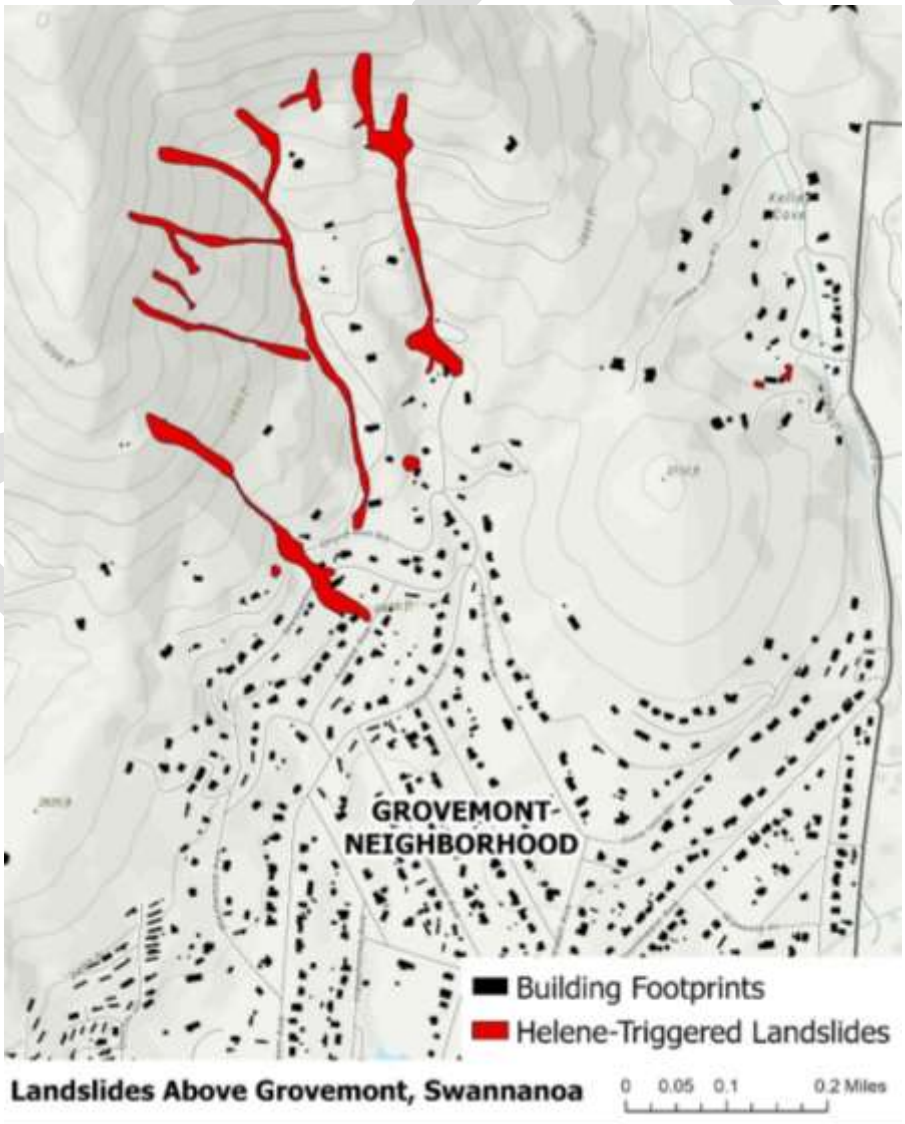


Figure X: T.S. Helene-triggered landslides, Grovemont 2024.

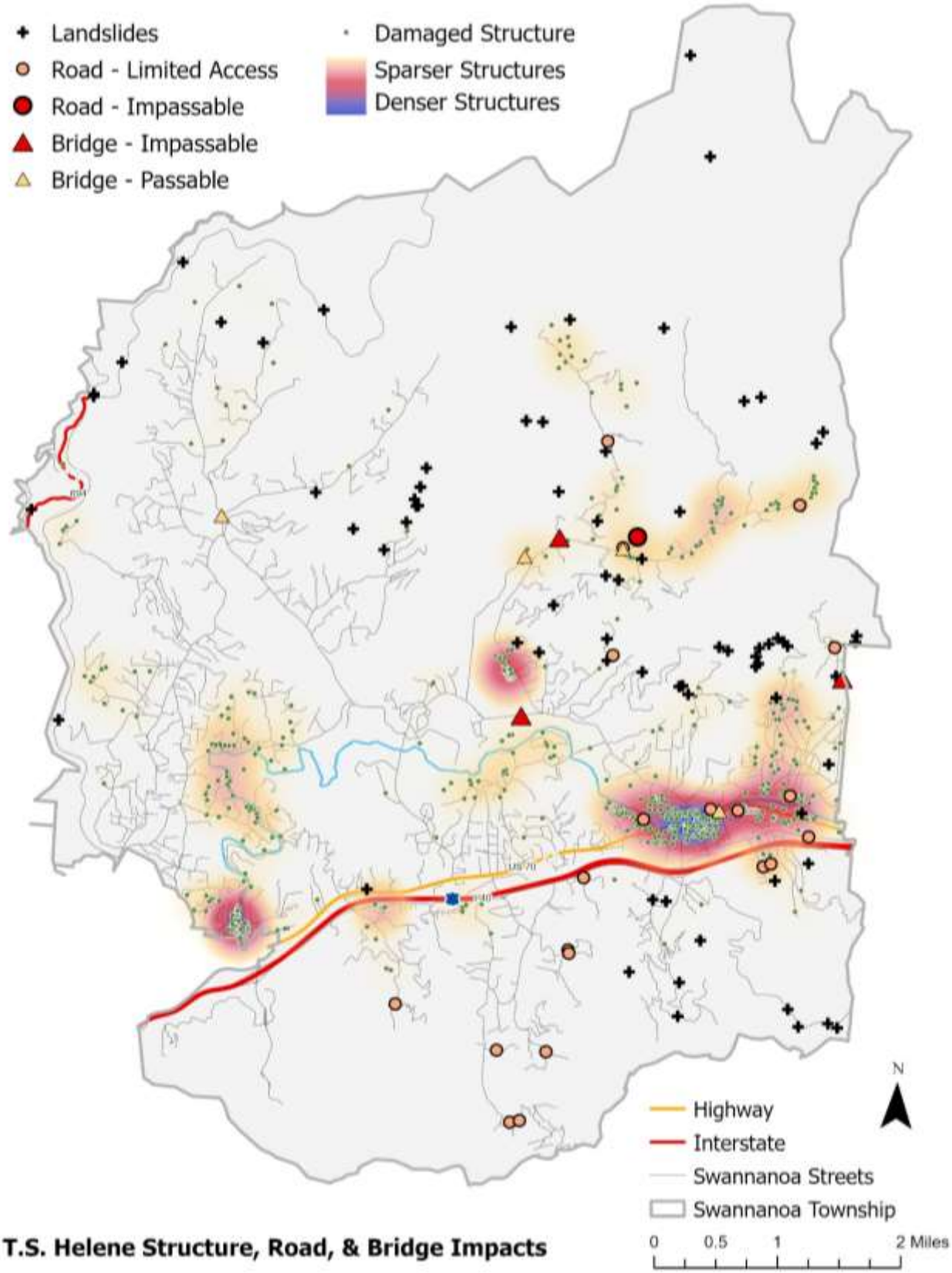


Figure X: Tropical Storm Helene-Impacted Structures, Roads, Bridges, and Landslides

Note: The data presented in Figure X contains the best available GIS data obtained by Buncombe County Government as of 7/30/25. Additional damage may not be reflected on the map.

Tree Blowdowns

During Tropical Storm Helene in 2024, Swannanoa experienced blowdowns of its tree canopy across roughly 42% of its land. Estimates of the blowdown event indicate that 12,710 acres in Swannanoa had mild to severe blowdown impacts. Of those acres, 11% (3,355 acres) were severely impacted. The majority of blowdowns occurred in the northern areas of Swannanoa, especially around the Blue Ridge Parkway and adjacent communities to the northwest. While flooding caused catastrophic damage, tree blowdowns were responsible for significant structural damages, as well as blocked roads. In the initial days following T.S. Helene, downed trees prevented thousands of residents from leaving their neighborhoods all across the county. Residents with chain saws acted as first responders to clear roads during the time when utility crews and other agencies had not mobilized.



Figure X: Aerial view of tree blowdown in Swannanoa from Tropical Storm Helene



Figure X: Tree Blowdown from Tropical Storm Helene

Photo Credit: Washington Post 2024

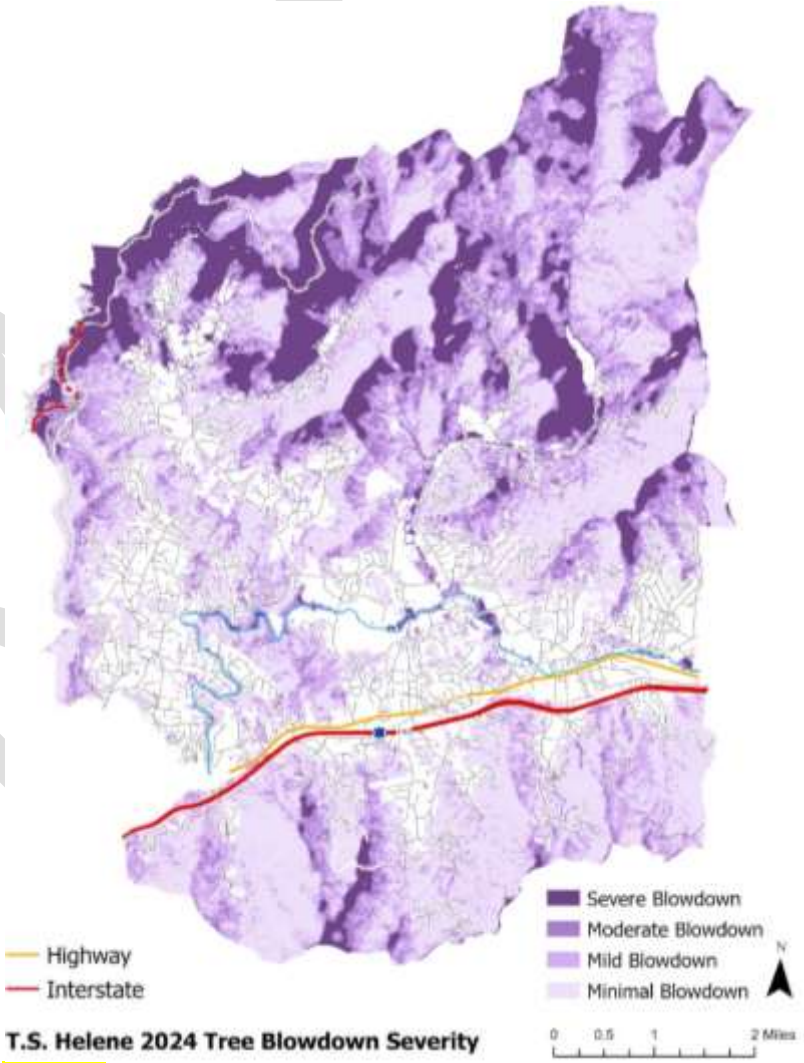


Figure X: Tropical Storm Helene 2024 Tree Blowdown Severity in the Swannanoa Township

Resource Centers

Following Tropical Storm Helene, resource centers were established by both local groups and organizations, and government entities to provide emergency, sanitary, and food supplies to residents. There were 6 resource centers identified within the Swannanoa Township boundaries (Figure X), including:

	Location/Organization	Resource Type
1	Warren Wilson College Farm	Supply Center
2	Hearts with Hands	Organization
3	Grovemont Park	Supply Center and Meals
4	Savage Civilians Air Ops.	Organization
5	First Baptist Church	Shelter
6	Swannanoa Hub: Generation Church	Supply Center and Meals

Three additional centers (7-Silverados, 8-Groce United Methodist Church, and 9-Beloved Asheville) were within proximity to the US 70 Highway corridor.



Army supply drop near Swannanoa

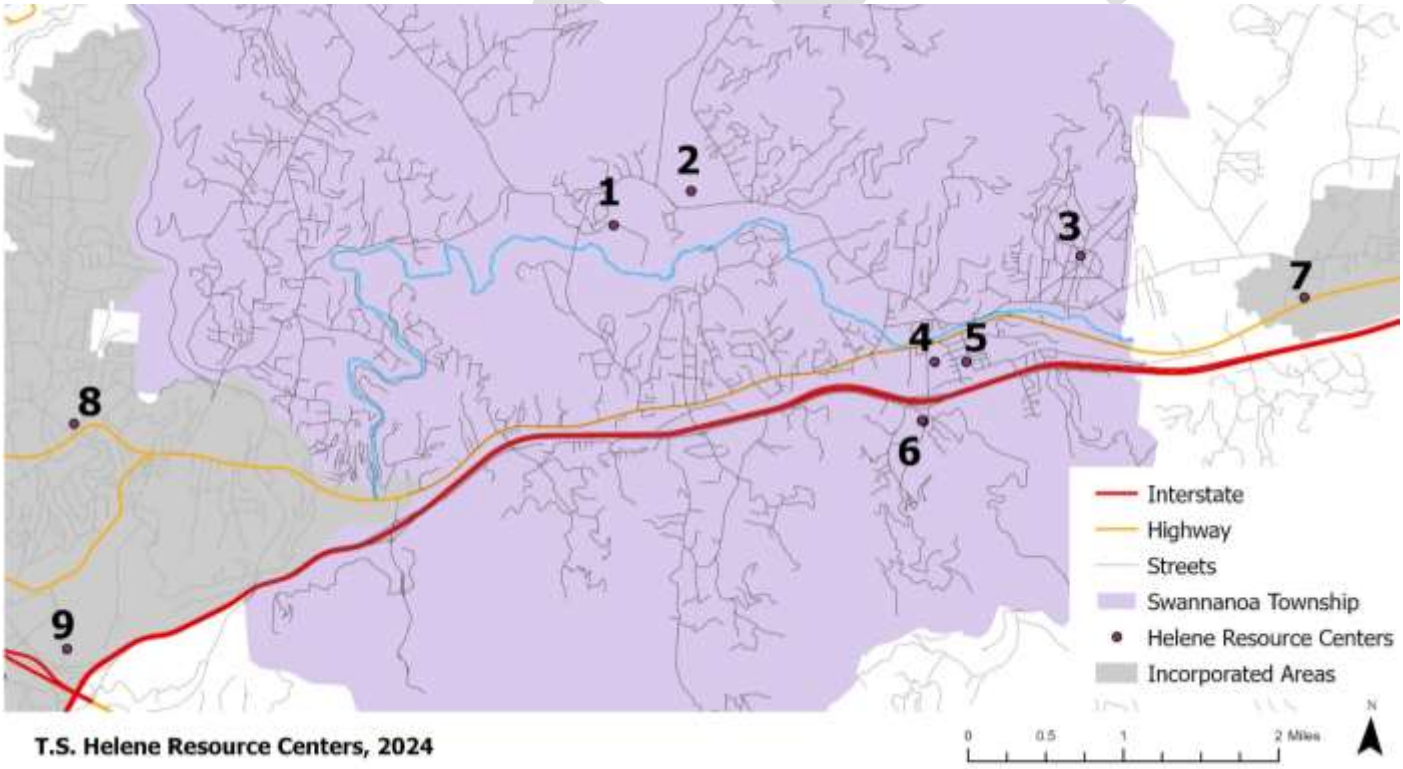


Figure X: Tropical Storm Helene Resource Centers, Swannanoa area, 2024

Historic Resources

There are two main historic sites in the Swannanoa Township: The Grovemont Neighborhood, and Beacon Village, as well as the Blue Ridge Parkway which is a historical natural resource that runs through the area. These places have had a significant impact on Swannanoa's history, impacting the development direction of the area, continuing to today and into Swannanoa's future.

Grovemont-on-Swannanoa:



Figure X: Plat of Grovemont, sold lots in orange. (BC Special Collections)

The Grovemont neighborhood was founded in 1924 by E.W. Grove. Grove arrived in Asheville in the 1880's after his doctor recommended that the temperate climate and high elevation could help his chronic hiccups. He had made his fortune in the pharmaceutical and real estate industries and had big plans for the Asheville area. He is famous for developing the Grove Park Inn, the Grove Arcade and Battery Park Hotel.

While these developments are in Asheville, Grove also made a lasting impact in the Swannanoa area by envisioning creating one of the nation's first planned communities. A subdivision that would have everything the average middle class person would need or want within walking distance. The idea came from the town where his grandparents grew up in England. All the homes were situated around a public square that had a post office, library, church, and businesses. In 1919 Grove bought a parcel of land in Swannanoa from the Alexander family and began subdividing it into lots. By 1925, the parcels were complete with sewer, water, and electricity.

There was great initial interest in Grovemont, but many of the lots were purchased by investors who did not intend to build homes. Grove died in 1927, and the Great Depression caused financial strain that prevented many of the arts and craft style homes from being built. Today the community is a mix of the original homes and modern homes built throughout the 20th and 21st centuries. Some of the elements that E.W. Grove initially intended for the community still stand today, including the Swannanoa Branch Library, the central park and playground, and St. Margaret Mary Catholic Church.



Figure X: Residential Street in Grovemont (BC Special Collections)



Figure X: A home in Grovemont (BC Special Collections)

Beacon Mill & Village Site

In 1924 Charles D. Owen Jr. purchased several hundred acres in Swannanoa where he planned to build a new textile plant. Owen Jr. had operated the Beacon Manufacturing Company in New Beford, Massachusetts with his cousin and late father, Charles D. Owen. The company made cotton flannel bed blankets, bath robes, and baby blankets. Due to mounting union pressure at the plant in New Bedford, Owen Jr. Decided to open a manufacturing location in the south to cut down on labor costs.

The Beacon Mill was designed by architect/engineer, Knight C. Richmond, who also designed the original New Beford plant and had become a noted "Mill Architect and Engineer". He specialized in "slow burning construction", which used heavy timber and masonry as fire resistant materials.

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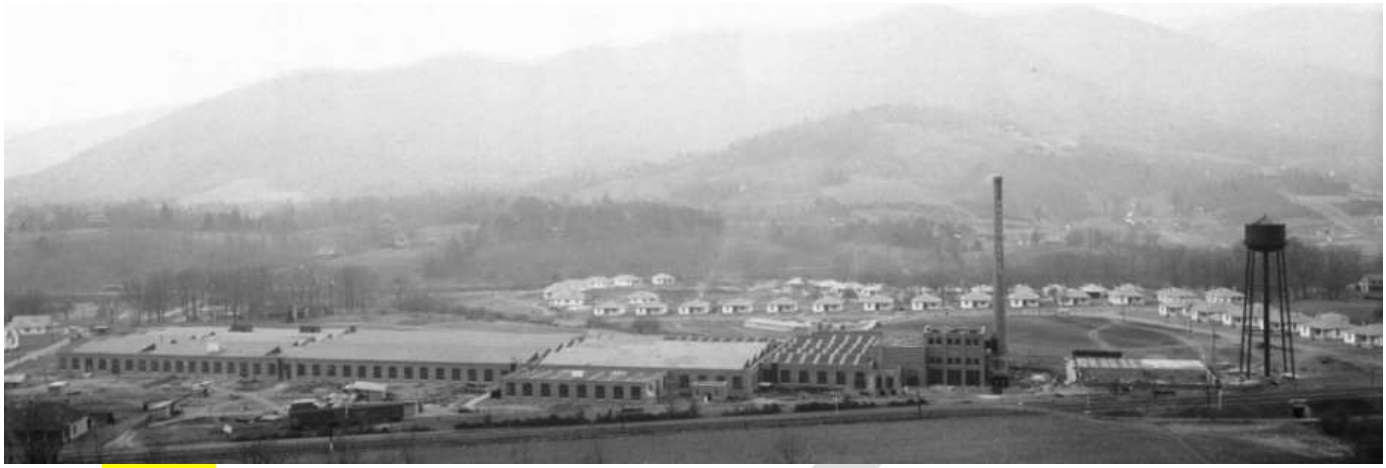


Figure X: First phase of the Beacon Mill site and some homes in the Beacon Village. (PSABC)

E.S. Draper was hired to design the mill village where the Beacon workers would be housed to ensure its walkability. He noted that most workers walked to work and would often walk home for their lunch break. The original village design planned for 68 bungalows on separate lots located just north of the mill site along Edwards Ave. In 1929 the village expanded to include 42 more homes south of the mill site across the railroad tracks. This part was called the "Upper Village".

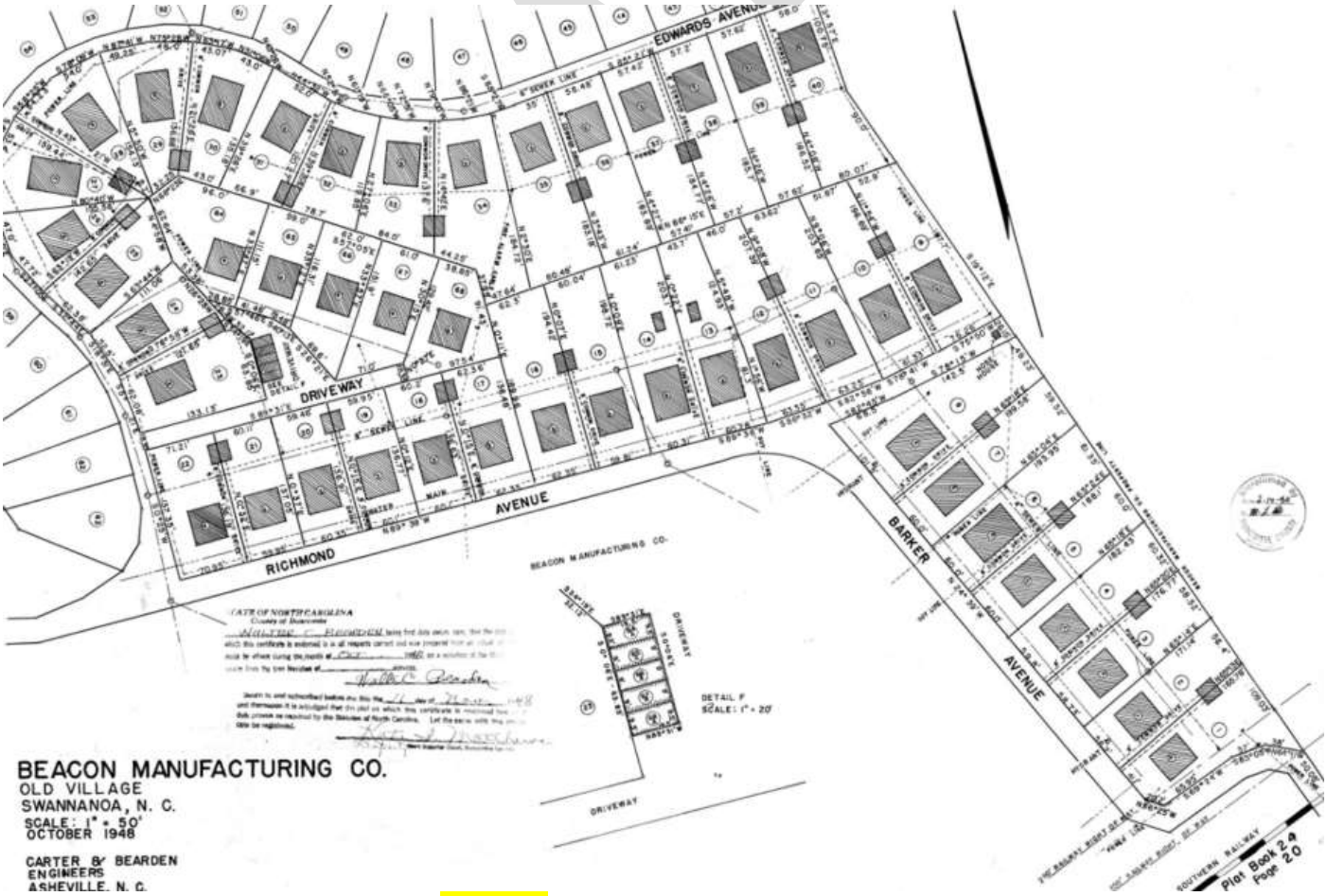


Figure X: Beacon Village Plat (PSABC)

The Beacon mill continued to operate throughout the great depression, employing hundreds of people in the area. The mill won a contract to produce blankets for the U.S. army during World War II. The Owen family sold its interest in the Mill in 1969. The site changed hands a few more times until it closed in 2002. In 2003 the abandoned mill caught fire and was destroyed.

The mill houses survived the 2003 fire, but the lower village was almost destroyed by the flood waters caused by T.S. Helene in September of 2024, 100 years after the village was created. Some property owners have accepted buyouts, and some have chosen to rebuild.



Figure X: Homes in Beacon Village submerged during 2024 floods. (Photo Credit: Marcia Martin)

Downtown Swannanoa



Figure X: Swannanoa's Downtown
(Photo Credit: Swannanoa Valley Museum)

The Davidson and Alexander families established the Swannanoa Settlement in 1787 where Bee Tree Creek meets the Swannanoa River. These first families established homesteads, gristmills, mica mines, and farms.

By the 1830's the area began to attract tourists from towns to the south and east who came to the mountains to escape the summer heat. Inns and boarding houses were developed to accommodate them. By 1879 the railroad was finally completed which connected the eastern part of the state with the western part.

New businesses were built near the railroad station in the downtown area of Swannanoa. The downtown area really began to develop when the Beacon Mill opened in 1924. A grocery and general merchandise store, a drugstore, clothing stores, a movie theater and a bank opened downtown.

Blue Ridge Parkway

The idea for the Blue Ridge Parkway came when Harry Byrd, U.S. Senator for Virginia, suggested to President Franklin Roosevelt that the newly constructed Skyline Drive in Virginia should connect with the Great Smoky Mountains. The vision was a chain of parks and recreational areas with viewsheds and overlooks. The project was quickly approved by the federal government. After some back and forth between Tennessee and North Carolina, and some heavy lobbying from Asheville, the final route was chosen to be the one that goes through the Asheville area. The parkway took over 50 years to complete, breaking ground in 1935 and completing the final portion in 1987.

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A portion of the Blue Ridge Parkway passes through the Swannanoa Township, and can be accessed from Tunnel Rd and Riceville Rd. With more than 369 miles of hiking trails, the Blue Ridge Parkway attracts millions of people each year. In 2024, 16.7 million people visited the parkway.

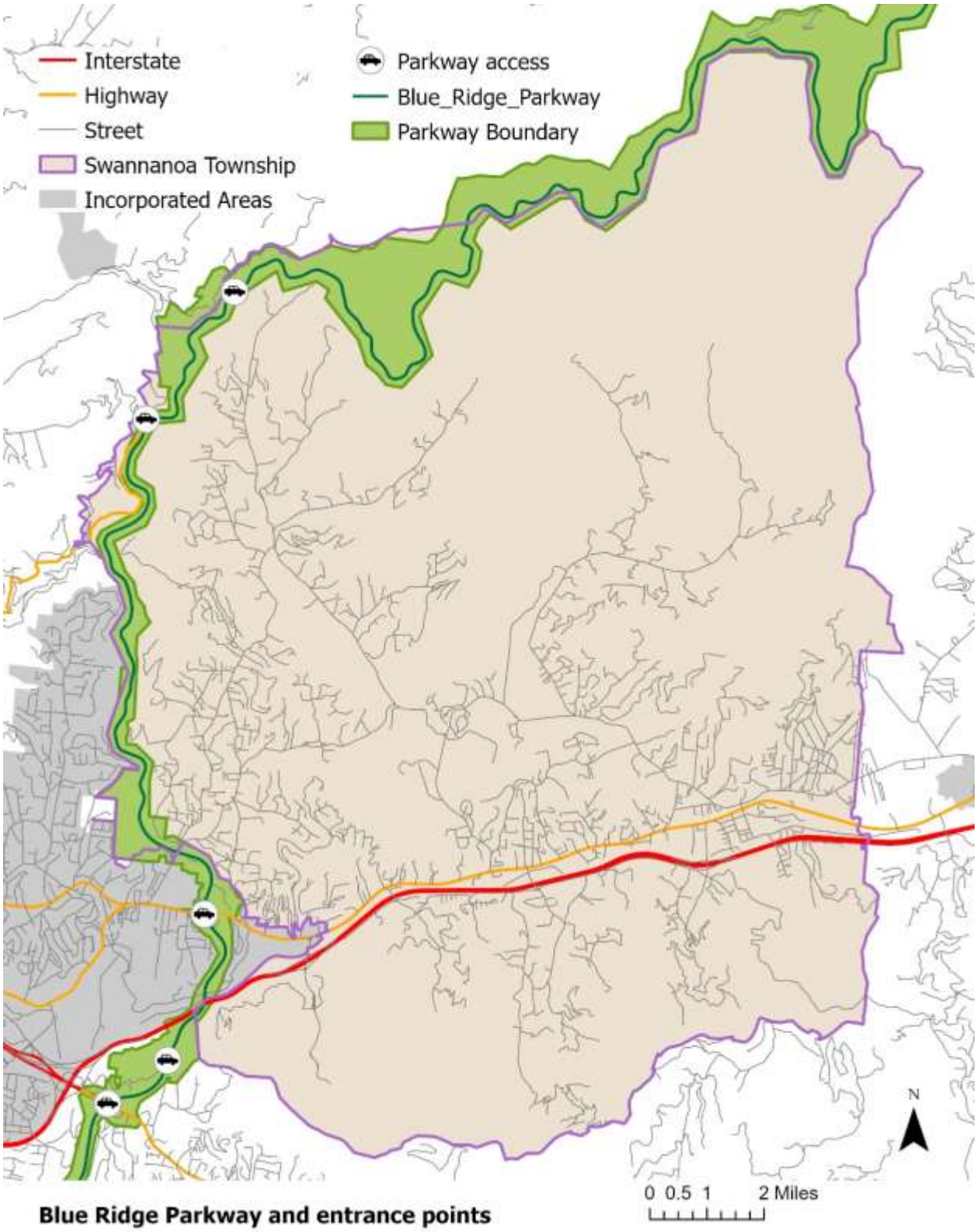


Figure X: Blue Ridge Parkway boundaries and entrance points

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Parks & Open Space

Recreation consistently ranks as a top priority in public polls throughout Buncombe County. This includes public spaces, facilities, and programs that provide options for environmental stewardship, sports, exercise, and the enjoyment of the outdoors. Within the Swannanoa Township, Buncombe County Government maintains 3 recreation amenities including a swimming pool, public park, and community garden. In addition, walking trails are available on the private Warren Wilson College campus.

Table X: Parks & Open Space Within the Swannanoa Township

Name	Amenities	Driving distance *(from Swann. Ctr.)*	Status & Ownership	Figure X Map #
Owen Pool	Swimming pool	1.7 miles	Operational. Property owned by County.	5
Charles D. Owen Park	Public park	2.2 miles	Destroyed by T.S. Helene. In process for rebuilding. Property owned by County.	8
Swannanoa Community Garden	Garden plots	2.2 miles	Operational. Property owned by the state; FANS runs the garden; County maintains property.	Not shown
Warren Wilson College	Walking trails.	3 miles	Privately owned trails, open to the public.	7

Access to hiking trails in Pisgah National Forest to the north, and along the Blue Ridge Parkway to the west, represent significant areas for passive recreation for Swannanoa residents who have vehicles. Without a vehicle, these trails are not accessible. In addition, the lack of sidewalks and bicycle infrastructure in Swannanoa means that many residents must drive to enjoy recreation amenities. With the destruction of Charles D. Owen Park in 2024 by Tropical Storm Helene, recreation options are extremely limited within the Township boundaries.



Figure X: Charles D. Owen Park before and after T.S. Helene in 2024

Adjacent to Swannanoa are several recreation options operated by the City of Asheville, Town of Black Mountain, or State and Federal agencies. All are within 8 miles from the center of Swannanoa:

Table X: Parks & Open Space, Distance from Swannanoa Center				
Name	**Driving Distance**	**Owner**	**Amenities**	**Figure X Map #**
Grey Eagle Arena	3.9 miles	Blck. Mtn.	Multi-purpose indoor athletic turf arena.	20
Black Mtn. Garden	4 miles	Unknown	Community vegetable garden	Not shown
Cragmont Park	4 miles	Blck. Mtn.	Fitness equipment, pavilions, walking path, tennis	17
Black Mountain Swimming Pool	4.6 miles	Blck. Mtn.	Swimming	18
Black Mountain Recreation Park	4.7 miles	Blck. Mtn.	Fishing, playground, pavilion, baseball, etc.	16
Black Mountain Town Square	4.8 miles	Blck. Mtn.	Urban square, gardens, pavilion, splash pad	19
Lake Tomahawk	4.8 miles	Community	Walking trails, pavilion, fishing, playground, tennis	2
Folk Art Center	5.6 miles	Federal	Walking & Hiking trails	1
Azalea Park	5.7 miles	Asheville	Community garden, fishing pond, walking paths, soccer fields, dog park, etc.	13
Ann Patton Joyce Park	5.9 miles	Asheville	Park	12
RiverWalk Park	6 miles	Blck. Mtn.	Picnic tables, dog park, trail, connects to greenway	22
John B. Lewis Soccer Complex	6.2 miles	Asheville	Soccer, walking trails, picnic shelters	21
Asheville Municipal Golf Course	6.6 miles	Asheville	Public golf course	9
Black Mountain Municipal Golf Club	6.6 miles	Community	Public golf course	3
Haw Creek Park	6.6 miles	Asheville	Looped walking trail and picnic shelters	14
Gashes Creek Rec Park and Pool	6.8 miles	Asheville	Pool, fishing, playground	6
Nature Center	6.9 miles	Asheville	Local wildlife center	4
Charlie Bullman Park	7.4 miles	Asheville	Baseball, Softball	10
E Asheville Rec Center	7.5 miles	Asheville	Swimming	11
Riverbend Park	7.7 miles	Asheville	Open space and greenway	15

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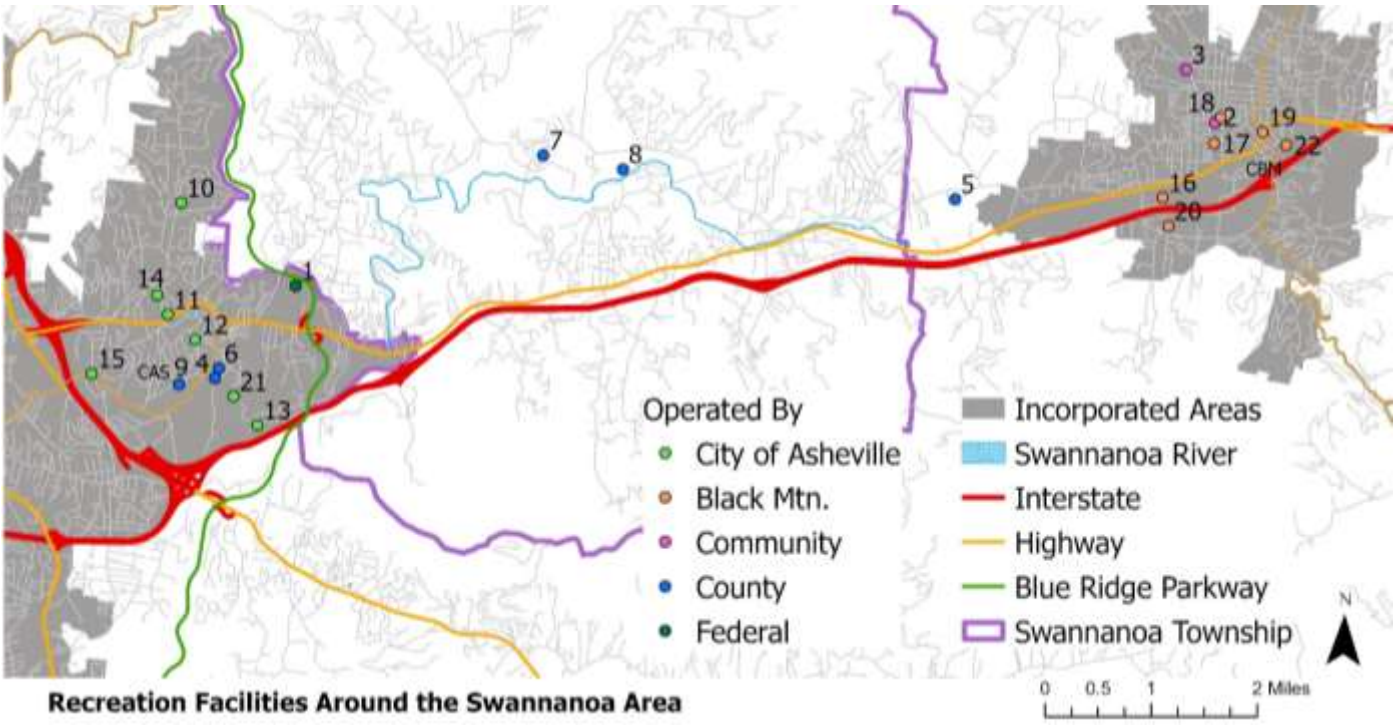


Figure X: Recreation Facilities Around the Swannanoa Area

Transportation

Swannanoa's transportation network includes NCDOT-managed roads, private roads, and some very limited pedestrian and bus infrastructure. The County does not build or maintain roads like municipalities but does have minimum road design standards that apply to new subdivisions containing 4 or more lots.

Commuting Characteristics

In 2023, most households in Swannanoa owned 2 cars, and 74% drive alone in a car most of the time. Less than 9% carpool, 14% work from home, and 3% walked to work. Their average commute time to work was 18.4 minutes. Individuals who carpooled had the lowest median income, at $23,888 per year, whereas individuals that worked from home had the highest median income at $51,659.

Bike and Pedestrian Facilities

Bike and pedestrian infrastructure such as sidewalks, crosswalks, bike lanes, multi-use paths and greenways in Swannanoa is limited. US Hwy 70 has some small stretches of sidewalk, such as one in disrepair that runs the length of Whitson Ave starting at Richmond Ave and ending at Railroad St. There are two crosswalks in Swannanoa at the corner of Riverwood Road and US Hwy 70, allowing for pedestrian access from the apartments on the north side of US Hwy 70 to get to the Ingles property on the south side.

According to Walkscore.com, Swannanoa has a walking score of 38 and a biking score of 13. The Walk Score measures walkability on a scale from 0-100 based on walking routes to destinations such as grocery stores, schools, parks, restaurants, and retail. The Bike Score measures bike accessibility on a scale from 0-100 based on bike infrastructure, topography, destinations and road connectivity. These low scores align with the information above about the limited pedestrian and biking facilities in the area. The area is car-dependent, and most errands require a car.

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The only functional sidewalk in Swannanoa leads from an apartment complex to the Ingles grocery store.

Speed Limits

Aside from US 70 Hwy and the Interstate, most speed limits in Swannanoa are between 25 and 55 miles per hour. Research shows that lower speeds are associated with fewer and less severe accidents.

For example, a pedestrian hit by a car going 23 miles per hour has a 10% risk of death, compared to a 50% to 80% chance of death if the car is going 42 miles per hour. Examples for certain roads are shown in the table below.

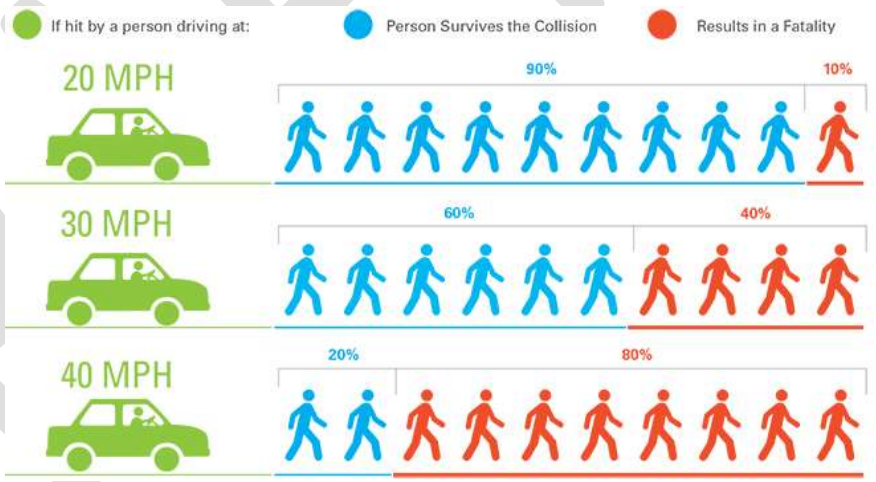


Image credit: San Francisco MTA Vision Zero Action Plan

Table X: Speed Limits in the Swannanoa Township

Road Name	Road Type	Speed Limit
I-40	Interstate	65 MPH
US Hwy 70	Highway	45 MPH
Old US Hwy 70	Street	35 MPH
Bee Tree Rd.	Street	35 MPH
Richmond Ave	Street	25 MPH



US 70 Hwy (top half of photo) and Interstate 40 (bottom half) in Swannanoa

Traffic volume & Level of Service

The I-40, US 70 Hwy, and Old US 70 Hwy all have a low Volume Over Capacity (VOC) as it is measured for LOS D and LOS E. LOS D is when roads start to get crowded and minor incidents can start to slow things down or bring traffic to a stop. LOS E is when the roads are nearing capacity, with few gaps in traffic roads can become volatile and susceptible to accidents and disruptions. All three of these roads generally have a good flow of traffic and are not often over capacity.

Vehicle Access & Roads

Many residents of Swannanoa have one-way in, one-way out road access, which can pose challenges for emergency responders, or risks during severe weather events. Examples of roads with only one access include Bull Creek Road, Shope Creek road, Bee Tree Road, Christian Creek Road, and High Hickory.

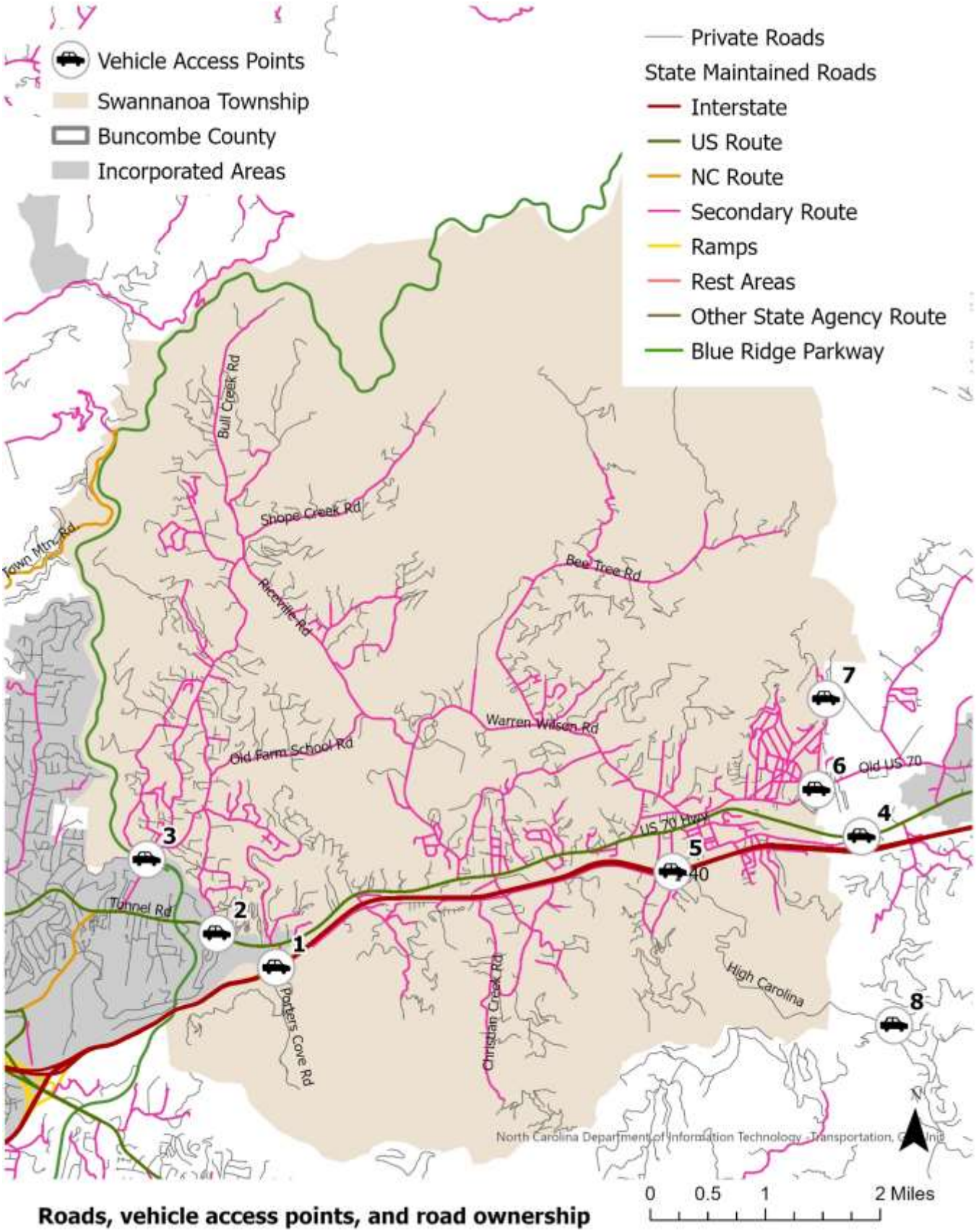


Limited access roads off Long Branch Rd

There are 8 vehicle access points in and out of the Swannanoa Township. These areas include three access points to the southwest into the City of Asheville limits, four access points to the east near US 70 Hwy into Black Mountain, and one access point to the southeast into the Fairview area. See Figure X, which also shows high-level NCDOT roadway classifications.

Privately-owned roads are shown in grey in Figure X. Buncombe County government does not own or maintain any streets, therefore all streets are either state-owned by NCDOT, or owned by private property owners individually or through shared agreements, such as a homeowner's association.

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Roads, vehicle access points, and road ownership

Figure X: Roads, vehicle access points, and road ownership

Vehicular crashes

Between 2020-2024 there were ten specific areas where vehicle crashes occurred within the Swannanoa Township (see Figure X). Seven of those crash frequency areas are located on US 70 Hwy. There were 136 crashes reported within the frequency areas during a 5-year reporting period. The intersections with the highest accident histories include:

- Rowland Rd / Buckeye Cove Rd at US 70 Hwy
- Riverwood Rd / Samson Way at US 70 Hwy
- Patton Cove Rd at US 70 Hwy
- Whitson Ave. At US 70 Hwy
- Patton Cove Rd at east-bound I-40 on/off ramp



The Rowland Rd/Buckeye Cove Intersections

Table X: Vehicle Crashes in Swannanoa (2020-2024)	
Type	**# of accidents**
Fatal	0
Injuries to people	30
Bicycle involved	3
Pedestrian involved	0
Front impact	71
Rear-ending	41
Sideswipe	8
TOTAL ACCIDENTS	**136**

The maximum speed limit on US 70 Hwy is 45mph, however the design of the road encourages high-speed traffic due to its wide, multi-lane layout. At the same time, the road is also designed to allow frequent stopping and turning to access local businesses and side roads. These competing design goals of speed and access contribute to unsafe road conditions and traffic accidents.

Actual average weekday speeds exceed the legal limit in almost all sections along US 70 Hwy except for those directly adjacent to the historic Beacon Village area between Riverwood Road and Whitson Avenue. Buckeye Cove Road and Rowland Rd also experience above legal speed limits based on speed studies.

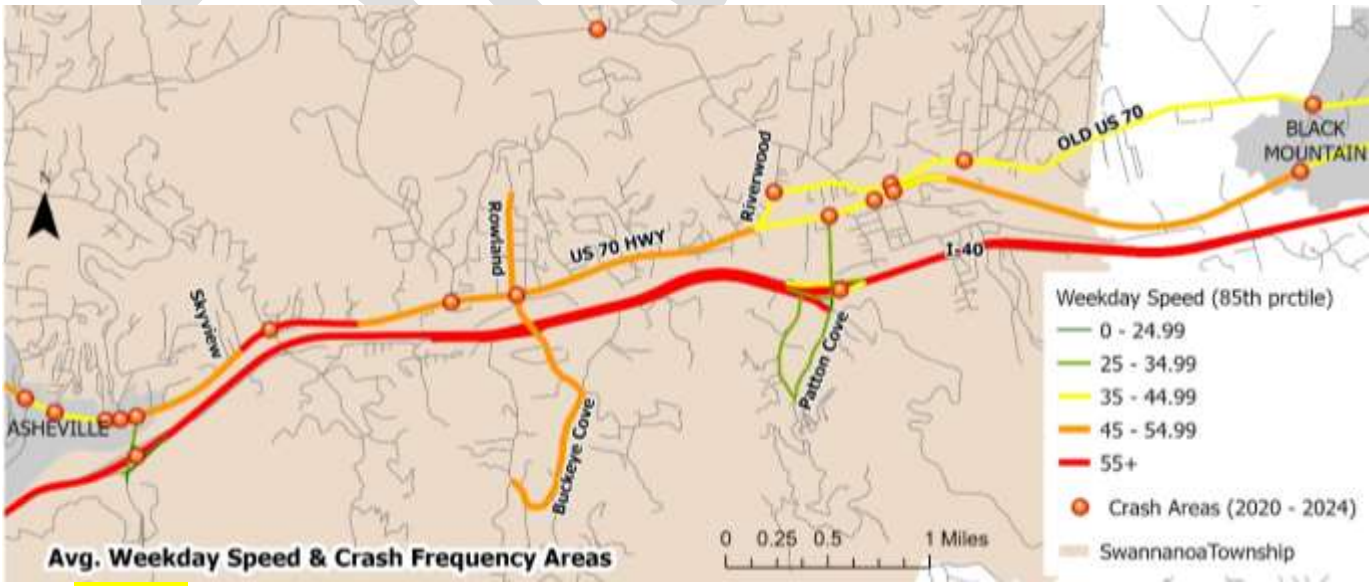


Figure X: Average Weekday Speeds (85th percentile) (Miles per hour) & Crash Frequency Areas

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Travel times

In the Swannanoa Township, driving by vehicle remains the quickest means to access key services such as medical care and groceries. While biking times are listed on the table below, there are no safe bicycle facilities, such as separated bike lanes or greenways. Advanced bike riders may feel capable of utilizing US 70 Hwy, but the road was not designed to accommodate bikes. Similarly, walking times are listed but there are no sidewalks, meaning that walking times are assuming people walking in the road or on the shoulders in the grass. Additionally, most walk times would be prohibitive for people whose goals were to access resources as part of their daily life.

DISTANCE FROM CENTER OF SWANNANOA (204 Whitson Ave, Swannanoa)					
RESOURCE	**DISTANCE**	**DRIVING TIME**	**BIKING TIME**	**WALKING TIME**	**PUBLIC BUS TIME**
Mercy Urgent Care East	4.7 miles	9 min	39 min	1 hr 39 min	12 min
Ingles Black Mountain	5.4 miles	12 min	32 min	1 hr 55 min	27 min
Ingles Oteen	5.7 miles	12 min	45 min	2 hr 1 min	17 min
Merimon Post Office	12.7 miles	19 min	1 hr 57 min	4 hr 15 min	1 hr 19 min
Childcare Center (Christine Avery Learning Center)	0.6 mile	3 min	4 min	11 min	None
Bus stop	0.1 miles	1 min	2 min	2 min	N/A
Swannanoa Library	1.1 miles	4 min	9 min	25 min	N/A
First Citizens Bank, Blck Mtn	4.4 miles	7 min	25 min	1 hr 36 min	12 min

Public transit

There are two transit providers that serve the Swannanoa community, Mountain Mobility, which is run by Buncombe County, and Asheville Rides Transit (ART) which is a service of the City of Asheville. Bus stops along the US 70 Hwy corridor in Swannanoa provide connections to the Asheville and Black Mountain routes, ultimately allowing access to Candler, Weaverville, and South Asheville via transit service.

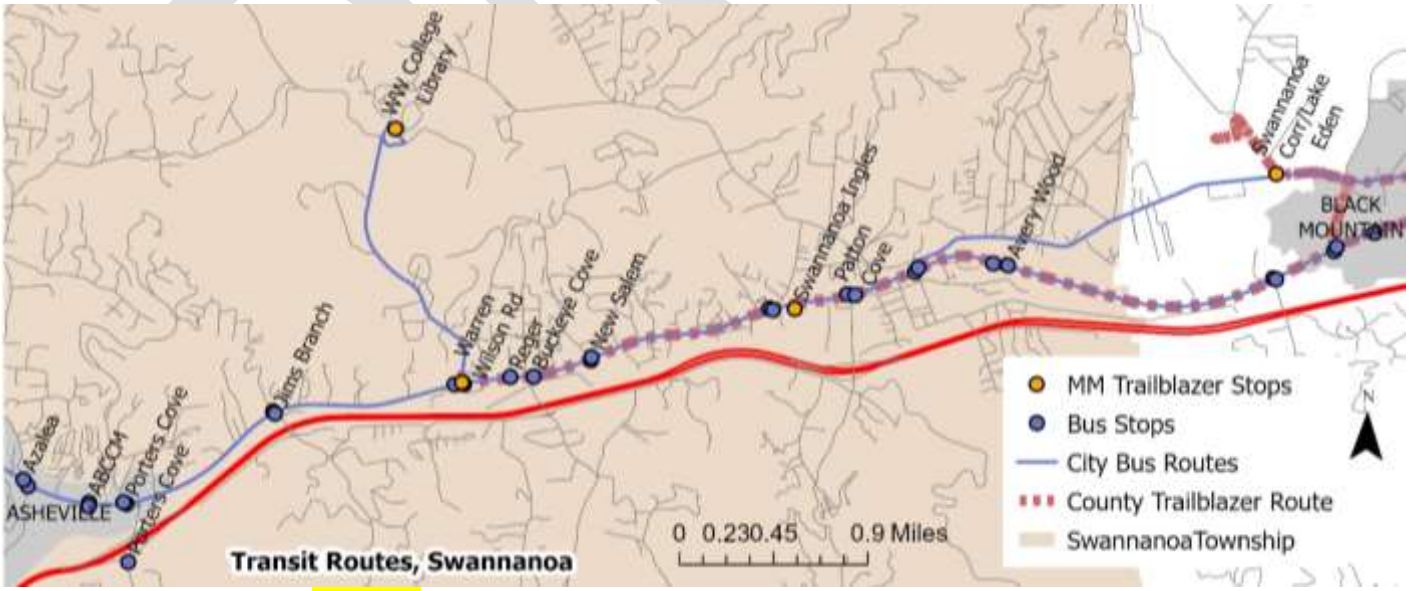


Figure X: County & City Bus Transit Routes Around Swannanoa

The City's ART route that serves the east side of the County is called Route 170 which goes from downtown Asheville to downtown Black Mountain along US Hwy 70 with about nine stops in the Swannanoa Township. The bus comes to each stop at a rate of about every two hours. The low frequency of the bus makes it challenging for residents to reliably use the transit system to go to work or school. There are a limited number of bus stops that include seating and weather protection. Most consist of a sign at the edge of the road, in the grass, without sidewalk access.



A typical bus stop on US 70 Hwy



A newer bus stop on US 70 Hwy

Mountain Mobility is Buncombe County's Community Transportation System that provides demand response and deviated fixed route service for Buncombe County residents in the unincorporated area of the county as well as the municipalities. Through demand-response or scheduled services, Mountain Mobility provides three types of services to eligible users:

- Paratransit Service for customers qualifying under the Americans with Disabilities Act (ADA).
- Medicaid Transportation for non-emergency medical trips for Medicaid recipients.
- Demand Response Service which allows eligible users to schedule certain types of trips.



Mountain Mobility Bus

There are three deviated fixed route lines, known as Trailblazer Routes, that serve the Black Mountain, Enka Candler, and North Buncombe areas. Deviated fixed route means that the bus can deviate to pick up or drop off a customer within a quarter of a mile from the fixed route. Trailblazer Routes are open to the public who do not need to meet eligibility criteria that the demand response needs to. The Trailblazer comes to each stop at a rate of about every hour.

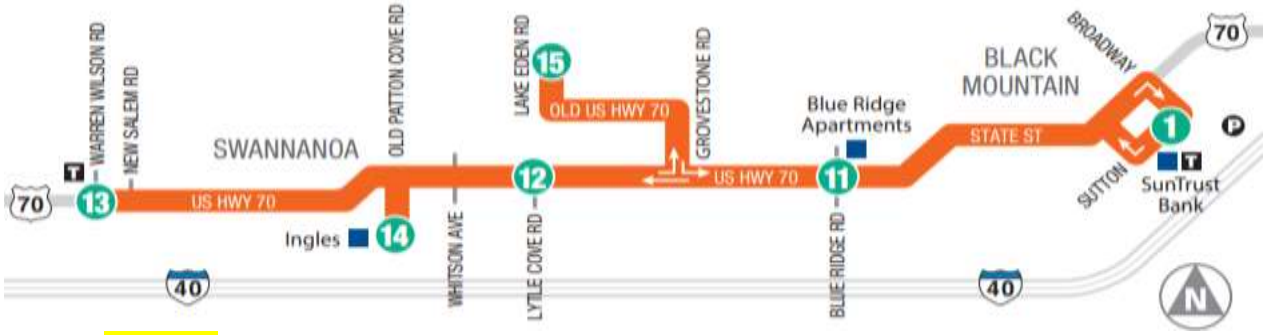


Figure X: Mountain Mobility Route for the Eastern Portion of the County – LOOP B

Rail

Passenger rail service started with the completion of the Salisbury to Asheville line in 1879. The State of North Carolina built, paid and operated the line until 1886. In 1896, the line came under new ownership by Southern Railway. This line operated in conjunction with several major rail lines to create a national overnight train system that connected Asheville to major cities. In 1975, regular passenger train service ended. The original train depot in Swannanoa was called Coopers Station until it was changed in 1895 to the Swannanoa Station.

According to the Western North Carolina Rail Feasibility study, completed in 2023, east of Swannanoa, in the Old Fort area, there is a 13- mile railway that loops up the mountain and heads into the Black Mountain and Swannanoa townships. In between those loops are heavily forested areas, mountain ranges and steep slopes. As of the study, no stops had been defined in Swannanoa, however, Black Mountain was considered. In addition, infrastructure improvements would be needed, such as upgrading and lengthening the siding of the rail tracks, as well as updating and adding signals and crossing gates. The estimated ridership, according to the study, would be approximately 145,000-290,000 riders between Western North Carolina and Piedmont station.

On September 27, 2024, Tropical Storm Helene caused devasting flooding, specifically in the Swannanoa area. This caused significant damage to the rail lines. On October 6th, Norfolk Railways began assessing the railway system and reported to the Emergency Operations Center that there were approximately 72 miles of rail in Buncombe County and that all had been affected by the storm. Repairs started and as of March 2025 are still in progress.

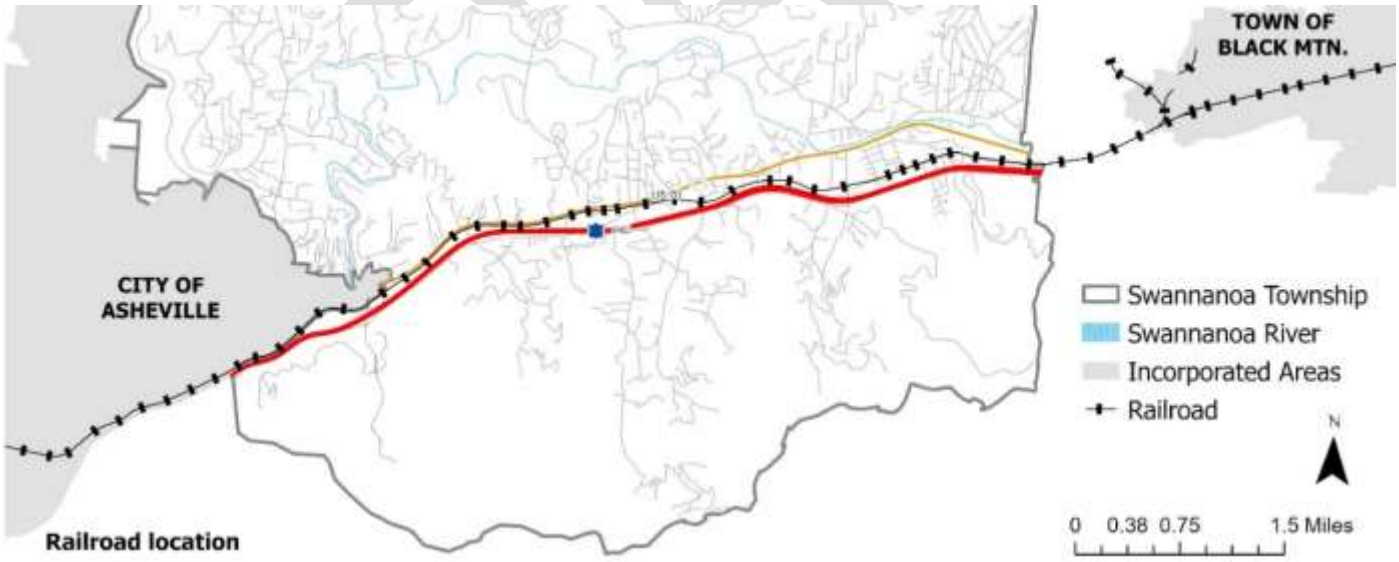


Figure X: Railroad location through Swannanoa Township

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CHAPTER 5: Infrastructure & Energy

The Infrastructure and Energy section summarizes the available utilities and energy infrastructure serving Swannanoa. Utility infrastructure in the Swannanoa Township includes natural gas, public water and associated reservoirs and dams, public sewer and treatment plants, and broadband. These services are not available to all residents and businesses of the area, with many relying on private septic and well, and with some having limited or no access to broadband. Limitations for utility infrastructure include topographic challenges and the rural, low-density nature of many communities.

Natural Gas



Natural gas services are available to some areas of Swannanoa, primarily around the US 70 HWY corridor, and the providing company is Dominion Energy of North Carolina through the company Enbridge Gas. Around 11% of the occupied housing in Swannanoa (646 units) are currently heated through natural gas. Comparatively 19.8% (20,337 occupied units) in Buncombe County overall are heated through natural gas.

Potable Water

Roughly 36% of the acreage of the Swannanoa Township, and 85.3% of structures, are within the City of Asheville's public water service district. Public water is primarily available to properties located to the north of US 70 Hwy and south of Shope Creek Road and Long Branch Road. Several small pockets of public water are also available to the south of US 70 Hwy along Jims Branch Road, Buckeye Cove Road, and Fountain Way.



North Fork Reservoir

The primary sources of public water include the Beetree reservoir, located within the Swannanoa Township, and the much larger North Fork Reservoir located to the east. Both systems feed into the Swannanoa River running through Swannanoa. Additional information about these reservoirs can be found in Chapter X: Watershed section. Two community groundwater sources are also located in Swannanoa within the Riceville area to the northwest, serving a limited number of households.

Areas that are not served by public water rely on private and community wells. In the Blue Ridge Mountains, well water comes primarily from groundwater that has seeped through the soil and upper layers of rock, and settled into cracks, or open joints that exist throughout the bedrock. Natural filtration processes help reduce surface contaminants as the water travels underground, however, other contamination may occur from within the bedrock, such as from radon, iron, and other substances.

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Public sewer & Treatment Plants

Public sanitary sewer is available to some areas of Swannanoa through the Metropolitan Sewerage District (MSD), a regional utility company. Expansions to service areas and new sewer lines are not done speculatively by the agency but are a result of development applications requesting sewer service to existing lines. Sewer lines connect some areas of Swannanoa from the City of Asheville to the west and into Black Mountain to the east. Sections of public lines exist heading north into the Bee Tree Road area, throughout the Grovemont neighborhood, and heading north near Lower Grassy Branch Road into Riceville. A few small pockets of sewer line also exist south of Interstate 40 serving specific developments, such as The Cove and subdivisions around Dennis Street and Sleepy Hollow Lane.

Access to public sewer lines increases development options in terms of reducing required minimum zoning lot sizes, and increasing the types of uses and intensity of use that may be achievable on a site. Expansion of lines can also increase urban sprawl and inefficient development patterns if not paired with proper planning.

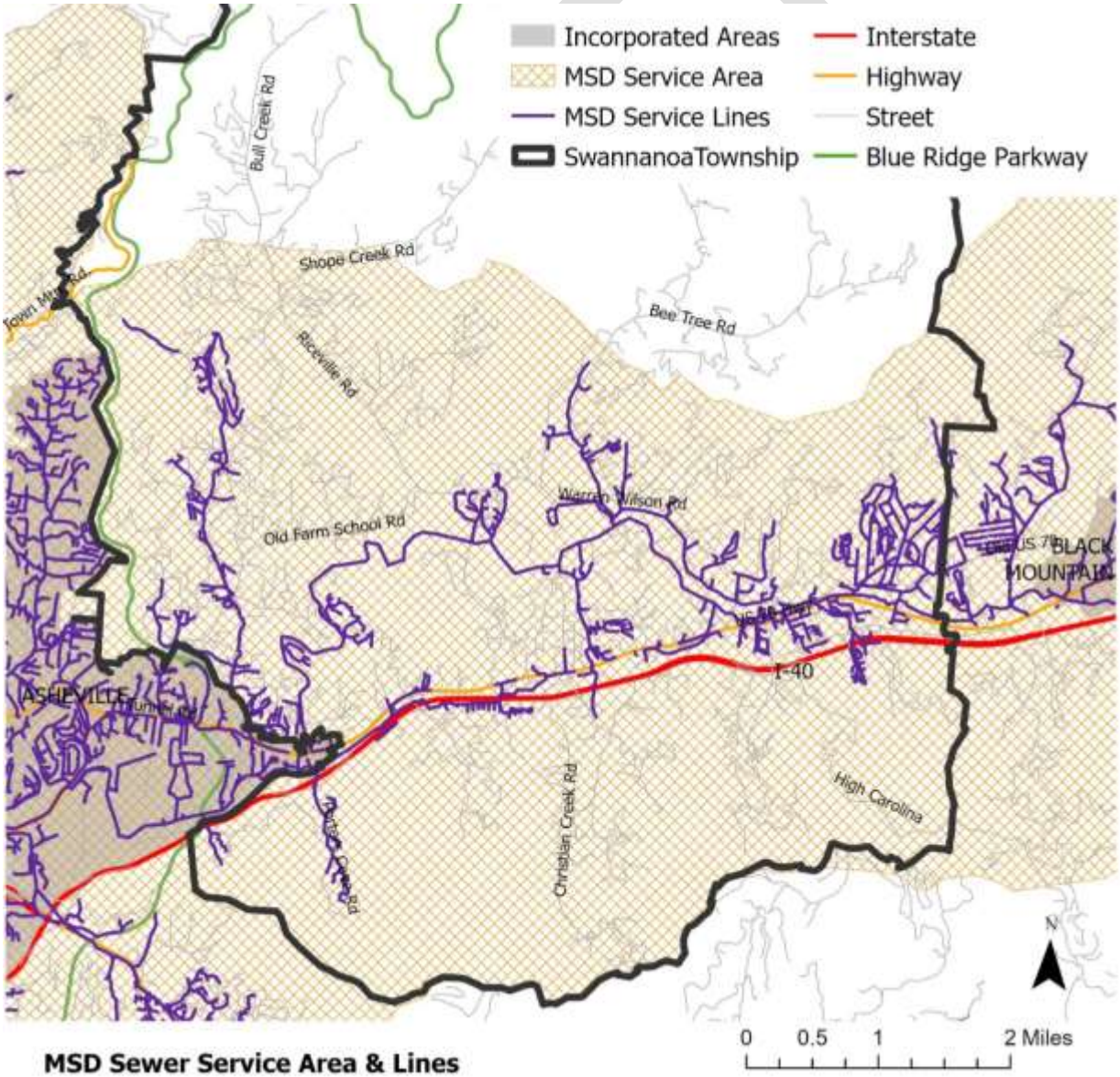
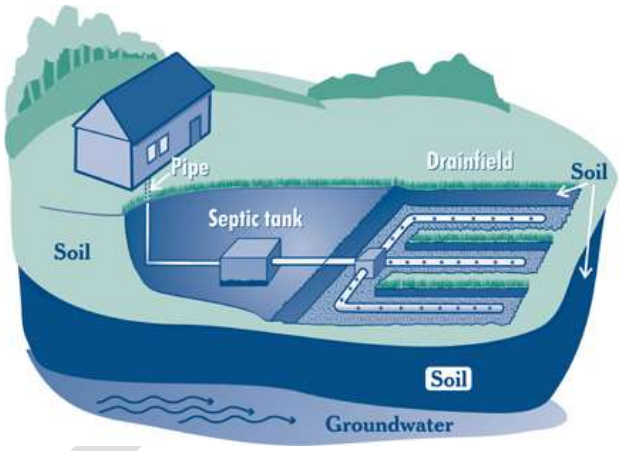


Figure X: MSD Sewer Service Area & Lines in Swannanoa

Private and community septic

Structures that are not served by public MSD sewer rely on private or community built septic systems for waste management. These systems collect and process waste on-site and must be occasionally cleaned by a private company to maintain the health of the system. Newer systems are required to provide a designated repair area on the property, which can be used if the primary system begins to fail. The amount of area required to accommodate a traditional septic system and repair area is one reason why the County has maintained 30,000 square foot minimum lot sizes for many zoned areas that do not have access to public sewer.



Since 2020 there have been 130 septic system failure permits in the Swannanoa Township, with an average of 22 failures per year. Roughly 2% of the area's 977 known septic systems fail on average every year, however, septic system location records are less accurate for those installed prior to the 1990's. Most septic systems can last between 15 to 40 years or more depending on maintenance, use, and other factors.

Dams

There are 3 dams in the boundaries of the Swannanoa Township. The first being the Bee Tree Lake dam, which is located off Bee Tree Road. The dam regulates the flow of water in the Bee Tree Reservoir. South of I-40 is the Beacon Reservoir dam, which is located off Fountain Way. This dam regulates the flow of water in the Beacon Reservoir, located in a residential area of the Swannanoa township. On the western edge of the Swannanoa Township, just east of the Blue Ridge Parkway, is the Jewell Acres Dam, which is located off Ashley Road in a residential area.

These dams are significantly different in scale as seen with each of the structures' heights. The first has a structural height of 182 feet, the second 50 feet, and the third 21 feet. The Bee Tree Lake dam is the most significant dam in the area as the reservoir it regulates is a supplementary water supply not only for Swannanoa, but the City of Asheville, which supplies most of the drinkable water across Buncombe County. The other dams in the Swannanoa area regulate the waterflow of smaller bodies of water located in residential areas. Both the Beacon Reservoir dam and the Jewell Acres dam are privately owned. Swannanoa neighbors the dam for the North Fork Reservoir in Black Mountain, which regulates Buncombe County's primary reservoir for fresh water.

Broadband coverage

Broadband is widely available across the Swannanoa Township. Around 83.7% of occupied households in Swannanoa (5,009 units) have access to some sort of broadband. Comparatively, 88% of Buncombe County has access to broadband. Many households without internet access in both the Swannanoa Township and Buncombe County earn less than $20,000 annually. The amount of Broadband coverage in Swannanoa is comparable to Buncombe County as a whole. Broadband coverage becomes less available in rural areas of the County. In Swannanoa, coverage is reduced or unavailable primarily in areas around The Cove property,

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in the northern sections of Bull Creek and Jones Cove Roads, and near the ends of Long Branch and Bee Tree Roads.

The most common type of internet access in the County is through cable, fiber optic, or DSL. The second most common type are households that exclusively use cellular data plans, followed by satellite internet. Providers for broadband are Spectrum, AT&T, and EarthLink. Internet access through cellular data plans is offered through the household's cellular provider, resulting in a wide range of options including but not limited to AT&T, Verizon, T-Mobile, and more. Satellite internet providers include Viasat and HughesNet.

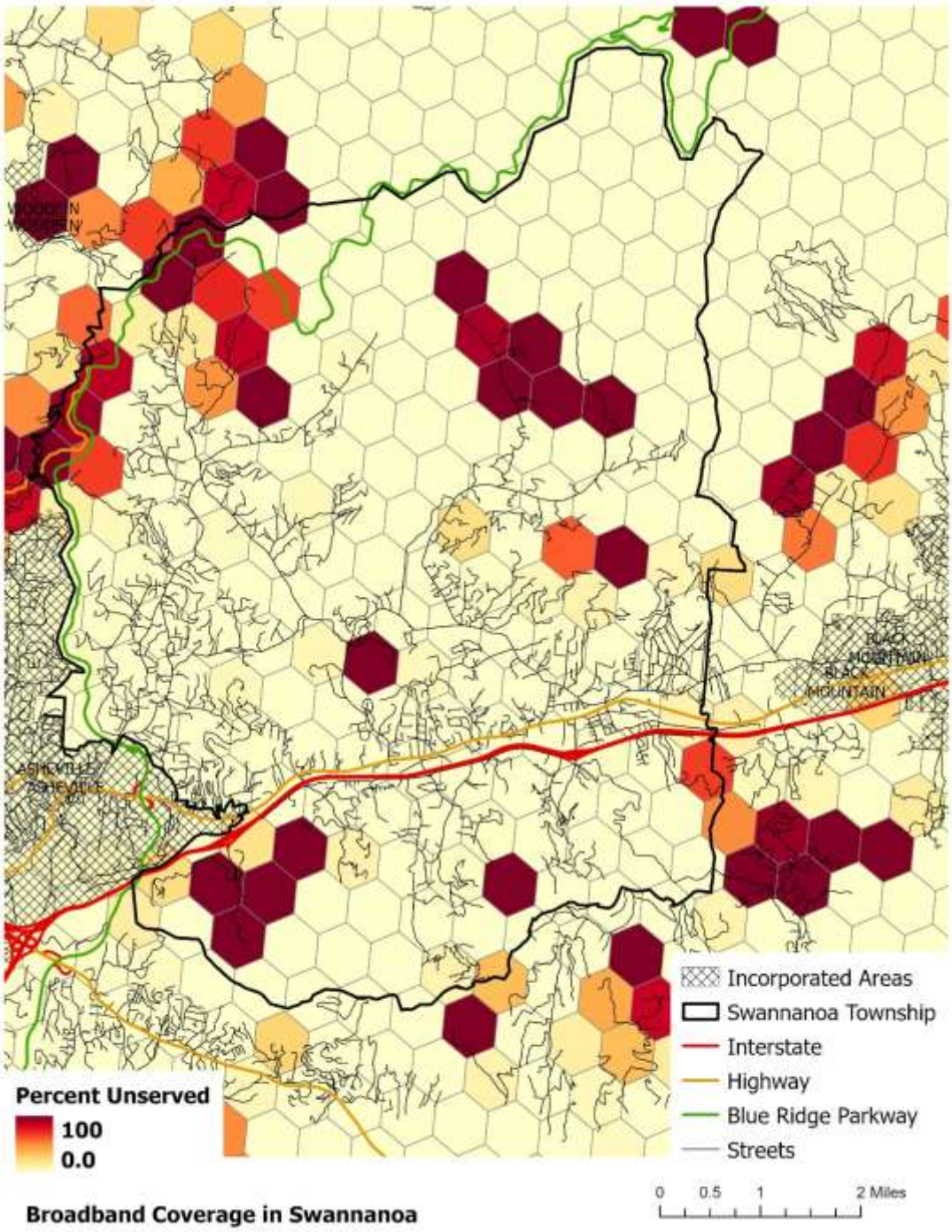


Figure X: Broadband Coverage in the Swannanoa Township.

Public electricity
Duke Energy is the public electricity provider for Swannanoa, providing services for the transmission, distribution, and sale of electricity.

Electric Vehicle Charging Stations
There are no publicly available electric vehicle charging stations in the Swannanoa Township for individuals needing to charge their cars. The closest locations are in the City of Asheville at two hotels, and four locations in the Town of Black Mountain to the east.

Solar Energy Potential
The Swannanoa Township has an average annual daily potential for solar energy generation rating of 4.02 in the northern, central, and eastern portions, and 3.85 in the southwest portion. These are moderate to good ratings, indicating that solar power generation is viable with a good system design.

These ratings are based on kilowatt hours per square meter within each sub-watershed. Ratings above 4.5 are preferred, and above 5.5 are ideal for high performance solar farms.

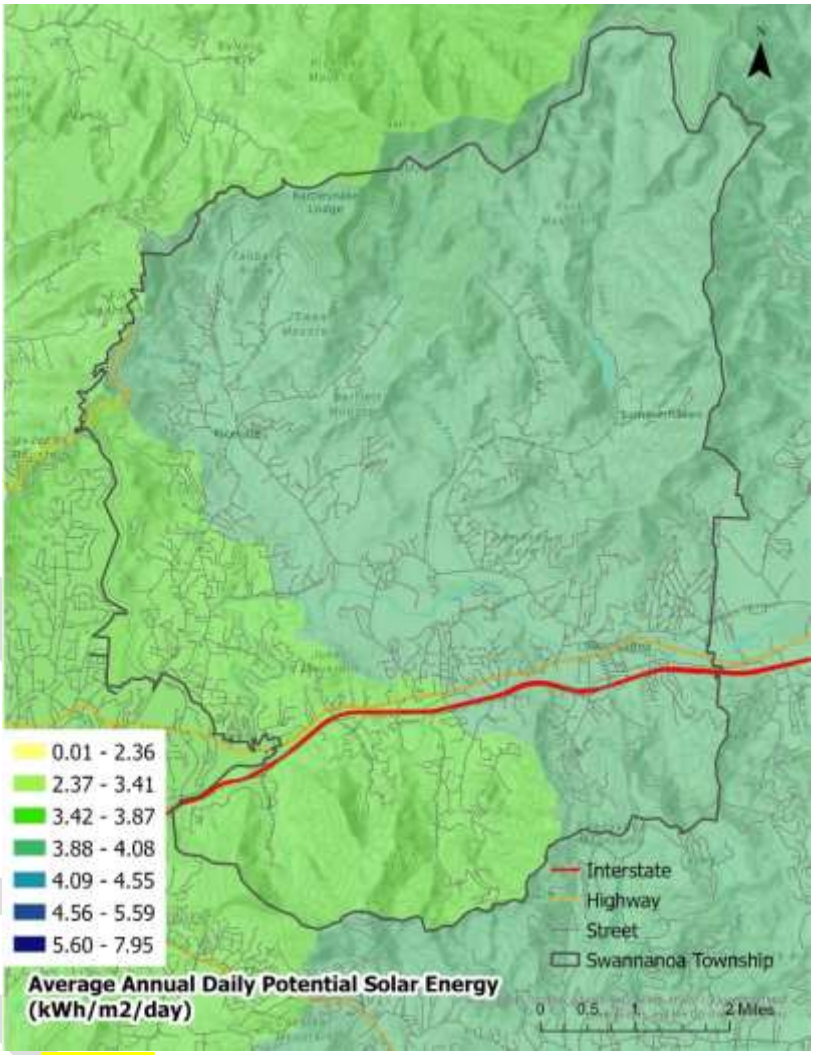


Figure X: Average annual daily potential for solar energy.

Sources of Infrastructure & Energy data:

1. City of Asheville Water service district map. Geographic Information System.
2. North Carolina Department of Environment and Natural Resources, Division of Water Resources, Public Water Supply. 2025. https://www.nconemap.gov/datasets/nconemap::public-water-supply-water-sources/explore?location=35.657789%2C-82.394872%2C12.38
3. MSD Master Plan & Expansion. 2022. Metropolitan Sewerage District.
4. Natural Gas Data. U.S. Census Bureau, U.S. Department of Commerce, 2023.
5. Dam Data. 2023. North Carolina Department of Environmental Quality. 2020.
6. Broadband Data. 2023. United States Census Bureau (USCB)
7. New Homebuyer's Guide to Septic Systems. U.S. Environmental Protection Agency.
8. FCC National Broadband Map. Federal Communications Commission. Accessed 9/2025.
9. Dam Information. 2020. NC Department of Environmental Quality.

CHAPTER 6:
Economic Development and Institutions

The Economic Development and Institutions section summarizes the industries, jobs, and tourism characteristics, and existing institutions in the Swannanoa Township.

Economic Development

Education and Manufacturing businesses employ the largest number of people in Swannanoa, with Manufacturing and Construction having the highest estimated sales by dollar amount compared to other business types outlined in Table X.

Table X: Business Types in Swannanoa

Type	# of Businesses	Estimated sales	Estimated employees
Accommodation and food services	10	$16.88 million	106
Admin, support, and waste management/remediation	15	$3.86 million	46
Agricultural	4	$492,000	8
Arts, Sports, Entertainment, Recreation	5	$1.98 million	15
Banking, Finance, and insurance	3	$1.37 million	8
Construction	42	$32.61 million	178
Education	12	-	411
Health care and Social Services	11	$4.51 million	142
Information	6	$5.1 million	51
Manufacturing – Chemical, fuel, paper, plastics, wood	1	$5.19 million	42
Manufacturing – Electronics, furniture, machinery, metal, etc.	10	$33.82 million	261
Manufacturing – Processed food, textiles, clothing	3	$579,000	80
Other services: Repair, personal care, laundry, religious, etc.	52	$4.3 million	327
Professional, scientific, and technical services	24	$8.43 million	90
Public Administration	5	-	146
Real estate and rentals	8	$1.47 million	30
Retail: Hobby, media, general march.	20	$22.68 million	140
Retail: Home, food, automobiles, personal care	16	$20.85 million	74
Transportation and warehousing – Couriers and messengers, warehousing and storage	3	$897,000	8
Transportation and warehousing – Private and public transport, oil and gas pipelines, sightseeing	5	$2.52 million	33
Unclassified	29	-	-
Utilities	1	-	120
Wholesales	14	$222 million	52

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The top employment industries by number of workers include education services, health care, and social assistance. 78% of workers were privately employed, 12% were government workers, and 10% were self-employed. Highest employment by industry is further outlined below:

Table X: Civilian employed population 16 years and over, 2023			
Industry	**# of workers**	**% of total**	**% change since 2013**
Educational services, health care and social assistance	1,652	22%	-5.8%
Arts, entertainment, recreation, accommodation and food services	1,073	14%	1.6%
Manufacturing	835	11%	2.4%
Retail trade	834	11%	-2.9%
Professional, scientific, management, administrative, waste management services	737	10%	-2.4%
Construction	711	10%	3.6%
Other services, except public administration	604	8%	4.2%
Finance and insurance, and real estate and rental and leasing	317	4%	-1.0%
Transportation and warehousing, and utilities	237	3%	1.9%
Information	154	2%	1.6%
Public administration	124	2%	-2.3%
Wholesale trade	110	1%	-0.8%
Agriculture, forestry, fishing and hunting, and mining	33	0%	-0.1%

There were 248 business establishments in the 28778-zip code in 2023 (3% of all establishments in Buncombe County). Of those establishments in Swannanoa, 61% had less than 5 employees (compared to 58% in the county overall). The number of establishments has increased by almost 18% since 2018, slightly higher than the percentage of increase in the county overall (12.89% increase).

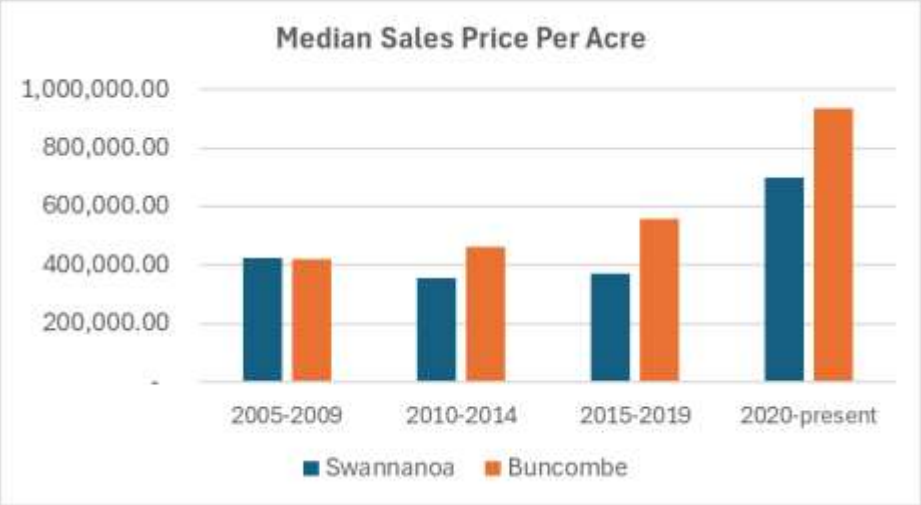
The employed population was 7,573 individuals (53% of the population of Swannanoa that is over 16 years old), down from 60% employed in 2013. The state of North Carolina has experienced year over year job growth of 3.04%. Swannanoa experienced 11.6% job growth between 2022 and 2023 in the sectors shown in Table X below. Business and Finance Occupations had the largest positive rate of growth, while Food Preparation and Service Occupations had negative growth.

Table X: Job Growth by Sector in Swannanoa, 2022-2023	
Sector	**Change**
Management Occupations	20.6%
Food Preparation and Serving Occupations	-14.2%
Construction and Extraction Occupation	36.9%
Business and Finance Operations	171%
Health	0%
Personal Care and Service	14.9%
Buildings, Grounds, Cleaning and Maintenance	50%

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Property sales

Over a 20-year period, the median sales price per acre, and the median vacant land price per acre in Swannanoa grew at a slower pace than Buncombe County overall and declined between 2010 to 2014. In 2025 the median land value in Swannanoa was $61,818 per acre, 40% less than Buncombe County overall ($91,667/acre).



Development Trends

The impacts of Tropical Storm Helene in 2024 caused a temporary pause in real estate purchasing and development in the Swannanoa area, with millions of dollars of real estate transactions being cancelled in the year that followed. Commercial real estate agents cite uncertainty about the future, and hazard risks as major concerns for buyers. Properties that experienced minor or no damages during Helene provided more confidence for buyers. Despite these challenges, the development potential of Swannanoa remains positive due to its close proximity to the City of Asheville and Town of Black Mountain, quick access to Interstate 40, public water and sewer availability, and stunning natural environment. A history of public opposition to development in Buncombe County is one challenge for attracting high-quality projects. As a result, sprawling, low-quality developments are typically easier to construct.

Sources of Economic Development data:

1. https://data.census.gov/profile/Swannanoa_township,_Buncombe_County,_North_Carolina?g=060XX00US3702193180#housing
2. Swannanoa, NC Profile. Data USA. https://datausa.io/profile/geo/swannanoa-nc/
3. U.S. Census Bureau, U.S. Department of Commerce. (n.d.). Selected Economic Characteristics. American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP03. Retrieved July 23, 2025. https://data.census.gov/table/ACSDP5Y2023.DP03?q=job+growth+by+sectors+in+Swannanoa+CDP,+North+Carolina.
4. U.S. Census Bureau, U.S. Department of Commerce. (n.d.). Selected Housing Characteristics. American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP04. Retrieved July 23, 2025, from https://data.census.gov/table/ACSDP5Y2023.DP04?q=Homeownership+Swannanoa+NC.
5. Alternative Fuels Data Center. Accessed 9/2025. U.S. Department of Energy. Office of Energy Efficient and Renewable Energy. https://afdc.energy.gov/fuels/electricity-locations#/find/nearest?fuel=ELEC&location=28778
6. CB2300CBP All Sectors: County Business Patterns, including ZIP Code Business Patterns, by Legal Form of Organization and Employment Size Class for the U.S., States, and Selected Geographies: 2023. U.S. Census.
7. Jim Davis. Beverly Hanks. Commercial Real Estate Broker interview. 10/24/2025.

Institutions

The following two properties are among the institutions identified in the Buncombe County 2043 Comprehensive Plan. Per the Growth, Equity, and Conservation Framework, the Institutional character area is defined by "large, private land holdings held in single ownership or held collectively by related entities for the purposes of tourist facilities, conference or resort centers, and other uses" which include educational and college campuses. In the Swannanoa Township, there are two: The Billy Graham Training Center at the Cove and Warren Wilson College. These are detailed below:

1. THE BILLY GRAHAM TRAINING CENTER AT THE COVE
   Acres: 1200+
   Zoning: CR – Conference Resort
   Overlay: Steep Slope/High Elevation & Protected Ridge Overlays
   History: First purchased by the Billy Graham Evangelistic Association in the 1970s, the Billy Graham Training Center at the Cove is a retreat and conference center located to the Southeast of Asheville on the south side of I-40 heading towards Swannanoa. It has been in use as such since the first seminars were held on the campus in 1988.
   Other Considerations: The Association also owns a 110-acre parcel along the county border with Montreat. The North Carolina Natural Heritage Program lists the property as a high-priority area for biodiversity conservation

2. WARREN WILSON COLLEGE
   Acres: 1000+
   Zoning: PS – Public Service
   Overlay: Minimal Steep Slope Overlay and contains floodplain hazard areas.
   History: Warren Wilson College is in Swannanoa and has been a fixture of the area since it was founded as the Asheville Farm School in 1894. It went through a series of transitions over the years and did not become a liberal arts school of the modern era in the 1970s – though it still has an emphasis on "learning by doing" which the College attributes to its Asheville Farm Schoollegacy.
   Other Considerations: Student groups and other programs associated with the college have been active participants in Swannanoa beyond the campus. Post-Helene, these include a river clean-up crew and volunteers/interns helping with the MountainTrue/ADC planning process.



Portion of the Warren Wilson College Campus.

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CHAPTER 7: Public Services

The Public Services section summarizes the facilities and services provided by the local government for libraries, community centers, resilience hubs, and fire stations. For information about transportation, schools, and parks, please see chapters X, X, and X.

Fire Stations

There are two fire stations in Swannanoa: the main station is on South Avenue, and the Bee Tree substation is on Bee Tree Rd. Swannanoa is part of Buncombe County Sheriff's District 1 along with Barnardsville.



Swannanoa Fire Truck

Post Office

The Swannanoa post office branch, centrally located along US-70, was damaged during TS Helene. The post office branch is currently operating out of the North Asheville post office branch on Merrimon Avenue, about a 20-minute drive from the Swannanoa branch location.



Swannanoa's post office prior to T.S. Helene

Community Centers

There are two community centers in Swannanoa: the Riceville Volunteer Fire Department Community Center, and Buckeye Cove Community Center. The Riceville VFD Community Center is located at 2251 Riceville Rd and managed by the Riceville Volunteer Fire Department, but its use is current suspended according to the webpage. Buckeye Cove Community Center is located at 527 Buckeye Cove Rd and owned by Buckeye Cove Community Club.



Riceville Community Center

Libraries

There is 1 library in Swannanoa, located in the historic Grovemont neighborhood. The facility is owned by the Swannanoa Community Council (SCC) and leases it to Buncombe County for use as a library. The library is 3,276 square feet in size and does not meet current County requirements for facilities. In 2019 Buncombe County completed a county facilities study that included an analysis of libraries.



The Swannanoa Library, Grovemont

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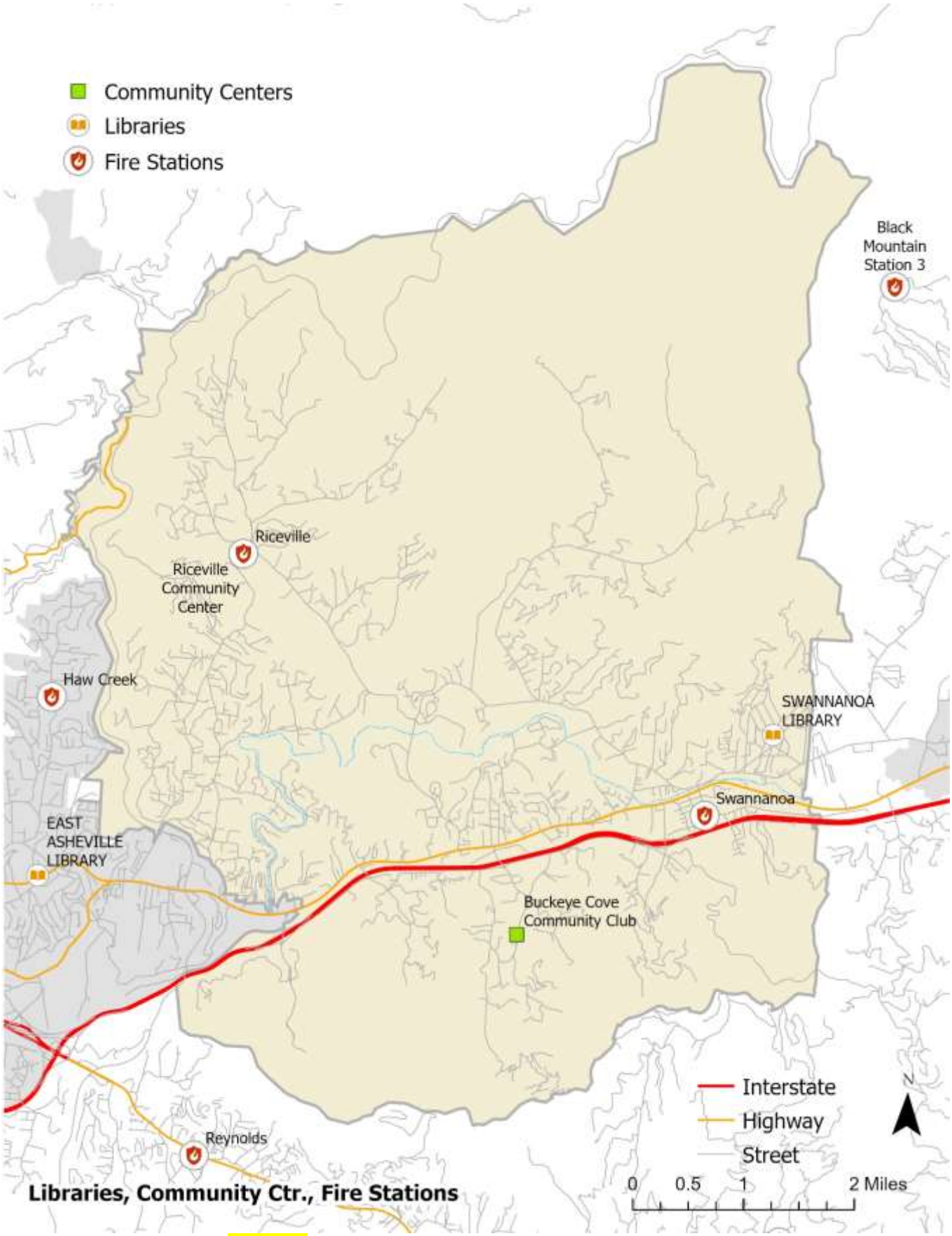


Figure X: Fire Stations, Libraries, & Community Centers

Resilience Hubs

Resilience Hubs are places that provide essential services and resources for a community to access throughout the year, but especially during or after an emergency, such as a natural disaster. They may be part of an existing facility, such as a space within a community center or public school, a stand-alone facility, or they may be temporary in nature.

Currently, there are no resilience hubs installed on a permanent basis in Swannanoa. During Tropical Storm Helene in 2024, the County supplied and/or operated Point of Distribution (POD) sites for food and water, as well as Community Care Stations where people could also access restrooms, laundry and showers (see Table X).

Local community groups also operated resilience hubs in their own neighborhoods. As of 2025, there was a temporary community-led resource/resilience hub being discussed by local community groups.



Water distribution after T.S. Helene



Table X: Point of Distribution (POD) and Community Care Station (CCS)

Location	Type
Ingles - Black Mountain	POD
Ingles - Swannanoa	POD, CCS
Owen Pool	POD, CCS
Bethel Methodist Church	POD, CCS

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Sources of Public Service data:

1. *Buncombe County Geographic Information Systems (GIS). 2025.*
2. *Swannanoa Library. Friends of Grovemont Park. https://grovemontpark.org/speak-up-swannanoa*

CHAPTER 8:
Existing Plans, Policies, & Actions

The Existing Plans, Policies, and Actions section summarizes studies and recommendations from existing plans that directly address issues impacting Swannanoa.

Land Use Plans:

Buncombe 2043 Comprehensive Plan (Adopted 2023)

The County's first comprehensive plan was adopted in May 2023 to guide local government decision-making over the following 20 years. The Plan is a broad, long-range planning tool that looks at the relationships between land uses, infrastructure, and community services and amenities, and outlines policy guidance and specific actions to work on towards the goals. It organizes policy direction into seven planning topics, including: Growth, Equity, and Conservation; Transportation and Connectivity; Farms, Forests, and Environmental Conservation; Health & Recreation; Hazards and Resilience; Infrastructure and Energy; and Economic Development, Education, and Jobs.

The Plan recommends several areas for more detailed study through the creation of small area plans. Two of those areas include the Swannanoa US-70 corridor and Beacon Village, which was designated as the county's first 'Walkable Destination Center' in the Growth, Equity, and Conservation (G.E.C.) future land use map. A Walkable Destination Center is intended for higher intensity, mixed-use centers where there is good road or transit access, land that is well-suited for development, and where public infrastructure is possible. Medium and higher density residential, as well as commercial, office, and retail uses are all recommended. Specifically, the Beacon redevelopment site is mentioned as a potential catalyst project for the area.

Most of the future land use designations for Swannanoa includes Mixed Use 1 (MU1) along the main corridor and adjacent lands to the south of Interstate 40, Mixed Use Neighborhood (MUN) to the north, one Institutional (INST) designation for Warren Wilson College, Rural Community (RC) designation, and Protected Public Lands (PPL). Details about the intent of each designated area can be found in the full Comprehensive Plan document.

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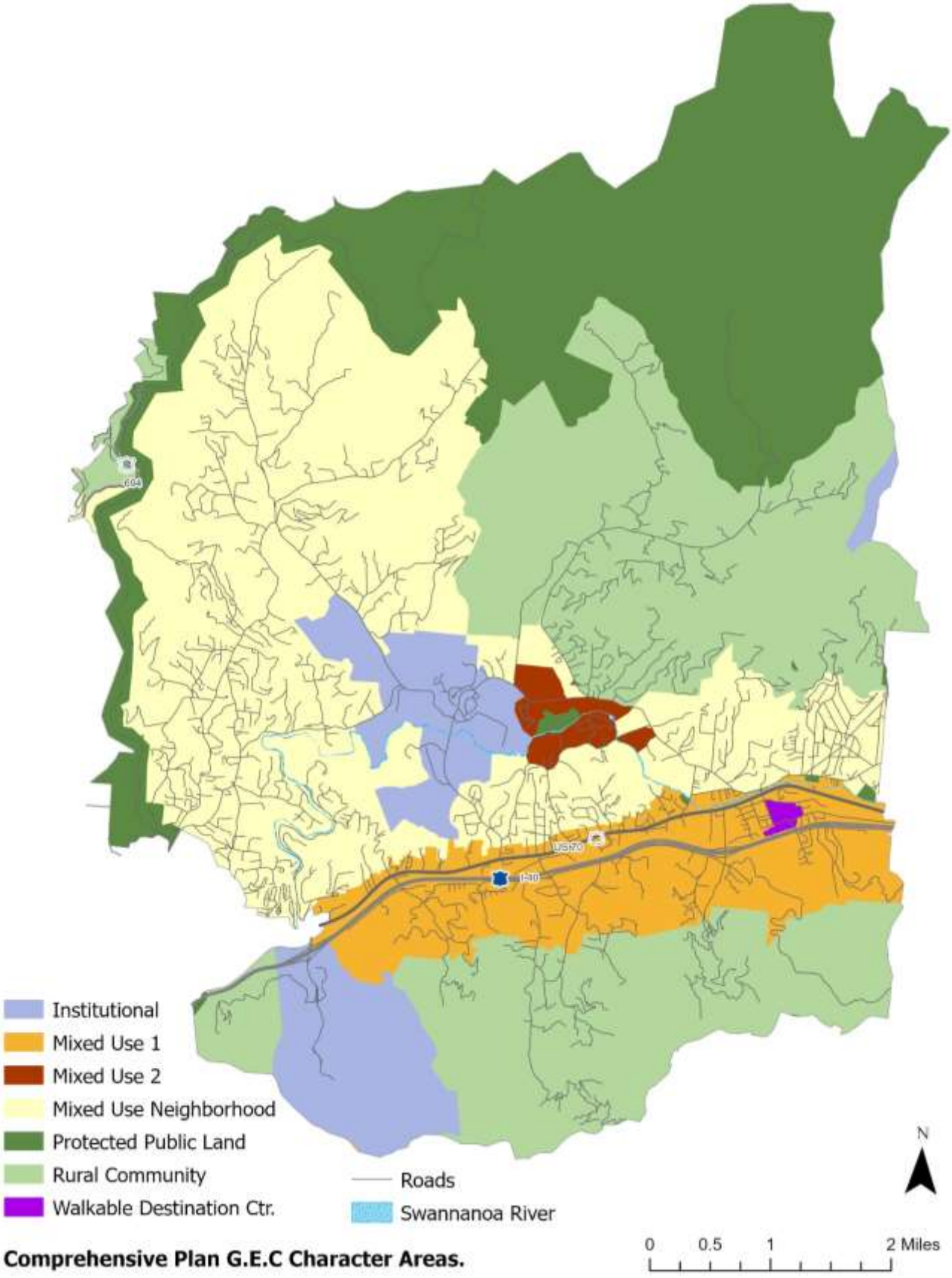
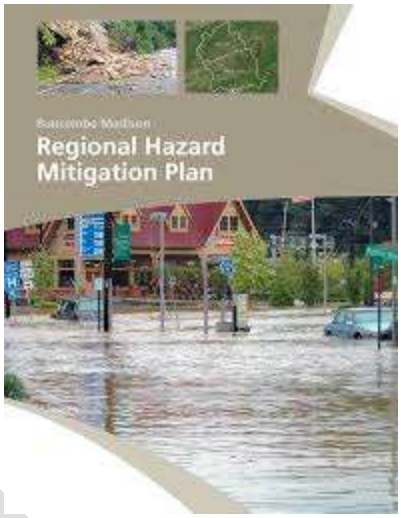


Figure X: Swannanoa section of the Growth, Equity, & Conservation Map from the 2043 Comprehensive Plan.

Environment & Hazard Plans:

Buncombe County Regional Hazard Mitigation Plan (Adopted 2021)



This regional plan documents the Buncombe and Madison counties' efforts to incorporate hazard mitigation principles and practices into routine government activities and functions. The Plan recommends specific actions to minimize hazard vulnerability and protect residents to those hazards that pose the greatest risk. Local policies on community growth and development, incentives for natural resource protection, recommendations for structural solutions to reduce vulnerability, and public awareness and outreach activities are examples of actions considered to reduce the region's vulnerability to identified hazards. The Plan also lists historical flood events from 2000 to 2019, as well as dam locations and hazards for the Swannanoa River section.

Goals, policies, and actions are outlined for regional resilience, including specific recommendations for new floodplain and steep slope development standards, conservation incentives, and public education campaigns. See section 9, Actions P-4, P-6, PP-8, and PEA-1 in the Hazard Plan for details. If adopted, the recommendations from the Hazard Plan could have direct impacts on resilience, health, and safety in the Swannanoa area.

Swannanoa River Watershed, Buncombe County, NC. Section 205, Flood Risk Management, 2017

This report by the US Army Corps of Engineers analyzes potential solutions for flooding in the Swannanoa River Watershed, with specific focus on areas of repeated flooding in the City of Asheville limits. Implemented recommendations from the study could reduce future flooding events in parts of Swannanoa due to the interconnectedness of the watershed system.

Sustainability-Based Flood Hazard Mapping of the Swannanoa River Watershed, 2017

This study presents a framework for flood hazard mapping using the Swannanoa River watershed as a case study. According to its authors, conventional flood risk mapping focuses on social and economic factors. The framework presented in this paper attempts to model environmental risks concurrently with these other dimensions. The technical paper is intended for floodplain managers and flood insurance companies. The study does not include prescriptive policies or actions related to risk evaluation; however, floodplain managers or related experts may derive policies, actions, or other guidance from the results in the paper.

Upper Swannanoa River Watershed Management Plan (Adopted 2016)

The section of the Swannanoa River above its confluence with the North Fork Swannanoa River and the surrounding area north and south of the Town of Black Mountain and Montreat, is referred to as the "Upper Swannanoa River Watershed" (USRW). The USRW was listed in 2006 as impaired by North Carolina due to a degraded benthic macroinvertebrate community. The state determined the major cause of this was stormwater runoff. Equinox, a consultancy based in Asheville, worked with the Town of Black Mountain,

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Land of Sky Regional Council, and other partners and stakeholders to develop a 10-year watershed management plan to secure federal funding via North Carolina Division of Water Resources for stormwater control features, riparian vegetarian improvements, and education and awareness.

Helene Recovery Plan, 2025, Buncombe County



In response to the impacts of Tropical Storm Helene in 2024, Buncombe County Government developed a county-wide plan to serve as the roadmap for recovery from the storm's catastrophic impacts. The Helene Recovery Plan focuses on projects within the scope of county operations, seeking to repair damage while increasing resiliency and reducing vulnerability to future disaster events.

The Plan was created after a public engagement process titled "Envision Buncombe", which included resident location information. Swannanoa-specific responses were extracted from survey results to inform engagement activities for the Swannanoa Small Area & Recovery Plan. The top recovery priorities identified by individuals from Swannanoa included: Investing in Infrastructure; Rebuilding parks; revitalizing business districts; funding to promote food security; restoring streambanks; and wildfire prevention.

Swannanoa Community Helene Recovery Plan, 2025

In response to the impacts of Tropical Storm Helene in 2024, the non-profit organization Appalachian Design Center, a program of the regional nonprofit MountainTrue, began a community recovery planning process in May 2025 for the Swannanoa area. The purpose of this Plan was to understand the community's disaster recovery priorities and create a list of recovery actions and projects that residents and local organizations and businesses can work on. It is a community-centered plan that is not dependent on adoption or action by a local government to implement.



Community engagement event for the Recovery plan, August 2025

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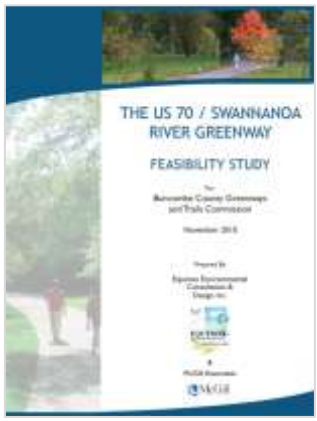
Recreation Plans:

Fonta Flora State Trail Map (Authorized 2015)

A plan for a 100-mile-long biking and hiking trail connecting Morganton to Asheville, including a loop around Lake James. Segment 6 of this trail would connect Black Mountain into Swannanoa ending at Warren Wilson College. Segment 7 would connect from Warren Wilson to the City of Asheville's trail system. As of 2025, the exact location of the Swannanoa sections of this trail were not identified or acquired.



US 70 / Swannanoa River Greenway Feasibility Study, 2010



The US 70 / Swannanoa River Greenway Feasibility Study was initiated by Buncombe County Government to study greenway corridor options for 18 miles of trails and bike/ped facilities between Ridgecrest, Black Mountain, Swannanoa, and East Asheville.

Some of the findings from this study were incorporated into the 2012 Greenway Master Plan. recommendations related to pedestrian safety and access are not represented in the Master Plan and may be appropriate to consider for future pedestrian or transportation planning activities.

Buncombe County Parks & Recreation Master Plan, 2026

In 2025, Buncombe County's Parks & Recreation Department restarted the process of replacing the 2013 Greenway Master Plan with a comprehensive Parks and Recreation Master Plan for the entire county. The impacts of Tropical Storm Helene in 2024 caused delays in the original planning process, and the need for further public engagement. This plan will guide the future of parks, greenways, open space, and related services in the county.

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Transportation Plans:

Buncombe County Pedestrian Plan, 2026

In 2025, Buncombe County Government began work on its first county-wide Pedestrian Plan. This plan will provide a framework for how Buncombe County will invest in walking infrastructure in the future, identify project priorities, and will provide guidance on filling gaps in the walking network. The plan will examine walking conditions throughout unincorporated Buncombe County, including Swannanoa.

City of Asheville Transit Master Plan, 2018

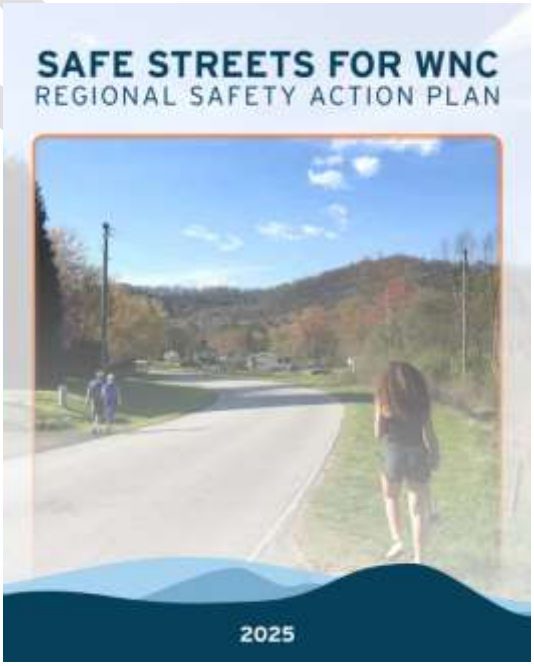
The 2018 Transit Master Plan of the City of Asheville outlines the vision and investments needed to improve the public transportation system in the city. While many transit routes are within incorporated city limits, one existing transit line connects the city to the Town of Black Mountain, passing through Swannanoa along its main transportation corridor (Route W3E2). The Plan recommended modification to this route to provide two-way service and increase the number of daily trips offered.

State Transportation Improvement Program (NCDOT STIP), (2024-2033)

The NCDOT STIP is a 10-year state and federal-mandated transportation plan from the North Carolina Department of Transportation that identifies funding/scheduling of transportation projects throughout the state. It is continually updated. At the time of this study there were no major funded projects listed for Swannanoa.

Safe Streets for WNC, 2025

The Safe Streets for WNC Plan provides the counties of Madison, Haywood, Buncombe, Henderson, and Transylvania with crash and safety history data and recommendations for improving roadway safety for all users. This plan found that in Buncombe County there were 40,234 reported crashes on local and state roadways between 2019 and 2023. Of these crashes more than 500 people were killed or seriously injured. Interstates, US routes, and NC routes represent about 7% of the road network in the County, but more than 60% of fatal and serious crashes occurred on these roads.



To prevent most deaths and serious injuries, this plan suggests focusing on keeping vehicles in the lane, decreasing drug and alcohol impairment, motorcycle crashes, using seat belts and child car seats, improving routes and crossings for pedestrians, bicyclists and motorcyclists, slowing vehicle speeds, and older drivers.

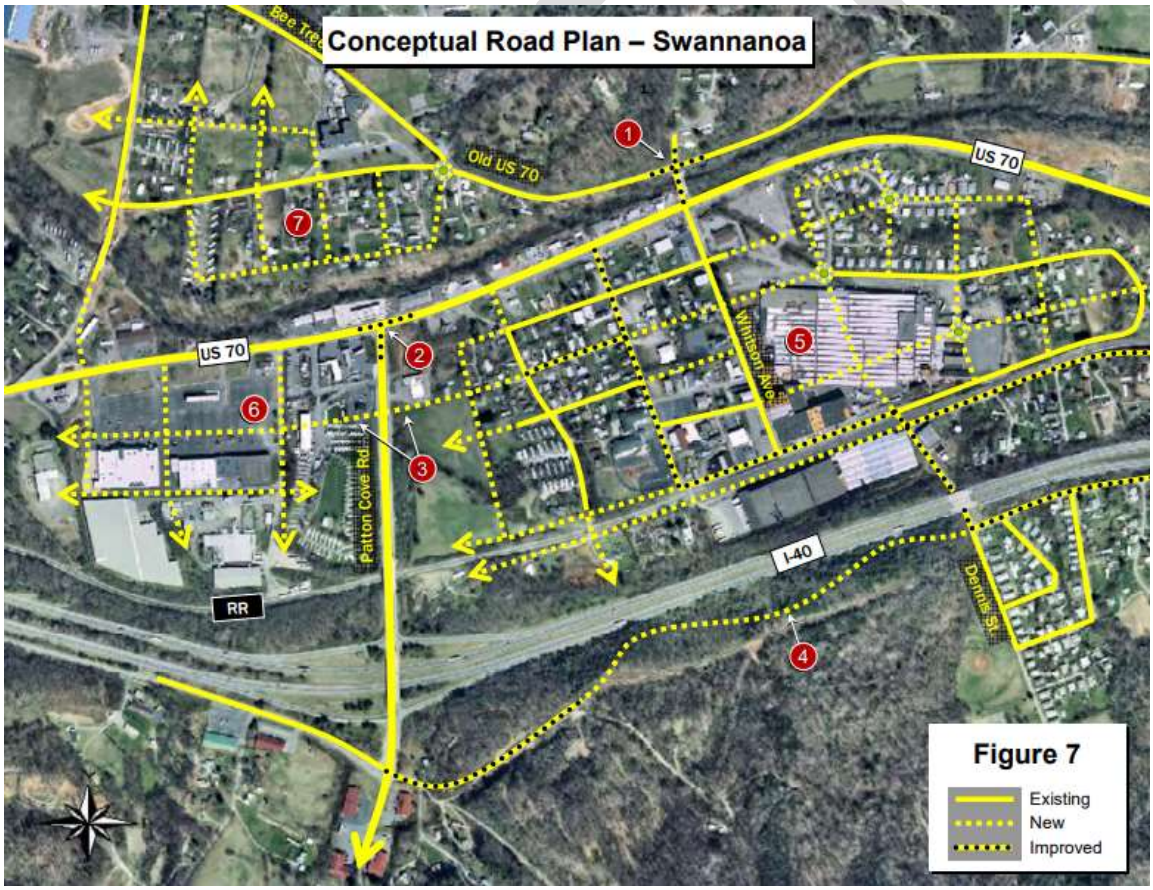
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US 70 Hwy Corridor Study, 2007

This 2007 study outlined specific recommendations for transportation improvements in the east-west corridor of US 70 Hwy in Swannanoa. The identified goals include:

1. Enhance connectivity while preserving capacity along the corridor.
2. Capitalize on existing character and unique assets for redevelopment.
3. Create well designed destinations along the corridor accessible to all types of users.
4. Increase multi-modal opportunities.

Safety, efficiency, pedestrian and bike-friendly changes are recommended for areas south of Grovemont, within the Beacon Village, along the western end of Old US 70, and at the US 70 Hwy intersections at Whitson, Patton Cove, Dillingham, and Lytle Cove. The Study also recommends implementing Form Based Codes, cluster zoning, steep slope protections, growth boundaries, condition zoning, impact fees, transfer of development rights, and conservation easements. The North Carolina Department of Transportation in 2025 indicated that, at that time, no recommendations from the study were programmed for completion.



WNC Passenger Rail Feasibility Study, 2023

Created for the North Carolina Department of Transportation, the WNC Passenger Rail Feasibility Study proposes a Salisbury to Asheville passenger line that would cross through Swannanoa between the City of Asheville and Town of Black Mountain stations. While station locations were not selected as part of the initial study, there are no indications that a station would be proposed within Swannanoa specifically.

CHAPTER 9: Existing County Ordinances

The Existing County Ordinances section summarizes the local government regulations that currently exist which are applicable to Swannanoa.

Zoning Ordinance

Zoning is a tool used by local governments to designate specific areas for certain types of uses or land use regulations, such as building height limits, setbacks, parking requirements, and much more. Buncombe County Government adopted county-wide zoning in the year 2009. Since that time, few changes have been made to Zoning standards or to the designated districts.

Swannanoa contains a mosaic of zoning districts: Commercial Service, Employment, and Neighborhood Service zoning scattered along the main transportation corridor, with a few pockets south of I-40; Public Service zoning for larger education and institutional campuses; and a mix of rural to high density residential zoning throughout. Over 38% of Swannanoa is zoned 'Open Use', meaning there are few zoning restrictions, with most residential, commercial, and industrial uses allowed, and no requirements for minimum lot sizes, zoning setbacks, height restrictions, or parking standards.

Table X: Zoning Districts in Swannanoa

Zoning	# of acres	% of Total
OU	11,429.93	38.10%
R-1	5,099.43	17.00%
R-LD	4,289.10	14.30%
R-2	3,216.84	10.70%
EMP	1,482.00	4.90%
PS	1,449.20	4.80%
CR	1,155.09	3.90%
R-3	1,124.64	3.70%
CS	397.45	1.30%
BDM	286.46	1.00%
NS	61.4	0.20%

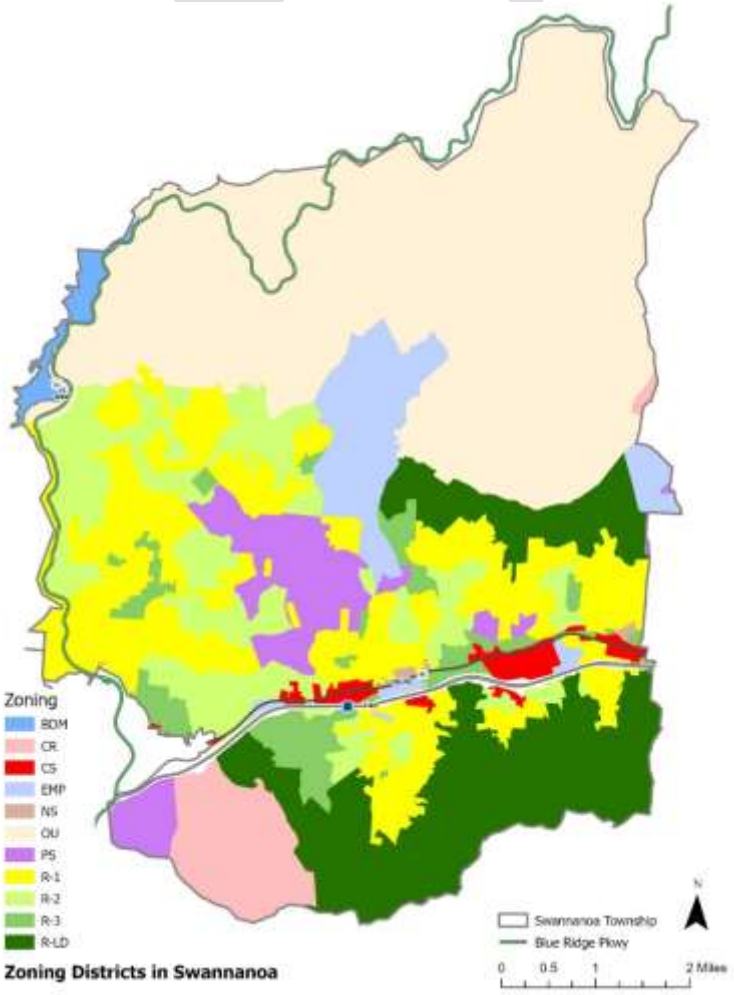


Figure X: Zoning Districts in the Swannanoa Township

Zoning districts represent the base land use standards for an area, but they aren't the whole picture. In addition to the underlying zoning, many areas also contain Overlay districts which have stricter development requirements to promote environmental and other protections. The Swannanoa area contains land within the Steep Slope/High Elevation, Protected Ridge, and Blue Ridge Parkway overlays.

Table X: Overlay Districts in the Swannanoa Township		
Overlay	**# of acres**	**% of acreage**
Steep Slope/High Elevation	9,872	33%
Protected Ridge	3,678	12%
Blue Ridge Parkway	3,448	11%

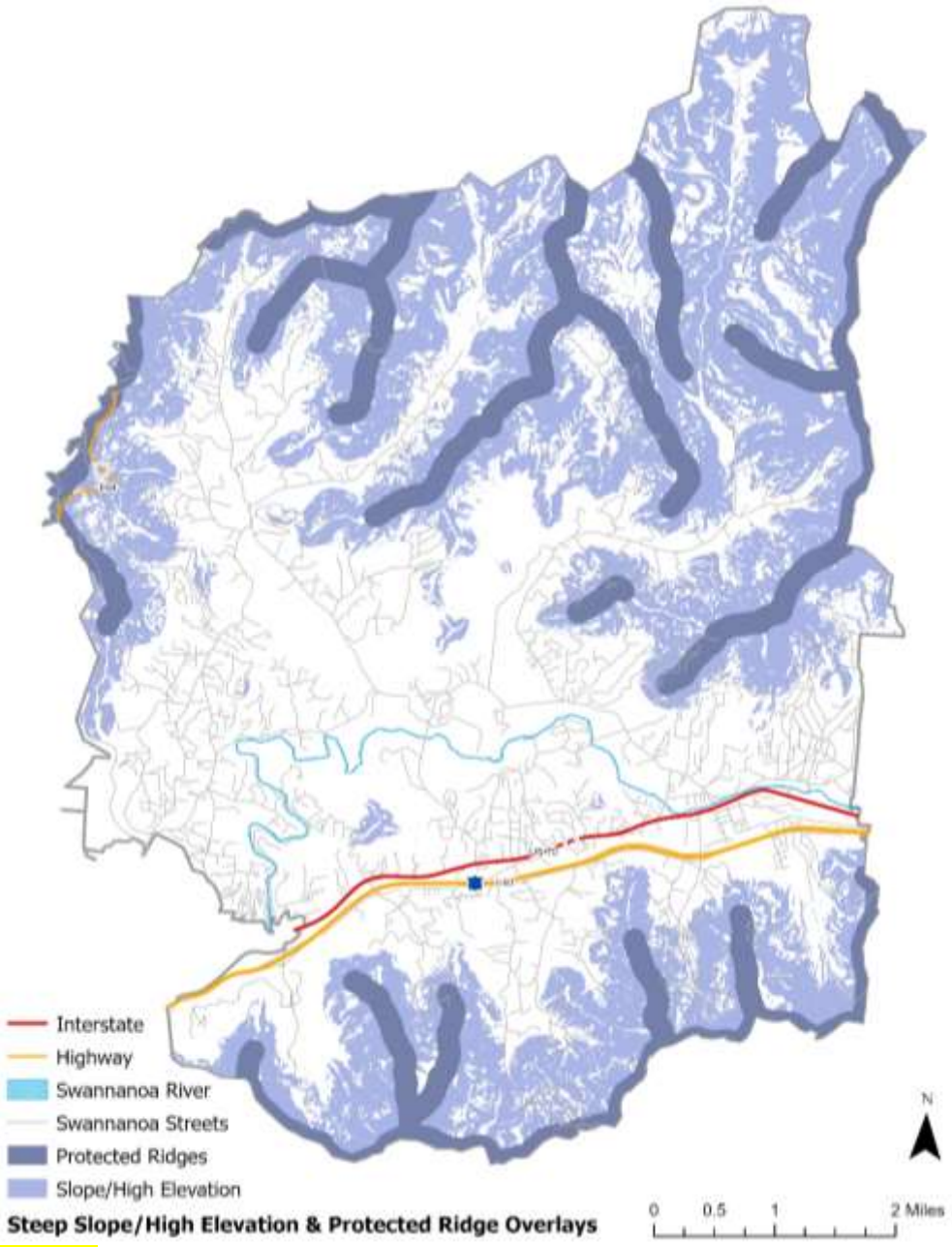
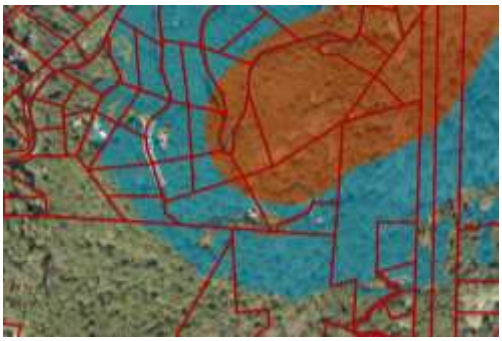


Figure X: Steep Slope/High Elevation & Protected Ridge Overlays in Swannanoa

Steep Slope/High Elevation and Protected Ridge Overlays
These zoning overlays seek to limit development intensity on steeper slopes and ridges to protect viewsheds, limit development in areas that are prone to landslides, minimize environmental impacts, and reduce stormwater runoff downstream.

The Steep Slope/High Elevation Overlay applies to land that is at least 2,500 ft in elevation and has a natural slope of 35% or greater. The Protected Ridge Overlay applies to areas with elevations of 3,000 ft or higher and whose elevation is 500 ft or more above the elevation of an adjacent valley floor and includes 500-foot buffers from the center line of ridges. Ridges are specifically mapped by Buncombe County.

Development restrictions in these areas include limits on permitted use, land disturbance and impervious surface, and requirements for tree screening and geotechnical reports, as well as higher minimum lot sizes for subdivisions and some specific height and width restrictions for structures within the Protected Ridge.


Example of Steep Slope Overlay (blue) and Protected Ridge Overlay (orange) in Swannanoa. Parcel lines are shown in red.


Landslide near road in steep slope area.
Photo credit: U.S. Forest Service

Blue Ridge Parkway Overlay
The Blue Ridge Parkway Overlay district seeks to protect the scenic quality of the parkway by reducing the ability to see development that occurs within 1,320 feet of the centerline of the road. Structures to be located within that boundary area must meet higher setback requirements if they are visible from the roadway. In addition, structure heights are limited to 40 feet when located within 1,000 feet of the road centerline if visible from the parkway. Screening standards also apply in some cases.

Flood Damage Prevention Ordinance

Roughly 1,204 acres of land in Swannanoa is within the regulated 100-year (1% annual chance) flood hazard area, of which 413 acres are within the non-encroachment Floodway. The Flood Damage Prevention Ordinance regulates development in the 1% annual chance floodplain. This floodplain is referred to as the "special flood hazard area" and its regulation is required by the Federal government to receive discounted flood insurance rates. Any man-made change in the regulatory floodplain requires a flood development permit from Buncombe County. There are many requirements for development in the regulated floodplain, including building high (above "base flood elevation") and building to floodproofing standards.

A note on the "100-year floodplain": This is sometimes referred to as the "100-year floodplain", although this can be misleading, as it implies that such flooding events are necessarily a century apart and happen only once every hundred years. Rather, there is a 1% chance that a "100-year" flood can occur in any given year and will almost certainly occur once over a 100-year timeframe. In fact, the Water Education Foundation states the actual percentage chance of a "100-year" flood occurring over a 30-year period as 26% [cite].

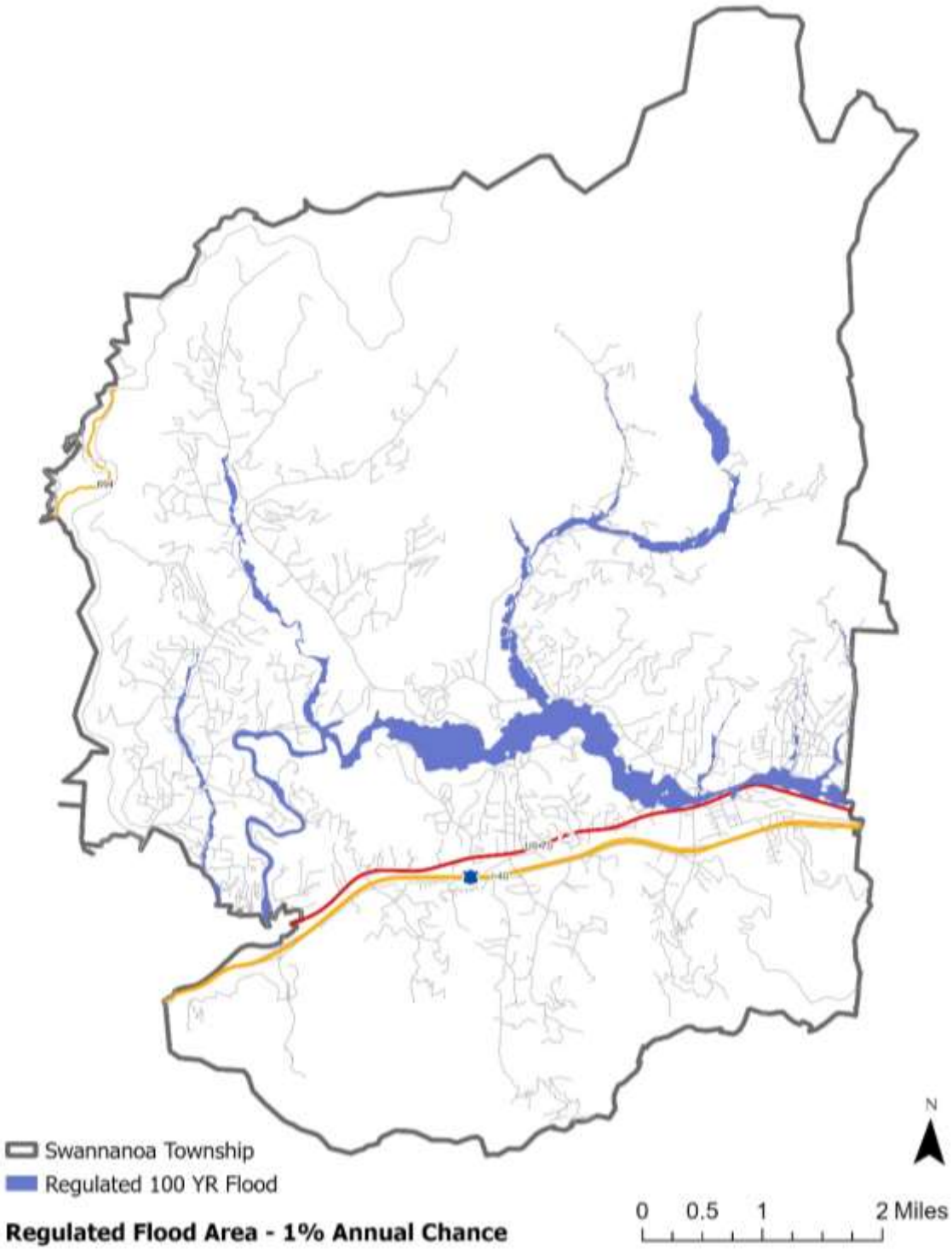


Figure X: Regulated 100 Year (1% Annual Chance) Flood Hazard Area

Note: The Floodplain Development Ordinance applies only to regulated flood hazard areas, therefore, Figure X shows only the 1% annual chance floodplain. For more comprehensive information about flood hazard areas, including the 25 year and 1,000-year flood areas, see the Hazard Vulnerability Assessment.

Stormwater Management Ordinance

The Stormwater Management Ordinance was adopted in 2006 and applies to unincorporated Buncombe County, as well as the Town of Weaverville and the Town of Biltmore Forest. Stormwater permits are required for new commercial and residential development either disturbing more than one (1) acre of land or is located on commercial lots greater than one (1) acre in size. Developments with stormwater permits are required to meet water quality standards for environmental protection, as well as ensure that the maximum stormwater runoff rate from the development is equal to or less than the stormwater runoff rate before the development was built, based on a 1-year, 24-hour size storm.

State law limits the scope of what the County can require for water quality standards, but there are no limits on the ability to regulate stormwater runoff flow rates. Development that existed prior to the adoption of the Stormwater Management Ordinance in 2006 is exempt from the ordinance requirements. Buncombe County Government does not own or maintain any stormwater infrastructure in public or private rights-of-way or on private property.



Erosion Control Ordinance

The Soil Erosion and Sedimentation Control Ordinance was adopted in 1993 to enforce the requirements in the NC Sedimentation Pollution Control Act of 1973. The purpose of the ordinance is to keep sediment (typically dirt) on the property where it originates from, preventing it from polluting surrounding properties or natural features like streams. Buncombe County Erosion Control requirements apply to the unincorporated county as well as all municipalities except the City of Asheville.



Permits are required when there is one-acre of land disturbance or more, with some exceptions for agricultural and other uses. Land disturbance includes anything that changes the surface of the earth, such as grading, filling, tree root removal, etc. Erosion control plans require mitigation actions including limits on angles for graded slopes and fills, installation of devices such as silt fencing and development buffers around watercourses and designated trout waters.

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CHAPTER 10: CONCLUSION

This Existing Conditions Study and the accompanying Hazard Vulnerability Analysis will be used to inform and guide the development of the Swannanoa Small Area and Resilience Plan in 2025/2026. While developing the Plan, this study will be used by County staff and the Swannanoa Steering Committee, a group of 13 volunteer residents, to provide a snapshot of the conditions and hazards facing the community at the time of the Plan's creation. This timing is especially important given the heavy impacts from Tropical Storm Helene in 2024. The current conditions outlined in this study will be a reference point for the tracking and reporting of progress on implementing goals and policies outlined in the Plan. In the future this study may also serve as a historical look at a community still in the early days of recovery from a major disaster.

Appendix A: Capacity Assessment

The Capacity Assessment outlines the ability of the local government to complete studies, partner with outside organizations, manage grants, and employ consultants. It also identifies what level of planning support currently exists in the form of inter-governmental relationships, existing plans and studies, memberships and certifications, and institutional processes and policies. These factors can indicate the overall ability of the government to engage in planning processes and complete projects.

Expertise in Emergency Management

Buncombe County's Emergency Services encompasses several departments that include Emergency Medical Services (EMS), Emergency Management, Fire Marshal, Public Safety Training Center, Disaster Preparedness and Recovery, and Safety and Security. Current staffing totals 266 employees across those specialty departments.

Emergency Management serves as the centralized coordination hub during a disaster for preparedness, planning, operations, and recovery. Buncombe County currently operates under a countywide Emergency Operation Plan (EOP) as well as a Continuity of Operations Plan. All County departments are included within this plan to ensure knowledge and skill sets are leveraged during critical situations to provide the best service to our community. Emergency Services is currently building out a localized WebEOC software which will enhance resource requests, staffing accountability and assignments, incident action plans, fire department staffing and resources, and situational awareness.

EMS is currently working on updates to all emergency plans as well as implementing a new Special Operations team that will assist in highly technical medical care day-to-day as well as during a disaster. The Public Safety Training Center staff have created a County-wide ICS and NIMS training and are planning to host position-specific trainings to assist reassigned staff with better knowledge of the role they would be working during an EOC activation.

Buncombe County's Planning & Development Department includes several professional land use planners who are certified floodplain managers (CFM) and/or certified by the American Institute of Certified

Planners. With a special understanding of floodplain dynamics and the regulatory framework, these staff members review flood development permits, zoning permits, rezoning requests, and make recommendations for changes to local regulations and ordinances. The County is mandating all employees undergo FEMA Recovery & Response Training by July 2026 in order to be better prepared for disaster response. The Permits & Inspections Department maintains staff who review projects for compliance with the North Carolina State Building Code related to development in flood hazard areas, as well as having staff with expertise in Environmental Health and other regulations.

Community Connections & Plans

The Communication & Public Engagement Department maintains relationships with many local community neighborhood groups that have connections with county residents and businesses. Since Tropical Storm Helene in 2024, many of these organizations have gained experience in disaster recovery and emergency response and have strengthened community and support networks within communities to be more organized. Several new community organizations have developed as a result, as well as more informal neighborhood groups.

In 2023, Buncombe County adopted its first Comprehensive Plan, which identified the Vision Themes, Goals, Policies, and Actions for the county government to focus on over the next 20 years. The Plan's guidance will be used as a starting point for the creation of small area & corridor plans throughout Buncombe. A list of existing plans is available in this document. The County continues to build partnerships with local organizations and community leaders, including through Small Area Planning.

County-wide Vulnerability Assessments

Buncombe County government has completed hazard vulnerability assessments in the past, including the 2011 County-wide Hazard Mitigation Plan, and the 2014 Buncombe Madison Regional Hazard Mitigation Plan. The goals of both plans are to save lives, property, and money, speed recovery following disasters; reduce future vulnerability; expedite receipt of pre- and post-disaster grant funding; and demonstrate a commitment to improving community health and safety. The Hazard Plan includes a community profile, hazard identification, vulnerability assessment, mitigation strategies, and much more.

Policy Direction

Buncombe County's 2043 Comprehensive Plan, which was adopted in 2023, sets the overall policy direction for the County, as well as recommendations to guide future community investment and growth, development, and conservation priorities. In addition, a variety of master plans have been completed by various departments, such as Parks & Recreation or the Transportation Division, to outline more specific goals, vision, and policy guidance related to their focus areas and work. A list of existing plans can be found in this document.

In September 2024, Tropical Storm Helene caused devastating flooding, landslides, and damage across Buncombe County. In response, the County and its 6 municipal partners have developed The Buncombe County Helene Recovery Plan, a roadmap of 114 projects designed to rebuild housing, repair infrastructure, restore natural resources, strengthen disaster preparedness, and support long-term community resilience. Municipalities represented in the plan include the City of Asheville, Town of Biltmore Forest, Town of Black Mountain, Town of Montreat, Town of Weaverville, and Town of Woodfin.

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Floodplain Regulations

Buncombe County joined the FEMA National Flood Insurance Program (NFIP) in 1980 and began regulating development within the Special Flood Hazard Area (SFHA), the 1% annual chance or 100-year floodplain. Federally-backed flood insurance, and most types of federal financial assistance, such as mortgage loans and grants, are only available in communities that participate in the NFIP and adopt an ordinance that meets or exceeds the NFIP standards. As of 2024, Buncombe County does not participate in the Community Rating System (CRS), which is a voluntary incentive program from from FEMA that recognizes and encourages community floodplain management practices that exceed the minimum requirements of NFIP. Incentives for participation include discounted flood insurance premium rates. However, participation in the program is a goal outlined in the adopted 2043 Buncombe County Comprehensive Plan.

For properties located within the SFHA, Buncombe County has adopted a stricter standard to require the finished floor elevation of the buildings to be built an additional 2 feet of "freeboard" above the Base Flood Elevation. The Comprehensive Plan recommends initial steps for the County to be eligible to join the CRS. Qualifying to join the CRS will require that the County take additional actions to increase flood resilience by enforcing through higher standards. The more flood resilience measures a community takes, the higher their CRS score will be and the higher the flood insurance discount members in the community will have access to. One activity that scores points in the CRS is tracking repetitive loss properties, or properties that have had substantial damage from natural hazards resulting in two or more flood insurance claims over $1000. Currently, the County does not have an internal process for tracking repetitive loss properties, however FEMA does maintain data about repetitive loss parcels. Access to that information is sensitive and requires a formal request to the agency. Because repetitive loss is only tracked for properties that require flood insurance, which only includes properties under a conventional mortgage within the 100-year floodplain, most homes and commercial buildings would not be accounted for within a Repetitive Loss tracking program if damage was to occur. Additionally, parcels outside of the 100-year floodplain would also not be considered a Repetitive Loss property, even if they were substantially damaged by natural hazards.

Tracking Repetitive Loss properties is advantageous because they are eligible for FEMA's Hazard Mitigation Grant Program (HMGP) which buys out properties for their market rate value before they were damaged and places the property into public ownership in perpetuity. Buy-out properties have deed restrictions that prevent redevelopment into anything other than recreational or passive uses, which has the additional benefit of restoring the properties into potential future flood storage area. The program is the number one way to remove homes and businesses from the floodplain and compensate property owners significantly.

Internal Processes

The Buncombe County budget is developed annually from departmental operating, personnel, capital, and vehicle requests. The County currently has a seven-year Capital Improvement Plan (CIP) that is updated annually through the annual capital budgeting process. A CIP is a long-range financial management plan for prioritization, analysis, and approval of proposed capital improvement projects that the County expects to carry out within the next seven-year period. It includes estimated project costs, estimated project timing and identified funding sources. The CIP is just one resource that may be used to implement recommendations from small area plans. Projects that align with the goals identified in an adopted County plan, such as the Strategic Plan or the Comprehensive Plan, may be incorporated in the County's CIP.

A comprehensive facility assessment was completed in FY21 on County facilities including libraries and the detention center, identified a 15-year plan for upgrading facilities and moving departments to where they

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can most effectively deliver services and make the best use of the buildings. Projects identified in that 15-year plan were incorporated in the seven-year CIP. An EMS System Baseline Analysis was completed in FY23 and recommendations from that plan regarding the need for additional EMS bases have been incorporated into the County's CIP as well.

Grant Management

Buncombe County has staff knowledgeable to write and manage the grants needed for the Swannanoa Small Area Plan, including a Grants Administrator who helps departments track funding, reporting, and compliance. Given the size and scope of this plan, some work—such as drafting recommendations or completing resilience studies will be done with help from outside planning consultants and partners.

Procuring Consultants

Buncombe County Government follows the North Carolina General Statutes related to retaining consulting firms for planning and infrastructure projects. These rules require that professionals be selected based on their qualifications and experience, that a public announcement of the opportunity be provided, and that priority be given to North Carolina-based companies, local companies, and minority-based businesses. Projects over $90,000 require a competitive bidding process.

Source of Capacity Assessment questions: NC Resilient Communities Planning Guide (Playbook)

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