



# STIP # A-0009C

## Graham County

# Indirect and Cumulative Effects Report

April 2020

### Executive Summary

<b>Planner, firm:</b>	Amy Sackaroff, Stantec	<b>Division:</b> 14	<b>Existing No. of Lanes:</b> 2	<b>Existing Median:</b> No
<b>NCDOT/Local Project Manager:</b>	Wanda Austin	<b>WBS:</b> 32572.1.FS10 <b>FA #:</b> APD-0074(178)	<b>Proposed No. of Lanes:</b> 3	<b>Addition of Median(s):</b> No
<b>Document Type:</b> <input checked="" type="checkbox"/> NEPA <input type="checkbox"/> SEPA	<b>Project Administration:</b> <input checked="" type="checkbox"/> Division <input type="checkbox"/> Central <input type="checkbox"/> Locally Administered Program Project (LAPP)	<b>Existing control of access:</b> <input checked="" type="checkbox"/> No Control <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input type="checkbox"/> Full Control	<b>Proposed control of access:</b> <input checked="" type="checkbox"/> No Control <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input type="checkbox"/> Full Control	
<b>Project Type</b> <input type="checkbox"/> Interchange Modification <input type="checkbox"/> Creation of Interchange <input checked="" type="checkbox"/> Roadway Widening <input checked="" type="checkbox"/> Roadway on New Location	<b>Project Scale</b> <i>Length</i> <input type="checkbox"/> Interchange Project <input type="checkbox"/> Roadway Project 0 – 2 miles <input type="checkbox"/> Roadway Project 2 – 4 miles <input checked="" type="checkbox"/> Roadway Project > 4 miles		<i>Right-of-Way</i> <input type="checkbox"/> Project within existing ROW <input checked="" type="checkbox"/> Project requires additional ROW	
<b>CS Project Reviewer (if applicable):</b>	<b>Project Description from STIP:</b> Upgrade roadway to include existing facilities and new location from US 129 in Robbinsville to NC 28 in Stecoah.			

#### Design Options:

The proposed improvements to Corridor K along US 129, NC 143, and NC 28, extending from US 129 south of Five Point Road (SR 1275) in Robbinsville to the existing four-lane section of NC 28 in Stecoah in Graham County, which include both new location and improved existing options.

Three detailed study options are being evaluated in the Robbinsville area, which extend from just south of Five Point Road's intersection with US 129 to the intersection of Five Point Road and NC 143 at Robbinsville High School:

- **Improve Existing US 129/NC 143** – This design option would maintain the existing alignment along US 129 and NC 143 between each road's intersection with Five Point Road (SR 1275). Improvements include minimal resurfacing, grading, and the addition of a dedicated eastbound right-turn lane from US 129 to NC 143.
- **R-1E Intersection** – This design option would realign Five Point Road (SR 1275) between its intersections with US 129 and NC 143. The realignment would provide a new option for through-traffic traveling between US 129 south of Robbinsville and NC 143 east of Robbinsville, reducing traffic at the current US 129/NC 143 signalized intersection. Stop-sign controlled t-intersections are proposed at the intersections of the realigned Five Point Road (SR 1275) and US 129 and NC 143.

- R-1E Roundabout – This design option would realign Five Point Road (SR 1275) between its intersections with US 129 and NC 143. The realignment would provide a new option for through-traffic traveling between US 129 south of Robbinsville and NC 143 east of Robbinsville, reducing traffic at the current US 129/NC 143 signalized intersection. Roundabouts are proposed at the intersections of the realigned Five Point Road (SR 1275) and US 129 and NC 143.

Three detailed study options are being evaluated in the Stecoah area which extends from NC 143 at Five Point Road (SR 1275) to the existing four-lane section of NC 28 in Stecoah. These include:

- Improve Existing NC 143/NC 28 – This design option begins at the intersection of NC 143 and Five Point Road (SR 1275) and continues along existing NC 143, widening the facility to three lanes with alternating climbing and passing lanes to the intersection of NC 28. The design option then follows NC 28, widening the roadway to a three-lane facility with alternating climbing and passing lanes. Additional improvements include providing adequate shoulders and modifying superelevations (cross-slopes) to improve traffic flow along existing NC 143 and NC 28.
- S-2 – This design option begins at the intersection of NC 143 and Five Point Road (SR 1275) and continues along existing NC 143 as an improve existing segment, widening the facility to three lanes with alternating climbing lanes and passing lanes, for 4.9 miles to just east of Orr Branch Road (SR 1222). East of Orr Branch Road (SR 1222), the design option then begins along a new alignment, which includes a two-lane 4,445-foot long tunnel under existing NC 143 and the Appalachian Trail. The new alignment then crosses over NC 28 on a new 1,053-foot long bridge north of NC 28, and then crosses over Bill Crisp Road (SR 1238) and Edwards Branch on a new 1,120-foot long bridge before terminating at the existing four-lane section of NC 28.
- SW-1A – The design option begins at the intersection of NC 143 and Five Point Road (SR 1275) and continues along existing NC 143 as an improve existing segment, widening the facility to three lanes with climbing and passing lanes, for 4.9 miles to just east of Orr Branch Road (SR 1222). East of Orr Branch Road (SR 1222), the design option then begins along a new alignment, which includes a two-lane 5,416-foot long tunnel under existing NC 143 and the Appalachian Trail. East of the proposed tunnel, the design option rejoins NC 28, intersecting NC 143 and widening NC 28 to a three-lane facility with alternating climbing and passing lanes before terminating at the existing four-lane section of NC 28.

**Each Robbinsville design option can be combined with the Stecoah design options to create nine different alternatives, extending from the project's western terminus at the intersection of US 129 and Five Point Road (SR 1275) in Robbinsville eastward to the four-lane section of NC 28 in Stecoah. While this method is helpful in comparing overall impacts, it can potentially obscure notable impacts. In order to clearly compare options for each portion of the project, environmental evaluation factors are assessed separately for the Robbinsville and Stecoah areas.**

## Summary of Findings

### Summary of proposed project modifications

- The proposed improvements to this section of Corridor K along US 129, NC 143, and NC 28 include both new location and improve existing options and extend from Robbinsville to Stecoah in Graham County.
- The typical section for all design options consists of three 12-foot lanes with 8-foot shoulders (including 4-foot paved shoulders). The design options include passing/climbing lanes.



## Summary of the time horizon and notable features

- Local land use and transportation plans from the Town of Robbinsville, Graham County, and surrounding counties have horizon years of 2025 – 2040.
- Notable human environmental features include:
  - The Appalachian Trail (AT) and Trail of Tears [Potential Section 4(f)].
  - Graham County Park [Section 6(f)]
  - Fort Montgomery, which served as a base for North Carolina troops to remove Cherokee Indians.
  - Two recreational resources: Brown Fork Shelter along the AT and the Nantahala National Forest.
  - Eight churches are located within the Future Land Use Study Area (FLUSA): Old Mother Church, Robbinsville United Methodist, Grace Mountainside Lutheran, First Baptist Church, Sweetwater Baptist, Stecoah Baptist Church, Dry Creek Baptist Church, and Prince of Peace Catholic Church.
  - Seven cemeteries within the FLUSA: Old Mother Church Cemetery , Holloway Cemetery, Rice Cemetery, Hazie Brown Cemetery, Jenkins Cemetery, Randolph Cemetery, and Edwards Cemetery.
  - Four schools within the FLUSA: Robbinsville Elementary School, Robbinsville Middle School, Robbinsville High School, Tri County Community College (Graham County Center).
  - The Graham County Fire Department is located at 70 W Fort Hill Road.
  - The Graham County Courthouse, located at 12 N. Main Street, is listed on the National Register of Historic Places and serves as a memorial to veterans.
  - The Graham County Travel and Tourism Office is located at 474 Rodney Orr Bypass in Robbinsville.
  - The Graham County Sheriff's Department is located at 300 Rodney Orr Bypass in Robbinsville.
  - Robbinsville Town Hall located at 4 Court Street in Robbinsville.
  - The Stecoah Valley Center is located at 121 School House Road and functions as a multiuse cultural center that promotes the preservation of Southern Appalachian mountain culture.
  - The Junaluska Memorial is located at 1 Junaluska Memorial Drive near downtown Robbinsville. This is the burial site of Cherokee Chief Junaluska.
  - The Graham County Senior Center located at 185 West Fort Hill Road provides services to senior citizens such as daily games, dancing, home crafts, health and nutrition workshops, and referral services.
  - The Graham County Public Library at 80 Knight Street downtown Robbinsville.
- Notable natural environmental features include:
  - The Nantahala National Forest, which is under the jurisdiction of the US Forest Service (USFS), covers approximately two-thirds of Graham County.
  - According to the Natural Resources Technical Report prepared for this project, there are 22 potential jurisdictional streams, 11 surface waters, and 76 potential jurisdictional wetlands within the natural resources project study area. As the FLUSA is larger than the natural resources project study area, this information was supplemented with GIS-based data as follows. The streams and associated branches within the FLUSA include 25 305(b) streams, 5 Trout Waters, 100 Public Mountain Trout Waters, 9 trout streams, and 50 US Army Corps of Engineers Western NC Waters.



- The FLUSA falls within the WS-III Cheoah River Water Supply Watershed of the Little Tennessee River Basin. This river basin includes 5 sub-watersheds: Stecoah Creek (060102020502), Panther Creek (060102020501), Tulula Creek (060102040101), Santeetlah Lake (060102040106), and Sweetwater Creek (060102040102).
- The FLUSA contains 100-Year flood zones which correspond with the above water features.

**Summary of the growth trends occurring/expected, and development regulations**

- Over two-thirds of Graham County is owned by the US Forest Service, severely limiting opportunities for development within the county. In addition, there are no known developments planned within the FLUSA.
- The Graham County Watershed Ordinance applies protections to watersheds as designated by the NC Environment Management Commission.
- NCDEQ’s 2018 Little Tennessee River Basin Restoration Priorities (RBRP) identifies 19 watersheds as Targeted Local Watersheds (TLW) for stream and wetland restoration. This includes the Tulula Creek and Sweetwater Creek watersheds within the FLUSA, which provide water supply for Robbinsville.

**Summary of the Indirect Effects Matrix results**

- The FLUSA was analyzed in the below Screening Matrix in order to consider potential indirect effects of the project. Based on the information gathered, many of the categories on the screening tool results in a moderate to low concern for indirect effects potential. Analysis of the FLUSA suggests that a Land Use Scenario Assessment (LUSA) is not likely needed due to the large portion of the project on existing roadways, minimal travel time savings provided by the project, lack of development and water/sewer services in the FLUSA, and the small amount of developable land. The project will not cause significant indirect and cumulative effects on the human and natural environment.
  - **Scope of Project: Low**  
The proposed project includes both new location and improve existing segments, and the final project may be a combination of both. However, the scope of the project does not, or minimally, alter access to developable land.
  - **Time Travel Savings: Low**  
Time travel savings is estimated at between 0 and 3 minutes.
  - **Forecasted Population Growth: Low**  
According to the North Carolina Office of State Budget and Management (OSBM), population in Graham County is expected to decrease 0.35% from the year 2020 to 2037, with an annualized growth rate of -0.02%.
  - **Forecasted Employment Growth: Low**  
According to the NC Department of Commerce-Labor and Economic Division, the annualized employment projection for the Waynesville-Franklin region is 0.8%.
  - **Available Land: Medium-Low**  
Approximately 16% of the FLUSA is available for development. In addition, approximately 24% of the FLUSA is available land weighted by how easy or challenging it would be to develop the land based on the ratio of available land to number of owners.

**Indirect Effects Matrix Result**

Land Use Scenario Assessment Not Likely

**LUSA Warranted**

- Yes
- No



- **Water/Sewer Availability: Low**  
A majority of the FLUSA is served by well water and septic tanks. Water and sewer lines are located in downtown Robbinsville and include a 12” water main and 12” sewer main. There are no plans to build or expand water lines or wastewater treatment facilities in the area in the next 10 years.
- **Market for Development: Low**  
Due to the small amount of developable land in the FLUSA and declining future Graham County population forecasts, future development is anticipated to be limited to infill development and redevelopment of existing developed parcels. Visioning plans currently in place are unfunded with no funding schedule on the horizon.
- **Public Policy: Medium-Low**  
Public policy includes the Graham County Watershed Ordinance and NCDEQ’s 2018 Little Tennessee River Basin Restoration Priorities.
- **Notable Natural Environmental Features: Low**  
The FLUSA contains unfragmented forest areas, sensitive USFS management areas, the Cheoah River WS-III water supply watershed, 305(b) streams, DWR trout waters, WRC public mountain trout waters, DEQ trout streams, and USACE Western NC Waters.

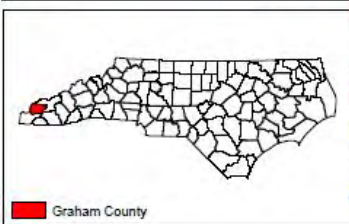
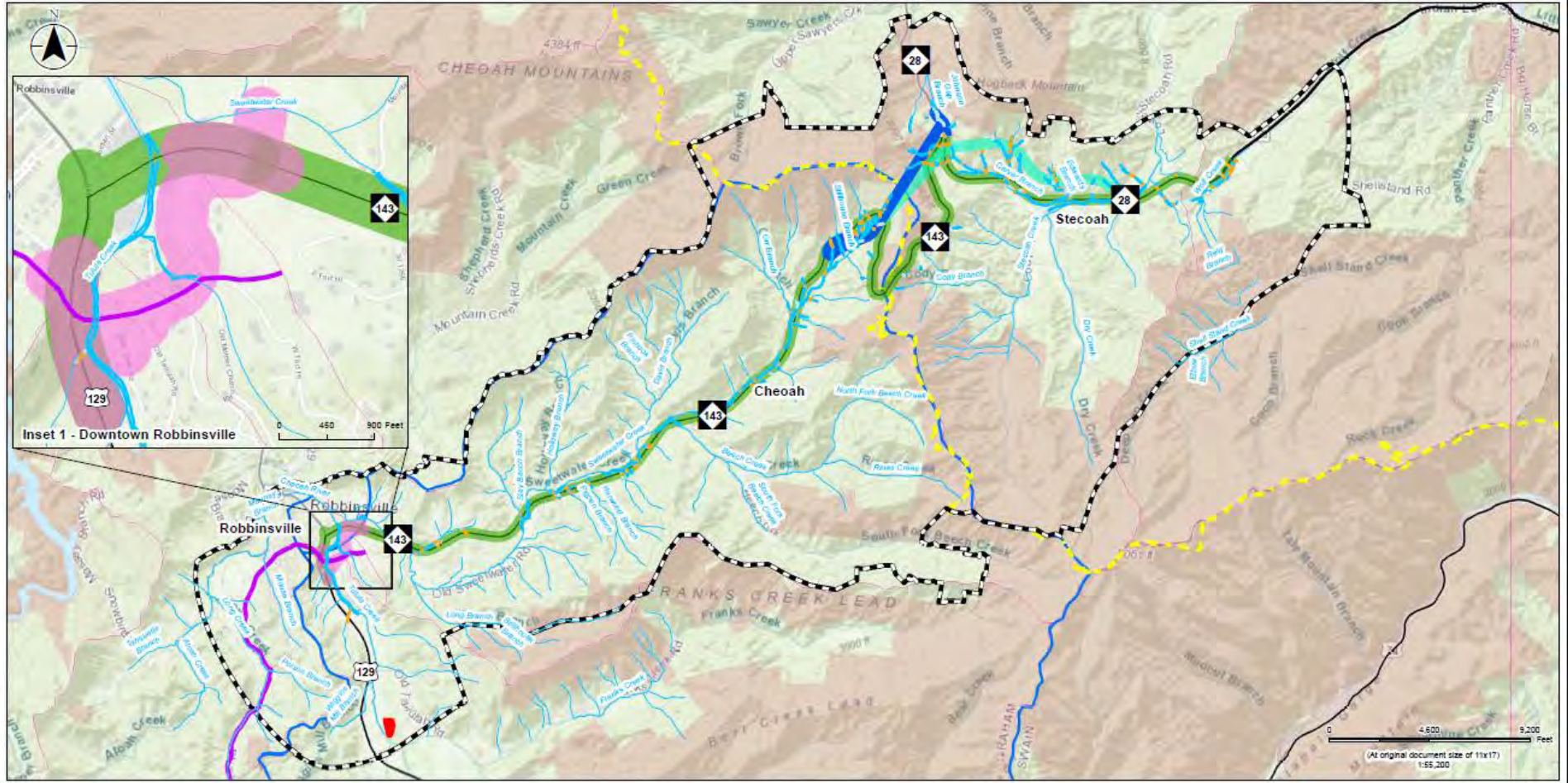
**Summary statement of findings in the report**

- Based on the results of the Indirect Effects Screening Matrix, a Land Use Scenario Assessment is not likely needed to assess the potential indirect land use changes associated with the proposed project. Given the small amount of developable land, limited water and sewer services, and lack of development and growth occurring and projected in the FLUSA, the project is not anticipated to cause indirect effects. It is unlikely the proposed project would have a large-scale influence over the type or rate of development within the FLUSA.
- Qualitative analysis of the probable development patterns in the FLUSA indicate there is a small amount of developable land. Waterbodies in the FLUSA are protected by local and state regulations that manage water quality impacts associated with development. Any direct natural environmental impacts by NCDOT projects would be addressed by avoidance, minimization, and mitigation consistent with programmatic agreements with the natural resource agencies during the Merger and Permitting processes.
- The absence of notable public or private actions planned for the FLUSA, including other major transportation projects, private residential developments, public water/sewer expansions, or new/expanded commercial developments strongly limit anticipated cumulative effects from the proposed A-0009C project. The vast areas of land in Graham County preserved by the USFS or being managed by others (including tribal lands) also curtails the potential for cumulative effects outside of areas adjacent to the proposed roadway. The potential for new residential and commercial development contributing cumulatively to impacts in the vicinity of Robbinsville is strongly dependent on expanding water and sewer capacity, which is not foreseeable. Without a strong external source of economic demand, the study area is highly unlikely to urbanize to the point where cumulative effects are a notable concern.






Figure 1 – FLUSA



- Legend**
- Future Land Use Study Area (FLUSA)
  - Improve Existing
  - S-2
  - SW-1A
  - R-1E
  - National Forest System Lands
  - Water Supply Watershed
  - HUC 12 Watersheds
  - Select Pipe/Bridges/Culverts
  - Potential Jurisdictional Intermittent Stream
  - Potential Jurisdictional Perennial Stream
  - NHD Hydrography
  - Trail of Tears
  - Appalachian Trail
  - LWCF Park
  - Existing Road


**NC DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF HIGHWAYS  
 DIVISION 14

Client/Project: NCDOT - Division 14  
 Corridor K Improvements  
 STIP Project No. A-0009C  
 Prepared by ECL on 2019-11-04  
 TR by RLW on 2019-11-24

Figure No. 1  
**Title**  
**Future Land Use Study Area (FLUSA)**

## Project Initiation

### Pertinent Land Use and Transportation Plans

Plan Title	Horizon Year	Planning Boundary
2015 Graham County CTP	2040	Graham County
2014 Graham County Strategic Tourism Plan	2025	Graham County
2013 Robbinsville Pedestrian Connectivity Plan & Health Assessment	-	Town of Robbinsville
2012 Reimagining Robbinsville	-	Town of Robbinsville
2014 Opt In: The Regional Vision	2035	Cherokee, Clay, Graham, Haywood, Jackson, Macon, Swain Counties & EBCI lands

### Identify project stakeholders

Affiliation	Name	Email	Phone	Response (Y/N)
Town of Robbinsville	Steve Hooper	s.hooper@townofrobbinsville.com	828-479-3250	N
RPO	Rose Bauguess	rose@regiona.org	828-586-1962 ext. 213	N; Provided input at stakeholder outreach Feb 2019
Graham County Manager & Information Technology	Becky Garland	Becky.Garland@grahamcounty.org	828-479-7960	N; Provided input at stakeholder outreach Feb 2019
Graham County Planning and Economic Development	Sophia Paulos	Sophia.Paulos@grahamcounty.org	828-479-7984	N
Graham County Travel and Tourism	Daniel Allison	daniel.allison@grahamcounty.org	828-479-3790	N; Provided input at stakeholder outreach Feb 2019
Graham County Mapping	Shaun Garrison	Shaun.garrison@grahamcounty.org	828-479-7609	N
Town of Robbinsville	Chadd Carpenter	c.carpenter@townofrobbinsville.com	828-735-0180	Y

### Future Land Use Study Area

*Provide a written description of the boundary selected for the FLUSA. Provide supporting evidence as to why this area was selected.*

The Future Land Use Study Area (FLUSA) boundary spans in the west from HUC 12 watershed boundaries and NHD hydrography south of Robbinsville on US 129, hydrological boundaries to the north, following ridge lines south and west to the AT, and continuing east to the existing four-lane section of NC 28 in Stecoah.

Map included in the Executive Summary

## Base Screening

### Project Overview

*Prepare a summary of the project details and note whether the project is on new location or an existing alignment.*

The proposed improvements to this section of Corridor K along US 129, NC 143, and NC 28 extend from Robbinsville to Stecoah in Graham County. The proposed improvements include both new location and improved existing options. The Draft 2020-2029 State Transportation Improvement Program (STIP) identifies this portion of the proposed project as A-0009C (which includes the previously designated 'B' portion from Robbinsville to Cheoah).

- NEW** location
- EXISTING** alignment

### Time Horizon

*Discuss how this time horizon relates to the time horizons of the identified land use and transportation plans pertinent to the FLUSA.*

This timeframe is compatible with long-range transportation plans as well as long-term planning horizons for other infrastructure needs (i.e., water, sewer, utilities) and land use plans as listed in the Pertinent Land Use and Transportation Plans table above. This report references the 2015 Graham County Comprehensive Transportation Plan (CTP) which has a time horizon of 2040, the 2014 Graham County Strategic Tourism Plan, the 2013 Robbinsville Pedestrian Connectivity Plan & Health Assessment, 2012 Reimagining Robbinsville, and 2014 Opt In: The Regional Vision which has a time horizon of 2035.

- Short Horizon;** 5-10 years
- Medium Horizon;** 11-20 years
- Long Horizon;** 21-30 years

### Other Transportation, Infrastructure, and Active Development Projects in the FLUSA

*List the other notable projects underway or foreseeable in the area.*

One funded NCDOT State Transportation Improvement Program (STIP) project falls within the FLUSA (Appendix A, Figure 1). STIP Project U-5866, located in the FLUSA, proposes the construction of a new route from US 129 to Robbinsville High School and Middle School, including the construction of a bridge over Cheoah River. Right-of-way acquisition is completed, and construction is currently underway. An additional unfunded STIP project, R-5839E, falls within the FLUSA. STIP Project R-5839E proposes upgrading NC 28 from SR 1242 (Lower Tuskegee Road) to NC 143.

No additional active developments in the FLUSA are known at this time. Attempts to contact Graham County and Town of Robbinsville officials were made, and a record of communication is included in Appendix B.

- Present within the FLUSA
- Not present within the FLUSA
- Map included in Appendix A

### Population Trends and Projections

*Document and provide support for the annualized rate of population growth or decline expected in the FLUSA to the time horizon for the study.*

According to the North Carolina Office of State Budget and Management (OSBM), population in Graham County is expected to decrease 0.35% from year 2020 to 2037, with an annualized growth rate of -0.02%. The block groups containing the FLUSA experienced a 1% annualized growth from 2000 to 2010. This growth rate is higher than Robbinsville which experience a 1.8% decline in population but lower than the North Carolina average annualized growth rate of 1.7%.

#### Indirect Effects Matrix Ranking

- High
- Med.-High
- Medium
- Med.-Low
- Low





<p><b>Employment Trends and Projections</b></p> <p><i>Document and provide support for the rate of annualized job growth expected in the FLUSA to the time horizon for the study.</i></p> <p>According to the NC Department of Commerce-Labor and Economic Division, the annualized employment projection for the Waynesville-Franklin region is 0.8%. 67% of employed Graham County residents commute to jobs outside of the county. Additionally, 1,000 jobs in Graham County are filled by workers that commute in from other counties, with most commuting from Cherokee County. All paved roads into and out of Graham County are primarily two-lane and there is an inability to pass slower vehicles over substantial distances (up to 19 miles). The current inability to pass is prohibitive to commuters traveling out of Graham County and could result in lower numbers of workers living in Graham County.</p> <p>The project proposes to improve mobility and reliability by providing opportunities to pass slow moving vehicles, which will benefit commuters traveling into Graham County, helping to maintain an available workforce for future economic development opportunities.</p>	<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High</p> <p><input type="checkbox"/> Med.-High</p> <p><input type="checkbox"/> Medium</p> <p><input type="checkbox"/> Med.-Low</p> <p><input checked="" type="checkbox"/> Low</p>
<p><b>Notable Human Environmental Features</b></p> <p><i>List the notable human environmental features in the FLUSA.</i></p> <p>There are two known Section 4(f) resources, one Section 6(f) resource, and two recreational resources in the FLUSA. Any resource determined by the State Historic Preservation Office (SHPO) to be eligible for listing on National Register of Historic Places (NRHP) would qualify as a Section 4(f) resource.</p> <ul style="list-style-type: none"> <li>• The Appalachian Trail, a potential Section 4(f) recreational resource, traverses the FLUSA in a north-south direction, crossing NC 143 west of Stecoah. The Appalachian Trail is a 2,192-mile trail that spans across fourteen states from Maine to Georgia with an average of 3 million visits annually.</li> <li>• The Trail of Tears, a potential Section 4(f) resource, which likely paralleled the current Main Street and Five Point Road (SR 1275) in Robbinsville, served as a main route for the forced relocation of Native Americans from North Carolina to west of the Mississippi River.<sup>1</sup></li> <li>• Graham County Park located on US 129 south of Robbinsville adjacent to Phillips Airport and west of Old Tallulah Road (SR 1206) is a Section 6(f) resource.</li> <li>• Fort Montgomery served as a base for North Carolina troops for the removal of Cherokee Indians in 1883. The location is unknown, but is thought to be on West Fort Hill Road south of Old Mother Church near the water tower.<sup>2</sup></li> <li>• Brown Fork Shelter is located along the Appalachian Trail. It is approximately 0.8 miles north of existing NC 143 at its closest point. Thru-hikers use it to stay dry in wet weather and to sleep at night as they make their way up or down the trail. A total of 250 shelters like this one are located roughly 8 miles apart along the Appalachian Trail.</li> <li>• Parts of the Nantahala National Forest are located within the eastern portion of the FLUSA. As the largest of the North Carolina National Forests, it covers 531,148 acres and gives visitors the opportunity for hiking, mountain biking, whitewater rafting, bird watching and camping, and other outdoor activities.</li> </ul>	<p><input checked="" type="checkbox"/> Map included in Appendix A</p>

<sup>1</sup> North Carolina Trail of Tears Association. Web. February 15, 2020. <http://www.nctrailoftears.org/about-the-trail/>

<sup>2</sup> Town of Robbinsville. *The Courthouse*. Web. <http://www.townofrobbinsville.com/MDB%20Blog/courthouse.html>



There are eight churches located in the FLUSA:

- Old Mother Church, located on Old Mother Church Road in Robbinsville, was founded in 1872 and is Graham County's oldest church.
- Robbinsville United Methodist, located at 249 W. Fort Hill Road in Robbinsville.
- Grace-Mountainside Lutheran, located at 129 S. Main Street in Robbinsville.
- First Baptist Church, located at 101 Church Street in Robbinsville.
- Sweetwater Baptist is located at 98 Beech Creek Road.
- Stecoah Baptist Church is located at 89 Hyde Town Road in Stecoah.
- Dry Creek Baptist Church is located off Dry Creek Road.
- Prince of Peace Catholic Church is located at 704 Tallulah Road.

There are seven cemeteries located within the FLUSA:

- Old Mother Church Cemetery on Old Mother Church Road in Robbinsville
- Holloway Cemetery on Denton Farm Road
- Rice Cemetery on Rice Ridge Road
- Hazie Brown Cemetery on Cody Branch Road
- Jenkins Cemetery on Hyde Town Road
- Randolph Cemetery on Lower Stecoah Road
- Edwards Cemetery on Lower Stecoah Road

There are four schools in the FLUSA:

- Robbinsville Elementary School is located at 54 Moose Branch Road in downtown Robbinsville and has an enrollment of approximately 650 students.
- Robbinsville Middle School is located at 301 Sweetwater Road with an enrollment of approximately 200 students.
- Robbinsville High School is located on 301 Sweetwater Road with an enrollment of approximately 350 students. The middle and high schools share a campus.
- Tri County Community College (Graham County Center) at 145 Moose Branch Road in downtown Robbinsville serves "convenient, affordable access to educational services for Graham County residents."<sup>3</sup>

Additional human environment resources include:

- The Graham County Fire Department is located at 70 W Fort Hill Road. This station serves the six-mile district which includes the Towns of Robbinsville and Lake Santeetlah.
- The Stecoah Fire Department is located at 30 Lloyd and Lydia Drive in Robbinsville. This department provides rescue in all levels including EMS transport and EMS training.
- The Graham County Courthouse, located at 12 N. Main Street, is listed on the National Register of Historic Places and serves as a memorial to veterans. The Courthouse hosts community events, such as "Music on the Square" and houses the governmental

<sup>3</sup> Tri County Community College. Graham County Center. <https://www.tricountycc.edu/about-tccc/facilities/#gcc>. Web accessed 11/8/2019.



<p>departments for Graham County (recreation, economic development, Board of Commissioners, etc.). A new courthouse is planned along West Fort Hill Road.</p> <ul style="list-style-type: none"> <li>• The Graham County Travel and Tourism Office is located at 474 Rodney Orr Bypass in Robbinsville. It serves as a tourist information center for visitors looking for recreation and other outdoor activities.</li> <li>• The Graham County Sheriff’s Department is located at 300 Rodney Orr Bypass in Robbinsville.</li> <li>• Robbinsville Town Hall located at 4 Court Street in Robbinsville. It provides residents with a place to access the Town Council, ask administrative questions or report a water problem to the Water District Department.</li> <li>• The Stecoah Valley Center is located at 121 School House Road and functions as a multiuse cultural center that promotes the preservation of Southern Appalachian mountain culture. They host community service campaigns, after-school programs, concerts, craft classes, Cherokee Language classes, a large art gallery and traditional music programs. The art gallery serves as a visitor’s center to guide tourists to lodging, dining and recreation options in the area.</li> <li>• The Junaluska Memorial at 1 Junaluska Memorial Drive, just east of downtown Robbinsville, is the burial site of Junaluska a Cherokee leader from the 1800s. There is a short medicinal walking trail at the memorial site.</li> <li>• The Graham County Senior Center located at 185 West Fort Hill Road provides services to senior citizens such as daily games, dancing, home crafts, health and nutrition workshops, and referral services.</li> <li>• The Graham County Public Library at 80 Knight Street in downtown Robbinsville is open Tuesday through Saturday each week.</li> </ul> <p>Notable human environmental features can be viewed in Appendix A Figure 2.</p>	
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<p><b>Notable Natural Environmental Features</b></p> <p>The Nantahala National Forest, which is under the jurisdiction of the US Forest Service (USFS), covers approximately two-thirds of Graham County. As such, the FLUSA is home to unfragmented forest areas and pristine headwater systems. The FLUSA contains sensitive USFS management areas which restrict vehicular use due to protected species. However, any land use changes in the Nantahala Forest would be subject to a determination by the US Forest Service that the use is compatible with the US Forest Service Management Plan. Significant adverse effects would not likely be approved by the US Forest Service.</p> <p>According to the Natural Resources Technical Report prepared for this project, there are 22 potential jurisdictional streams, 11 surface waters, and 76 potential jurisdictional wetlands within the natural resources project study area. As the FLUSA is larger than the natural resources project study area, this information is supplemented with GIS-based data as follows.</p> <p>The streams and associated branches within the FLUSA include 25 305(b) streams, 5 NC Division of Water Resources (DWR) Trout Waters, 100 WRC Public Mountain Trout Waters, 9 NC Division of Environmental Quality (DEQ) trout streams, and 50 US Army Corps of Engineers Western NC Waters. These waters include from west to east: Wiggins Mill Branch, Poison Branch, Long Creek, Atoah Creek, Moose Branch, Tulula Creek, Mauney Branch, Cheoah River, Long Branch, Stillhouse Branch, Slay Bacon Branch, Holloway Branch, Pigpen Branch, Harwood Branch, Sweetwater Creek, Pinhook Branch, Davis Branch, Beech Creek, South Fork Beech Creek, Rines Creek, North Fork Beech Creek, Orr Branch, Stillhouse Branch, Cody Branch, Johnson Gap Branch, Carver Branch, Stecoah Creek, Edwards Branch, Dry Creek, Wolf Creek, Reid Branch, and Shell Stand Creek.</p>	<p><b>Indirect Effects Matrix Ranking</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> High</li> <li><input type="checkbox"/> Med.-High</li> <li><input type="checkbox"/> Medium</li> <li><input type="checkbox"/> Med.-Low</li> <li><input checked="" type="checkbox"/> Low</li> </ul> <p><input checked="" type="checkbox"/> Map included in Appendix A</p>
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<p>The FLUSA falls within the WS-III Cheoah River Water Supply Watershed of the Little Tennessee River Basin. This river basin includes 5 sub-watersheds: Stecoah Creek (060102020502), Panther Creek (060102020501), Tulula Creek (060102040101), Santeetlah Lake (060102040106), and Sweetwater Creek (060102040102).</p> <p>The FLUSA contains 100-Year flood zones which correspond with the above water features.</p> <p>Notable natural environmental features can be viewed in Appendix A Figure 3.</p>		
<h2>Analytical Screening</h2>	<h3>Impact / Presence Anticipated</h3>	<h3>Degree of impact</h3>
<p><b>Scope of the Project</b></p> <p><i>Provide a narrative description of the scope of the project in terms of Transportation Impact Causing Activities (TICAs). Check the appropriate boxes for the scope of project elements to the right.</i></p> <p>The proposed project includes both new location and improve existing segments, and the final project may be a combination of both. The Design Options section included in the Executive Summary above details the proposed improvements associated with each alternative. Regardless, the scope of the project does not, or minimally, alter access to developable land.</p>	<p><b>Scope of the Project Elements</b></p> <p><b>Project Type</b></p> <p><input type="checkbox"/> Interchange Modification  <input type="checkbox"/> Creation of Interchange  <input checked="" type="checkbox"/> Roadway Widening  <input checked="" type="checkbox"/> Roadway on New Location</p> <p><b>Project Scale</b></p> <p><i>Length</i></p> <p><input type="checkbox"/> Interchange Project  <input type="checkbox"/> Roadway Project 0 – 2 miles  <input type="checkbox"/> Roadway Project 2 – 4 miles  <input checked="" type="checkbox"/> Roadway Project &gt; 4 miles</p> <p><i>Right-of-Way</i></p> <p><input checked="" type="checkbox"/> Project within existing ROW  <input checked="" type="checkbox"/> Project requires additional ROW</p>	<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High  <input type="checkbox"/> Med.-High  <input type="checkbox"/> Medium  <input type="checkbox"/> Med.-Low  <input checked="" type="checkbox"/> Low</p>
<p><b>Travel Time Savings</b></p> <p><i>Document estimated travel time savings associated with the project.</i></p> <p>While the addition of passing lanes will result in increased mobility, the proposed improvements are not anticipated to have notable travel time savings impacts. Construction of the proposed project is anticipated to create travel time savings estimated between 0 and 3 minutes. A formal travel time savings study was conducted as a part of this project.</p>		<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High  <input type="checkbox"/> Med.-High  <input type="checkbox"/> Medium  <input type="checkbox"/> Med.-Low  <input checked="" type="checkbox"/> Low</p>
<p><b>Water and Sewer Availability</b></p> <p><i>Document the existing and planned capacity and current usage at the water and wastewater treatment plants in the FLUSA.</i></p> <p>The FLUSA is located in Graham County, a rural mountainous county in western North Carolina. As such, a majority of the FLUSA is served by well water and septic tanks. According to a phone interview with the Town of Robbinsville Water District Supervisor, water and sewer lines are limited to downtown Robbinsville, and include a 12” water main and 12” sewer main.</p> <p>According to the Robbinsville local water supply planning report from NC Division of Water Resources (NCDWR), Robbinsville’s projected gallons per capita per day (GPCD) over time are not anticipated to increase more than 10 GPCD over the next 40 years.</p>	<p><input checked="" type="checkbox"/> FLUSA will have public water/sewer service.</p> <p><input checked="" type="checkbox"/> FLUSA will not have public water/sewer service.</p>	<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High  <input type="checkbox"/> Med.-High  <input type="checkbox"/> Medium  <input type="checkbox"/> Med.-Low  <input checked="" type="checkbox"/> Low</p> <p><input checked="" type="checkbox"/> Map included in Appendix A</p>



<p>There are no plans to build or expand water lines or wastewater treatment facilities in the area in the next 10 years.</p>		
<p><b>Available Land</b>  <i>Provide a narrative description of available land in the FLUSA and complete the summary to the right of available land and ratio of parcels-to-owners.</i></p> <p>A GIS analysis of available land was conducted and determined approximately 2,766 acres of the FLUSA are available for development. This comprises approximately 16% of the total FLUSA area. In addition, a Parcel-to-Owner ratio of 2.16 to 1 was calculated for the FLUSA, indicating 24% available land weighted by how easy or challenging it would be to develop the land based on the ratio of available land to number of owners.</p>	<p><b>Land Available for Development: Undeveloped (vacant) and underutilized:</b>                  2,766 acres</p> <p><b>Developed/Unavailable Land:</b>                  14,884 acres</p> <p><b>Ratio of Parcels-to-Owners:</b>                  2.16 to 1</p>	<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High  <input type="checkbox"/> Med.-High  <input type="checkbox"/> Medium  <input checked="" type="checkbox"/> Med.-Low  <input type="checkbox"/> Low</p> <p><input checked="" type="checkbox"/> Map included in Appendix A</p>
<p><b>Market for Development: Current Development Pressures</b>  <i>Document the current development pressures and trends in the FLUSA.</i></p> <p>Graham County historically has maintained a high unemployment rate. According to Access NC, the unemployment rate for Graham County in 2018 was 5.9%, compared to an unemployment rate of 3.9% for North Carolina.<sup>4</sup> Most recently, employment was affected by the closure of the Stanley Furniture plant in 2014, which resulted in a loss of over 300 jobs. While Oak Valley Hardwoods has since purchased the Stanley Furniture plant, the plant only employs approximately 23 people and exports hardwoods to Asia.</p> <p>Over two-thirds of Graham County is owned by the US Forest Service, severely limiting opportunities for development within the county. Graham County is a member of the Mountain West Partnership which advocates for economic development in western North Carolina and assisted with the development of Balsam West Fiber in Robbinsville. Robbinsville has been selected to participate in the Downtown Strong Initiative of the NC Main Street &amp; Rural Planning Center, which provides economic and revitalization support.<sup>5</sup></p> <p>Attempts were made to contact Graham County local officials to confirm the team’s understanding of planning initiatives as noted in Appendix B; however, no responses were received at the time this document was prepared.</p>		<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High  <input type="checkbox"/> Med.-High  <input type="checkbox"/> Medium  <input type="checkbox"/> Med.-Low  <input checked="" type="checkbox"/> Low</p>
<p><b>Market for Development: Development Market Assumptions</b>  <i>Note how the current development trends will likely project into the design year.</i></p> <p>Due to the lack of available land in the FLUSA, future development is anticipated to be limited to redevelopment of existing structures. However, new location design options (I.e., S-2) and improved local routes (I.e., R-1E) may provide/improve access to areas which are currently non-accessible, which in turn could encourage new development.</p> <p>While there are several visioning plans in place such as Reimagining Robbinsville and the Graham County Strategic Tourism Plan, projects proposed in these plans are currently unfunded with no funding schedule on the horizon.</p>		

<sup>4</sup> Access NC. *Demographic Reports*. Web. <https://accessnc.ncommerce.com/DemoGraphicsReports/>

<sup>5</sup> UNC School of Government. NC Commerce Kicks Off Downtown Strong Initiative. <https://ced.sog.unc.edu/nc-commerce-kicks-off-the-downtown-strong-initiative/>. Web accessed: 11/12/2019.





<p><b>Public Policy</b></p> <p><i>Collect and summarize pertinent local, state and federal plans, policies, and development regulations in the jurisdictions contained in the FLUSA.</i></p> <p>The Graham County Watershed Ordinance applies protections to watersheds as designated by the NC Environment Management Commission. Protections to the Cheoah River WSW include restricting development to low to moderate intensity with a maximum of one dwelling unit per acre for single family residential zoning and a maximum of 12% built-upon area per parcel for all other residential and non-residential zoning areas. It should be noted the Graham County Economic Development website states “Graham County has NO ZONING laws or ordinances” and there is no Unified Development Ordinance for the FLUSA.<sup>6</sup></p> <p>NCDEQ’s 2018 Little Tennessee River Basin Restoration Priorities (RBRP) targets 19 watersheds as Targeted Local Watersheds (TLW) for stream and wetland restoration. This includes the Tulula Creek and Sweetwater Creek watersheds within the FLUSA, which provide water supply for Robbinsville. According to the 2018 RBRP, the Graham County Soil and Water Conservation District is working with local residents to install best management practices to improve stream quality.</p>	<p><b>Indirect Effects Matrix Ranking</b></p> <p><input type="checkbox"/> High</p> <p><input type="checkbox"/> Med.-High</p> <p><input type="checkbox"/> Medium</p> <p><input checked="" type="checkbox"/> Med.-Low</p> <p><input type="checkbox"/> Low</p>
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## Indirect Effects Matrix Methodology

*The categories listed on the Indirect Effects Matrix (refer to Figure 2) have been shown to influence land development decisions in numerous areas statewide and nationally. The measures used to rate the impacts from a high concern for indirect effects potential to less concern for indirect effects potential are supported by documentation sections. Each characteristic is assessed individually and the results of the table are looked at comprehensively to determine the indirect effects potential of the proposed project. The scope of the project and change in accessibility categories are given extra-weight to determine if future growth in the area is related to the project modifications.*

<p><b>Matrix Results</b></p> <p><i>Summarize the results of the matrix. Discuss the primary factors that affected the result. Clearly note the end result of the tool and whether a land use scenario assessment is warranted.</i></p> <p>The FLUSA was analyzed in the below Screening Matrix in order to consider potential indirect effects of the project. Based on the information gathered, many of the categories on the screening tool results in a moderate to low concern for indirect effects potential. Given the likely improve existing scope of the project, minimal travel time savings provided by the project, lack of development and water/sewer services in the FLUSA, and a small amount of developable land, a Land Use Scenario Assessment is not likely needed to determine indirect effects which will occur as a result of the project. As such, the conclusion of this report is a “Land Use Scenario Assessment Not Likely”.</p>	<p><b>Indirect Effects Matrix Result</b></p> <p>Land Use Scenario Assessment Not Likely</p> <p><b>LUSA Warranted</b></p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p>
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<sup>6</sup> Graham County Economic Development. Business Incentives. <http://grahamcountyedc.org/business-incentives/>. Web accessed: 11/8/2019.



**Figure 2 – Indirect Effects Matrix**

Rating	Scope of Project	Travel Time Savings	Forecasted Population Growth	Forecasted Employment Growth	Available Land	Water/Sewer Availability	Market for Development	Public Policy	Notable Natural Environmental Features
<b>More Concern</b>	High	> 10 minute travel time savings	> 3% annualized population growth	> 3% annualized employment growth	40% or greater of available land	Services available (80 - 100% of FLUSA served)	Development Activity Abundant	Less stringent; no growth management	Notable Feature(s): Abundant / More Sensitive
<b>High</b>									
<b>Medium-High</b>									
<b>Medium</b>									
<b>Medium-Low</b>					X			X	
<b>Low</b>	X	X	X	X		X	X		X
<b>Less Concern</b>	Low	No travel time savings	No population growth or decline	No employment growth or decline	0 - 9% of available land	Limited or no service available now or in future (0 - 20% of FLUSA served)	No Development Activity	More stringent; growth management	Notable Feature(s): Minimal / Less Sensitive



## Analyze and Evaluate Data

*If the Indirect Effects Matrix denotes that a Land Use Scenario Assessment is not warranted, then go to Procedure A. If the Indirect Effects Matrix denotes that a Land Use Scenario Assessment is possible or warranted, go to Procedure B.*

### Procedure A

*If the Indirect Effects Matrix denotes that a Land Use Scenario Assessment is warranted, then follow Procedure B below and delete Procedure A.*

### Indirect Summary Statement

*Develop a summary statement of the findings in the ICE Report.*

Based on the results of the Indirect Effects Screening Matrix, a Land Use Scenario Assessment is not likely needed to assess the potential indirect land use changes associated with the proposed project. Given the small amount of developable land, limited water and sewer services, and lack of development and growth in the FLUSA, the project is not anticipated to cause indirect effects. It is unlikely the proposed project would have a large-scale influence over the type or rate of development within the FLUSA.

### Water Quality Statement

*Modify the standard water quality effects language provided in the ICE Guidance Document to fit the project.*

Qualitative analysis of the probable development patterns in the FLUSA indicate there is limited available land for development. Waterbodies in the FLUSA are protected by local and state regulations that manage water quality impacts associated with development. Any direct natural environmental impacts by NCDOT projects would be addressed by avoidance, minimization, and mitigation consistent with programmatic agreements with the natural resource agencies during the Merger and Permitting processes.

### Cumulative Effects Summary Statement

*Summarize the notable past public and private actions, including transportation and other infrastructure as applicable, in the FLUSA.*

The absence of notable public or private actions planned for the FLUSA, including other major transportation projects, private residential developments, public water/sewer expansions, or new/expanded commercial developments strongly limit anticipated cumulative effects from the proposed A-0009C project. The vast areas of land in Graham County preserved by the USFS or being managed by others (including tribal lands) also curtails the potential for cumulative effects outside of areas adjacent to the proposed roadway. The potential for new residential and commercial development contributing cumulatively to impacts in the vicinity of Robbinsville is strongly dependent on expanding water and sewer capacity, which is not foreseeable. Without a strong external source of economic demand, the study area is highly unlikely to urbanize to the point where cumulative effects are a notable concern.

### Develop Recommendations

*Provide recommendations on the types of actions local governments could take to proactively resolve or address the higher concern areas on the Indirect Effects Matrix.*

Techniques for regulating and managing growth available to local governments to address development in the FLUSA include zoning, comprehensive planning, and growth management regulation. Growth management regulation could include development moratoria, the development of an urban growth boundary, or extraterritorial zoning/annexation.



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## **Appendix Items**

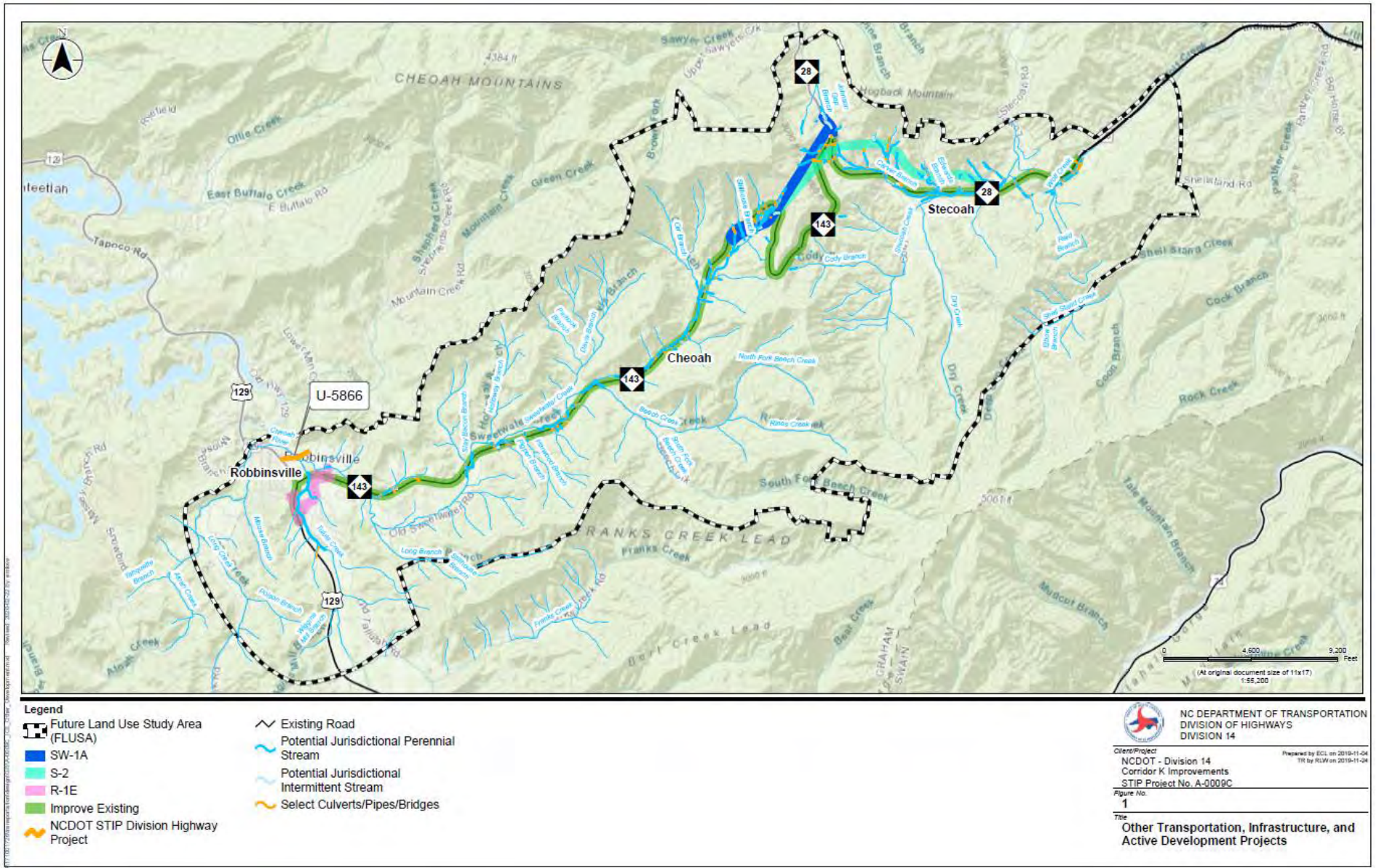
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- B. Interviews
- C. Photographs





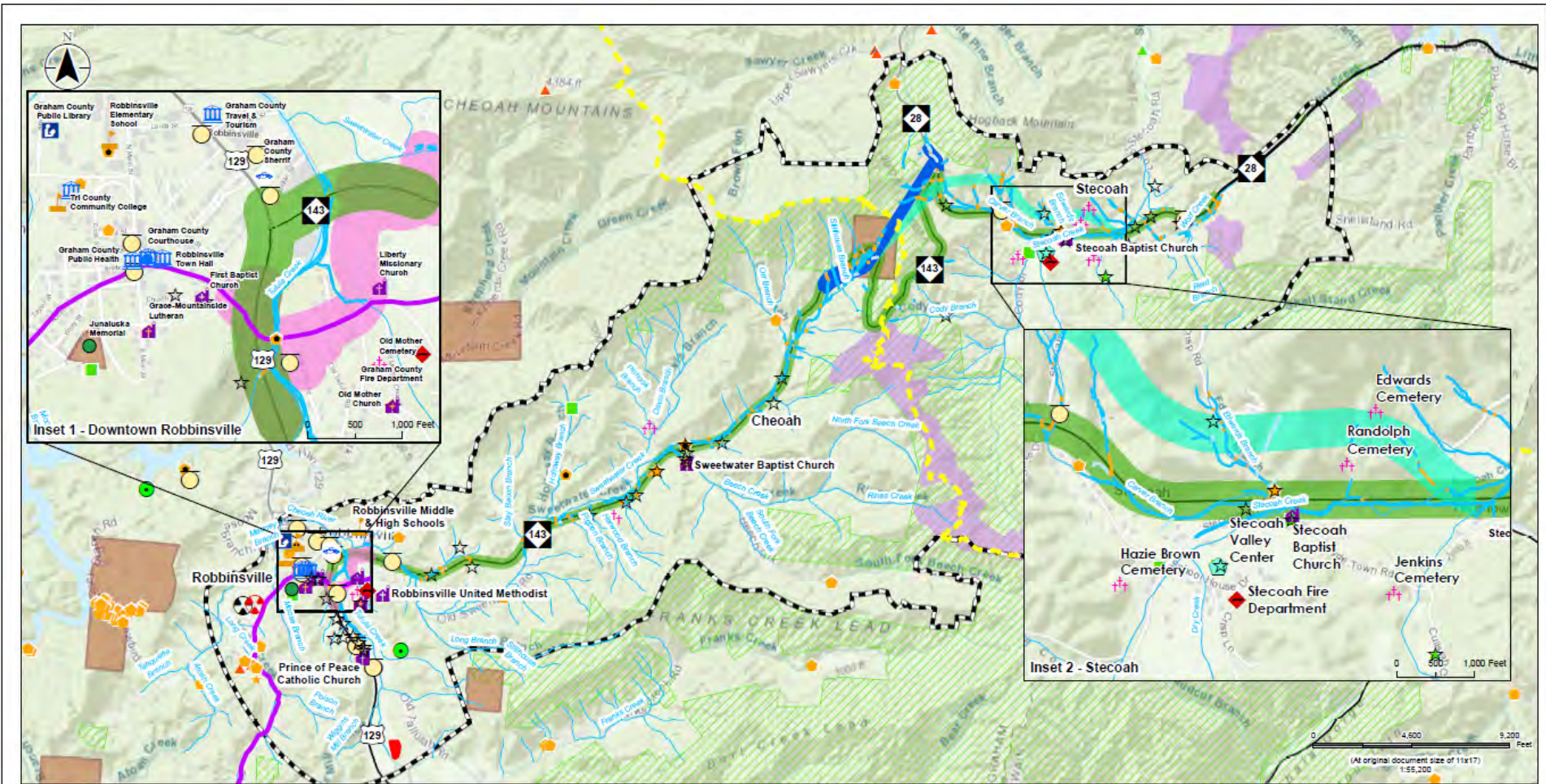
## Appendix A: Maps

### Appendix A, Map 1: Other Transportation, Infrastructure, and Active Development Projects in the FLUSA





### Appendix A, Map 2: Notable Human Environmental Features




- Legend**
- Future Land Use Study Area (FLUSA)
  - SW-1A
  - S-2
  - R-1E
  - Improve Existing
  - Existing Road
  - LWCF Park
  - Graham County Public Library

- Junaluska Memorial Cemetery
- Religious Facility
- School
- Gov Building
- Graham County Sheriff
- Fire Dept
- Junaluska Memorial
- Stecoah Valley Center
- Hazardous Waste Sites
- Inactive Hazardous Sites
- Regional Underground Storage Tanks
- Pre-Regulatory Landfill Sites

- Appalachian Trail
- Trail of Tears
- EBCI Tribal Land Holdings
- Natural Heritage Program Areas
- Game Lands
- Potential Historic Property\*
- NCHPO Points
- National Register individual listing

- Study List individual entry
- SL and DOE
- Determined Eligible - DOE
- DOE, Gone
- Surveyed Only
- Surveyed, Gone
- Surveyed Area center point

- Study List individual entry
- SL and DOE
- Determined Eligible - DOE
- DOE, Gone
- Surveyed Only
- Surveyed, Gone
- Surveyed Area center point


**NC DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF HIGHWAYS  
 DIVISION 14

Client/Project: NCDOT - Division 14 Corridor K Improvements  
 STIP Project No. A-0009C  
 Figure No. 2  
 Title: **Notable Human Environmental Features**

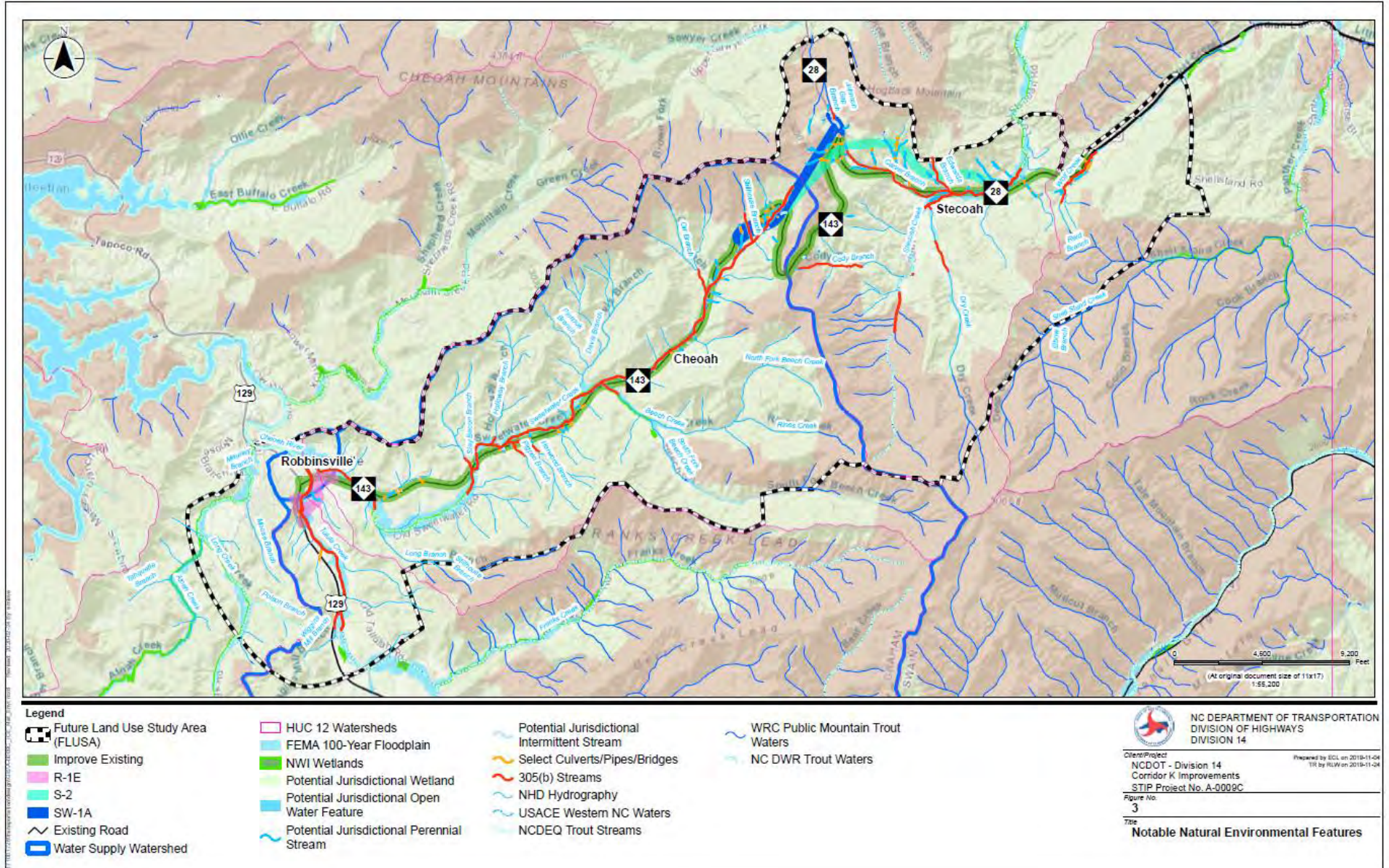
Prepared by ECL on 2019-11-11  
 TR by RLW on 2019-11-24

\*Final Determination of Eligibility TBD by NCHPO & FHWA



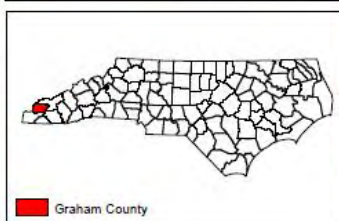
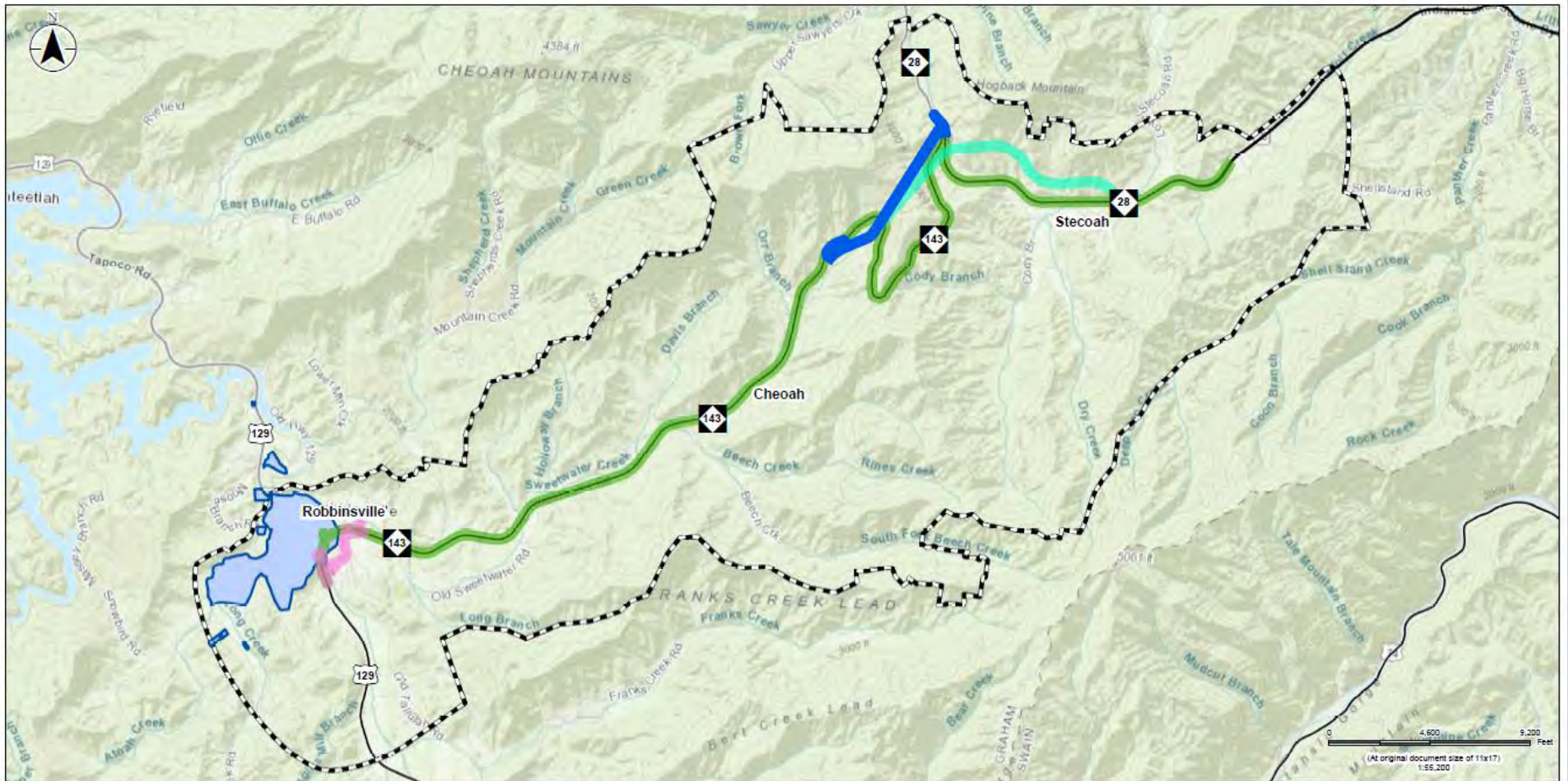


### Appendix A, Map 3: Notable Natural Environmental Features






### Appendix A, Map 4: Water and Sewer Availability



- Legend**
- Future Land Use Study Area (FLUSA)
  - Town of Robbinsville Water and Sewer Service Area
  - SW-1A
  - S-2
  - R-1E
  - Improve Existing
  - Existing Road

 NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DIVISION 14

Client/Project  
NCDOT - Division 14  
Corridor K Improvements  
STIP Project No. A-0009C

Figure No.  
**4**

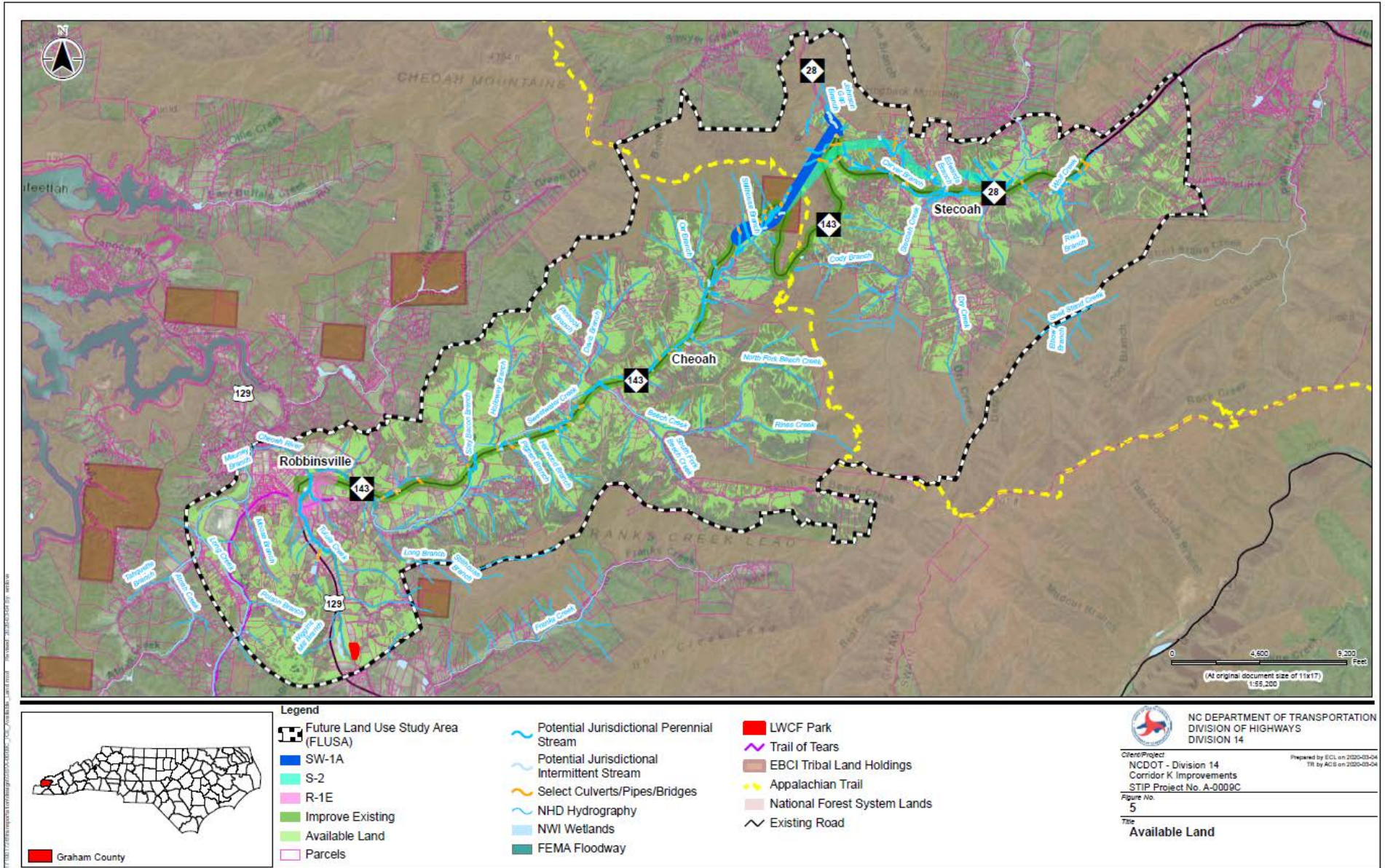
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**Water and Sewer Availability**

Prepared by ALH on 2019-11-28  
18 by ECL on 2019-11-28





### Appendix A, Map 5: Available Land





## Appendix B: Interviews

Interview Contact Summary #1		
Name:	Steve Hooper	
Title:	Mayor	
Agency:	Town of Robbinsville	
Phone:	828-479-3250	
Email:	s.hooper@townofrobbinsville.com	
First Contact Date	Method(s)	Result
11/5/2019	<input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on: <a href="#">Click here to enter a date.</a> <input type="checkbox"/> Interviewed on: <a href="#">Click here to enter a date.</a> <input checked="" type="checkbox"/> No response Comments: Initial contact made on 11/5/19 but subsequent e-mails and phone calls to receive input made on 11/6/19, 11/7/19, 12/16/19 not returned
Interview Contact Summary #2		
Name:	Rose Bauguess	
Title:	Senior Planner	
Agency:	Southwestern Commission	
Phone:	828-586-1962 ext. 213	
Email:	rose@regiona.org	
First Contact Date	Method(s)	Result
11/7/2019	<input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on: <a href="#">Click here to enter a date.</a> <input type="checkbox"/> Interviewed on: <a href="#">Click here to enter a date.</a> <input checked="" type="checkbox"/> No response Comments: Emailed on 11/7/19 and 12/16/19, called on 11/11/19
Interview Contact Summary #3		
Name:	Becky Garland	
Title:	County Manager	
Agency:	Graham County	
Phone:	828-479-7960	
Email:	Becky.garland@grahamcounty.org	
First Contact Date	Method(s)	Result
11/7/2019	<input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on: <a href="#">Click here to enter a date.</a> <input type="checkbox"/> Interviewed on: <a href="#">Click here to enter a date.</a> <input checked="" type="checkbox"/> No response Comments: Emailed on 11/7/19 and 12/16/19, called on 11/11/19



Interview Contact Summary #4		
Name: Sophia Paulos Title: Economic Director Agency: Graham County Phone: 828-479-7984 Email: Sophia.paulos@grahamcounty.org		
First Contact Date	Method(s)	Result
11/7/2019	<input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on: <a href="#">Click here to enter a date.</a> <input type="checkbox"/> Interviewed on: <a href="#">Click here to enter a date.</a> <input checked="" type="checkbox"/> No response Comments: Emailed on 11/7 and 12/16/19, called on 11/11
Interview Contact Summary #5		
Name: Daniel Allison Title: Director Agency: Graham County Travel and Tourism Phone: 828-479-3790 Email: Daniel.allison@grahamcounty.org		
First Contact Date	Method(s)	Result
11/7/2019	<input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on: <a href="#">Click here to enter a date.</a> <input type="checkbox"/> Interviewed on: <a href="#">Click here to enter a date.</a> <input checked="" type="checkbox"/> No response Comments: Emailed on 11/7 and 12/16/19, called on 11/11
Interview Contact Summary #6		
Name: Chadd Carpenter Title: Supervisor Agency: Town of Robbinsville Water District Phone: 828-735-0180 Email: c.carpenter@townofrobbinsville.com		
First Contact Date	Method(s)	Result
11/12/2019	<input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on: <a href="#">Click here to enter a date.</a> <input checked="" type="checkbox"/> Interviewed on: 11/12/2019 <input type="checkbox"/> No response Comments: Provided information on water supply coverage



## Appendix C: Photographs

Insert pictures taken during fieldwork of the FLUSA and notable environmental features.



**Figure 1:** Old Mother Cemetery



**Figure 2:** Old Mother Church



**Figure 3:** Robbinsville High and Middle School building



**Figure 4:** Five Point Road (SR 1275) and NC 143 intersection, looking west



**Figure 5:** Graham County Courthouse



**Figure 6:** Viewpoint at Stecoah Gap