Transylvania County Planning Board Commissioners Report June 2013

Transylvania County
Planning and Economic Development Department



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Background

On September 24, 2012, the Board of Commissioners and the Transylvania County Planning Board held a joint meeting to discuss future planning initiatives. During the meeting, the boards focused on three planning elements: transportation, water and sewer, and land characterization. The Commissioners directed the Planning Board to:

- 1) Discuss transportation issues with the Transportation Committee, think strategically, and deliver high priority items to the Commission;
- 2) Conduct a water and sewer analysis including possible joint extension ventures with the City of Brevard; and
- 3) Complete a land inventory defined by land characterization with the result of identifying prime development areas for future economic development.

This report explains what the Planning Board and staff accomplished in response to the Commissioner's motion. Included are recommendations for transportation, water and watershed development, and land characterization.

The Planning Board has reviewed the following documents in order to gain a better historical perspective:

- 2005 Transylvania County Comprehensive Plan,
- the NC DOT Comprehensive Transportation Plan (CTP) and the Transportation Improvement Plan (TIP) which were adopted by the County and City of Brevard,
- the County's existing Water Supply Watershed Ordinance,
- the Water and Sewer Extension Agreement between the of Brevard and the County, and
- NC Water Supply Watershed Regulations

In addition to reviewing existing plans and ordinances, the Planning Board also met with representatives from NC DOT and the Land-of-Sky Regional Planning Organization on June 21, 2012, the County's Transportation Board on December 6, 2012, and the City of Brevard Planning Board on March 26, 2013. The minutes from these meetings are attached as Appendices. The Joint meeting between the County Planning Board and City Planning Board focused on the City's efforts to explore a new water supply water intake as well as transportation issues. The joint meeting was productive and the boards identified a number of areas where the City and County can work together regarding water service expansion and transportation issues. The Boards agreed to meet again in July 2013.

Transportation

Actions:

The Planning Board examined transportation issues in the County in order to "think strategically" about transportation. The Planning Board linked transportation with economic development and job creation while meeting with the following boards/committees:

 NC Department of Transportation and the Rural Planning Organization (RPO-Land of Sky) to better understand the "process" of road building and maintenance



- Transylvania County Transportation Committee to outline County activities and to better understand the "process"
- City of Brevard Planning Board

The Planning Board also reviewed the County's comprehensive plans to discuss transportation issues and priority projects. These plans included:

- Transylvania County Comprehensive Plan
- Comprehensive Transportation Plan (CTP)
- NC DOT State Transportation Improvement Program

The remainder of transportation discussion occurred during regularly scheduled Planning Board meetings, mostly in correlation with the Land Characterization study.

Findings:

On December 6, 2012, the Planning Board met with the Transylvania County Transportation Committee, the lead organization advising the County Commissioners, with the goal of having "one voice" for transportation issues. Together the boards discussed priority road improvements, the structure of fund allocation for road improvements, pedestrian and bicycle improvements, and economic development priorities. The Boards also discussed ways that the City of Brevard and the County can work together to address common transportation concerns and opportunities. No recommendations were made and no specific actions were taken, but several key facts regarding transportation funding were discussed:

• Since the creation of the Rural Planning Organization (RPO) led by Land-of-Sky Regional Council (LOS), NC DOT now requires project planning to be in place before projects can receive funding. Transylvania County benefited from this with the work on Caldwell Street and will need to continue transportation planning to receive funding.

 Among other criteria, funded projects are heavily driven by data such as traffic counts, with accident rates and bridge conditions playing a major role.

On March 26, 2013, the Transylvania County Planning Board met with the City of Brevard Planning Board to discuss transportation issues. The City and the County have very similar goals and objectives regarding transportation. The Boards discussed the following:

- Projects in Transylvania County: a four (4) lane highway from Brevard to Rosman; a new NC 215, the elevation and widening of Wilson Road; and a realignment of US 178 to US 64 with a new bridge south of Rosman.
- City of Brevard has endorsed NC 215 as a priority through the RPO.
- City of Brevard's top transportation priorities include finishing South Caldwell Street, making it three (3) lanes and building a west loop around Brevard.
- City of Brevard aims to be as friendly to pedestrians and bicycles as possible.
- The Connector Road at Davidson River Village is the top priority project on the State Transportation Improvement Plan.
- Public transportation is a major concern for those who do not drive and the elderly. The latter is particularly true given the County's elderly population.

In the two joint meetings, the Planning Board discussed many transportation elements that are necessary for improving roads and transportation services in both the City and County. In addition to the findings above, the most important transportation issues that are linked to economic development include safety and quality of life. One recommendation was to widen roads. For every foot of lane width, the safety of the road increases and it provides an alternative form of transportation whether it is for bike or pedestrian.

CURRENT NC DOT STIP

- US 64, NC 107 at Cashiers to US 178 at Rosman safety improvements and climbing lanes at selected locations.
 - A. US 64, West of NC 281 N near Lake Toxaway to Indian Creek
 - B. US 64, Indian Creek to Flat Creek Valley Road widening and realignment
- US 64 Brevard Bypass feasibility study reevaluation in progress
- NC 215, US 64 at Cherryfield to SR 1326 (Macedonia Church Road) south of Balsam Grove. Two lanes of new location planning design in progress
- US 64 Business: SR 1348 (Probart St) to US 64 in Brevard -widen roadway, right-of-way in progress
- Davidson River Village Connector Road US 64 to US 276/US 64 in Pisgah forest scheduled for feasibility study
- Federal Bridge Project: US 64 replace bridge #27 over Rocky Creek
- Municipal Bridge Project: Railroad Avenue over Kings Creek replace bridge # 102

The Planning Board reviewed the <u>Transylvania County 2005 Comprehensive Plan</u> (Chapter 3. Transportation) and noted the following goal and objectives regarding transportation:

COMPREHENSIVE PLAN GOAL III: TRANSPORTATION

Collaborate with the NC Department of Transportation (NCDOT) to provide the best possible roads for Transylvania County and promote alternative transportation.

Objectives

- 1. Actively encourage NCDOT and/or state identified regional transportation organization (Rural Planning Organization, etc) to fund and complete identified Transportation Improvement Programs (TIP) and the adopted county and city Thoroughfare Plans. The following are major issues over the next ten years:
 - Safety improvement and climbing lanes on US 64 from NC 107 at Cashiers to US 178 at Rosman.
 - Relocation and construction of NC 215.
 - Improving and paving NC 281 N to Jackson County.
- 2. Work with NC Department of Transportation and other state and federal agencies to identify new funding sources to help improve existing State or Federal highways on a regional basis.
- 3. Work with developers to ensure that residential, commercial and industrial access roads meet minimum standards for traffic volume and safety, taking into consideration environmental constraints. The NC Department of Transportation requires developers to obtain a driveway permit before connecting to state maintained roads.
- 4. Encourage private companies and the County's Transportation program to extend transportation services to areas within and outside Transylvania County for general public and special populations such as the elderly, handicapped, and youth for medical and other needs not available within the county.
- 5. Encourage the growth and development of adequate air transportation facilities within the County. Support regional efforts to attract more flights to Asheville Regional Airport that are competitively priced.
- Actively work to maintain and preserve the existing Norfolk Southern Railway extension to Ecusta and the Jennings Industrial Park by regularly contacting Norfolk Southern Corporation representatives and rail users.
- 7. Work with NCDOT, City of Brevard, and Town of Rosman to identify and construct safe bike lanes and pedestrian paths throughout the County to promote alternative transportation, health and tourism.
- 8. Work with NCDOT to increase the safety of existing and new intersections while minimizing the need for new stoplights.
- 9. Evaluate the Transylvania County Subdivision Control and Manufactured Home Park Ordinances to make sure that existing road standards are adequate and address safety and environmental issues while considering the developer's expenses.

The Planning Board also reviewed the <u>Transylvania County Comprehensive Transportation Plan</u> (CTP) which identifies the following priorities:

HIGH PRIORITIES

- US 64 West US 178 near Rosman to Jackson County Line; Major Thoroughfare
- US 64/276 (Asheville Highway/North Broad Street) Caldwell Street to Allison Road; Boulevard
- NC 215 US 64 to Macedonia Church Road; Major Thoroughfare
- NC 280 (Asheville Highway); Boulevard/Expressway
- NC 281 Shelton Road to Jackson County Line; Major Thoroughfare
- Brevard West Loop; Minor Thoroughfare
- US 64 Unbalanced couplet (South Caldwell Street and South Broad Street); Major Thoroughfare
- Ecusta Road (SR 1512)/Old Hendersonville Road (SR 1504) Intersection; Minor Thoroughfare
- Sylvan Valley Parkway (Brevard Bypass); Expressway¹

MEDIUM PRIORITIES

- US 64 West (Rosman Highway) South Broad to Selica Road; Boulevard
- US 64 (Rosman Highway) Clement Road to Old Rosman Highway; Boulevard
- Brevard East Loop; Minor Thoroughfare

LOW PRIORITIES

- US 64 East (Hendersonville Highway) NC 280 to Henderson County Line; Major Thoroughfare/Boulevard
- US 276 (Greenville Highway) Wilson Road to East Fork Road; Major Thoroughfare/Boulevard
- US 178 (Pickens Highway) Old Rosman to East Fork Road; Major Thoroughfare

¹ The Sylvan Valley Parkway is a high priority, but is seen as a long term project. For this reason, local officials have requested that improvements to US 64/276, the Brevard West Loop, and the Downtown Brevard Unbalanced Couplet be completed to ease through traffic in town before construction of the Sylvan Valley Parkway occurs.

Water and Watershed Development and Wastewater Treatment

Actions:



The Planning Board assessed current and future conditions of the County's water, water supply, watershed development, and wastewater treatment. In doing so, the Planning Board met with the City of Brevard Planning Board, reviewed the County/City water and sewer extension agreement, and worked with Land-of-Sky to generate watershed development maps. With the City of Brevard establishing a new water intake site, the Planning Board also directed LOS to map the current Cathey's Creek Water Supply Watershed and provide potential

watersheds based on potential water intake sites. These mapping efforts demonstrate the land development impacts from the new intake. In addition, County staff researched watershed development regulations, set by NCDENR, that would be imposed on the county when designating a new water intake site. The following information was gathered through these meetings and study.

Findings:

- The City of Brevard and The Town of Rosman both provide water and wastewater services to their citizens and to a few properties located outside their incorporated boundaries (Maps 2-7). The City of Brevard obtains its water from Cathey's Creek while the Town of Rosman obtains its water through four (4) wells. Transylvania County is responsible for enforcing the Water Supply Watershed Ordinance that limits land disturbance in the Cathey's Creek watershed which is comprised of 7,295 acres.
- There is an existing joint policy on water and sewer extensions between Transylvania County, the City of Brevard, and the Town of Rosman dated February 2004.
- The County has no water or sewer infrastructure.
- Both the City of Brevard and Town of Rosman discharge waste into the French Broad River.
 Rosman's wastewater plant discharges just east and north of Rosman and the City of
 Brevard's wastewater treatment plant is located off Wilson Road on the northeast side of
 Brevard. At this time neither the City nor Town have identified plans to make significant
 updates to their current systems or build replacement facilities.
- There are several residential communities that provide public water and/or wastewater services. Connestee Falls, Burlingame and Lake Toxaway are three examples. In addition, there are a number of smaller public water and wastewater systems that are permitted by the State, but most residents and businesses outside the incorporated areas of Brevard and Rosman use wells and septic systems.
- Distance and topographical constraints have severely limited the extension of water and
 wastewater lines outside the municipal boundaries of Brevard and Rosman. The residential
 density is sparse in some areas and contributes to increased installation costs per unit
 (whether measured in feet, miles or even per household).

- The City of Brevard, Town of Rosman and Transylvania County have had a number of discussions about connecting their water lines over the past 15 years, but no action has been taken to connect the two systems. The Planning Board noted that there are existing water lines in Henderson County along NC 280 and US 64 East that approach Transylvania County. While the Planning Board did not investigate this, they noted that working collaboratively with Henderson County may be beneficial particularly along the NC 280 and US 64 East corridors.
- Brevard uses Cathey's Creek as its water source and will exceed capacity within 10 20 years.
- Recently, the City of Brevard council members and their planning staff discussed the potential of locating a new water supply water-intake to accommodate future growth. The new water intake location point will determine two things: the amount of water available and the size of the land area where watershed development regulations will be applied. The City is currently looking at (1) the amount of water they will need, (2) intake locations, and (3) impacts of land development regulations.
 - The City estimates they will require 5 million gallons per day (rounded up from 4.5).
 Currently, Cathey's Creek watershed only produces 1 mgd. USGS has assisted the City in identifying two possible intake locations: one on the Davidson River at the bridge on US 64, producing 3 mgd, and a second site on the French Broad River at the Wilson Road bridge, producing 15 mgd. The City of Brevard has identified the French Broad River location as probably ideal to meet future requirements.
 - The City's Planning Department staff explained how they calculated the needed capacity of 5 mgd. They projected that with current boundaries and existing policies, if land use were maxed out and water use remained the same they would require 4.5 5 mgd. Staff stated that this is a conservative number. Staff also mentioned that portions of the current water system are 100 years old and are in average condition. The City will need to improve or build a new water system.
 - 2. The Planning Board study of potential water intakes (Map 6) shows the City's current water intake at Cathey's Creek and also two potential new intake points, one at the French Broad and Davidson River confluence and another on the French Broad River by Rosman. The confluence of French Broad and Davidson River could impact a large portion of the county in terms of land development. An intake upstream of Rosman on either the North and/or West Forks of the French Broad River might impact fewer privately owned parcels. This second option will require a great deal of additional infrastructure to pump water to Brevard. The existing intake at Cathey's Creek has the least amount of impact because most of the affected area is in Pisgah National Forest.
 - 3. <u>Land development regulations will be imposed on the county with a new water intake</u> by way of a new water classification set by North Carolina Department of Environment and Natural Resources (NCDENR).

City Planning Staff presented to the Planning Board two sets of likely water classifications with the new water intake proposals. As noted by the City's Engineer, Jay Johnston, water classifications depend on the current density and land use of the watershed

affected by the new water intake. The NC Department of Environment and Natural Resources (DENR) has five (5) water classification classes, Class I is the lowest (least amount of development and strictest development regulations) and Class V being the highest (high density and development with no regulations). Based on other water classifications in the region, the City planning staff believes that the proposed new water classification would likely be a Class III or Class IV. Prior to meeting with the City Planning Board and staff, county staff and planning board members considered Class II and Class III as possible water classifications.

The biggest difference in development regulations between Class II and Class III is the number of dwelling units (du) per acre and the allowable percent of built upon area. Overall, the development regulations offer a "low density option" or a "high density option." There are also two other variables, one being a ½ mile critical area and regulations affecting the balance of the watershed. The table below is an excerpt and briefly describes the requirements. The full Water Classification can be found in Appendix D. Class V has no restrictions.

- Reclassification of the French Broad River will have implications on Transylvania County in two ways:
 - 1. Watershed regulations will affect property owners
 - 2. Watershed administration affect on County government

Table 1. Water Classification Table Excerpt (NCDENR)

Water Classification	Area Affected	Wastewater Discharges Allowed	Low Density Option Dwelling Unit (du)	High Density Option	Stream Buffers	Erosion & Sediment Control
Water Supply II (WS-II)	½ Mile critical area	General permits	1 du / 2 acres or 6% built upon area	6-24% built upon area	Low density - 30' High density – 100'	More stringent rules apply
	Rest of watershed	General permits	1 du / 1 acres or 12% built upon area	12-30% built upon area	Low density - 30' High density – 100'	More stringent rules apply
Water Supply III (WS-III)	½ Mile critical area	General permits	1 du / 1 acres or 12% built upon area	12-30% built upon area	Low density - 30' High density – 100'	Standard rules apply
	Rest of watershed	General permits	1 du / ½ acre or 24% built upon area	24-50% built upon area	Low density - 30' High density – 100'	Standard rules apply
Water Supply IV (WS-IV)	½ Mile critical area	Domestic and Industrial	1 du / ½ acre or 24% built upon area	24-50% built upon area	Low density - 30' High density – 100'	Standard rules apply
	Protected Area	Domestic and Industrial	1 du / ½ acre or 24% built upon area	24-50% built upon area	Low density - 30' High density – 100'	Standard rules apply

Land Characterization



During the joint County Commissioner and Planning Board meeting, all agreed that the Planning Board should provide a land characterization map of the County showing major land uses or categories with the specific task of identifying areas for future economic development and the possible extension of water and wastewater lines.

Actions:

The Planning Board utilized the mapping resources at Land-of-Sky to generate land characterization maps to identify potential economic development opportunities. This report combines key transportation issues, water and sewer extension, watershed development, geographical constraints, and economic development constraints and opportunities.

The Planning Board began a "Land Characterization" project to identify what land in the county is ideal for future industrial development and where future water and sewer lines could be extended. In order to find the ideal land areas, the Planning Board began with an opportunities and constraint analysis, looking at the entire county and extracting land areas that are heavily restricted or non-developable. *These extracted land areas are known as constraints. The land remaining becomes* the opportunity for future development. The maps created by Land-of-Sky represent the findings of this study.

The Planning Board used the following land classifications, which were then extracted from the total land available within the county, and identified them as constraints to development.

- 1. Floodplain
 - a. Water Bodies
 - b. 100 Year Flood Plain
 - c. 500 Year Flood Plain
- 2. Protected Lands
 - a. Federally Owned
 - b. State Owned
 - c. Conservancy/Land Trust
- 3. Subdivisions
- 4. Slopes over 25%

Findings:

Transylvania County has 242,988 acres. The Land Characterization study reveals that nearly 76% of the County's total land area has been identified as having development constraints and are not developable. Only 24% of the total land area in the county is not restricted by geographical, deeded restrictions or other forms of development including industrial or manufacturing development. <u>It is important to note that this percentage does not include steep slopes or prime farmlands, so actual developable land area is less than 24%.</u>

Table 2. Land Classification Constraints

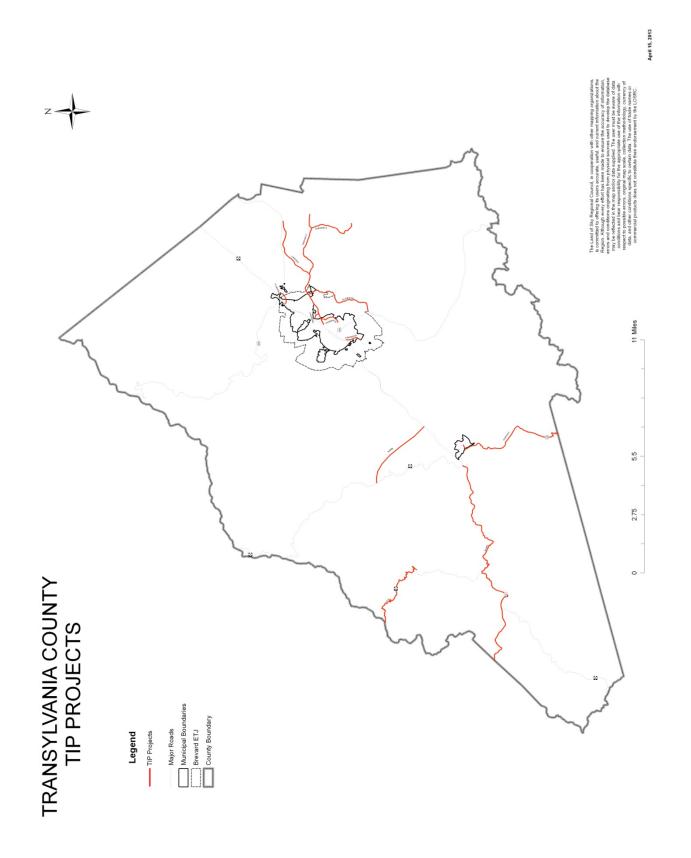
Land Classification	% Land in the County as a Constraint (Non-Developable)				
Floodplains	4%				
Protected Lands	54%				
Subdivisions	12%				
Slopes > 25%	Exact Data Not Available				
TOTAL	76%				

The resulting maps and statistics are useful to show/describe what exists now and illustrate where more development can potentially take place in the future. The maps (pages 16-33) also serve as a basis for a land use plan, and are a guide for infrastructure and policy development.

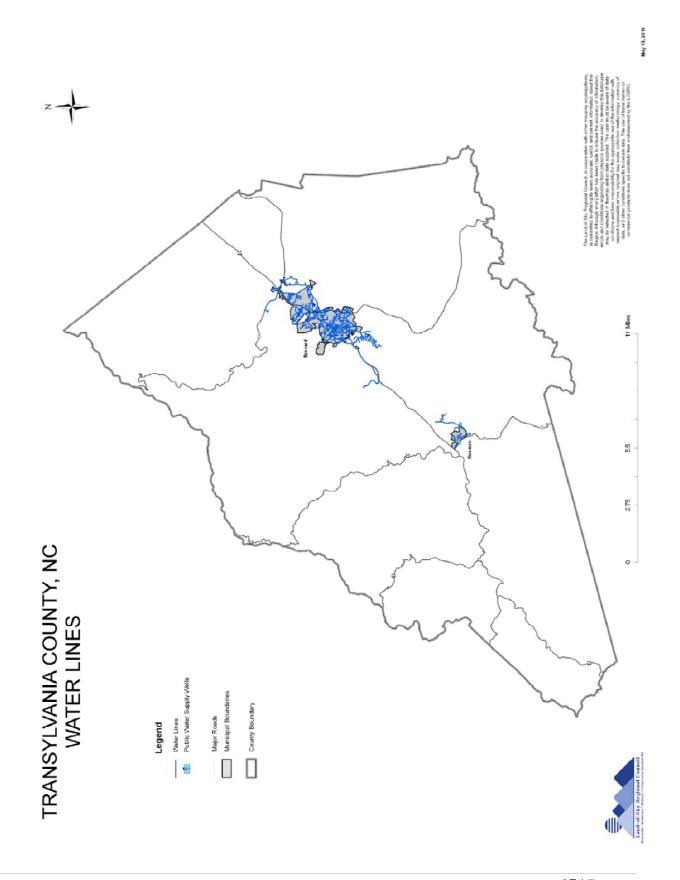
- Map 9: The Floodplain layer occupies 4% of the total land area in the County. The Floodplain
 map and dataset includes water bodies, 100 year, and 500 year floodplains. The 100 year
 floodplain areas have buildable potential, but are strictly regulated. For this reason, these
 lands were extracted from the overall analysis and are viewed as constraints, or nondevelopable.
- Map 10: Protected Lands occupy a majority of the land within the county and occupy a total of 54% land area. Protected lands include all federal and state owned lands (including USGS National Forests), as well as lands in conservation. These land totals are as follows: Federal lands: 39%, State Lands: 6%, and Conservation Lands: 9%.
- Map 11: The subdivisions are extracted from the available developable land in the county
 due to deed restrictions and current residential use. Both minor and major subdivisions are
 mapped and occupy approximately 12% of the County's land area. The following map
 identifies many of the major subdivisions located throughout the County.

- Map 12: The slope data available through current USGS information shows that Transylvania County is a rugged county with much of the land area with slopes exceeding 25% slope. Due to the type of data available, the exact acreage cannot be calculated and the slope map is used as a reference for development and is layered underneath the other land classifications. Development can occur in these steep slope areas, but is less likely due to high costs.
- Map 13: The combined land areas labeled as constraints to development equal 76% of the County's land area, leaving only 24% of land available for development. This 24% availability does NOT include steep slopes (25% or greater). Map 12 shows the slope layer added to Map 11.
- Map 14: Adding the steep slopes layer underneath the extracted land areas (constraints) shows how much of the available land (white) is occupied with steep slopes slopes 25% or greater. This combination narrows the developable area (opportunities), but due to the nature of the data set available, the exact land area cannot be calculated and estimates must be made based on this graphical representation.
- Map 15: Shows Transylvania County's land development opportunities and constraints: 24% yellow and 76% (pink) respectively. This does not include steep slopes.
- Map 16: Add steep slopes to the equation (slopes 25% or greater as stated by USGS), and much of Transylvania County's developable land (24%) is not developable.
- Map 17: (Land Development Opportunities and Constraints Map with Steep Slopes) shows available property that could be used for industrial development. The map states that 24% is available for development but excludes steep slopes. With the steep slopes included the total developable land for industry is approximately 12-16%.
- Maps 18-20: In viewing results of the opportunities and constraints analysis, the Planning
 Board chose three targeted areas for industrial development. These three areas include US64 east of Brevard heading toward Hendersonville, a portion of NC 280 in the north eastern
 corner of Brevard, and the corridor between Brevard and Rosman. Further study of water
 and sewer extensions would have to be considered before giving a final recommendation.

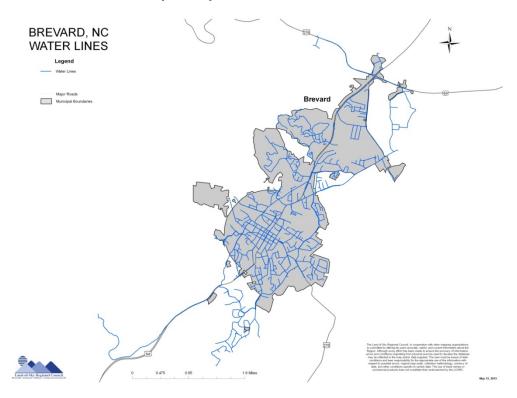
Map 1: TIP Projects



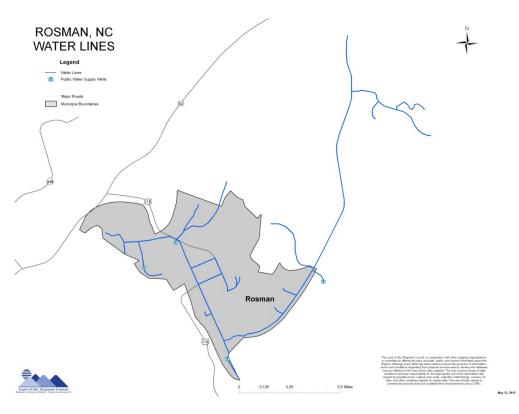
Map 2: Transylvania County Water Lines



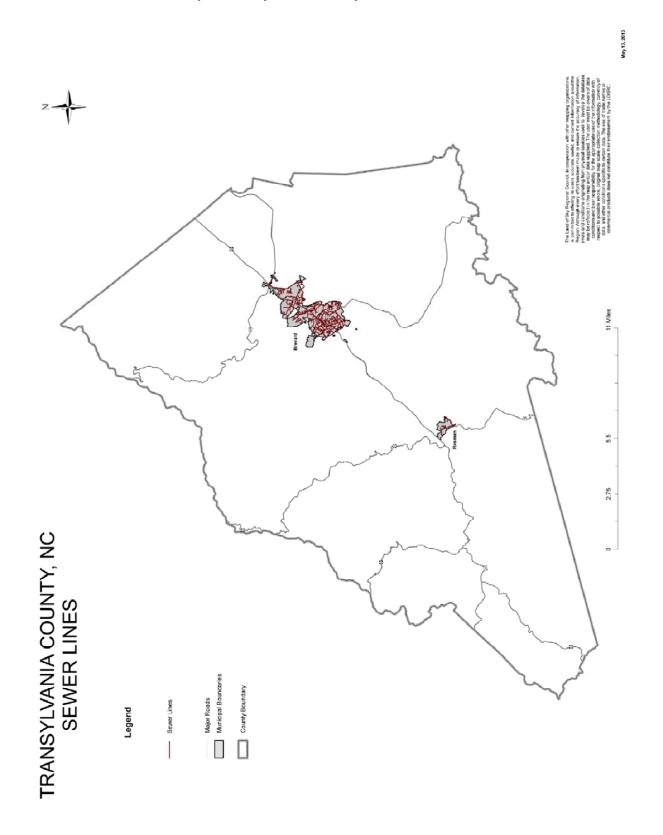
Map 3: City of Brevard Water Lines



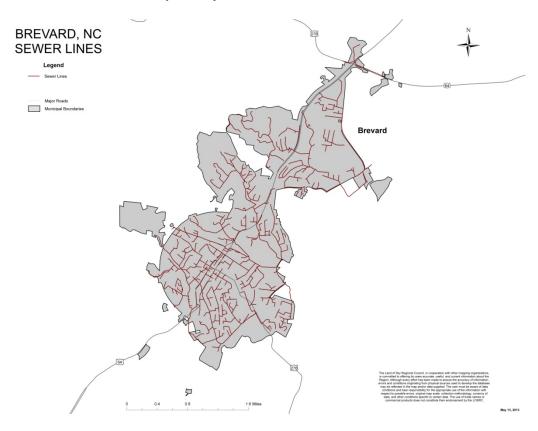
Map 4: Town of Rosman Water Lines



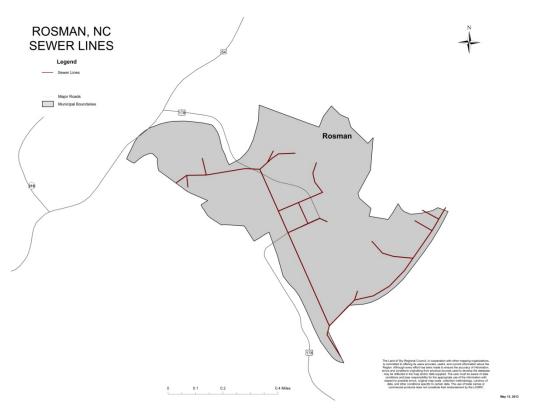
Map 5: Transylvania County Sewer Lines



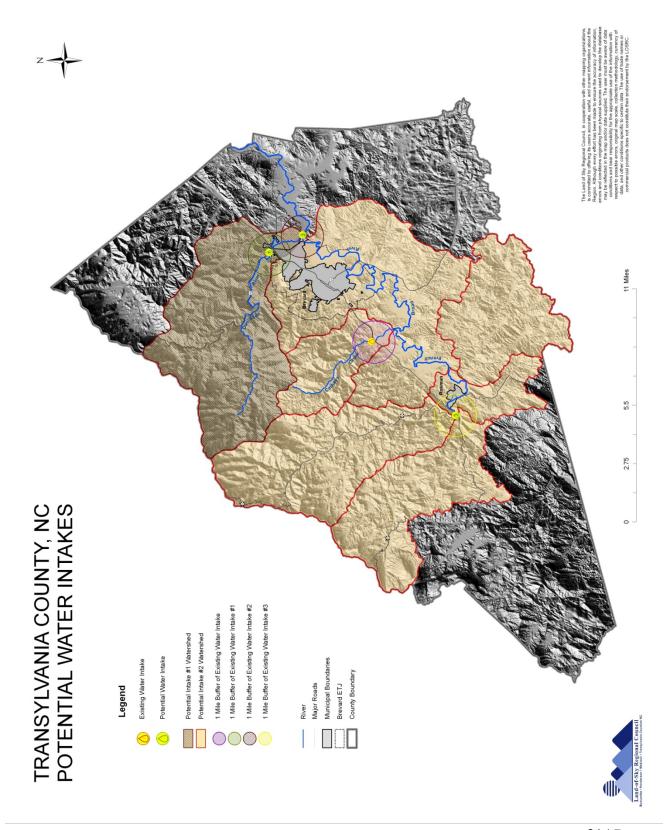
Map 6: City of Brevard Sewer Lines



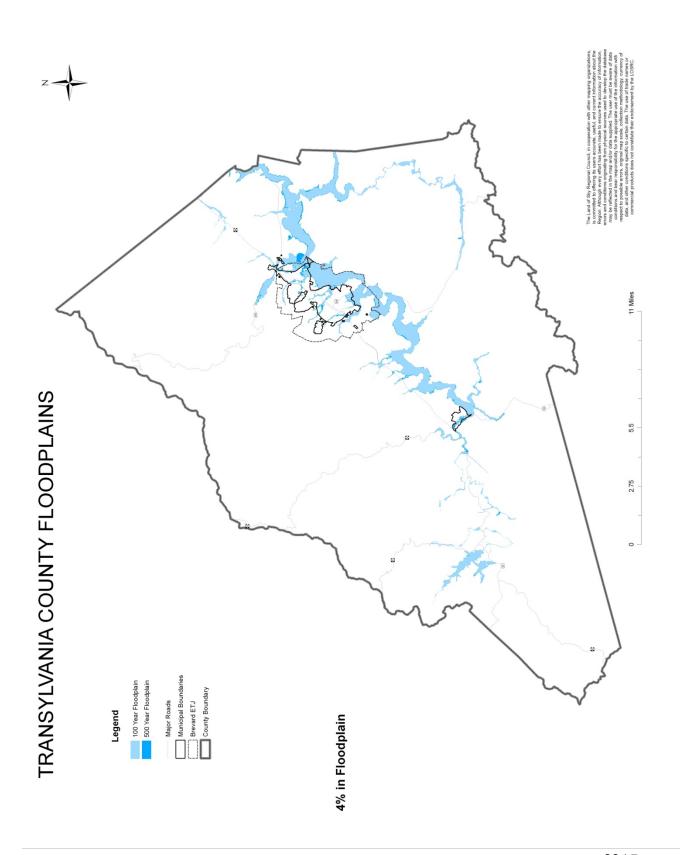
Map 7: Town of Rosman Sewer Lines



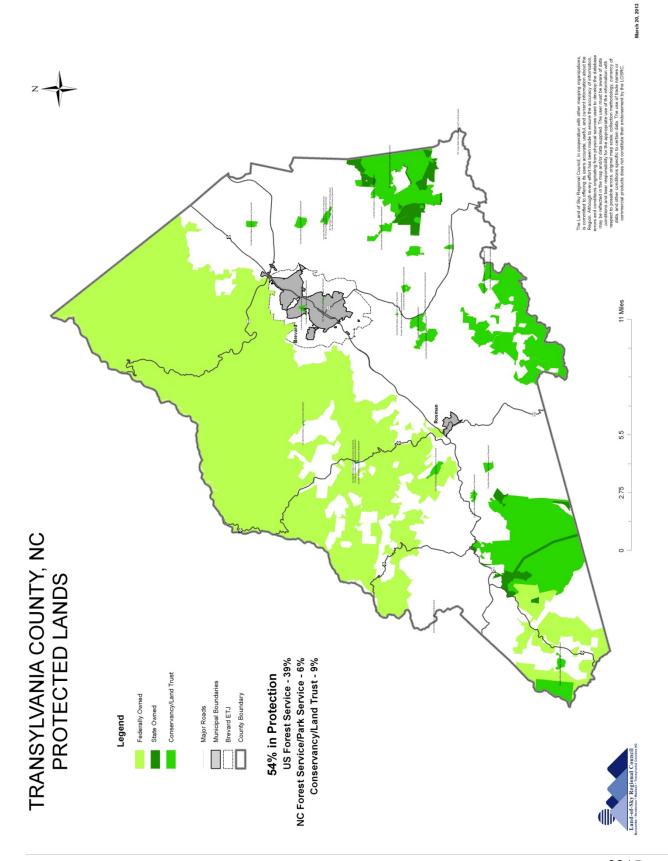
Map 8: New Water Intake Land Development Map



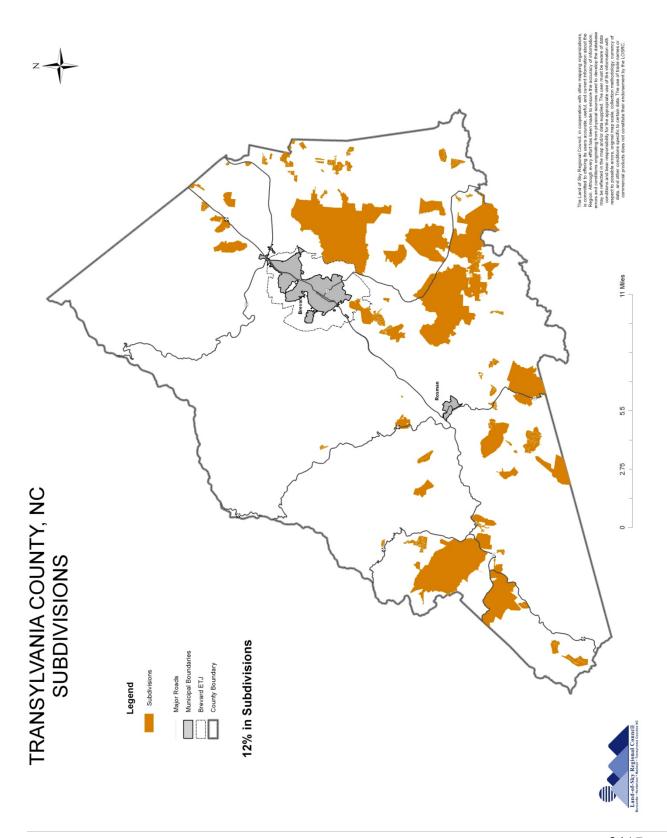
Map 9: Floodplains

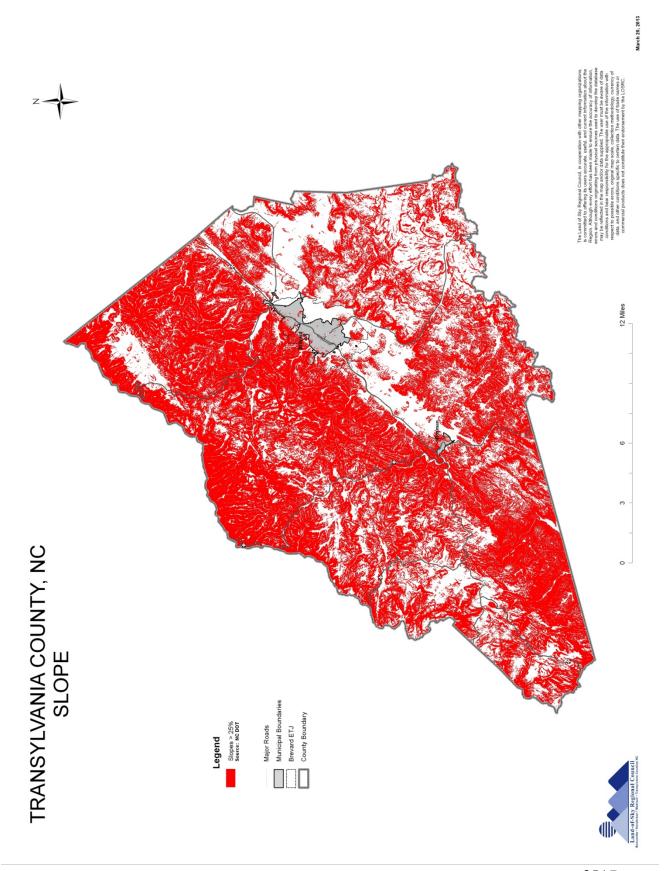


Map 10: Protected Lands

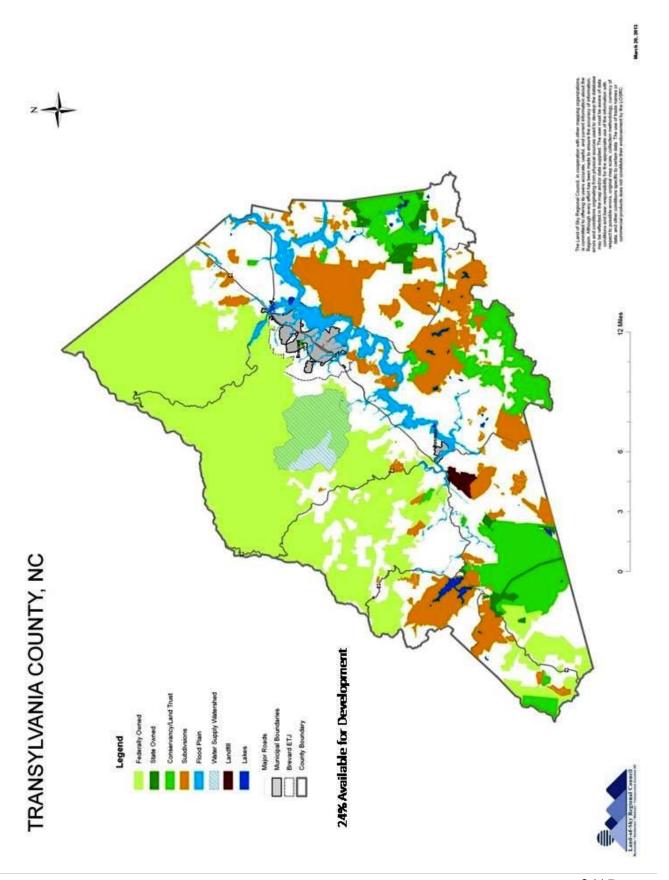


Map 11: Subdivisions

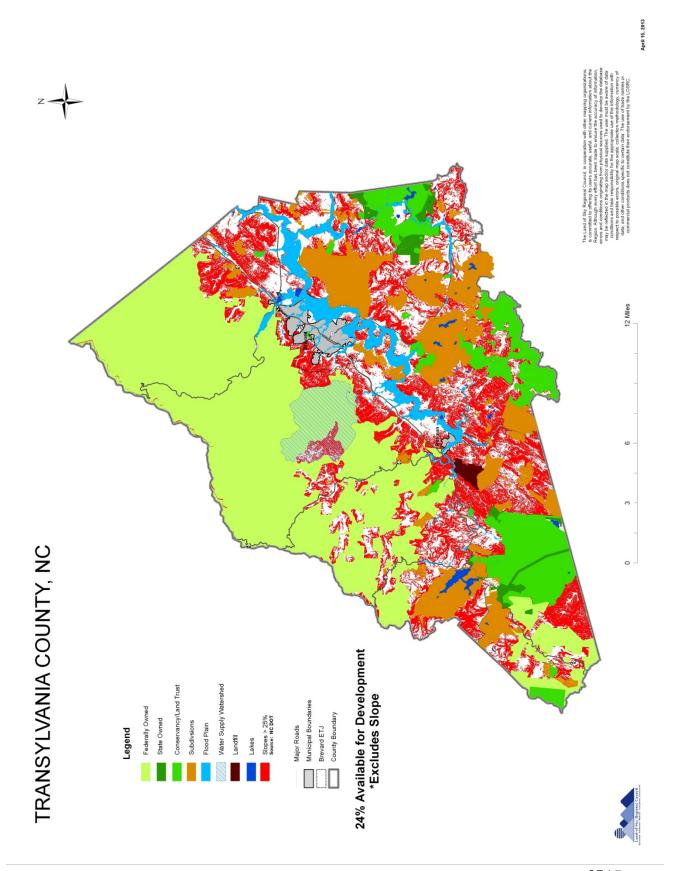




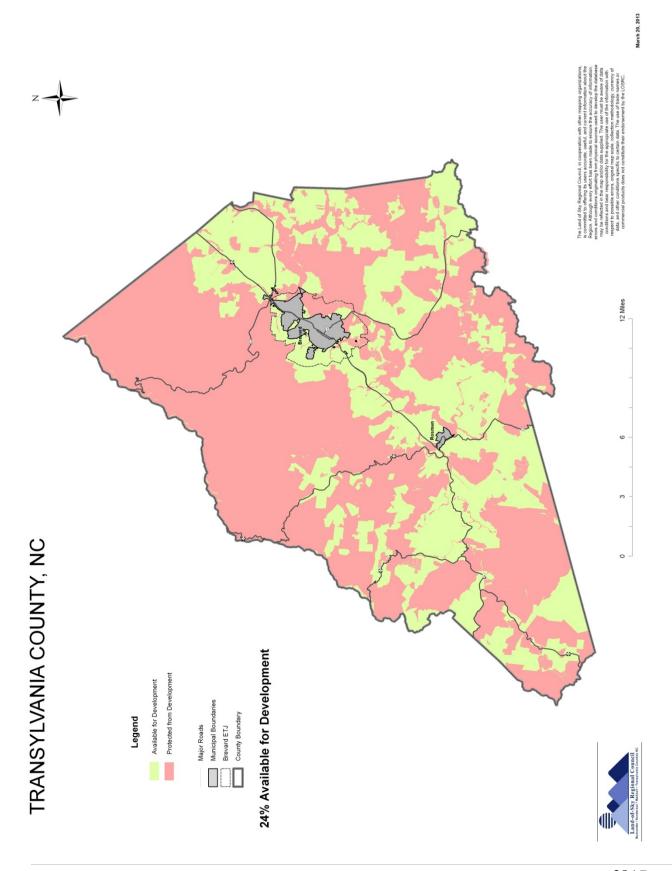
Map 13: Constraints Classification Map



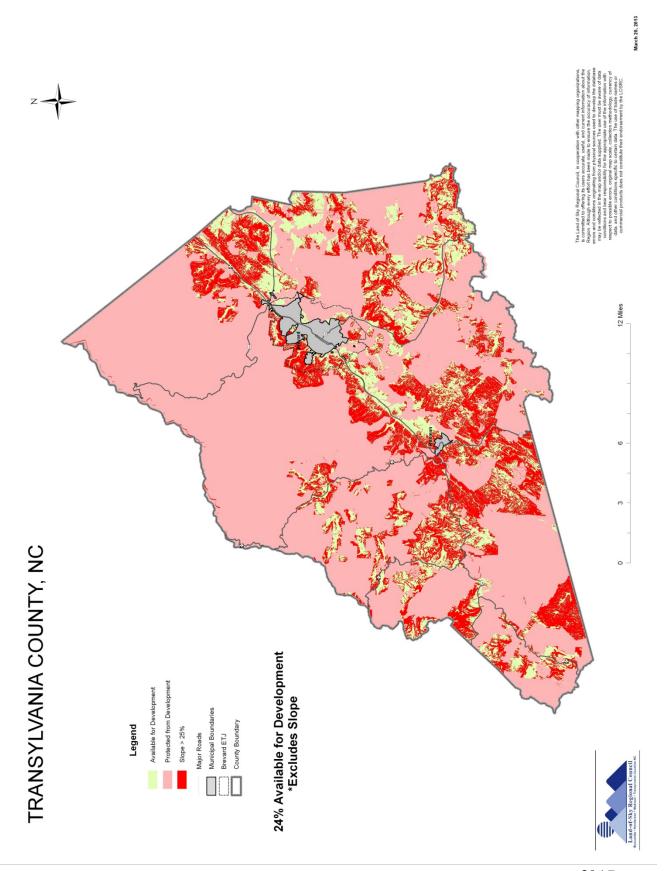
Map 14: Constraints Classification Map with Steep Slopes (>25%)



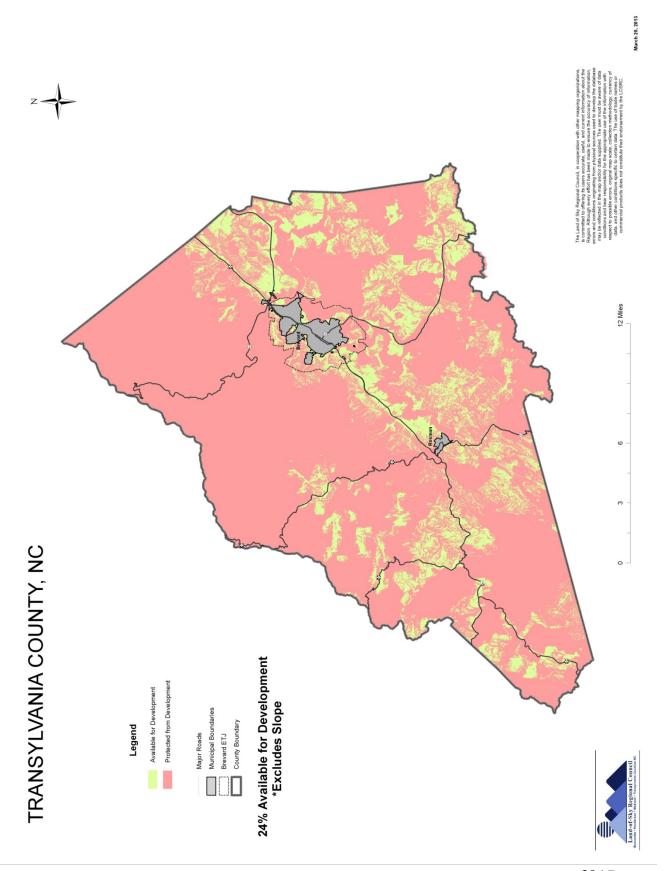
Map 15: Land Development Opportunities and Constraints Map



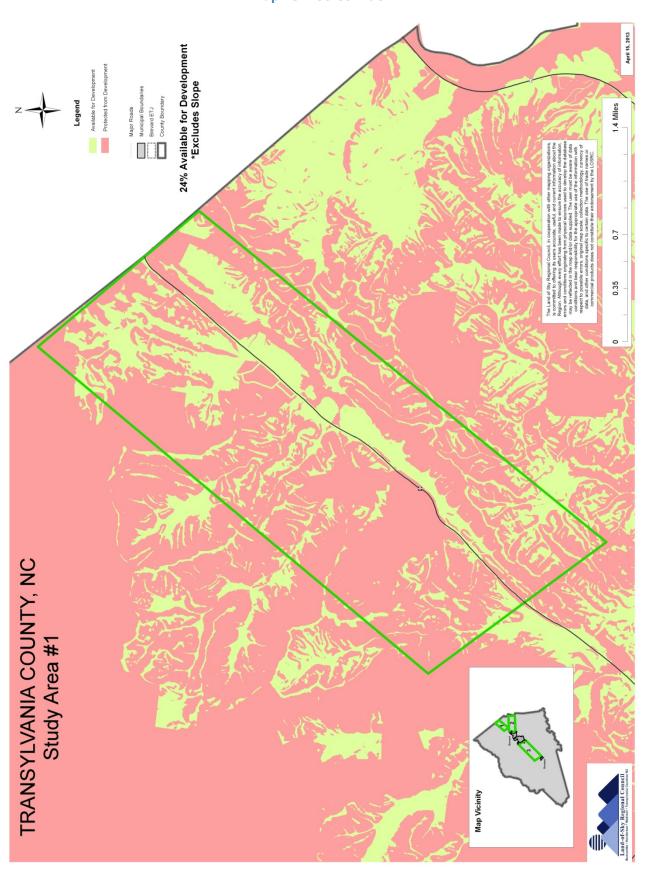
Map 16: Land Development Opportunities and Constraints Map with Steep Slopes (3 shaded)



Map 17: Land Development Opportunities and Constraints Map with Steep Slopes (>25%)



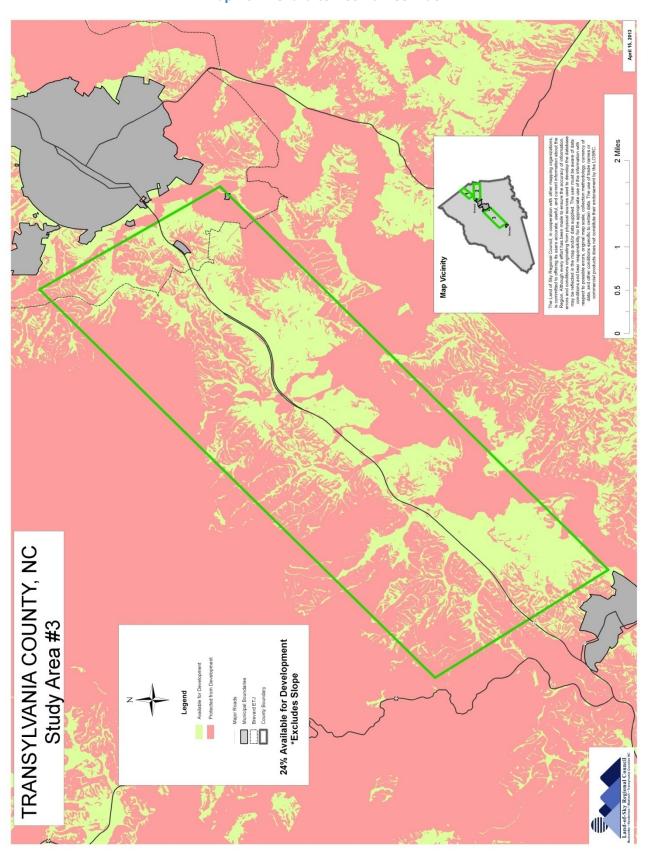
Map 18: 280 Corridor



1.2 Miles 24% Available for Development *Excludes Slope 9.0 0.3 TRANSYLVANIA COUNTY, NC Study Area #2 Map Vicinity

Map 19: 64 East Corridor

Map 20: Brevard to Rosman Corridor



Planning Board Recommendations

Transportation

- 1. Work with City of Brevard and the Town of Rosman to create one voice
- 2. Develop stronger relationship with NCDOT District Engineer and have a greater presence in the region advocating for county road improvements
- 3. Planning Board to meet regularly with Transportation Committee
- 4. Have Planning staff participate in RPO Technical Coordinating Committee meetings
- 5. Stay abreast of current legislation regarding transportation issues (i.e., NC House Bill 817 Strategic Transportation Investments) and base transportation planning strategy around the outcome of this bill – major implication of this bill is a cost-benefit analysis/preference for all transportation projects and funding, changes to Powell Bill Funds, Appalachian Highway Funds, and Secondary Road Paving
- 6. Advocate for major road projects in the following order:
 - 6.1 East and West Loops around Brevard partner with the City of Brevard to discuss the needs/wants/desires of moving traffic efficiently through or around the City
 - 6.2 US-64 West Improvements 4 lanes from Brevard to Rosman including climbing lanes, wider road surfaces, and bike lanes
 - 6.3 Bridge construction on Floodway Connector 64/178 Rosman and US-178 improvements from Rosman to state line, including realignment by bridge
 - 6.4 NC-215 new road construction
 - 6.5 Elevate and widen Wilson Road and/or build Sylvan Valley Parkway
 - 6.6 NC-280 improvements from county line to US64/276 intersection divided highway, Little Mountain improvements, and access improvements
- 7. Widen streets and add bike lanes to roads as stated in the Comprehensive Transportation Plan
- 8. Launch educational campaign on public transportation services in the county, particularly for elderly and ride share availabilities (i.e. Share the Ride NC)
- 9. Monitor the progress of the Blue Ridge Bike Plan, http://www.landofsky.org/brbp.html
- 10. Determine the need for more public transportation services to local commuters and a public transportation system connecting Brevard, Hendersonville, and Asheville
- 11. Stay current on monthly road projects in the county and suggest any road improvements as stated in the Comprehensive Transportation Plan (i.e.) use asphalt instead of "chip and seal" for resurfacing of roads used as bike routes

Water and Watershed Development and Wastewater Treatment

- 1. County Commissioners to meet jointly with the Town of Rosman and the City of Brevard to discuss long range water and sewer services
- Conduct water and sewer extension feasibility analysis along major corridors in the county: US64 East, US64 West, and NC280 North – explore ways to connect water and sewer to these areas
- 3. Identify future water needs of the County according to possible water-line extensions
- 4. Review the County and City water and sewer extension agreement and advocate for water and sewer line extensions into potential economic development areas.
- 5. Support the City of Brevard's efforts to evaluate and build a new water supply intake and water treatment system
- 6. Coordinate with the City of Brevard on new water intake and leverage for water and sewer services extensions into county prime economic development areas
- 7. Recommend a water intake location to maximize water capacity while minimizing regulations (North Fork versus the French Broad River near the confluence of the Davidson River)
- 8. Evaluate both feasibility and interest of Connestee Falls as a potential water/sewer client
- 9. Invite NCDENR to discuss water quality and water re-classifications with County and City boards, Commissions, and Staff
- Create a land use characterization plan for commercial and industrial development, where water/waste water utility service areas can be Identified, quantified, evaluated and constructed

Land Characterization

- 1. Concentrate industrial development land research to three areas:
 - a. 280 Corridor from Little Mountain to Henderson County Line
 - Advantages: Great access to Airport/Interstate, larger workforce labor pool
 - Limitations: Small rather narrow valley; no infrastructure (water, sewer, natural gas), flood plain
 - b. 64E from the 280 intersection east to Henderson County Line
 - Advantages: Existing large impact uses (Vulcan Rock Quarry, Transylvania Community Airport), existing rail line, larger workforce labor pool
 - Limitations: Two lane traffic from Brevard to Hendersonville, no public water and waste water lines past Pisgah Forest

- c. 64W from Brevard to Rosman
 - Advantages: Larger tract(s) of undeveloped property, natural gas is available to most areas, some water and/or wastewater capacity according to location
 - Limitations: Concerns about traffic having to travel through Brevard; water, wastewater and road improvements required, smaller workforce
- 2. County Commissioners to create Product Development Task Force
- 3. Partner with the City of Brevard and Town of Rosman to identify potential areas within their jurisdictions that might be suitable for industrial sites, including the need to rezone parcels

Appendix A

TRANSYLVANIA COUNTY PLANNING BOARD MINUTES JUNE 21, 2012

(EXCERPT)

The Transylvania County Planning Board met in regular session on Thursday, June 21, 2012 at 7PM in the Community Services Building conference room. Members present were Chairman Scott McCall, Larry Hoxit, Mark Parker, Mark Tooley, Mike West and Larry Wilson. Guests present were Reuben Moore with NC DOT, Natalie Murdock with Land-of-Sky, County Manager Artie Wilson and county resident Gerry Hunsicker. Also present were Mark Burrows and Trish Hamilton.

Motion was made by Mr. Wilson to approve the minutes of the May 24, 2012 regular meeting as submitted, seconded by Mr. West and carried unanimously.

Subdivision Update

Mr. Burrows gave the Board a brief update of the plats that had been approved since May 25th. He stated that the grading contractor for Branches at East Fork has requested a final inspection of the roads in Phase I.

Guest Presentations

Ms. Natalie Murdock, Rural Transportation Coordinator with Land-of-Sky Regional Council and Reuben Moore with NC DOT gave the Board a presentation on the Comprehensive Transportation Plan (CTP) for Transylvania County. Ms. Murdock explained that the CTP is set of maps that outline recommended transportation projects to meet local travel needs through the year 2030. The CTP is a long range conceptual plan for the County. It is not a funding document and does not represent the final design of a project.

Listed below are a few of the projects recommended in the CTP are:

- US 64 West: safety improvements straighten curves, widen lanes and add truck climbing lanes.
- US 64/276 & NC 280: Addition of a median on the current 4-lane undivided and 5-lane sections. Upgrade section of NC 280 east to Hudlin Gap Road to Expressway.
- NC 215: New route. US 64 at Cherryfield to Macedonia Church Rd. south of Balsam Grove.
- NC 281 North: pave sections that are currently unpaved
- Brevard West Loop: 2-lane minor thoroughfare, part on new location. Relieves congestion on US 64 corridor through downtown.
- Old Hendersonville Rd/Ecusta Rd. & Wilson Rd.: Realignment of Ecusta Road/Wilson Road offset at Old Hendersonville Road. Creates one 4-leg intersection.
- Sylvan Valley Parkway (Brevard Bypass): Extends from NC 280 near Hudlin Gap Road to US 64 near Selica Road.

- Rosman Hwy.: Addition of a median to existing 5-lane sections in southwestern Brevard. Widening to 4-lane divided boulevard between Clement Road and Old Rosman Hwy.
- US 64 East: Widen to 4-lane divided boulevard from NC 280 to Glade Creek Rd. Minor intersection improvements to maintain through mobility on remaining 2-lane sections.

Mr. Moore explained the Transylvania County Highway TIP Projects which include:

- NC 215: US 64 at Cherryfield to Macedonia Church Road south of Balsam Grove.
- US 64 bypass
- Davidson River Village Connector Road
- US 178
- Everette Farm Rd.
- Neely Rd.
- Wilson Rd.
- Hart Rd.
- N. Country Club Rd.

The TIP also includes replacing the following bridges:

- East Fork Rd. bridge 93 over north fork French Broad River
- Tanasee Gap Rd. bridge 93 over north fork French Broad River
- Old US 64 bridge 193 over Davidson River
- Sugarloaf Rd. bridge 13 over Tucker Creek
- Becky Mtn. Rd. bridge 12 over east branch French Broad River
- Macedonia Church Rd. bridge 148 over creek
- US 64 bridge 27 over Glade Creek
- Island Cove Rd. bridge 196 over Crab Creek
- Old Toxaway Rd. bridge 139 over east branch Toxaway Creek

The CTP is a toolbox of projects that can be built in the next 30 years.

Mr. Tooley asked Mr. Moore how projects are prioritized on the TIP. Mr. Moore explained that the district engineer meets with the County Commissioners once a year to discuss secondary road projects. The Commissioners decide what the most important projects are by looking at issues such as the number of homes, churches and people served for the money spent.

Mr. West asked Ms. Murdock how the Rural Planning Organization (RPO) was developed and why it is housed at Land-of-Sky. Ms. Murdock explained that in 2000 the federal government required all states to develop RPO's. North Carolina decided that the Regional Council of Governments were the best place to house the RPO's. Land-of-Sky is the regional council for Transylvania County. Transylvania County also has a transportation committee that works with the RPO.

Appendix B

Transylvania County Planning Board Transportation Committee Minutes December 6, 2012

(EXCERPT)

The Transylvania County Planning Board met in a joint meeting with the Transportation Committee on Thursday, December 6, 2012 at 7PM in the Community Services Building conference room. Members present were Chairman Scott McCall, Larry Hoxit, Jay Kaiser, Mark Parker, Mark Tooley, Mike West and Larry Wilson. Transportation Committee members present were Chairman Dana Hawkins, Craig Burghardt, David Carter, Norah Davis, Tim Garner, Mac Morrow and Ray Norris. Also present were Mark Burrows and Trish Hamilton. Guests present were Donny Fisher with Enviro-Tech Plus, County Manager Artie Wilson, County Commissioner Larry Chapman, Jim Meyer, Madelyn Meyer and Aubry Woodard.

JOINT BOARD DISCUSSION

Planning Board Chairman Scott McCall welcomed the Transportation Committee members to the meeting. He stated that he, Transportation Committee Chairman Dana Hawkins and Mr. Burrows had met to discuss transportation and road issues. Chairman McCall stated that in October the Board of Commissioners had charged the Planning Board with the following items and requested that a report of the results be completed no later than June 2013:

- Examine transportation issues, including working with the Transportation Committee to think strategically.
- Conduct a water and sewer analysis
- Complete a land inventory

Chairman Hawkins stated that since he has been on the Transportation Committee they have met twice with the Planning Board. It is important for these Boards to work together and speak with one voice. The Transportation Committee makes recommendations to Commissioners on the Transportation Improvement Plan (TIP). A lot of our responsibilities have changed since the creation of the Rural Planning Organization (RPO). Land-of-Sky (LOS) is in charge of the RPO which consists of Transylvania and Madison counties and portions of Buncombe, Haywood and Henderson counties. Transylvania County is the largest county in the LOSRPO. There has also been a change in DOT budgeting which now requires project planning be in place for the project to receive funding.

Mr. Burrows asked Chairman Hawkins to help the Planning Board understand the process of how roads are prioritized.

Chairman Hawkins stated that in 1992 there was more discretionary funding available and Board members had more of a say in how the money was spent. Transylvania County benefited from this with the work that was done on Caldwell Street. Projects are more data driven now with accident rates and conditions of bridges playing a major role. It's expensive to build roads in the mountains.

BOARD MEMBER COMMENTS

Chairman McCall commented that two of the key projects are the elevation of Hannah Ford Road and Wilson Road.

Mr. Garner commented that there has been a lot of changes in transportation since the 1960's due to the paving of gravel roads in the County. Mr. Garner also commented about the lack of public transportation in the County.

Chairman Hawkins commented that LOS has addressed public transportation in the county but the taxpayers would have to subsidize this.

Chairman McCall commented that bike lanes should be built on the roads. A lot of people ride bikes in the County and the roads just aren't safe for them.

Mr. Kaiser brought up the subject of catwalks over the Davidson River (US 276 and US 64) for pedestrian use. Chairman Hawkins commented that catwalks are relatively expensive and they affect the bridges.

Mr. Burrows asked each Board to review the map that LOS had provided on land characterization. This map shows every parcel in the county with a color code for what the parcel is used for, such as manufacturing, residential, commercial, public, etc. Mr. Burrows asked - from an economic development and transportation point what is the big picture?

Chairman McCall commented that he thinks there are five areas that could be targeted for economic development, safety and quality of life.

- 1) Elevation of Hannah Ford Road.
- 2) Elevation of Wilson Road.
- 3) Completion of 4-lane highway between Brevard and Rosman.
- 4) Bridge in the lower end of Rosman to connect 178 and 64 to help with traffic flow during flooding and to open up the corridor.
- 5) Build a new hwy. 215.

Mr. Wilson wanted to know what area would be good for economic development.

Chairman McCall stated that he believes the corridor between Brevard and Rosman, along Hwy. 64, has the best potential for manufacturing development, along with the Hwy 64 east corridor to the Henderson County line.

Chairman Hawkins commented that there are different ways to look at needs and certainly the quality of life, safety and economic development. We have to bring all of these together and come up with the best solution that we can. One scenario is the widening of roads. For every foot of lane width the safety of the road increases. It provides an alternate form of transportation whether it is for bike or pedestrian.

Ms. Davis commented that public transit between Brevard and Asheville would be very beneficial. People want a quick and easy way to get to cities.

Chairman McCall stated that he understands the need for enhanced public transportation, as he has a handicapped daughter and must make arrangements for her daily travel needs.

Mr. Tooley commented that widening the road between Rosman and Brevard might be nice but you still have the problem with getting traffic through Brevard. There is a need to create an eastern loop, fix the problems with the intersection of US 64, NC 280 and US 276 in Pisgah Forest and somehow address the safety issues on NC 280 going over Little Mountain.

NEXT STEP

Mr. Burrows stated that in order for the Planning Board to meet the request of the Commissioners they will need to start looking at land characterization and ask LOS to revise the current map with fewer legends. The map needs to show water/sewer lines, public lands, road and larger parcels. The next step for both the Planning Board and the Transportation Committee would be to meet with the City Planning Board and the Economic Development Advisory board. We need to bring all these Boards together and become one voice for the County.

PUBLIC COMMENT

Commissioner Chapman wanted to know if there was a way for the County to gain quicker access to the interstate. From an economic development standpoint it would be a major impact to the County if we could get closer to the interstate.

Chairman Hawkins stated that the DRV property is a prime example of how to get a road considered. Renova donated the row and did the engineering on the bridges. It's a matter of private and government working together doing something for the community. The road will be will accessed from 64 at Ecusta Credit Union, cross Ecusta Road, go through the DRV property and access 64 East at Riverside Grocery. The road is the number one project for DOT in the County. The funding is available to complete the road.

Chairman Hawkins thanked the Planning Board for the opportunity to meet with them. This has been a good exchange of ideas. He stated that it is very important to work with the City of Brevard. If there's a negative impact on the City then we need to revise our plans. We have to work together in order to get things accomplished.

Mr. Kaiser stated that it would be good to have water and sewer to parcels outside the Brevard city limits without the city annexation.

Chairman McCall commented that when the Planning Board concludes their work on the projects that they Commissioners have asked them to do it would be nice to have a joint meeting with the City of Brevard Planning Board, Economic Development Advisory Board and the Transportation Committee to review their findings.

Appendix C

JOINT CITY AND COUNTY PLANNING BOARD MEETING March 26, 2013

(EXCERPT)

The Transylvania County Planning and City of Brevard Planning Boards met in special session on Tuesday, March 26 at 7 PM in the Brevard Music Center French Quarter Building. County Planning Board members present were: Chairman Scott McCall, Jay Kaiser, Mark Parker, and Mark Tooley. City of Brevard Planning Board members present were: Chairman Rick Lasater, Gary Daniel, Norah Davis, Demi Loftis, Kimsey Jackson, and Seyl Park. County staffs present were: Mark Burrows, Trish Hamilton, and Chris Hnatin. City Planning staff present were: Josh Freeman, Aaron Bland, and Janice Pinson. Also present were: City Engineer Jay Johnston and Planning Consultant Susan Evans.

City Planning Board Chairman Rick Lasater commented that the purpose of tonight's meeting was to have contact between the two boards and identify some common ground that would lead to the overall betterment of Transylvania County.

County Planning Board Chairman Scott McCall commented that he appreciated everyone coming to the meeting and hopes this is the first of many more meetings. Chairman McCall commented that he sees this as a positive way to move the county forward by having the two Boards consolidate and work together on joint initiatives. Chairman McCall further noted the County Planning Board considered economic development of utmost importance, and current work by the County Board was done with this key element in mind.

Chairman Lasater commented that economic development, transportation, and water were all concerns of the City, and that the scarce commodity of water could become "like gold" to communities in the future. Chairman Lasater noted some outside unit of government like Greenville or Asheville could establish a regional water authority and lay claim to local water reserves. Chairman Lasater stated that we should look at transportation as a way to "move people from the upper end of the county to Rosman and Brevard and back in a timely manner".

Chairman McCall commented that recently, the County Commissioners had tasked the County Planning Board with three items to focus on. The three were: transportation, water/sewer, and an overall land inventory of the county. Chairman McCall also commented that he thought the City and County Planning Boards were basically interested in and working toward common goals and through working together, each would realize a better opportunity of success.

Mr. Kimsey Jackson commented that land use problems related to economic development would need to be addressed. He stated citizens did not want industries next to their houses.

Mr. Mark Parker commented that young people in the county are struggling to find jobs, especially jobs that pay living wages. He noted that in order to attract young people to, or keep them in, the county, wages would need to keep pace. Mr. Parker stated economic development to provide meaningful jobs is of utmost importance to residents of the county. Mr. Park further commented

that it seemed the issues for the City and County are one in the same and that the City and the County need to collaborate on these issues to make positive results happen for all residents.

Mr. Tooley commented that he thinks the City Comprehensive Plan needs to be a county-wide effort and that the City and County would need to join forces when it comes to matters of planning.

Ms. Norah Davis commented that we should focus on issues that do the most good for the City and County. She stated that transportation is an important issue to everything, as is water. Mr. Josh Freeman commented that transportation was to be the topic at the next City Comprehensive Plan meeting, to be held on April 4th. One of the issues in transportation according to Mr. Freeman is a transit system that would provide people who lack access to transportation with a way to move about the county. A new water intake is another issue that the City is dealing with according to Mr. Freeman. He stated the City has focused on future growth, noting that if the city were to have a complete "build out" the water needs would be approximately 5 million gallons per day (mgd). Mr. Freeman also noted the city had not yet determined the future intake location.

Mr. Burrows commented that the City would need a permit from the State for the new intake and as part of the permit process, justification for the planned amount of water to be used would have to be given. City Engineer Joe Johnston commented that it would take at least two years to go through the permit process.

Chairman McCall asked what the estimated capacities were of the intake locations currently being studied. Mr. Johnston commented that the USGS helped the City identify two sites with calculations. The first site studied is located on the Davidson River near the bridge at US Highway 64. This location, according to Mr. Johnston, will produce approximately 3 mgd. The second site under consideration is along the French Broad River near the Wilson Road Bridge. According to Mr. Johnston, this site will produce 15 mgd. He noted that with the City's build out demand estimated to be 4.5 – 5 mgd, the French Broad location is the only source that would provide adequate capacity. Mr. Johnston stated that if this location is not chosen, two water sources would be needed, the current one on Cathey's Creek, coupled with the one on Davidson River near Hwy 64.

Mr. Kaiser asked about the condition of the City's existing water lines. Mr. Johnston stated that David Lutz would be the person to answer that question, but to his knowledge, parts of the system were at least 100 years old and that overall, the City's current system would probably grade as average.

Mr. Tooley asked about the schedule of moving forward with the new water intake and stated that the river may need to be reclassified.

Mr. Johnston stated that it would take somewhere between 3 to 5 years to receive a reclassification and that the river would have to be classified as a water supply source. He further noted that at the present time, Cathey's Creek is the only designated water supply source.

Ms. Davis inquired about the cost of having the river reclassified and for water facility construction. Mr. Johnston commented that engineering and environmental study for reclassification would cost approximately \$250,000. A finished treatment plant would cost about \$25 million if built today, according to Mr. Johnston.

Chairman Lasater inquired if the fish hatchery or the City would have priority over the water if the intake was on the Davidson River. Mr. Johnston stated that if the City was approved for an intake in that location, they would not have a priority. He further noted environmental studies would be required as part of this study. Various agencies such as wildlife resource and soil and water conservation district would automatically get a chance to review and make comments according to Mr. Johnston, and the City would have to address any concerns from the various agencies.

Ms. Davis asked if other entities such as Asheville or Hendersonville could take water from Transylvania County. Mr. Johnston commented that any entity or person could request a reclassification of a stream. He also noted individuals do not have to be citizens of the community in question, but they would have to justify the "water reclassified" request.

Mr. Freeman stated there are not limitations on who can claim water. A simple request to the North Carolina Department of Natural Resources (NCDNR) would be all that would be needed. If the agency considered the request reasonable and viable, then it would be approved.

Ms. Demi Loftis commented that the City of Asheville went into Henderson County for a water intake system at the confluence of North and South Mills Rivers, which triggered a reclassification of the rivers in that area, and Henderson County was forced to put zoning in place due to this reclassification.

Mr. Parker stated that he doesn't support any other entity getting their water from Transylvania County unless they pay for it. He stated that due to the large areas of government-owned properties, Transylvania County has watersheds that many other counties do not have. He also noted Transylvania County has a limited amount of land for development because of the large amount of government- owned lands, at least 51%. He said that we should look at all available sources of water. It is possible that another entity could, in the future, step in and say it had an emergency, therefore laying claim to the county's water.

Mr. Johnston stated that any entity wanting water from Transylvania County would have to present a full and reasonable argument for their demands.

Ms. Davis inquired if Henderson County objected to having an intake in their county to supply Asheville. Mr. Johnston restated that guidelines have to be followed for any entity making claims for water. He said the Henderson County Commissioners had to sign off on the water supply intake location in Mills River for Asheville. He also noted as part of the agreement, Henderson County did gain access to treated water, which opened up industrial corridors along Hwy 191.

Mr. Jackson wanted to know what would be involved in getting resolutions to have the river reclassified. Mr. Johnston stated that the NC Division of Water Quality approves this reclassification, and the division won't accept the city's request unless the County approves the resolutions supporting the reclassifications.

Mr. Jackson also inquired if another entity, such as Henderson County, got a permit to withdraw water, would the City then be limited to the amount of water they could withdraw from the rivers.

Mr. Johnston stated that Henderson County could express a concern, but it would not have an impact on the amount of water that the city could withdraw if permitted.

Mr. Tooley inquired about the reclassification of the river. Mr. Johnston stated that the WS4 classification and the resulting land-use regulations would impact property from the new intake location 10 nautical miles up the river. From Wilson Road, this would extend to roughly the Barclay Road area. He noted that a WS3 classification is usually reserved for less dense areas. The WS3 jurisdiction, and subsequent land-use requirements, would cover the entire 173 square miles of the watershed in the county. He noted if the city were to have its intake near Wilson Road, half of the watershed would be within the city's jurisdiction if there was a WS4 classification. Land-use regulations would have little impact on the county under this scenario, according to Mr. Johnston.

Mr. Burrows said his concern is the state will classify the river WS3, which would mean more of the county facing stringent land-use regulations. Mr. Johnston stated that he suspects the state would try to direct the city toward the more restrictive WS3 designation, because protecting a water supply is the chief goal of the Division of Water Quality. Mr. Johnston said he thought it would be difficult for the state to justify WS3 when the nearby, less-dense Mills River area, received a WS4.

Mr. Burrows commented that if one looks at the City's build out of 4.5 –5 million, will one find there are additional demands that should be explored? Mr. Freeman stated that the City looked at the current jurisdiction and corporate limits and the water distribution center. Strictly for planning purposes, the City assumed the land area of the ETJ and planned the City would not become larger, but that there would be more residential neighborhoods, to include two and three-story buildings. Areas would be filled in along the corridors, which are now zoned for industrial use. To come up with the 4.5-5 million gallons/day, the city used the most extreme build out and assumed there would be no change in the amount of water people used. As an example this amount also includes sufficient capacity for nearly 36 new Oskar Blues, according to Mr. Burrows.

Chairman Lasater commented that getting water run between Brevard and Rosman would appear to make that area more viable for economic development. Mr. Freeman stated that water is already in that area, so in theory it is already served. He said a main line would need to be put in that would go back upstream toward Rosman, and there are no existing plans for such a line.

Chairman McCall commented that locating the City's intake at the confluence of the North and West forks of the French Broad River and running the water lines along Hwy 64 to Brevard would be a huge plus for the county in the terms of economic development, with companies who may want to locate in the 64 West corridor, having access to water. He also noted Rosman could benefit from having an intake in this location, as they could use the water as well. Mr. Johnston said the City would look at this location and add it to the area of study.

Chairman McCall commented that much of the evening had been spent talking about water needs and he would like the two Boards to briefly talk about transportation. He again noted part of the task the Planning Board had been given charge by the County Commissioners was to look at transportation issues for the County. He said the County Planning Board had met with the Transportation Committee earlier this year, and several highway projects had been identified as very important to the county. Those projects include completion of a four-lane highway from

Brevard to Rosman, a new NC 215 to connect Hwy 64 west near the Cherryfield area and the intersection of Macedonia Church Road and the current Highway 215, elevating and widening Wilson Road, and the construction of a new bridge in the south end of Rosman, to tie Hwy 178 with the old US 64. He noted these projects are part of the current DOT's recommended road improvement plan for the County.

Ms. Davis commented that a transit system is needed in the City and County to help people who don't have a driver's license or a car, or have a disability which prevents them from driving a car. Mr. Parker inquired if there would be enough interest in having a county-wide transit system. Mr. Tooley commented that it would take adequate funding to make this a reality.

Chairman McCall noted Transylvania County is the sixth oldest county in the state and that public transportation is becoming more of an issue. He noted that being able to move about the county was a major quality of life issue.

Mr. Tooley inquired if the City had set priorities for transportation. Mr. Freeman commented that the City has adopted priorities and endorsed county projects such as the new Highway N C 215 through the RPO. He said the top priorities for the City are to finish South Caldwell to make it 3 lanes, build a west loop which would take traffic from Railroad Avenue to Deerlake, and back to Rosman Hwy near Savmor, have Wilson Road as a bypass around the city, and align 64 West with the overall goal to continue to make the City friendly for pedestrians and bicycles.

Mr. Burrows also noted that the connector road at Davidson River Village is a top priority on the transportation plan regional project list.

Mr. Parker inquired about the proposed bypass. Mr. Freeman stated that the Transportation Plan adopted in 2007 calls for a bypass to connect to NC 280 North of Walmart, South of Hudlin Gap Road, US 64 to Wilson Road, to US 64 West to somewhere near Selica or Illahee. The bypass has been identified as the top priority by City Council according to Mr. Freeman.

Mr. Jackson inquired about the US 64 East corridor toward Hendersonville. Mr. Parker commented that the issue of improving this highway is more of an issue with Henderson County. He said it was his understanding that adequate right-of-ways have been purchased up to Horseshoe to allow widening of this road.

Mr. Burrows commented that the Planning Board would include excerpts from this meeting and the Transportation Committee meeting in their report to the County Commissioners. He further stated that having this meeting and working together was a good step to help move us in the right direction. Mr. Freeman agreed with Mr. Burrows.

Both Chairman McCall and Chairman Lasater stated that this was a good meeting and they would like to have another joint meeting sometime in July. Planning Directors Mark Burrows and Josh Freeman agreed to work to establish a date for this meeting

Appendix D

GUIDE TO SURFACE FRESHWATER CLASSIFICATIONS IN NORTH CAROLINA

NC Department of Environment and Natural Resources - Division of Water Quality - 2009

Surface Freshwater Classifications	AREA AFFECTED	WASTEWATER DISCHARGES ALLOWED ⁷	DEVELOPMENT ACTIVITIES								
				OWABLE D	ENSITY	EROSION & SEDIMENTATION CONTROLS ¹⁵	AGRICULTURE BEST MANAGEMENT PRACTICES MANDATED ¹⁶	FORESTRY BEST	TRANSPORTATION BEST MANAGEMENT PRACTICES MANDATED		DAMS/ WATER RESOURC PROJECTS
			LOW DENSITY OPTION (DU - DWELLING UNIT) (AC =ACRE)	HIGH DENSITY OPTION ¹²	STREAM BUFFERS ^{13, 14}			MANAGEMENT PRACTICES MANDATED ¹⁹		LANDFILLS ALLOWED	
DWQ Primary Class	ifications										
WATER SUPPLY - I (WS-I) ¹	entire water supply watershed	none allowed	none undeveloped	none undeveloped	N.A.	more stringent rules apply	yes ¹⁷	yes	stricter NC Div. of Land Resources erosion controls apply 20	none allowed	no specifi restriction
WATER SUPPLY - II	1/2 mile critical area ³	general permits ⁸	1 du / 2 ac or 6% built upon area	6-24% built upon area	low density - 30' high density - 100'	more stringent rules apply	yes ¹⁷	yes	stricter NC Div. of Land Resources erosion controls apply 20	ALLOWED Anone allowed no new leandfills no new leandfills no new landfills no new landfills no new landfills no new landfills no specific restrictions	no specifi restriction
(WS-II) ¹	rest of watershed	general permits ⁸	1 du / 1 ac or 12% built upon area	area	low density - 30' high density - 100'	more stringent rules apply	yes	yes	stricter NC Div. of Land Resources erosion controls apply 20	discharging	no specif restriction
WATER SUPPLY - III	1/2 mile critical area ³	general permits ⁸	1 du / 1 ac or 12% built upon area	12-30% built upon area	low density - 30' high density - 100'	standard rules	yes ¹⁷	yes	yes ²⁰		no specifi restriction
(WS-III) ¹	rest of watershed	domestic & non-process industrial	1 du / 1/2 ac or 24% bulit upon area 1 du / 1/2 ac or	24-50% built upon area 24-50%	low density - 30' high density - 100'	standard rules	yes	yes	yes ²⁰	no new discharging landfills ²¹	no specif restriction
WATER SUPPLY - IV (WS-IV) ¹ WATER SUPPLY - V (WS-V) ¹ CLASS B (B) CLASS C (C) DWQ Supplemental	1/2 mile critical area ³	domestic and industrial ⁹	24% built upon area ¹⁰	bulit upon area ¹⁰	low density - 30' high density - 100'	standard rules	yes ¹⁷	yes	yes ²⁰		no specif restriction
(WS-IV)'	protected area ⁴	domestic and industrial	1 du / 1/2 ac or 24% bullt upon area ^{10, 11}	24-70% built upon area ^{10, 11}	low density - 30' high density - 100'	standard rules	yes	yes	yes ²⁰	no specific restrictions	no specifi restriction
	river segment	domestic and Industrial	no restr	Anna de la compania	none required	standard rules	yes	yes	applied as practical	no specific restrictions	no specifi restriction
	recelving stream	domestic and industrial (reliability requirements)	no restri	ctions ²²	none ²² required	standard rules	yes	yes	no specific BMPs required		no specif restriction
	receiving stream	domestic and industrial	no restrictions ²²		none ²² required	standard rules	yes	yes	no specific BMPs required		no specifi restriction
DWQ Supplemental	Classifica										
NUTRIENT SENSITIVE WATERS (NSW)	entire watershed or river basin	domestic & Industrial (watershed- specific nutrient removal required)	11 commun Pamlico and Basins require meet loadi	15 in Neuse stormwater to	50' in Neuse and Tar-Pamilco basins and Jordan Lake Watershed ¹⁴	standard rules	yes ¹⁸	yes	no specific BMPs required		no specifi restriction
DWQ TROUT WATERS (TR)	receiving stream & 25' buffer area	domestic & industrial (stricter treat- ment standards)	No restr	rictions	25' buffer between stream & graded area	standard rules plus special buffer zone	yes ¹⁸	yes	stricter NC Div. of Land Resources erosion controls apply	no specific restrictions	no specifi restriction
HIGH QUALITY WATERS (HQW)	within 1 mile from and draining to classified waters	domestic & Industrial (stricter treat- ment standards for new or expanded discharges)	1 du / ac, or 12% built upon area ^{to}	no limit specified (must control runoff from first 1' of rain- fall ¹⁰)	low density - 30 ^{,10} high density - N.A.	more stringent rules apply	yes ¹⁸	yes	stricter NC Div. of Land Resources erosion controls apply	discharging landfills possibly	no specifi restriction
OUTANDING RESOURCE WATERS (ORW)	normally entire water- shed (drain- age area)	no new dis- charges or expansions	1 du / ac. or 12% bullt upon area ¹⁰	no limit specified (must control runoff from first 1' of rain- fall ¹⁰)	low density - 30 ^{,10} high density - N.A.	more stringent rules apply	yes ¹⁸	yes	stricter NC Div. of Land Resources erosion controls apply	discharging	no specif restriction
SWAMP WATERS (SW)	receiving stream	no specific restrictions	no restr	ictions	none required	standard rules	yes ¹⁸	yes	no specific BMPs required	no specific restrictions	no specif restriction
Other Agency Class	ifications	stational view controls	No. 00 (100 (100 (100 (100 (100 (100 (100		En conscionation (CAS)		A. 10 (10 (10 (10 (10 (10 (10 (10 (10 (10			Landau o Rossocia Robel	-104-3584-000
FEDERAL WILD & SCENIC RIVERS (US Forest Service, National Park Service, etc.)	river corridor ⁵	no specific restrictions	(State encoura	o specific restri ges local gove use but is not m	nments to regulate	standard rules	yes ¹⁸	yes	no specific BMPs required	no specific restrictions	may be restricted prohibited
NC NATURAL & SCENIC RIVERS (NC Division of Parks and Recreation)	river corridor ⁶	no specific restrictions	no specific restrictions (federal government asks local governments to regulate land use, but is not mandatory)			standard rules	yes ¹⁸	yes	no specific BMPs required		may be restricted prohibite
DESIGNATED PUBLIC MOUNTAIN TROUT	designated waters	no specific restrictions	no specific restrictions (this classification is for fishery management purposes only)			standard rules	yes ¹⁸	yes	no specific BMPs required	no specific restrictions	may be restricted prohibite

- New Industrial process wastewater discharges are allowed but will require additional treatment requirements. These rules apply only to projects requiring a Sedimentation and Erceion Control Plan. The ser rules apply only to projects equiring a Sedimentation and Erceion Control Plan. 13 acre lot or 36 percent built upon surface area is allowed for projects without a curb and gutter street system.

 17 acre lot or 36 percent built upon surface area is allowed for projects without a curb and gutter street system. The project is a surface and the surface and the surface and the surface and an allowed and maintenance of stormwater controls.

 18 fuffers for low and high density options are applicable to perennial waters and shorellines; however, an unique management strategy with different buffer requirements applies to Randleman Reservoir (15A NCAC 28 2048-0281). When the 1076 provision is invoked, 100 buffers are needed.

 18 partial Buffer Protection Rules specifically applied to the surface waters of the Neuse Riiver Basin and Tar-Parillo River Basin went into effect in August 2000. Fifty-foot buffers are required for waters and Tar-Parillo River Basin sont those buffers are more restrictive than buffers required by other classifications.

 18 projection and sedimentation controls are those specified under the Nc. Sedimentation Poliution Control Act (administered by the Nc. Division of Land Resources) or local government ordinances.

 18 agricultural activities are subject to provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990.

- Agricultural activities must maintain a 10-foot vegetated buffer from perennial surface waters or equivalent control as determined by the Soil and Water Conservation Commission.

 Statewide rules administered by DWO require certain size animal feedlots to have permit coverage and approved animal waste management plans, as well as to implement buffer zones between newly constructed waste facilities / waste application areas and perennial surface waters. In the Neuse River Basin and Tar-Pamilco River Basin aya garjicultural operation is required either to become part of a collective local strategy for implementing BMPs or to implement standard BMPs.
- 20,
- operation is required either to become part of a collective local strategy for Implementing BMPa or to Implement standard BMPa.

 Sliviculture activities are subject to the provisions of the Forest Practices Guidellines related to water quality. Activities on U.S. Forest Service lands are also subject to federal forest management guidellines.

 The Department of Transportation must use BMPa as described in their document, 'Best Management Practices For Protection of Surface Waters' (March 1897).

 Tolischarging' landfills are inose that must obtain a National Pollutant Discharge Elimination System permit from DWQ to The following stormwater management requirements are applicable to development activities in the 20 Coastal Counties requiring a CAMA major permit or Erosion and Sedimentation Control Plan approval and, for non-residential development, any project proposing 10,000 equare feet or more of bull-upon area.

 MINIMUM BUFFER REQUIREMENT: 30 ft Redevelopment, 50 ft New Development

 LOW DENSTY THRESHOLD FOR BUILT-UPON AREA: 24% bullt upon area

 ENGINEERED STORMWATER CONTROL FOR HIGH DENSITY: Requires control of runoff from the 1.5-inch rainfall event through the use of engineered stormwater controlor.

 MINIMUM BUFFER REQUIREMENT: 30 ft Redementation Control Plan approval.

 MINIMUM BUFFER REQUIREMENT: 30 ft Redementation Control Plan approval.

 MINIMUM BUFFER REQUIREMENT: 30 ft Redementation Control Plan approval.

 MINIMUM BUFFER REQUIREMENT: 30 ft Red DENSITY: Requires control of runoff from the 1.5-inch rainfall event through the use of engineered stormwater controls.

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