

MINUTES
TRANSYLVANIA COUNTY BOARD OF COMMISSIONERS
November 4, 2013 – SPECIAL MEETING/WORKSHOP

The Board of Commissioners of Transylvania County met in a special meeting/workshop on Monday, November 4, 2013 at 6:00 p.m. in the Rogow Room at the Transylvania County Library.

Commissioners present were Vice-Chairman Larry Chapman, Jason Chappell, Chairman Mike Hawkins, Daryle Hogsed and Page Lemel. Also present were County Manager Artie Wilson, County Attorney Tony Dalton, and Clerk to the Board Trisha Hogan.

Media: *The Transylvania Times* – Eric Crews

There were approximately 25 people in the audience.

CALL TO ORDER

Chairman Mike Hawkins presiding called the meeting to order at 6:05 p.m.

WELCOME

Chairman Hawkins welcomed everyone to the meeting and thanked the members of the audience for participating in their County government. He introduced the members of the Board of Commissioners and staff.

GOALS OF WORK SESSION

Approximately one year ago, Brevard City Council began exploring the possibility of increasing its water capacity in order to meet future growth needs. The City believes it can accommodate future growth by expanding its water capacity to 5 million gallons/day.

The main goals of this work session are to:

- Understand how the water permitting process works
- Understand where the single sources of water are to meet the City's projected demand
- Understand how the City's location of a new water intake will impact the County
- Discuss next steps for Commissioners

Commissioners intend to accomplish these goals by first hearing a presentation by Keith Webb with McGill Associates. Mr. Webb intends to give an overview of the issues and regulations associated with water planning and development in North Carolina. After his presentation, Commissioners will have discussion to identify the questions they have regarding the City's projected water needs and determine what their next steps should be.

The Manager noted that the City has developed a timeline of steps that must be taken to reach their goals. Their timeline indicates that construction of a new water intake system should begin in late 2020 with operation of a new facility to begin approximately two years later.

INFORMATION ABOUT WATER SITING PROCESS

Mr. Webb showed a power point presentation entitled “Water Supply Planning: Transylvania County”. His presentation covered four areas: 1) existing public water supply systems, 2) current and future demands, 3) “safe yield”, and 4) watershed protection.

Existing Public Water Supply Systems

Currently there are four public water supply systems in Transylvania County. The City of Brevard has the only system that uses surface water. The current demand is slightly over a million gallons per day (mgd), although they have a permitting capacity of 2.6 mgd. Under extreme drought conditions, the City would more than likely be unable to get this amount of water per day from Cathey’s Creek. The Town of Rosman, Connetsee Falls and Fairfield Sapphire have groundwater supplies. The Town of Rosman’s capacity is about 150,000 gallons per day. Connetsee Falls’ water supply is estimated to be 500,000 gallons per day. Fairfield Sapphire is estimated at 690,000 gallons per day. These safe yield estimates were based on a single instance when those water sources were developed and the wells were drilled for those facilities. Each facility, under State law, is required to complete a capacity test of the well. To do this, the wells are pumped for 24 hours at a certain flow rate bringing the water level down to an acceptable level above the well pump. This helps to determine the permitting capacity. Unfortunately, there is no monitoring equipment inside those wells to determine what happens to the groundwater in the case of a drought. It is unknown if these well supplies can actually provide the stated amounts of water in drought situations. These four water suppliers in the County serve approximately 49% of the residents in the County.

Current and Future Demands

When an entity develops a new water supply, the State requires an environmental assessment as part of the planning process. The State Environmental Policy Act, known as SEPA, requires the entity to project its future demands. The accepted way of projecting those demands is to multiply the population growth by the estimated per capita usage for any water user. Added to this figure would be the projected growth and demand for commercial and industrial usage. Historically, a large part of the water usage in Transylvania County was for industrial purposes. The demand for water sources by industry has dramatically decreased over the last 15 years.

The main goal should be to produce a water supply that will allow the City of Brevard, Town of Rosman and Transylvania County the ability to grow. Mr. Webb noted that in his experience once local entities begin to project their future water demands, they come under a lot of scrutiny. As part of the SEPA process, resource agencies such as US Fish and Wildlife, US Corps of Engineers, NC Wildlife Resources, etc. are allowed to review the projections. All of these agencies are concerned about the impact growth has on the environment. Mr. Webb commented that the resource agencies sometimes believe that mountain regions are wasteful with water and that user restrictions are not tight enough, but with tighter restrictions and changes in plumbing laws, water consumption should decrease. The goal of a water provider should be to encourage reduced consumption while having an unlimited and uninterrupted supply of water.

Safe Yield

Mr. Webb stated that a water supply for the County will more than likely come from the French Broad River or one of its tributaries. Any water provider must determine the safe yield of a water supply. While there are many debates about how to determine safe yield, the best definition is the maximum dependable draft that can be made continuously upon a source of water supply over a given period of time (probably 50 years) during which the probable driest period, and therefore period of greatest deficiency in water supply is likely to occur. Drought can have a major impact on communities. As the County moves

forward, it will need to determine the safe yield and how vulnerable it will be for a particular water supply.

Mr. Webb reported that new modeling techniques have been developed to help entities determine water supply withdrawals. The US Geological Society (USGS) has had flow gauges on streams in North Carolina for a number of years. USGS uses design flow statistics called 7Q10 (the lowest 7-day average flow that occurs on average once every 10 years) to project water demand. The State allows the 7Q10 figures to be used in planning processes. However, this number can be inaccurate. Mr. Webb explained the 7Q10 figures for some of the gauges USGS has in Transylvania County and in neighboring counties. He noted that historically the Public Water Supply Section at the State level has allowed a water purveyor in their permitting process to take up to 20% of the 7Q10 without doing any additional significant modeling of that particular stream.

Cathey's Creek

Cathey's Creek has a drainage area of 11.40 sq. mi. The 7Q10 is calculated at 5.50 mgd. 20% of the 7Q10 is 1.10 mgd.

The City of Brevard's water system is permitted for 2.6 mgd. Based on the 7Q10, there is statistically a chance that once every 10 years Brevard will not be able to pull enough water out of its source for a short period of time.

Davidson River

The Davidson River in Transylvania County has a drainage area of 40.40 sq. mi. The 7Q10 is calculated at 19.40 mgd. 20% of the 7Q10 is 3.9 mgd.

Mills River

The Mills River on Highway 280 has a drainage area of 66.70 sq. mi. The 7Q10 is calculated at 25.20 mgd. 20% of the 7Q10 is 5.0 mgd.

The Mills River serves as the supply for the City of Hendersonville and is also the main supply for the City of Asheville's Mills River plant which is located in Henderson County. The City of Hendersonville has been permitted to operate a 12 mgd water plant. This means that under normal circumstances the City of Hendersonville can take 12 million gallons per day from the Mills River based on the aquatic nature of the River. Mr. Webb noted that over time the rules tend to change in order to protect endangered species, so the planning process has to take this factor into account as well.

French Broad River

The French Broad River near the Henderson County line has a much larger drainage area than it does below Rosman. Near the Henderson County line (Blantyre), 20% of the 7Q10 is 33 mgd. This makes the French Broad River an attractive source as Transylvania County moves forward in its water study and determining projected water demands.

Watershed Protection

Transylvania County sits at the headwaters of the French Broad River which means that the first flow of water initiates out of Transylvania County. Part of the charge the County will have is how to protect this water supply in the future and to determine the regulations to put in place to do so.

Under North Carolina rules, there are five water supply classifications. These were implemented by the State in order to comply with federal laws about protecting water resources in an effort to provide safe drinking water. The classifications are categorized as WS-I through WS-V.

WS-I

There are only a few instances of WS-I classifications. WS-I means the area is an undeveloped watershed all the way to the top of the watershed. The City of Asheville has 22,000 acres that are classified as WS-I. The only thing that goes through it is the Blue Ridge Parkway.

WS-II

WS-II is more restrictive. Just as in the case of WS-I, the property must be owned by the entity providing the water supply. A WS-II is historically undeveloped as well. However, it is not controlled by the entity getting the water. For example, the City of Brevard gets its water from Cathey's Creek which is mostly located within the Pisgah National Forest. Since Brevard does not have total control of the property, the State classified it as WS-II. Also like the WS-I, the area goes to the top of the drainage area in the watershed.

WS-III

WS-III is less restrictive. The NC Department of Environment and Natural Resources (DENR) prefers this classification because it protects water supplies to the top of the watershed. However, in some areas across the State, particularly in the mountains, this classification causes restrictions to be placed upon other counties because of where the top of the watershed might be located. This obviously causes problems between neighboring governments and in some instances it has resulted in the classification being changed to WS-IV.

WS-IV

The least restrictive classification is WS-IV which has the same development restrictions as WS-III but only extends the protected area 10 river miles from the intake point. This means less area that is encumbered by watershed protection rules.

WS-V

WS-V is a classification for future water supplies.

Since WS-IV would be the preferred classification should the County move forward, Mr. Webb discussed it in greater detail and talked about the types of restrictions that will impact property that lies in the protected area. As stated, the protected area for WS-IV is 10 river miles from the intake point. One of the restrictions is that there can be only one house per ½ acre. Apartment complexes and condominiums are allowed but storm water controls must be implemented to control and treat the first inch of runoff. Another restriction is stream buffers. Best management practices must be implemented in the watershed in order to protect the water quality. Mr. Webb noted that the County already enforces some watershed protection rules in the Cathey's Creek watershed; however, the County will have to consider new rules should it move forward with developing a new water source.

Next, Mr. Webb talked about the options available to the County. He noted that State agencies preferred regional systems for efficiency purposes. The County will have to explore this option as part of the SEPA process. The two systems that are in operation today are the City of Asheville's Mills River plant and the City of Hendersonville's Mills River plant. The City of Asheville uses the Mills River as its main source and uses the French Broad River as a secondary source. This system serves a small portion of the northern part of Henderson County, the area around the Asheville Airport, and the southern part of Buncombe County. Hendersonville has three intake points along the Mills River. They have permission to build an intake on the French Broad River as well. Of course, the County has the option of developing its own system.

Mr. Webb posed a series of questions the County will need to consider in its planning for providing water in the future:

1. What is the service area for the water systems in the future? Where are the potential growth areas that may need water services?
2. Who is going to serve those areas? Should there be an agreement between the City of Brevard and the Town of Rosman to interconnect the two systems and who is responsible for the cost?
3. Will there be a need for sewer services as well?
4. How will those systems be managed? Will they be managed as they are currently? Should there be an inter-local agreement to manage those systems in the future? Should the County form an independent water authority?
5. If the County decides to participate in funding a project outside any of the current systems what should the payback period be for those and how is the payback period calculated? Is it based off of an exchange of revenue for water sales for some period of time? Or is it strictly from tax dollars and what should the payback period be? Entities have funded systems in several different ways.
6. Connection to Asheville/Hendersonville vs. develop own system within the County?
7. If the County decides to develop its own water system, what impacts are there on the protected area of that watershed?

Mr. Webb showed an example of where a protected watershed might be. He selected an area on a map, using the French Broad River as the water source and WS-IV as the classification, in which 10 river miles did not enter into the jurisdiction of the Town of Rosman. The watershed protection area consisted of 35,000 acres. He added that the State will push the County into a WS-III classification, but Mr. Webb believes the County has the ability to become classified as WS-IV. It will just be another hurdle the County will have to tackle during this lengthy process.

DISCUSSION AMONG COMMISSIONERS ABOUT WATER – WHAT THEY WANT TO KNOW

Commissioners participated in a lengthy discussion and asked several questions. This is a summary of their discussion:

1. What are the requirements necessary to work with the City of Asheville and/or the City of Hendersonville to develop a regional system? Will the State force the County to develop a regional system, especially if these two systems have extensive capacity? Is it possible to continue using the intake at Cathey's Creek and connect to Hendersonville's system to accommodate future growth needs?

Mr. Webb said the State will not force the County into a regional system; however, as part of the SEPA process, the County will be required to explore all of the options and alternatives available and the costs of each. Mr. Webb agreed it is possible to continue using the intake at Cathey's Creek and connect to Hendersonville's system to accommodate future growth needs.

2. Is the County's ability to withdraw water from the French Broad River impacted by existing permits downstream?

Yes. In North Carolina, a person who owns property along a river has the ability to use the water there as long as they do not negatively impact people downstream. The State has a water protection plan which includes modeling programs; however, the French Broad River is not currently part of the plan. It will be part of the plan in five to six years. What the modeling program will do is determine how much water needs to stay in the river for the ecology of the river. It will also give the County the opportunity to stake its claim on how much water it thinks it will need to meet future demands.

3. Does the County need to explore options for water storage capacity, such as building a lake for example? Does having storage capacity impact the safe field figures?

Mr. Webb explained that safe yield is calculated differently with reservoirs. When constructing a reservoir, an entity must complete the same vulnerability assessment, determine how far to draw down a reservoir particularly in drought conditions, and determine the amount of water that can be released before negatively impacting the habitat. He said that reservoirs are not always a long term answer to ensuring water capacity. Evaporation is also an issue.

4. In Transylvania County, 40% of the existing water supplies come from ground sources. Would the State allow ground sources to be redeveloped or should the County begin positioning itself to take into account only surface water when entering the planning phase? Are ground sources still viable to supply municipalities?

Mr. Webb stated that ground sources are still viable but they do not provide a large capacity of water. A high producing well in Transylvania County would produce 100-150 gallons per minute, so it would take many wells to produce a large capacity of water. Also, there are well restrictions that must be adhered to. Well water comes from underground fractures and therefore it is unknown how long the source will last because the water level is not constantly measured. With that said, it is not prohibitive to develop ground water sources and there is no need to consider replacing existing sources.

5. Asheville has a water supply on the Mills River just downstream from the Hendersonville intake. In a drought condition, how do the two entities work together to ensure there is enough water?

Both have supplemental supplies on the French Broad River. On the Mills River, both can only take the water down to a certain level. Mr. Webb noted that the City of Brevard has the same requirements on Cathey's Creek. Most water purveyors adopt rules for dealing with drought conditions. During a drought an entity may ask their customers to conserve water, or in worse cases impose mandatory restrictions along with higher water rates.

6. Can the County sell its water to another community as a source of revenue?

No. North Carolina is a riparian state which means that all landowners whose property is adjoining a body of water have the right to make reasonable use of it. Also, a maximum of 2 mgd is allowed to be taken from the water source without needing special permission.

7. Referring back to the example Mr. Webb used at the end of his presentation where he selected a spot on the French Broad River as an intake, did he consider other locations or was his choice simply random? The site he chose impacts 35,000 acres and equates to approximately 54.7 sq. mi.

The spot he chose was random. The City of Brevard has been looking at several locations. Mr. Webb said if the County decides to move forward with water supply planning, it should try to find the best location that has the least amount of impact on the areas upstream.

8. Why does the State push for WS-III classifications? All the conversations County officials and staff have had up to this point has been about the WS-IV classification.

The Public Water Supply Section of the NC Division of Water Resources prefers the WS-III classification because it protects the area from the top of the watershed. There is not much difference in the protection rules between a WS-III and a WS-IV, but the WS-III protects a larger area.

9. How does the County ensure a WS-IV classification?

The argument to the State would be that the development is the same for both classifications. So much of the County is already protected being that it is in the Pisgah National Forest and those areas will probably never be developed anyway. From a water quality standpoint, a WS-III classification will not make much difference either.

10. What is the process for creating a water authority?

Mr. Webb will provide the guidelines for each of the managerial organizations and the options available to the County.

11. Is there any data to support the argument that economic growth follows water line extensions?

There are some cases where there is economic growth when there are other factors involved but there is no strong correlation between economic development and water services. That being said, as counties try to attract industry to their communities, one of the first questions asked is whether or not there is access to water. In this case, water and sewer go hand-in-hand. It is expensive for industries to construct their own sewer treatment facilities.

12. Is it reasonable to think that connecting Brevard's and Rosman's water systems along Highway 64 would provide opportunities for development that do not exist today?

Yes.

13. Is there a concern about the County having to enforce storm water regulations?

With the WS-IV classification, the higher developed parcels (apartments, condominiums) must have storm water controls in place. It would be the County's responsibility to permit and inspect those facilities.

14. Does the County have the option of denying the City's choice of location for their new intake if it has too much of an impact on residents in the County?

Mr. Webb said, in his experience, that if the City of Brevard does not have an inter-local agreement in place prior to requesting a reclassification of a section of the French Broad River with the State, the State will more than likely not approve the request. The State wants these issues to be worked out at the local level.

15. What other responsibilities will be placed upon the County besides enforcing storm water controls?

Another responsibility of the County would be to control how the property is developed in the future. These guidelines would be spelled out in the watershed protection rules. The County currently enforces a Watershed Protection Ordinance in the Cathey's Creek watershed.

16. What is the current classification of the French Broad River?

The French Broad River is currently classified as Class C recreational waters. Some parts are classified as trout streams which come with their own restrictions. WS-III and WS-IV are higher classifications. Neither of these classifications prohibits the recreational activities that occur on the river today.

17. An advantage to connectivity of the water systems in Brevard and Rosman would be to provide backup for both systems in times of drought or in times of unforeseen circumstances. Is this important?

Yes. The City of Brevard depends solely on Cathey's Creek and they have no backup supply. In an extreme drought, the City would have to put major restrictions on water usage. The Town of Rosman has a ground water supply and they have storage as well. Other towns have connectivity for the same exact reasons. It provides a redundant source of water. This is also the reason the State is pushing for regional systems.

18. Are there grants available to assist with the cost of connecting systems?

There is very little grant money available right now. However, the State has an infrastructure finance section that will probably loan money to entities at a low interest rate.

19. If the City of Brevard builds a new intake facility, does it make sense that an entity take over the Cathey's Creek facility in order to provide a redundant water source?

This would be a decision by the City of Brevard. There are many options available to them. The City could abandon the plant or bring both sources of water to a new location. Unfortunately they would not be able to expand the Cathey's Creek plant. It also becomes a matter of what is cost effective for them to operate.

20. Cost is going to be a major concern as the County moves forward. Would it be possible to move further up the French Broad River into the Pisgah National Forest so there is less impact on the citizens as far as regulations are concerned? Is this reasonable or is it a cost issue?

This is a cost issue. There is also less drainage area and a higher vulnerability to dry conditions.

21. Is existing development grandfathered in or must they comply with the new rules?

Regulations on water protection apply to new development. Current uses would be grandfathered in.

22. Is it possible to connect with Hendersonville's water system at the county line on Highway 280 and bring water to the where the City of Brevard's ends? Is it plausible to extend water lines over Little Mountain?

Yes, it is plausible to extend water lines over Little Mountain. It is a matter of hydraulics, but it costs more to pump water up the mountain. Should the County decide to consider connecting onto the Asheville or Hendersonville water system, the County would first need to look at their current distribution systems and determine how much water to purchase from them and what improvements to their systems would be required, other than just extending to the county line. Mr. Webb noted that Brevard's water source, even in drought conditions, can produce 2 mgd probably 300 days out of the year. Their current demands are slightly over 1 mgd. This means there may be 300 days of the year where there is no need to get water from Hendersonville. This is important to note because the County would have to pay for any infrastructure improvements to Hendersonville's system and there may be no revenue coming in to cover the cost other than from customers that tie onto the line.

23. This is the opportune time for the County to determine whether or not to be in the water business. The City is trying to project its water needs based on a complete build out of its jurisdiction.

24. Regulations in flood plains and flood ways and trout stream designations describe a significant portion of the County. How do these regulations impact private wells on private property? There is great concern about the future of some property owners and their ability to stay on their own land because of water and sewer needs.

The State continues to place more and more restrictions on private wells. Over the last several years, counties and municipalities have used grant money to extend services out into unincorporated areas because wells either went dry or there were water quality issues. Mr. Webb believes this is another reason the County should begin planning in order to help these landowners in the future.

25. Referring back to an earlier question about property being grandfathered in, should a structure be destroyed by fire, would the rebuild of that structure fall under new regulations?

If the owner rebuilds what they already had, probably not; however, if a property owner lost a 2,000 sq. ft. structure to a fire and then decided to build an apartment building, then yes they would be required to build under the new regulations.

26. Would it be a benefit to the City of Brevard and the Town of Rosman for the County to partner with them for efficiency purposes and ultimately increase the customer base?

Yes, it would be a benefit. There are lots of partnerships across the State that work very well.

27. Does McGill Associates help counties and municipalities navigate through projects like these?

Yes, McGill Associates can assist with this. With collaboration from the County, City of Brevard and the Town of Rosman, McGill Associates can help determine how to best maximize the resources in Transylvania County and help protect the citizens.

28. How does the County help property owners with well and sewer problems?

Help has historically come in the form of grant monies to address water quality problems. These monies help pay for extension of water lines and the cost of maintaining them.

NEXT STEPS

1. More detailed discussions with the City of Brevard and Town of Rosman to help determine the County's path forward.
2. Determine if there is a need for water services outside of the municipalities, particularly in the corridors. Determine potential problem areas. Build on the work that the Planning Board has already done.
3. Work with City of Brevard and Town of Rosman to insulate Transylvania County from the potential regional assignment to Buncombe and Henderson Counties.
4. Study sewage capacity issues hand-in-hand with the need for water services
5. Bring back a rough analysis to Commissioners before meeting with the municipalities. This work can be done by the Planning Board and the Product Development Task Force.
6. Find out if the private systems like Connestee Falls and Sapphire have capacity to accommodate future development. Determine if there are other private systems around the County and how economically viable they are with all the new regulations that are placed upon them.
7. Consider contracting with McGill Associates to put together a proposal on how to move forward.
8. As Commissioners move forward, keep in mind the potential for economic growth and the potential to improve the lives of citizens making Transylvania County a better place to live.

ADJOURNMENT

There being no further business to come before the Board, **Commissioner Chapman moved to adjourn the meeting, seconded by Commissioner Lemel and unanimously carried.**

Mike Hawkins, Chair
Transylvania County Board of Commissioners

ATTEST:

Trisha M. Hogan, Clerk to the Board