

Well Subcommittee Minutes

February 3rd, 2021

Attendees: Jeannie Ambrose, Phil Bradley, Larry Bridges, Craig Caldwell, Ginger Cunningham, Clyde Frazier, Sharon Garbutt, Martha Girolami, Emily Moose, Ben Shields, Caroline Siverson, Sharon Day, Kim Tyson, Hunter Glenn, Cara Russell, Jason Sullivan

- Caroline Siverson called the meeting to order at 10:32am.
- Jason Sullivan went over the virtual meeting software and explained how participants should interact with the remote meeting platform.
- The minutes from the January 6th meeting were approved.
- Ms. Siverson introduced Larry Bridges, the Chatham County Utilities Director, and his presentation on the Chatham Water system and future water system resources.
- Mr. Bridges presentation was titled Chatham County Future Water Supply Planning. He started out by going over the breakdown of the county's water system. The county has two purchase systems, the Asbury system through the City of Sanford, which also supplies the water for the southwestern portion of the county that used to receive water from the Town of Siler City. Siler City stopped providing the southwest regions water when it needed the water for the Mount Aire Chicken processing plants. Siler City still provides water to small portion of the county north of 64 and east of Town.
- Clyde Frazier asked where Sanford gets their water and Mr. Bridges answered that it was supplied by the Cape Fear river. Mr. Frazier asked if Mr. bridges had any sense of Sanford's willingness to expand their water supply into Chatham County in the future. Mr. Bridges said he would be covering that later in the presentation.
- Mr. Bridges continues with the presentation discussing the third and largest system for the County, coming from the water plant east of the lake. It is a 3 million gpd plant. This plant supplies about 85% of the county's water system customers and can get overtaxed in the summer months.
- Presentation Continues (full slides available on website).
- Ms. Siverson asked where Durham gets their water?
- Mr. Bridges explained that Durham gets its water from the Eno River and the Little River which supply multiple reservoirs.
- Ms. Siverson asked a question about what happens during a drought. If we get water from other systems (Durham's Supply) because Jordon Lake is low, what accounts for them having enough water to give Chatham?
- Mr. Bridges said that was a good question and he asked the same thing. He explained that Jordon Lake is more drought tolerant, but they have done more expansions at their water plants. It was the ability of their plants to transmit their water to their customers due to plant upgrades that allowed them to draw more water. If we have regional drought issues, they will also be impacted.

- Sharon Day asked if we could measure a percentage of water (ground water and water utility) we could still tap into? Future water availability?
- Mr. Bridges said it is a little different for Chatham. We have so many moving parts, with two purchase systems and during summer months we are already meeting our 3 million gpd limit/capacity. That is why we needed the connection with Durham. From a water supply standpoint, the Asbury and Southwest systems have enough water for the future, but obviously that is not where most of the growth in the county is occurring. Short term we are good, but long term we are looking at a regional plant. Do not have a percentage.
- Mr. Frazier asked should we shift water use from wells to the water system? Are you comfortable with the increased demand that would occur?
- Mr. Bridges said that there are some areas in the county that would benefit by added customers. For example, the rural aspect of the southwest and Asbury systems causes the age of the water to be a water quality problem. They require more maintenance. From a supply standpoint we are fine. He was assuming that we already supply water to most of northeast Chatham, which is where most of the population is. There should not be an issue with expanding uses in other parts of the county where wells are failing.
- Ms. Siverson asked about the calls regarding failing wells. One of the things we are trying to find out is a where the failing wells are? It there a pattern?
- Mr. Bridges said there are two locations that he thinks we get more calls. Between the silk hope area and chapel ridge areas. Most calls have been yielding issues, and about water quality. Quite a few calls from south of 64 between Pittsboro and siler-city. They are not low yield wells, but bad water quality. High Iron and Manganese.
- Ms. Siverson asked what do you tell people when they call if do not have a plan to extend water?
- Mr. Bridges said he was not aware of plans to extend water to large scale areas of the county. He advises residents to make their voices heard if water quality is a large concern, in a larger area. Currently, the only way water* being extended is by developers. The cost to extend water lines is prohibitive to residents or even groups of residents.
- Mr. Sullivan had a few questions. One of the questions was regarding one of the ideas of the committee, which it to require major subdivisions to connect to county water. Mark Ashness, a member of the committee, had voiced concern at previous meetings about the size of water lines in the southwestern part of the county. Mr. Sullivan asked Mr. Bridges about the size of water lines and if we can require developments to tie into the county water system? Also, when is the connection required under the county's water policy?
- Mr. Bridges said that the 2-inch lines are specific to downtown Bennett and Bonlee. The bulk of the lines are 6-inch lines, with a sprinkling a of 8-inch lines. A lot of those rural systems were smaller lines because they used to be connected to wells and they were not upfitted when they were connected to the county. Typically, from

a residential connection side, if they are within 500 feet of a county water line they are required to tie on, unless they have an active well or active well permit. For business, that distance is 2000 feet. For a subdivision you must consider how far all the lots are from the county system. 100 feet per lot.

- Continued discussion about requirements.
- Emily Moose and Mr. Sullivan asked Mr. Bridges about a hypothetical situation in which a Developer bought a 20-acre tract with a house and operational well on the parcel. If the tract is near a county water line and if the developer subdivided the tract into 10-20 lots, what is the requirement for the developer to tie into the county system? Does that automatically trigger a policy?
- In that situation the county policy would override, and they would be required to tie into the county system.
- Mr. Sullivan continued discussion about the possibility of including language in the Subdivision regulations that would require county water availability and tie in once a developer reached a certain number of lots in a major subdivision.
- Mr. Bridges confirmed that a requirement such as that would be cost prohibitive. The cost to install a water line goes up every year.
- Mr. Sullivan asked how much per linear foot it costs to install a water line.
- Mr. Bridges said it is the neighborhood of 75-80 dollars per foot. He said he just did a project that was 1600 dollars per foot because of the bore under a railroad. Usually it's 75-80 dollars per foot. There is also a system development fee which is a fee per lot which is \$3431.00.
- Mr. Sullivan asked if those rates are on the website?
- Mr. Bridges said they were and showed Mr. Sullivan how to find the costs on the website.
- Ms. Day brought up the fact that development in the areas of the county being discussed, specifically northwestern and southwestern, immediately north or south of HWY 64, would be dependent on wells, which is counter to what the subcommittee has been discussing.
- Continued discussion of fees.
- Fees are paid prior to the first plat approval.
- Ms. Siverson said she spent a lot of time looking at the comp plan, especially the utility section. Utility policy number 5 is to limit utility expansion into ag areas. She hopes we will spend some time with the comp plan, and it seems to be germane to this discussion. What would trigger planning for utility expansions, would it be citizen pressure and/or would more development trigger that? When will the county say we really need to have a plan to get water into the western part of the county?
- Mr. Bridges said that if the county is interested in expanding development in the western part of the county, then the county needs to play some role in the planning and potentially the financial piece of extending water lines to those areas.

- Ms. Siverson said conversely if the county did not want to expand development not extending utilities would help with that effort.
- Mr. Sullivan mentioned that he knew the county had a water plan that was looking at demand and capacity. Is there going to be an effort to study where should lines go?
- Mr. Bridges said he does think the county will be looking into that. The Water and Wastewater County Wide Comprehensive Plan they did a few years ago will be used as a tool mainly for cost purposes. To determine what makes the most sense for utility expansion.
- Continued discussion of line expansion and priorities.
- Ms. Siverson asked about the Water Line in Silk Hope.
- Mr. Bridges mentioned that there have been some changes in how that line functioned over the years, particularly how many times it needs to be flushed, and mentioned from an operational standpoint, more use on that line would be benefit.
- Discussion about Silk Hope line.
- Ms. Siverson mentioned that Mr. Bridges had mentioned that Siler City did not have much water and asked how their water availability will affect their future development?
- Mr. Bridges said that Siler City's problem was not their supply, but the ability to distribute their water. He said they were in the process of making updates to their plant that will allow them to maximize the water from their reservoir.
- Ms. Siverson said she had one last question regarding water supply vis-à-vis Jordan Lake and the critical water levels. It has not been that low recently, but there is so much growth in that area (western wake county and northeastern Chatham). At what point is to much population and a good drought going to put us into scarcity territory?
- Mr. Bridges said it depends on who you ask. He said we should be safe until 2060 as a comfortable number. He said we should be planning now. There are a lot of variables to consider. We have had a lot of wet summers and drought has not been an issue. We are just one dry summer away from having an issue. He did mention that when projections of the water supply are made, future population growth trends are considered.
- Mr. Sullivan asked about the future modeling and whether building code changes such as energy efficient appliances and building practices are considered?
- Mr. Bridges said they are not.
- Mr. Frazier and Ms. Siverson thanked Mr. Bridges for coming and being so informative.
- Mr. Sullivan reminded everyone how they could watch the meeting recording.