

Special Meeting
Wednesday, October 14, 2015
Chowan County Public Safety Center
305 West Freemason St.
Edenton, NC
6:00pm

Present Chairman Jeff Smith, Commissioners Alex Kehayes, John Mitchener, Emmett Winborne and Greg Bonner.

Commissioners Keith Nixon and Ellis Lawrence were absent.

Staff present County Manager Kevin Howard, Finance Officer Willie Carawan, Water Engineer Bill Diehl, Water Director Mickey Watson and Board Clerk Susanne Stallings.

This meeting was recorded at the request of Commissioner Nixon. An audio CD copy of the meeting is in the file labeled October 14, 2015.

Special Meeting

Chairman Smith called the meeting to order.

Mr. Howard stated this meeting was called to notify the Board of a letter received from North Carolina Department of Environmental Quality (DEQ or formerly known as NCDENR). He stated that he, the engineer and water director have participated in a conference call about the violation and asked Engineer Bill Diehl to provide the Board with information and history.

Bill Diehl stated that the water treatment plant at Valhalla treats the water by removing iron, manganese and hardness. He stated that the iron and manganese are removed by the filters and then the water goes through softeners that removes hardness and residual iron and manganese. He stated that last fiscal year, the county spent \$71,000 on salt for softening. He stated that excess salt in the wastewater discharge goes into a settling pond at the plant. He stated that in the 1980's the water was directed to a DOT ditch which was blocked off later by DOT and the County began discharging into the pond. He stated that DENR was aware of the change and inspects the site annually. He stated that once DENR stated that there was too much chlorides from the softeners and suggested the County discharge at the Rocky Hock Creek Bridge. He stated that NC Wildlife stated the County could not discharge there. DENR asked the County to hold off on making a change to the discharge. He stated that in 2008 the issue was brought back by DENR and the County entered into a Special Order by Consent (SOC) with DENR. As part of that SOC the County is required to perform toxicity tests at the pond. He stated the toxicity test uses a water flea and the test requires the water flea to survive in the waters and reproduce. It was stated that the County could not fail more than 2 consecutive tests. He said that in 2008 the SOC was a 5 year plan and there were discussions with DENR about pumping the discharge to the River. He stated that he began designing a plan to pump this to the river. He stated that the State then said no, the County cannot discharge in the river. He stated the County wrote a letter to DENR to request to get out of the SOC. He stated that there is another test that can be done using a shrimp however the pond is freshwater. He stated that even if the saltwater test was done, the water is not salty enough for the shrimp to survive and too salty for the water flea to survive. He stated there is another test that can be performed using a fat head minnow and those tests were successful. He stated he has met with toxicology people from Raleigh and have looked through the federal regulations. He noted the County was then required to go back to testing with

the water flea. He stated that DENR said if the County fails two tests in a row (using the water flea) the County would be required to do a study on the toxicity and the application requires a report or study performed. He stated that he feels if the County stops softening the water it may help with failing the tests. He stated that his concern is that 50% of the ion exchange plants (like Chowan's) are flunking the toxicity tests. He stated he was also concerned that Chowan County is the County DENR has used to pioneer the research for all ion exchange discharge. He stated this letter is a violation of discharge into groundwater. He stated that the maps show the pond drains into an un-named tributary of Pollack's Swamp (behind the plant). He stated the current regional director at DENR has a background in groundwater. He stated that in July 2014 DENR came to the site and drilled a test well. He stated that in November 2014 the County received a letter about the test. He stated that he met with DENR in January 2015 because of the holiday and was told three wells were needed. He stated that in June 2015 the tests were performed and in August the County was notified of a violation.

Mr. Diehl stated that in order to comply with the groundwater contamination the County would need to stop softening the water. He stated the County would be allowed a grace period to give the consumers notice and gradually slow the softening. He noted that a plant in Pasquotank County sells water that is softened at almost 300 parts and Chowan currently sells water softened at 80-100 parts. Mr. Diehl explained TDS (Total Dissolved Solids) He noted that the County has in the past discussed construction of an RO (Reverse Osmosis) plant. He stated that the costs for this could exceed \$30 million and take many years to get approved for construction. He stated another option is a Membrane Plant which would cost \$11 million to construct.

He stated that in the short term the County has been given 10 days by DENR to put together a response to DENR. The County additionally has been given 90 days to drill monitoring wells to find clean ground water and demonstrate to DENR the direction that the ground water is flowing. He stated that he would recommend the County contract this work with a company that specializes in this type of reporting. He named a firm GMA out of Greenville NC as one that specializes in this work. He stated he does not do this type of work daily and he feels GMA would be more efficient. He estimated this would cost the county \$20,000 but noted he had not contacted GMA.

The Board discussed other options at the plant for possibly collecting the discharge but this does not address the softening of the water.

Mr. Howard stated he would recommend the County consider stopping the softening and let the Board explore all options for the plant.

Mr. Diehl stated that this process may take time and the County may have to enter into another SOC with DENR.

Mr. Howard stated he would provide the Board with more information from GMA at the next meeting in the form of a budget amendment.

Adjourn

Being no further business, Commissioner Kehayes moved that the meeting be adjourned. Chairman Smith asked for all in favor, the motion passed unanimously (5-0).

Jeffery Smith, Chairman

Susanne Stallings, Clerk