

MINUTES  
August 11, 2015  
SPECIAL COUNCIL MEETING  
10:30 A.M.

Town of Edisto Beach  
Town Hall  
2414 Murray Street  
Edisto Beach, SC 29438

Present: Jane S. Darby, Mayor, Pete Anderson, Susan Hornsby and Patti Smyer, Council Members; Quorum of Council Present. Members of the Water System Improvement Project Progressive Design-Build Services team present were: Lindy Cummins from Thomas and Hutton and Tim Smith from Wharton Smith. Also in attendance were Town Administrator Iris Hill, Utilities Director Bob Doub and Arnold Ellison from Ellison Consulting.

Mr. Cummins distributed handouts to the audience and presenters introduced themselves after Mayor Darby called the meeting to order. Mr. Cummins said the three recommended options to meet basic requirements: well supply, treatment and storage. The overview is attached to these minutes. The two options for supply are three wells in the Santee aquifer (1 existing, 2 new) or a Middendorf well (1 test well and 1 production well). Mayor Darby noted that the water from the Middendorf would require cooling since it would be hotter than the water from the Santee, due to the depth of the well. Blending the water from the Middendorf with water from a Santee well is an option for cooling. Mr. Ellison told those in attendance that water from the Middendorf is 127 degrees Fahrenheit. There are two options for the location of a reverse osmosis treatment plant: McConkey square and Town Hall. There will be a "waste stream" at either location, and with either type well (Middendorf or Santee). Permitting for discharge of the concentrate is a lengthy process. Once the location is selected, the permitting process will begin. Storage is the third component. There are three possibilities: an ASR (aquifer storage recovery) on Town-owned property on Jungle Road, existing ground storage tank at the State Park, or an additional clearwell storage under the RO plant. Currently there are two existing wells at the state park that pump into a 200,000 gallon tank and water is pumped from there into the distribution system by two booster pumps. Mr. Smith explained that a hydraulic model has been run with all different scenarios. A previous engineering firm created the computerized hydraulic model by digitally putting all the existing piping, hydrants, wells and storage tanks into the model. Thomas and Hutton used that information as the basis for the results they were presenting today. Mr. Cummins explained the data presented in the line graphs which are attached. The Lions Club well is the weakest of the existing wells, and a well drilling team, Layne Atlantic, will be consulted on the possibility of drilling a new well on that site. The area on Jungle Road that is being considered is the vacant lots owned by the Town across from Palmetto Plaza. Mr. Ellison asked Mr. Cummins if the ASR would be in the Santee aquifer. Mr. Cummins said it would. Mayor Darby asked what the previous history of ASR wells as far as intrusion. Mr. Cummins replied that intrusion wasn't usually the problem. Councilman Anderson asked how much of the McConkey square area was owned by the Town. Mayor Darby stated that the Town owns the

border of the property (the road and grass strip around the paved parking area), and the inside paved area belongs to the Marina Association. A well and pump station are currently located on the Town property there. The distribution system was discussed next. With each option, performance can be enhanced by increasing the distribution system. The average daily demand is based on 876 gallons per minute and our peak usage is at 7:00 p.m., which is 1,841 gallons per minute. Fire flow is a concern to all. DHEC regulations are for 500 gallons per minute, but after consulting with insurance underwriters, 1,000 gallons per minute is more adequate. Mr. Cummins explained Graph #1, the existing conditions scenarios. He told those in attendance that at peak usage time, with fire flow (1,000 gpm) the existing elevated water storage tank would be emptied. In Graph #2, different proposed scenarios were incorporated, with the most positive outcome being 4B; the elevated tank with a 1500 gpm supply (RO Plant) at Town Hall and a ground storage tank at the State Park well field. In that scenario, the elevated tank would drop to approximately 16 feet under the same conditions (peak usage time with fire flow). Councilwoman Smyer asked if within the time it took to fill the ASR (+/- one year) would the Town be able to provide adequate water supply to the homeowners. Mr. Cummins said that while the ASR was being filled, the RO water would not be accessible. The "bubble" has to be filled before any RO water can be withdrawn. Mr. Smith said that there is flexibility in the timing of filling the ASR. Preferably the Town could fill the "bubble" during the off season when water demand is lower, so that it would be accessible during the season when water demand is high. Mayor Darby asked members of the Water and Sewer Committee who were in attendance if they had questions. Dale Mann asked if fires could be fought with water from a well that is not attached to the RO system. Mr. Cummins said that was not possible since the water distribution system would be in place and the hydrants were hooked into that system. Council made it clear that they did not want to supplement the treated water with raw well water. In order to get it into the distribution system to be available for a fire, it would have to go through the RO system first. Mr. Cummins then explained the clearwell, which is a basin under the RO plant where "finished water" or water that has been treated is stored. The holding basin being considered would be under the RO treatment plant since the floor of the plant has to be above flood level, leaving approximately ten feet of space underneath. The cheapest way to have a holding basin, since the treated water has to be stored for a certain length of time prior to use, would be to build a retaining wall around the RO plant for a clearwell. Mr. Smith will come up with costs on different options so the Town can compare prices. Mayor Darby stated that it was the objective of the Town and its residents to "get maximum bang for our buck."

Mayor Darby asked if there were questions from the audience. Suzan Kozub asked that once it has been determined what water source will be used and the location, what kind of treatment plant would be used? Mr. Smith said that it would be a membrane RO system. Mrs. Kozub asked if the fluoride would be taken out of the water via the RO system. Mr. Smith said that everything would be taken out and that some things would have to be added back for taste. Mr. Smith said that once the Town starts looking at cost, there will be some hard costs, along with operating and maintenance costs and value, which is a gray area. David Cannon asked when the team will be able to supply hard numbers for the project. Mr. Smith said that he would like to have them ready by the end of September. Mayor Darby said that she would rather have things done right than quickly. People in the community want to know with reasonable certainty what is going to happen so that they can make an educated decision. If it takes longer than the end of

September, that would be acceptable, as long as it is done right. Mr. Cummins agreed with Mr. Smith that the end of September would be reasonable. Mr. Cummins said that the team could send a preliminary draft for Council and Mr. Ellison to review and give input first. Mayor Darby commented that she'd like to share that information with the Water and Sewer Committee as well. Councilwoman Hornsby asked if the amount of storage available via the clearwell would have an effect on fire flow. Mr. Cummins said that the effect would be the system could put in more than the 1500 gallons per minute. Ted Luckadoo asked if cost would have a determination on location. Mayor Darby said that ultimately cost has a determination on everything. Mr. Cummins said that choosing sites already owned by the Town cuts down on costs for purchasing property, but the cost of the distribution improvements may negate that savings. Town Administrator Iris Hill said that one reason the Town was considering the clearwell versus the ground storage was that instead of the tank being beside the building, it would be underneath. Mr. Luckadoo asked if the Town was going to be able to fit the RO plant on the property surrounding the paved portion at McConkey square. Administrator Hill said that when the Town Hall site was first considered, there was an issue with concentrate discharge from the RO plant as opposed to the McConkey site, where the discharge would be easily disposed of in the South Edisto and the associated costs.

The meeting was adjourned by common consent.

*The media/public was notified of the date, time and location of the meeting on Friday, August 7, 2015*

APPROVED BY TOWN COUNCIL



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Deborah Hargis, Municipal Clerk  
September 10, 2015