**Water and Sewer Committee Meeting**

**November 20, 2015**

**1:30 p.m.**

The following were in attendance:

Bob Renner, Bob Sandifer and David Whitten, Committee Members; Iris Hill and Bob Doub ex-officio members; Charlie Kerekes and Jody Kleckley were absent.

The meeting was called to order. David Whitten suggested waiting until the next meeting to elect a chairperson, since two members were unable to be there.

David Whitten moved to approve the March 3, 2015 minutes. Bob Sandifer seconded the motion, which passed 3 – 0.

Lindy Cummins of Thomas and Hutton and Tim Smith of Wharton Smith presented information to the Committee, which is attached to these minutes. The presentation outlined eight options and corresponding costs. After a brief explanation of each option, Mr. Cummins directed the Committee’s attention to the Options Matrix on slide 13 of the presentation. The slide shows the major components that are involved in each option. A discussion then followed concerning peak demand, including peak day, peak hourly and fire flow. A diurnal demand curve graph is pictured on slide 17. Mr. Sandifer asked Mr. Cummins if it was taken into consideration that demand would increase for “good water” after the R/O system was in place. Mr. Cummins said that it was. Mr. Cummins showed the Committee an artist rendering of a proposed R/O plant for Option 4C on slide 20. On slide 22, Mr. Smith presented budgetary costs for the different options. The costs ranged from 6.592 million for option 3 to 9.633 million for option 1. Option 1 is the only option that includes the Middendorf Well. An estimated operation and maintenance cost was also included on slide 22. Arnold Ellison said that since only two or three of the options were viable, there was no need to consider the costs of the other options. Mr. Cummins said that one of the purposes of today’s meeting was to narrow the choices. Mr. Smith said due diligence had been done on all options. Mr. Smith stated that he thought options 4C and 4B were the best of the eight options. Both of these have the R/O plant located at the Town Hall site. Mr. Cummins explained the O&M costs, ranging from $218,078 to $349,559. Option 4B and 4C have the same projected O&M costs at $222,594. Mr. Sandifer asked if any of the options would address the possibility of running out of water during peak demand. Mr. Smith and Mr. Cummins agreed 5A and 5B would. Option 5B with the addition of the Clearwell would be the best option, according to Mr. Cummins. Administrator Hill asked the Town’s consultant, Arnold Ellison, which option or combination of options would he suggest. Mr. Ellison replied that he was pro-ASR, and he sees the need for the Town to have that source of water. He therefore would suggest the Town going with option 5B, without the addition of the Clearwell. If the ASR is utilized, there is no need for the Clearwell, according to Mr. Ellison. Mr. Cummins said that with the additional capacity provided by the Clearwell would be quite beneficial. Mr. Ellison agreed that it would be beneficial, and more cost effective to install the Clearwell at the same time the R/O plant is built. Mr. Cummins referred to slide 23 to explain the redundancy and slide 24 projected possible future phases.

Administrator Hill suggested the Committee make a recommendation to Council which option to pursue. Mr. Ellison asked Mr. Cummins and Mr. Smith to show the Committee slide 22 that showed the cost of the options. David Whitten moved to recommend to Council option 5B with an additional Clearwell storage tank, with a cost of 7.2 million dollars, seconded by Bob Sandifer and passed 3 – 0.

The next item on the agenda was Jungle Shores Water Expansion Project. Bob Doub, Utilities Director, updated the Committee on the project. The contract was awarded to Southern Fiber Construction Company. The project is due to start the first part of December. A six-inch line will be installed starting at the beginning of Jungle Shores and ending at Chehaw Street with ten or eleven fire hydrants. Administrator Hill told the Committee that the work authorization had been originally executed with American Engineering for $14,000. An additional $17,600 was added to the project to have a construction manager on site since the firm is fairly new. The amended total was $31,600. That is be reflected on the amended Capital Improvement Plan.

Copies of RFP 2015-05, Water and Sewer Professional Services, was distributed to Committee members. Administrator Hill suggested scheduling a time to discuss the RFPs. Administrator Hill told the Committee that one option is to have the firms that submitted bids for the RFP come in to meet with them and make a recommendation based on the proposals or presentations. Mr. Sandifer suggested that Utilities Director Doub meet with the Administrator Hill and the Committee.

Preliminary Engineering Report on Wastewater Facility – Administrator Hill reported that work authorizations four ($39,500) with American Engineering had been executed. Eighty percent capacity has been reached in the wastewater treatment plant and the Town is required by DHEC to do a preliminary engineering report.

The Town still has a Notice of Violation on the wastewater treatment facility. Mr. Doub explained that in November and December of 2014, the Town exceeded its biological oxygen demand (BOD) at the wastewater treatment plant. For many years, duckweed has been present on the pond at the plant, which helped with pH and the photosynthesis process. Jim Matthews with OnLine Environmental, which does the Town’s analysis and testing for the water and wastewater inspected the plant and he indicated the blanket of duckweed was too thick and that the Town should remove it. Santee Aquaculture treated the duckweed and the duckweed died and deposited in the bottom of the pond. Mr. Doub and Mr. Matthews think that was the beginning of the BOD spike. BOD levels dropped for two months and then went back up. Mr. Matthews and the Utilities Operators have been taking numerous samples in the past several months, checking the influent and effluent BODs, the dissolved oxygen of all the cells and trying to determine what has happened. Sludge samples were also tested. The sludge blanket depth of the pond was checked. Sludge is now present in cell one, cell four and cell five of four to five feet or more. In cells two and three the sludge is approximately three feet deep. There is no discernable reason for the sludge accumulation and is of concern since the pond was dredged and the sludge removed three years ago. Mr. Matthews thinks there is a “short circuit” which allows water from cell one to pass to cell two more rapidly than it should. Mr. Doub doesn’t think that is the sole cause for the sludge accumulation. Administrator Hill said that OnLine Environmental had made some suggestions going forward. The Town decided that before those improvements were made, the Town should get the preliminary engineering report done so that all improvements could be done simultaneously.

Administrator Hill sent the Committee information on the Capital Management Operation and Maintenance (CMOM) project. This program was implemented a few years ago. Mr. Doub explained the CMOM program to be a capacity management operation and maintenance program put out by EPA and DHEC, and predicated by sanitary and sewer overflows that towns were having because they were not maintaining lift stations in proper operating conditions. It is a self-assessment checklist of all pump stations to make sure they are being properly maintained. Town employees check lift stations daily. On a yearly basis the wet wells are cleaned, sand blasted, and coated with a two-part epoxy because of hydrogen sulfide deterioration. The lift station control panels are upgraded and improved. The pumps are changed out as needed.

Administrator Hill brought to the Committee’s attention the fact that the Capital Improvement Plan has had a few changes that take into account work authorization number four and number five and the Jungle Shores Project.

The meeting was adjourned by common consent.

APPROVED BY THE WATER AND SEWER COMMITTEE

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Deborah Hargis, Municipal Clerk