

Water and Sewer Committee  
November 8, 2012

Present:

William Houston  
Ray Johnson  
Charlie Kerekes  
David Lybrand  
Ray Archibald  
Bob Doub ex officio  
Iris Hill ex officio  
Mike Beckman URS  
Eric King URS

Meeting was called to order at 10:06 am by Ray Johnson, Chairman.

No agenda was provided.

The purpose of the meeting was to review questions and answers dealing with the Reverse Osmosis Feasibility Study conducted by URS. Question and answers were distributed to all present including audience members.

Ray Archibald was introduced as a new member of the committee.

Mike Beckman thanked the group for allowing him to present this information. Eric King was introduced.

In May, a draft report was provided. The memo dated September 28, 2012 provides responses and answers to questions compiled from the committee and the public.

Question 1. Can URS provide a site evaluation score sheet (positives and negatives) for the two proposed sites they are recommending in their study? Based on their study which site they are commending from the efficiency and cost point of view to be the best location for the RO?

Ray Johnson asked other than the cost is there anything that would be a discriminator of the site.

William Houston: Based on the outfall cost on the chart, McConkey Square is \$500,000 and the optional cost of ocean outfall adds \$400,000. Base cost on McConkey Square is

\$10,557,800. Most of the difference between the two is additional infrastructure needed if the site is at Town Hall.

David Lybrand stated he did not think we needed to be working in the ocean but the sound would be more desirable. Mike Beckman stated that it did not make a difference if the discharge is at the South Edisto or the Ocean, a barge would be necessary. David states that if we use a barge in the ocean, it would have to be ocean certified. He also discussed the benefits of using the current well which is fairly new. How big is the 100,000 tank? Mike Beckman states he believes it is a 40 foot diameter. The bottom of the tank has to be above elevation 15/ground elevation. The Reverse Osmosis location is to be located in the Right of Way around the parking lot. Right of way goes from edge of parking lot pavement to end of pavement on McConkey Square. One lane of traffic would be lost on the side of north side.

Ray Johnson asked about the committee's recommendation to eliminate two of the three Aquifer Storage and Recovery (ASR) wells to reduce cost (page 5, draft report) and use only one (Optional Design - One ASR well). Reduce some of the redundancy. Beckman states that proposal is labeled Optional Design - One ASR well) and the cost is \$8,862,250 rather than \$10,557,800 if the RO site is McConkey Square.

Iris Hill asked why do we need to have chillers and what is the cost? The Isle of Palms does not chill their water. Mike Beckman states the chillers may not be necessary. The cost of chillers is not significant, but the ongoing operating cost is high. The key to understand about the process is we need to get a test well into the Middendorf to see what we have so the costs can be tweaked. There is good data around us, but that does not tell us what is happening here. Things could change depending on what is happening here. If water is 95 to 98 degrees chillers would not be necessary. Blending is being used for temperature control. If temperatures are lower blending can be used on the backside for taste.

David Lybrand asked is blending/mixing done before treating and Mike Beckman stated yes. David Lybrand asked whether any of the existing wells could be used for an ASR well rather than drilling a new well. URS stated some decisions will need to be made once ASR wells are located. The only well URS recommends doing investigation on is well #6 which is on McConkey Square. It has a galvanized casing and there are concerns about this. URS looked at the worst case scenario. You may need to put in new well with stainless steel casing. The well needs to be televised to see what condition it is in before those decisions can be made. These need to be looked at to possibly save you money now. If we could get a lifespan of 10-15 years from the McConkey well than turn it into an Aquifer Storage and Recovery (ASR) well rather than install a new well. David Lybrand asked if the well can be lined. Bob Doub stated that he thinks what they run into is the diameter of the submersible pump is so close to

the diameter of the casing that would not be an option. The plan is to store 55,000,000 gallons. You can store more.

Iris Hill asked how you get the treated water out the well field. URS states through the existing distribution system.

URS proposes one ASR well with the understanding that if it fails you would have to go back to salty water. URS recommend three ASR wells because it gives you better redundancy. If your RO plant goes down, one ASR well will not be sufficient. You would have water, but the water quality would be what you have now. Recovery is the problem. The water is there, you just can't pump it out to meet the demand.

URS states the problem is you have only one supply well. If the supply well goes down you may lose your supply. URS recommends that you configure this with the motor on top so it can be replaced and operational more quickly. Ray Johnson asked about having a motor in storage? Bob stated he would not recommend this as we do not have the capability of testing and running the submersible pumps to ensure they are in working order. Ray Johnson asked what about rotating the pumps out annually? Tommy Mann states we could have a motor in 24 hours to be up and running. Bob stated our submersibles are checked and tested every year by Lane Atlantic.

URS states the Town may have to use a corrosive inhibitor because RO water is corrosive. We can blend in 1-2% for taste. Blending could be accommodated with a 2" line if just blended for taste.

Question 2.

Question 3. Question answered to the group's satisfaction. Editorial comment from Tommy Mann is he thinks the assumption should be 25%. It depends if it is a high pressure system (3:2) or not. Some produce 1 gallon for every 5 gallons of water used. Ray Johnson asked if we had a feel of how many homeowners has a RO system. The EB Property Owners Association did a survey and asked a question regarding house RO systems. Bob Sandifer stated they had 322 surveys returned from 500 sent out. The question was "Have you already installed equipment in your house to treat water?"

188 said yes, 124 said no, 166 small sink, 33 whole house, 95 would buy water/Town Hall. Of the 322 surveyed 52% had installed a small system, 10% had whole house. Tommy Mann states 230 would have whole house systems, if you assume this applies to the whole beach. Efficiency of under sink systems are poor and typically get 1 gallon for every 7 used.

Questions 4, 5. Questions answered to the group's satisfaction.

Question 6. David Lybrand asked will the cost of sewer go up. The sewer rate is not expected to go up.

Questions 7, 8, 9, 10, 11. Questions answered to the group's satisfaction.

Question 12. Ray Archibald stated he thinks this would be less due to the state of the economy.

Questions 13, 14. Questions answered to the group's satisfaction.

Question 15. Would the existing wells pull from the ASR bubble? URS states that with the ASR well located at the State park would not be impacted.

Question 16. Question answered to the group's satisfaction.

Question 17. Ray Johnson asked is Bob Doub comfortable with that? He stated he is and we currently use a SCADA system for water which can be operated remotely.

Questions 18, 19, 20, 21. Questions answered to the group's satisfaction.

Question 21. Iris Hill asked "Do you have issues with the water going stale if stored in an ASR well?" No. Ray Johnson asked "Is there a shelf life?" URS states water does move slightly so you may lose a small amount.

Questions 22, 23. Questions answered to the group's satisfaction.

Bud Skidmore asked about parking around Bay Creek Park because parking is critical around this area. We would lose one lane on the far side, but all other parking in the right of way would not be impacted. Iris Hill stated she thought Bay Creek Villa owners may have problems with the siting of the RO plant across the street. Bob Doub stated he only thought there were 6 units that would be impacted.

The committee recommended that URS develop a view plan to show what the RO plant and tank would look like at this location.

David Cannon asked why you can't put the RO plant on the ground. Door accesses are the issue, how do you make them water proof. You would have to build up steps to go up over and down which may not be cost effective.

URS was asked to put together a rendering showing what the building would look like and the footprint for the proposed reverse osmosis site.

Iris Hill questioned contamination issues from what may be buried in the parking lot.

Tommy Mann stated that Council had stated that there is going to be a referendum.

Iris Hill stated she thought there should at least be a survey of all users of the system to get their inputs rather than just the voters.

Tommy Mann stated we need to get these cost numbers and have the consultant doing the rate study to plug in those numbers to see what the increase in the water rate is. URS stated that these are today's cost. These costs will change the more time that passes.

Tommy Mann also stated that the referendum needs to be done now, not down the road, which was the consensus of the group.

William Houston stated that a lot of what is going to happen depends on the test well, so that would need to be done first. URS stated if they had concerns about the quality of the well they would recommend that the Town do a 4" test well, but they do not think that is necessary.

David Cannon asked what the range of temperatures in the Middendorf. The range varies. The Isle of Palms is 105 degrees and they do not chill or blend.

Ray Archibald asked is the 10% contingency sufficient. URS stated that many municipalities used 30%, but with the level of effort put into the cost estimates, they felt that the 10% contingency was sufficient.

Iris Hill asked if everyone liked the Hilton Head building design for the rendering. Two members (Houston and Archibald) were not familiar with the design. Discussion ensued regarding site preference and the consensus was McConkey Square was the desired site. The rendering needs to show the elevation.

Ray Johnson asked to discuss the timing in a broad perspective so we can plan to have a referendum. The elections office recommends the referendum be in November. The group desired a special referendum and does it as soon as possible. The cost of a special election is \$2,500. Ray Johnson asked if there was a legal requirement to bond. A referendum is required to borrow money/bond the project. Bob Sandifer stated he felt they need to have a referendum, but a majority of the people impacted will not have input. Iris Hill stated that is why a survey should also be done so we get input from all homeowners. William Houston stated we could send a postcard and put the information on the website. Ray Johnson stated we also need to have some public meetings. Iris Hill stated we could do a special mail-out to all utility customers.

David Cannon asked whether the federal government was going to penalize the Town regarding Fluoride levels. Tommy Mann stated the Town already was in violation of the state

Fluoride level, but no fines have been issued. Bob Sandifer stated that according to the survey that people who do not live on the Beach but rent their houses are not concerned about the quality of water. 33% would not be interested in paying any more for improved quality of water. One thing you need to explain is what they are now spending for whole house or under sink RO systems. We need to show what you will save in costs for replacement of appliances, sewer costs.

Iris Hill stated that perhaps using a PR firm to develop and explain the information would be the best approach. The reality is the Town's water quality is degrading (saltwater intrusion and high Fluoride levels) and at some point in time, we will be forced to do something. Other coastal communities have already converted to reverse osmosis because of salt water intrusion. Should we plan to do this while we are in good financial standing, with interest rates and construction costs favorable or wait until we are required to do something through a consent order when it may not be favorable to the Town?

Ray Johnson asked if the Town could count on support from the leadership of the Property Owners Association. Charlie Kerekes stated it would help with credibility of the project.

Iris Hill asked if the committee wanted her to get costs for a PR firm to prepare the information for dissemination. A motion was made and seconded and unanimously approved.

Iris Hill is going to get the exact rate changes based on both costs and for bonds and the State Revolving Fund, get costs for the PR firm and verify that a referendum is needed to borrow money. She is also going to get the renderings from URS. She is going to send a picture of the Hilton Head building to URS for the rendering. If we could get all approved, we could go to the Council in December. We need to schedule another meeting to review this information and approve what needs to go to the Council. Iris Hill will forward this information to the committee as received. She asked URS to provide 10 final Reverse Osmosis reports for the Council.

William Houston made a motion to recommend the single ASR well design with the ASR location at the state park and the Middendorf at McConkey Square which is the alternate design, Appendix D. The motion was seconded and unanimously approved.

A meeting was scheduled for November 27, 2012. William Houston stated he may not be able to attend but could conference call into the meeting.

Robert Doub brought the committee up to date on the sludge removal project. We had seven firms who are interested. The bid opening is November 16, 2012 at 2:00 pm.

We are looking to begin the project in January or February 2013.

The Town is in the process of acquiring bid documents for the Point Street water extension project. It goes out to bid November 14, 2012. This project was approved by the water committee two years ago and is funded from the bond refinance.

The Town submitted a capital improvement plan to the Council for approval to spend the construction funds and Iris Hill will send this to the committee. Mention was made about plans to replace strategic location water valves so water can be turned off without shutting the entire system down also from the construction fund.

Iris Hill then explained that the Town continues to be in litigation with Edisto Golf, LLC. Edisto Golf, LLC filed an appeal to the permit issued to the Town for land application of the wastewater. Edisto Golf, LLC wanted to renegotiate the terms of the deed covenants and asked that the Town assume responsibility for an increased level of maintenance on their holding pond and pumps which were constructed in order to develop Tract L and M. Tracts L and M have since been foreclosed. The Town was not inclined to renegotiate the covenant terms as this was never the intent of the Town when the original special warranty deed covenants were established. This has been heard by the administrative law court. Tommy Mann stated that all the issues brought forth by Edisto Golf, LLC were related to water quality which would be a non-issue if we had reverse osmosis. This process has been going on since 2009. These costs are significant and may have an impact on future utility rates.

A motion was made to adjourn. The motion was seconded and unanimously approved.