

Date: Wednesday, March 9, 2011

Time: 6:00 – 6:30 p.m. – Open House
6:30 – 8:00 p.m. – Presentation, Questions and Answers
8:00 – 8:30 p.m. – Dot Board Exercise

Location: Whitney Laboratory at Marineland
9505 Ocean Shore Blvd., St. Augustine, FL 32080

Notice: Eighth-page displays ads:
Daytona Beach News Journal (2/6/11; 2/28/11)
St. Augustine Record (2/6/11; 2/20/11; 3/2/11; 3/5/11)
Palm Coast Observer (2/24/11; 3/3/11)

Project website announcements, Twitter, and direct email

News coverage or calendar listings:
Orlando Sentinel (2/25/11)
Daytona Beach News Journal (3/8/11)
Orlando Business Journal (3/8/11)
Flagler Live (3/8/11)

Residents in

Attendance: Approximately 120; 70 signed in.

Meeting Overview:

The meeting started with an open house session during which residents viewed display boards and talked with project team members. At 6:30 p.m., attendees moved into Whitney Laboratory's auditorium for a presentation that provided a brief update on the Coquina Coast Seawater Desalination Project, and focused on the purpose of the meeting: siting criteria and the siting process for the proposed facility. The project team stated that the main objective of the meeting was to explain the siting process and obtain community feedback on the siting criteria before potential facility locations are selected.

Comments and questions were taken after the presentation. Site selection questions ranged from tax ramifications of plant ownership and acreage needed to how far inland

the plant could feasibly be located. Other questions and comments centered on alternative energy sources, concentrate disposal, and environmental considerations.

The Question and Answer Session ended at 8:00 p.m. The project team then asked meeting participants to weigh in on siting criteria by affixing sticky dots to the criteria board or boards they feel is/are most important. Residents who could not stay were encouraged to complete an online survey by March 17, 2011, to ensure their input is received. The dot exercises were completed by 8:30 p.m.

The sticky dot exercise shows that those in attendance feel Environmental Stewardship is the most important site selection criterion, followed by Community Values and Comparative Cost.

Sticky Dot Exercise

Participants were provided two sets of sticky dots: 3 blue dots for use on blue criteria boards and 3 green dots for use on green criteria boards. The blue boards were supposed to omit the Comparative Cost board, while the green boards included Comparative Cost. However, due to an oversight, both sets of boards included cost. However, the results are similar, showing that residents in attendance feel Environmental Stewardship is the most important site selection criterion, followed by Community Values and Comparative Cost.

Criterion	Blue Dots	Green Dots	Total
Environmental Stewardship	71	74	145
Community Values	22	14	36
Comparative Cost	18	18	36
Project Reliability	15	18	33
Risk	14	10	24
Permittability	0	3	3

The public meeting results will be combined with input received through an online survey and provided to the project team at its March 23, 2011, meeting.

Following is a summary of questions and answers discussed during the meeting as well as questions asked via comment form. Included in the responses herein is expanded information where appropriate.

Questions and Answers Summary

1. What is the size of the facility and how much land do you need?

The initial capacity of the facility is estimated to be 10-15 million gallons of desalinated seawater per day. A desalination facility of this size requires approximately 25 acres of land for pretreatment, reverse osmosis, post treatment and on-site storage facilities. This size parcel would also accommodate future expansion.

2. How far will the facility be from the ocean?

The distance from the ocean is not yet known as sites have not yet been selected. The project team was initially looking at St. Johns County, Flagler County and Volusia County. However, after the project participants' March 23, 2011, meeting, the area under consideration has been narrowed to the eastern halves of Flagler County, southern St. Johns County and northern Volusia County, excluding barrier islands, preserves and other environmentally sensitive areas.

3. Is the Intracoastal Waterway being considered as a source?

No.

4. Are there any plans to buy a site now, even though the project may not go forward, to take advantage of the lower land costs?

That decision may take place next year, once a short list of potential sites has been developed and approximate land acquisition costs are known.

5. Who will receive water from the facility?

Right now, Palm Coast, Leesburg, DeLand and St. Johns County are working together to investigate the feasibility of a seawater desalination plant. Other entities may also join in the project or elect to purchase water from one of the utilities listed above.

6. Will the plant be noisy?

If a plant is built, there will be some noise associated with the heavy equipment needed during construction. Once operational, however, it will be very quiet, similar to a typical surface water treatment plant. Buildings will buffer any noise from equipment located inside, such as the pumps needed for the reverse osmosis process.

7. Will the plant blend with the surrounding community?

We understand that preserving the beauty of the coast and consistency with surroundings are important to the community. Any facility will be sited and developed with public input to ensure community's values are reflected in the location and appearance of the facility.

8. **Why are we not looking at social justice concerns that unfairly burden poor and minority communities?**
We are. In fact, the Community Values criterion specifically states that the siting should address social justice concerns.
9. **How dangerous are the chemicals that will be used? How safely will they be stored?**
The pretreatment and post-treatment processes have not yet been selected and will determine what chemicals are added to the water before or after desalination. In general, desalination plants use chemicals similar to those of a traditional surface water treatment plant. Any chemicals used would be stored safely in accordance with all local, state and federal regulations.
10. **If the plant is located in Flagler County, will it generate tax revenue?**
The answer to this question depends upon who owns the proposed facility. If the plant is privately owned, then it may generate tax revenues, but this cost to the owner would be reflected in the cost of water from the facility. If the facility is owned by a city or county, it would likely not generate tax revenues, and this savings would likewise be reflected in water rates.
11. **What benefit would it be to Palm Coast if the Palm Coast utility was selected to be the primary blending facility for the desal region? How many jobs will the plant generate? Will there be additional revenue/jobs for Palm Coast?**
An economic impact analysis would answer these types of questions, but one has not yet been conducted. While operating the plant will require a small number of workers, economic benefit to a municipality would depend on the whether the facility is owned and operated by a municipality, owned by the municipality but operated by private company, or owned and operated by a private company. An economic impact analysis would provide an overview of jobs generated during construction and operations, as well as the economic benefit of an adequate supply of drinking water.
12. **It is cheaper to use river or brackish water. Is this project definitely planning to use only seawater?**
Evaluations of surface water and brackish groundwater were previously conducted during the Flagler County Water Supply Planning process and it was determined that seawater would be used for this increment due to the limited availability of brackish and surface water alternatives in Flagler County.

13. **The desalination plant in Perth, Australia, uses wind power. Will you look at alternative energy sources for this facility?**

The power required for Australia's Kwinana Desalination Plant is offset by an 80 megawatt wind farm that was developed by the Queensland government-owned Stanwell Corporation and Griffin Energy. The desalination plant, however, is not directly connected to the wind farm. The wind farm sells power to Synergy Energy, which resells power to its customers, including the desalination plant. The wind farm is currently up for sale as Griffin Energy has declared bankruptcy.

The Coquina Coast Desalination Project will receive its power from the Florida Power & Light (FPL) grid, so the power sources will include any power-generating facility that supplies the grid. The project team is committed to exploring the viability of alternative energy and has talked to FPL about alternative energy options and will continue to monitor FPL's progress. Additionally, the project design will include efficient energy recovery devices which can reduce energy costs as much as 40 percent or more.

14. **How much energy will the plant use and does FPL have surplus energy available?**

At a capacity of 25 million gallons per day, the Coquina Coast Desalination Plant will use approximately 15 megawatts of power. At the projected initial capacity of 10-15 million gallons per day, the power requirement is approximately 8-10 megawatts. During initial discussions with FPL, it indicated that there is sufficient power generating capacity in the region to serve such a demand, so there would not be a need to construct a new power plant to serve the Coquina Coast Desalination Plant.

15. **The Tampa Bay Desalination Plant is co-located with a power plant because it uses so much energy. In fact, it uses the majority of the energy from the power plant. We don't want to use a dirty coal facility and have the desalination plant's operations be integral to that kind of power plant.**

While Tampa Bay Water confirmed that its desalination plant is one of TECO's largest single-meter customers in the Tampa Bay area, its plant is not powered solely by the Big Bend Power Station nor does it use a majority of the more than 1,600 megawatts produced by the plant. Tampa Bay Water says that the Tampa Bay Seawater Desalination Plant uses a maximum of 20.4 megawatts, if all pumps are operating at full capacity. The plant receives this power from the TECO grid to ensure the desalination plant can operate even if the Big Bend Power Station is down. Similarly, the Coquina Coast project would receive its power from the Florida Power & Light grid.

16. What is your timeframe for selecting a site and do you have potential sites in mind?

No potential sites have been selected. The project team held the public meeting specifically to obtain citizen input before selecting sites. The screening process will begin in late March to identify approximately 30 potential sites. Those sites will be analyzed and evaluated using weighted selection criteria and conclude with a short-list of potential sites in August. A preferred site will be selected in 2012-2013.

17. In your Phase 1 report, there was a site shown on a map for the facility and there were costs shown for this site. How can you say you haven't selected a site?

A site has not yet been selected; though the project team did look conceptually at a representative "dot on a map" in order to provide estimated costs for pipelines and other project facilities. This "dot on the map" in no way represents an actual, available parcel and was not identified as a viable option. It was just a representative location for estimating purposes.

18. Where will the concentrate disposal be located?

The exact disposal method and location have not yet been determined. Discharge options under consideration include a subsurface (underwater) dispersion field and various diffuser systems. Computer models and scientific studies will be used to examine viable options and determine the best method for mixing and dispersing the twice-as-salty seawater back into the environment without harming Florida's ecology.

19. Why don't you tap water from the freshwater springs off Crescent and Fernandina beaches?

Tapping offshore springs has been studied, but the springs do not produce the quantity of water that is projected to be needed in the future. Additionally, the water still contains a significant salt concentration and would require some level of reverse osmosis treatment. However, the project team is investigating whether it would be advantageous to locate this project's intake near an offshore spring to benefit from the lower salinity.

20. Have you considered buying enough land to create ponds in which the effluent can be placed and dried, so you can sell salt to northern cities in the winter months?

Several studies have been done in the past to examine the economic value of concentrated seawater. Existing technologies to evaporate the concentrate to derive sea salt and other minerals are energy intensive and not economically viable.

21. **I have heard that the Tampa Plant had problems ongoing, with mussels clogging the pipes, which they spent money to screen to no avail. When this plant is being designed will they look at the problems that Tampa has and take them into consideration when designing this plant?**

According to Tampa Bay Water, the Tampa Bay Seawater Desalination Plant is currently fully operational with no problems. Tampa Bay Water explained that its plant was originally designed, owned and operated by a private company, which did not provide adequate prescreening to address Asian green mussels among other things. The plant was remediated in 2007, adding more robust screening and pretreatment, and has been fully operational since that time.

For the Coquina Coast Desalination Plant, pilot testing and water quality testing will ensure that the facility is designed to effectively and efficiently treat the source water. Members of the project team are very familiar with the Tampa Bay Water experience and have learned from the lessons provided by that project.

22. **Is there a disaster plan to avoid a natural disaster like BP or Exxon Valdez?**

A desalination plant differs greatly from an oil well or oil tanker. Protecting Florida's natural system and coastal ecosystem is paramount to the project participants. That's why a number of scientific studies will be conducted to assess whether seawater desalination is a suitable choice for the project participants.

One of the main concerns associated with a desalination plant is the effect of discharging the nearly twice-as-salty seawater back into the environment. The project team will examine various options and conduct computer models to help design the best method for mixing and dispersing the concentrated seawater. This project will be pursued only if studies show the environment will be protected.

Additionally, if the plant is built, safeguards will be put in place to ensure the salinity of the concentrate is within permitted limits prior to leaving the plant, and permit conditions will require monitoring to assure continued safe operation.

23. **Who is funding this project? How will the facility be financed? Who is funding the remaining phases? Where does the St. Johns River Water Management District get its funding?**

The project is currently being funded by Palm Coast, Leesburg, DeLand, St. Johns County and the St. Johns River Water Management District. Funding of Phase 2B will be determined in early 2012 and could include the current partners or other interested cities and counties. The St. Johns River Water Management District, which is funded through ad valorem taxes, is funding up to 30 percent of the eligible project costs for Phases 1 and 2A and has also set aside some funds for project cost sharing.

If the project moves forward into construction, financing will depend on plant ownership. However, project participants are investigating ways to reduce the cost to their customers. Water from the desalination plant would be blended with the project participants' other water supplies, which would lessen the rate impact to customers. Phasing construction to closely align with demand will also reduce impacts by delaying additional capital and operating expenses until the new supply is needed.

24. If the operator goes broke, who is responsible for the plant, pipeline, roads, etc.?

No decision has been made with respect to ownership or operation of the facility. Those questions will be answered in Phase 2B. That said, the question is valid and was a major consideration for the decision to move forward with the evaluation of land-based desalination rather than vessel-based desalination at the end of Phase 1.

Comments

1. This region is environmentally sensitive and the people who live here value the environment. If the project affects the environment in any way, we will do everything in our power to stop it.
2. With budget cuts at the St. Johns River Water Management District, local governments and schools, we should not be putting money into this project.
3. Public input should be considered in the siting process for the intake and discharge.
4. Good job.
5. There should be regular meetings every 1-2 months.

Public Meeting Comment Form

On a scale of 1-5, where 1 was "strongly disagree" and 5 was "strongly agree," attendees were asked to rate the meeting and the information received from the project team. Below is an average response to each objective. These responses indicate that attendees who completed the comment form felt the meeting and information disseminated were both very helpful.

The overall meeting was helpful and informative.	4.1
The information received from talking with project staff during the open house was helpful.	4.0
The presentation/question and answer session was informative.	4.3
I now understand the siting process and how the evaluation criteria will be used.	3.7
Were your questions/concerns addressed? <ul style="list-style-type: none"> • 14 Yes • 6 No • 1 Somewhat 	