

New water plant on tap

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Photo: Hilton Head Public Service District general manager Richard Cyr stands next to the high pressure filter tubes for the water district's new reverse osmosis water treatment plant Thursday. The plant, which is on land owned by the Town of Hilton Head Island on Jenkins Island, will allow the water district to purify brackish well water to drinking water standards. *JAY KARR / The Island Packet*

Local officials are digging deeper for a drinking water source because all Hilton Head Island wells could go salty by 2020.

Since June, the Hilton Head Public Service District has been building a nearly \$12 million reverse osmosis treatment plant to draw water from the 600-foot-deep Middle Floridan Aquifer. It is scheduled to be up and running by March 1.

Customers' bills will not increase, said district general manager Richard Cyr.

"Wells all over are salting up, and they continue to go salty," Cyr said. "... We had two choices: buy more water or put in a system like this. This is a much cheaper system than buying from the Beaufort-Jasper Water & Sewer Authority."



Photo: Eddie Swanger of Crowder Construction walks through the Hilton Head Public Service District's reverse osmosis water treatment plant last week. The pumps that pressurize the system can be seen at center right. The plant is on land owned by the Town of Hilton Head Island on Jenkins Island.

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The Middle Floridan is about 300 feet beneath the Upper Floridan Aquifer, the primary drinking water source for the district's 17,000 north- and mid-island customers. The district also uses water from the authority and plans to blend it with water drawn from the new system.

Since 2000, the district has closed five of its 11 wells because of saltwater intrusion. Salt has entered the wells because Savannah's heavy use of the aquifer has shifted groundwater flow away from the island. Before they were closed, the wells produced a total of about 3 million gallons of water a day, Cyr said. The new plant will replace that lost water, and it also has the potential to be expanded to treat 6 million gallons a day.

Studies have shown that saltwater is advancing about 200 feet a year in the upper aquifer, putting other island wells in danger of contamination. Cyr said district staff is studying long-term solutions to replacing those wells. Those options could include expanding the plant, buying more water from the authority or digging wells outside the district's immediate area.

With the new plant, Cyr said customers might notice softer water and a fresher taste.

Located on Jenkins Island, the reverse osmosis plant consists of three wells in a 2,000-foot area.

The water from the wells is pumped to a filtering system that removes sand and silt. The sand and silt eventually is discharged into Skull Creek. The water is then pressurized and treated with chemicals, such as ammonia and chlorine. It is then sent to the customers.

"The water is so clean coming out of the 'RO plant,' we only have to add 75 pounds of chlorine," Cyr said. "With some of our (existing) wells, we have to add 200 pounds."

The system is only one of a handful in the state used by public water services, said project manager Mike Sutton. The equipment purchased from Water & Power Technologies Inc. of Salt Lake City also is used in industry. For example, Coke and Pepsi use a similar system to produce bottled filtered water, Sutton said.

The plant operations will be monitored by the district and by the Salt Lake City manufacturer.

District spokesman Pete Nardi said an open house for the public is scheduled for March at the plant. A date has yet to be set.