



Current Projects

September 2022

WATER SYSTEM MASTER PLAN

For years, the only source of drinking water for Hilton Head Island was the Upper Floridan Aquifer (UFA). In the 1990s South Island Public Service District had 14 wells supplied by the water from this source. Around this time, due to the threat of saltwater intrusion to the UFA wells, South Carolina imposed annual limits on withdrawals from the UFA for SIPSD and other users in the area. In response, SIPSD drilled a new well to the Cretaceous Aquifer and built a reverse osmosis (RO) plant to provide an alternate water source. This well was drilled to a depth of 3,800 feet. Along with the RO plant, it has supplemented the District's water supply with over 8.5 billion gallons of drinking water over 21 years.

In 2011, SIPSD had Carollo Engineering form a Water Master Plan. This plan involved research on the future of our UFA wells and investigated several upgrade options for the District to continue water service with a safe and dependable water source. The Master Plan called for the use of Aquifer Storage and Recovery (ASR) wells along with another existing source of water in case the cretaceous well was taken out of service for maintenance. In 2014, SIPSD drilled two new ASRs and a new well to the Middle Floridan Aquifer (MFA). Since operating, the ASRs have provided storage and use of over 1.7 billion gallons of water, while the MFA well has supplied over 700 million gallons of drinking water.

WHAT IS AN ASR WELL?

Aquifer Storage and Recovery Wells, during months of low water demand, store drinking water in underground wells from the distribution system. This water is then recovered and pumped out for use during high-demand months.



In 2019, the District and Carollo Engineering revisited the master plan in preparation for losing more UFA wells. The purpose of revisiting the plan was to consider another additional alternate water source and the required distribution upgrades. The conclusion led to SIPSD to construct a new Cretaceous Well and RO plant located off Dunnagans Alley, a new high-service pump station at the existing RO plant, and several pipeline upgrades through and around the Sea Pines area. The projects in the 2019 Master Plan are outlined below.

P R O J E C T S

CORDILLO RO PLANT NEW HIGH SERVICE PUMP STATION

The existing High Service Pump Station, located at the Cordillo Parkway RO Plant, is being replaced. The new High Service Pump Station will allow more flow capacity than the current pump station. To take advantage of the pump station's increased flow capacity, the water distribution lines running from the RO Plant toward Shipyard must be upgraded to 16-inch pipe.

Location Details: RO Plant located on Cordillo Parkway

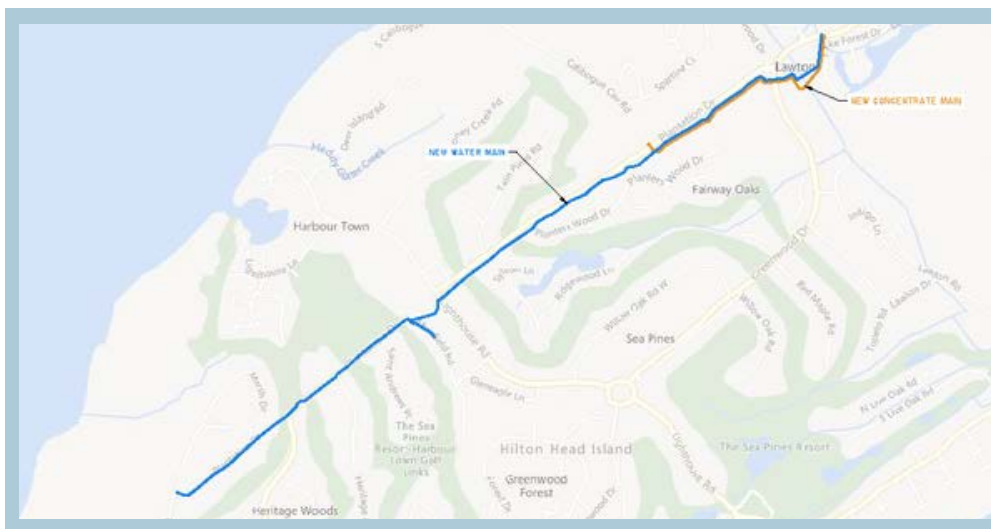
When? Construction of pump station is in progress with estimated completion around August 2023. The new pipeline for Cordillo Pkwy to Shipyard is scheduled to start around the first quarter of 2023.

PIPELINES: GREENWOOD DRIVE

The new RO plant, off Dunnagans Alley will require us to install new piping from Dunnagans Alley to Baynard Park Road, inside Sea Pines. The route will involve the use of Santee Cooper's Powerline Easement to the intersection of Greenwood and Plantation Drive. This project is split into two phases. The first phase involves pipe to be installed from the intersection of Baynard Park Road and Plantation Drive to in front of the Sea Pines CSA office located at 175 Greenwood Drive. This first phase will also include a new 12-inch water line to be installed at Muirfield Road, from the District's Elevated Water Storage tank to Plantation Drive.

Location Details: From Baynard Park Road, continuing along Plantation Drive, to Greenwood Drive and ending in front of the CSA Office Building.

When? Anticipated construction starting at the end of August 2022 or beginning of September 2022 (lasting about one year).



CRETACEOUS WELL #2

The plan also shows the use of water from the Cretaceous Aquifer as the best alternative water source due to the anticipated lost capacity of the Upper Floridan Aquifer (UFA) Wells due to saltwater intrusion. The location of the old Wexford Treatment Plant was selected out of four possible locations. To use this location for the new RO Plant, SIPSD will have to fill in the reclaimed water pond that the Wexford Golf Course uses for irrigation. SIPSD is providing a 300,000-gallon tank to replace the pond along with the golf course's pump station. This will be one of the first projects to complete during construction. The contractor can then use the reclaimed pond for well drilling and development.

Location Details: off Dunnagans Alley, behind the Village at Wexford

When? Anticipated to begin August of 2022

FUTURE PROJECTS

- Pipelines: Greenwood Drive to the New RO Plant
- Pipelines: New RO Plant to Long Cove and Shipyard
- Pipelines: Cordillo to Pope Avenue



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