

Overview of Plum Island Work

Construction of the new West Ashley Sewer Tunnel will require work activity at Charleston Water System's Plum Island Wastewater Treatment Plant.

This work will include construction of a deep shaft for tunnel excavation, building a new pump station and odor control structure, and installing an above-ground force main pipe around the southern edge of the island.

Construction is estimated to begin in March 2013.

Tunnel Shaft and Excavation

To build the tunnel, the contractor will first need to excavate three deep shafts, one of which will be on Plum Island.

The shafts will provide access to excavate the tunnel and insert pipe into the tunnel cavity.

Pump Station & Odor Control Structure

Once the tunnel work is completed, the deep shaft at Plum Island will be turned into a pump station that will pump wastewater up from the tunnel into the plant.

Most of the pump station structure will be underground. An odor control structure will be built next to the pump station control building.

Force Main Pipe

A 48-inch-diameter pipeline will be built from the new pump station, along the southern edge of the island, to the treatment plant's headworks. Current plans call for the pipe to be elevated above marsh on secured piles.



Construction of the tunnel shaft at Plum Island will look similar to this shaft construction on Calhoun Street, which was part of the Cooper Sewer Tunnel Replacement Project (2007). The Plum Island shaft will be 130 feet deep. It will provide access for tunnel construction and will be turned into a new pump station when the tunnel is complete.



Engineer's rendering of the force main along the southern edge of Plum Island.

For More Information

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