



Suffolk County Bergen Point WWTP Outfall Tunnel New York State Power Authority

Location: New York, New York

Date: 2009 – Present

Structure: Wastewater Treatment Plant Outfall Tunnel and Shafts

Length: 14,200 feet (4,330 meters)

Cross-Section: Outfall Tunnel: 12 feet (3.7 meters) Diameter
Working Shaft: 35 feet (10.7 meters) Diameter
Exit Shaft: 30 feet (9.1 meters) Diameter

Geology: Sediments Over Metamorphic Bedrock, Upper Glacial, Boulder / Cobble Till Moraines, Gardiners Clay, Marine Sand and Clays, Deposits of Clay, Silt, Sand and Gravel, Clay Deposit, and Sand

Cost: \$ 530 Million

Client: Camp, Dresser & McKee (CDM)

Owner: Suffolk County Department of Public Works (SCDPW)



Figure 1. Map of Bergen Point Wastewater Treatment Plant.



Figure 2. Outfall tunnel and shaft locations.

Consulting and Technical Services:

SCDPW owns and operates Bergen Point Wastewater Treatment Plant (WWTP) in Babylon, New York, and needs to replace a portion of the existing 72 inch (183 centimeter) outfall tunnel. SCDPW initialized a study to perform an evaluation of replacement alternatives.

Gall Zeidler Consultants (GZ) provided preliminary technical review of the geotechnical data collected during the first phase of the boring program and participated in the alternative selection review.

The replacement tunnel is planned to be approximately 14,200 feet (4,330 meters) long from launch shaft to receiving shaft, connecting Suffolk County's Sewer District No.3–Southwest Bergen Point Wastewater Treatment Plant (WWTP) under the Great South Bay, to the Barrier Island.

The outfall tunnel will have an internal diameter of 12 feet (3.67 meters). This size was established based on the need for efficient tunneling for 14,200 linear feet (4,330 meters) and on installation of the carrier pipe. The selected configuration is based on the ground conditions, the size of tunnel, and method of excavation.