

Executive Summary

Note: This executive level summary is intended to provide a synopsis for the reader for the purpose of public outreach with the community. Details can be found within the report itself.

In February 2013, HDR and HydroQual published a report for the Nassau County Department of Public Works titled “Water Quality Assessment of the Impact of the Bay Park Sewage Treatment Plant in the days following Hurricane Sandy.” The Bay Park Sewage Treatment Plant (STP) is located in East Rockaway, NY in the Town of Hempstead, and is operated by the Nassau County Department of Public Works (NDPW). Under normal operating conditions, this STP discharges approximately 50 MGD of treated water through an outfall located in Reynolds Channel in West Hempstead Bay. West Hempstead Bay and its creeks are classified by New York State Department of Environmental Conservation as either SA (best use shellfishing for market purposes), SB (best use contact recreation and fishing), or SC (best use fishing) waterbodies. Due to the Bay configuration, discharges to this water body do not immediately allow mixing or flushing throughout the inlets efficiently.

On October 29, 2012, Hurricane/Superstorm Sandy slammed into the coast of New Jersey near Atlantic City. The wind and storm surge associated with this storm severely affected the Town of Hempstead and disrupted the operation of the Bay Park STP. The storm surge knocked out the STP’s primary and backup generators, and consequently, the STP was unable to receive or treat wastewater from its sewershed for approximately two and a half days.

The water quality data collected after Hurricane Sandy showed that water quality was somewhat adversely affected by the storm. The general trend in the data is that the stations in Reynolds Channel have the highest TSS concentrations with DO levels were below the 4.8 mg/L chronic NYS water quality standard on occasion in some of the tributaries during November. Coliform and enterococci concentrations exceeded standards during November. Enterococci geometric means continued to be above 35 no./100 mL during December. Had the Bay Park STP failure occurred during mid-summer, the potential for increased toxicity to early life stages as well as adult fish and invertebrates in Hempstead Bay would have been much greater.