

3.3.2.1.2 ONSHORE GROUNDWATER BOEM's FEIS for SFW Page 655 of 1,317

The Long Island aquifer supplies groundwater to the onshore analysis area and is designated by the EPA as a sole source aquifer, meaning it serves as a primary drinking water resource. Special Groundwater Preserve Areas, which are critical areas identified by NYSDEC (2019a) for protection because of their roles in providing drinking water resources, recharging groundwater, or protecting groundwater, are also located in the analysis area. Groundwater is measured at approximately 40 feet below grade at the proposed interconnection facility and is relatively shallower along the two onshore South Fork Export Cable (SFEC) routes, with the depth to groundwater being approximately 4 to 5 feet around the landing sites (Beach Lane and Hither Hills).

Overall, existing groundwater quality in the analysis area appears to be good and meets NYSDEC (2018) groundwater quality standards. However, as indicated by NYSDEC (2021a), four NYSDEC Environmental Remediation Sites are mapped near the interconnection facility (NYSDEC 2021b). Sampling and analysis at the following three sites have not confirmed or revealed elevated or significant remaining contamination: NYSDEC #152156, which served as an airport hangar for the East Hampton Airport before it was abandoned in 1991; NYSDEC #152213 (the Hortonsphere site), a gas storage facility east of the proposed interconnection facility and upgradient of the onshore SFEC route from the Hither Hills landing site; and NYSDEC #152219, a former gasoline refinery facility that predates the 1930s. These sites are therefore not a concern for the onshore SFEC route. Sampling at the fourth site, NYSDEC #152250, has indicated the presence of perfluorinated compounds. Site-related compounds have been identified in soil and groundwater within and around the site.

3.3.2.1.3 OFFSHORE WATERS

Offshore waters comprise coastal waters (e.g., ports/harbors, rivers, bays, and estuaries; marine waters) located within the state territory (within 3 nm of shore) and within the federal waters. The coastal waters, including the Long Island Sound and Atlantic Ocean, are located offshore and include existing port facilities in New York, Rhode Island, Massachusetts, Connecticut, New Jersey, Maryland, and/or Virginia that could be used for the Project. Marine waters are considered temperate because of their highly seasonal variations in temperature, stratification, and productivity. Water currents in the analysis area generally flow southwest, although bottom water currents may flow northward. Currents near the shoreline flow east. Average year-round surface currents were measured at approximately 8 inches per second, with the strongest currents measured at 20 inches per second (Fugro 2021).

NOAA (2021a, 2021b, 2021c) reported increases in relative sea level trends at three tide stations along the Long Island coast, with increases over the 1947 to 2020 period ranging from approximately 2.3 millimeter (mm)/year at Kings Point, NY to 3.41 mm/year at Montauk, NY. This information was collected using NOAA Tides and Currents data (<https://tidesandcurrents.noaa.gov/>). Higher sea levels in addition to storm surges, which are increasing in both frequency and magnitude, have contributed to coastal erosion on Long Island that in turn have eroded Long Island's shorelines and increased susceptibility to flooding (New York Sea Grant 2018).

Offshore water quality is characterized by temperature, salinity, DO, nutrients, chlorophyll *a*, and turbidity. These parameters, which are described in detail in COP Section 4.2.2, influence coastal and marine environments and are indicators of ecosystem health.

Water quality in the Long Island Sound has improved over the last decade and is rated as "very good" with the exception of the western-most portion, which has been experiencing water quality degradation from nutrient (nitrogen) pollution (University of Maryland 2018). Coastal waters off Rhode Island, including Narragansett Bay and nearby coastal ponds, have also experienced degraded water quality from nutrients and storm water runoff carrying contaminants (Rhode Island Division of Planning 2016). Water

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Location of SFW's Interconnection Facility

Location of SFW's Interconnection Facility

Measure distance
Click on the map to add to your path
Total distance: 2.10 mi (3.37 km)

(Page 24 of Total)

