

Town of Exeter, NH WWTF Upgrade



Background: The Exeter WWTF has a design average capacity of 3 MGD, with a peak flow capacity of 7.5 MGD. The WWTF was constructed in 1965 and was upgraded in 1990 (lagoon expansion) and in 2002 (outfall upgrade).

In 2010, the EPA issued an Administrative Order (AO) to the Town of Exeter for its collection system and in 2013, the EPA issued a NPDES discharge permit to the Town with "limit of technology" effluent nitrogen limits (TN 3 mg/l) for the WWTF. The Town of Exeter subsequently negotiated an Administrative Order on Consent (AOC) with the EPA that requires achieving a less stringent effluent nitrogen limit (TN 8 mg/l) within five years.

The Town retained Wright-Pierce to develop a strategic plan for the WWTF improvements with a focus on compliance, affordability, schedule and flexibility. In March 2016, voters in Exeter approved plans for a new \$50M wastewater plant to bring the Town into compliance.

To achieve the goals of affordability, schedule & flexibility, Dutchland precast post-tensioned concrete was chosen for the aeration tank and three secondary clarifiers. The precast aeration tank measures 200′-8″ long by 26′-11″ wide by 22′ high. The three secondary clarifiers each have a 70′ inside diameter.