

WASTEWATER OPERATIONS & MAINTENANCE (O&M) FOR THE TOWN OF WARREN, RHODE ISLAND



WARREN, RHODE ISLAND

APPLICATION:

Municipal

CAPACITY:

3 MGD

PROJECT START:

2021

POPULATION:

11,000

TECHNOLOGY:

4-Stage Bardenpho (anoxic/aerobic) Process & Modified Ludzack-Ettinger (MLE) Process

FIXED ANNUAL VALUE:

\$817,000

CONTACT:

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BACKGROUND

Since 2021, H₂O Innovation has been providing operations and maintenance (O&M) services for the Town of Warren’s wastewater treatment system under an initial five-year service agreement, which has recently been renewed for an additional five years.

Serving a population of approximately 11,000 residents, the Town operates a wastewater system with average flows of 1.88 MGD, maximum monthly flows exceeding 3 MGD, and estimated peak flows reaching 9 MGD during spring conditions. The system discharges wastewater to the Warren River and requires advanced operational oversight to optimize BOD removal, nitrification, denitrification, and dissolved oxygen (DO) control, while enhancing total nitrogen (TN) removal and maintaining regulatory compliance.

SCOPE OF WORK

Six full-time H₂O Innovation employees operate and manage the Town’s wastewater treatment facility, which includes 10 pump stations and a collection system. The system is supported by SCADA monitoring and control to ensure reliable performance and operational efficiency.

H₂O Innovation also operates the Town’s jetter/vac-on truck to address minor line blockages and perform manhole cleanouts as part of routine collection system maintenance. Furthermore, H₂O Innovation provides a forklift for handling large chemical deliveries. It also manages sludge through thickening and hauling liquid residuals to a nearby wastewater treatment facility for final disposal.

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