

Wastewater Nitrogen Removal in Less than Two Hours at San Francisco Bay Area Demonstration Project

The San Francisco Bay Area is facing the potential of new nitrogen limits. In an effort to be proactive and find ways to reduce costs, wastewater treatment facilities have been looking at innovative and economical solutions to meet impending limits.

One wastewater treatment facility is currently seeking solutions for meeting interim limits of 15 mg/L total nitrogen (TN), but new limits could be as low as 6 mg/L TN.

The Microvi MNE™ technology for ammonia removal (nitrification and denitrification) is an innovative biological solution developed through Microvi's MicroNiche Engineering™ platform technology.

A pilot was installed in a tertiary configuration and showed that the system can reliably treat influent concentrations of 40 mg/L of ammonia based on retention times of below 2 hours.

Project Details

Site Owner: Wastewater treatment facility in San Francisco Bay

Issue: Potential for new effluent limits that will demand changes to existing treatment

Solution: Microvi MNE™ for Nitrification & Denitrification

Key Results:

- Lower capital costs compared to alternatives
- Minimal secondary solids produced
- Reliable treatment of an influent NH₄-N level of 40 mg/L
- Low maintenance and easy to operate