



Microvi's Low Cost Nitrate Treatment for the Communities that Need it Most

Nitrate contamination is becoming even more common in drinking water wells across the state of California. This typically results from agricultural fertilizer runoff infiltrating groundwater. The City of Modesto, one of many rural communities whose drinking water is affected by nitrates, supports 75,000 water connections with groundwater and water purchased from a regional water treatment plant. Some residents of Stanislaus County, where Modesto is located, are provided bottled water to support demand.

Microvi's MNE system for nitrate removal from drinking water is a low-cost, dependable way to increase the city's supply of safe drinking water without the capital expense associated with drilling new wells or constructing new treatment systems.

Microvi's NSF/ANSI 61 certified MNE nitrate treatment was deployed at a City of Modesto well which experiences nitrate concentrations of approximately 7 mg/L NO₃-N. The continuous bioreactor system treated incoming nitrate to ≤ 3 mg/L NO₃-N (up to 88% of the incoming nitrate) at flowrates between 30-45 gpm. Subsequent filtration membranes and chlorination dosing polished the water to meet turbidity and disinfection standards.

Microvi's high performing system is cost effective for communities as the system can be offered as design-build-own or design-build-own-operate, avoiding high capital costs while achieving crucial drinking water standards.

Project Details

Site Owner: City of Modesto

Partners: Elemental
Excelerator, City of Modesto

Issue: Low-cost nitrate treatment for drinking water in disadvantaged California communities

Solution: Microvi MNE™ for Nitrate Treatment

Key Results:

- Treatment of groundwater nitrate to ≤ 3 mg/L NO₃-N
- No capital expenditures for customer
- Demonstration of results for 50 gpm system

CONTACT US TO LEARN MORE →

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