Microvi Enables Broad Access to Low Cost Nitrate Treatment

A growing number of drinking water wells across California are affected by nitrate contamination, which poses numerous health hazards. This is often caused by infiltration of agricultural fertilizer into groundwater that is then used as a drinking water source. Bottled water, conventional treatment systems and new wells are all expensive solutions typically not feasible for rural or disadvantaged communities.

San Juan Bautista, a rural community south of the San Francisco Bay, has had three drinking water wells taken off-line in recent years due to high nitrate levels, putting the city's water sources in jeopardy. While the city has explored purchasing drinking water from a nearby treatment plant, this project would be years away from completion.

To help San Juan Bautista meet its drinking water demand, Microvi's NSF/ANSI 61 certified and approved MNE™ nitrate treatment solution for drinking water was installed. This system treated up to 50 gpm of contaminated water over a 60-day demonstration period.

Groundwater nitrate levels greater than 9 mg/L NO_3-N are reduced to ≤3 mg/L NO_3-N on a consistent basis in the system's bioreactor, while post-filtration and chlorination allowed the system to meet drinking water standards for both turbidity and disinfection. Contracting the current 50 gpm installation under a DBOO model helps the city prevent prohibitive capital costs while being able to provide safe drinking water for its residents.

Project Details

Site Owner: City of San Juan Bautista

Partners: Elemental Excelerator, City of San Juan Bautista

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

Solution: Microvi MNE™ for Nitrate Treatment

Key Results:

- Treatment of groundwater nitrate to ≤3 mg/L NO3-N
- Limited capital expenditures
- Design-Build-Own-Operate (DBOO) implementation model by Microvi

CONTACT US TO LEARN MORE →

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