



## Microvi Nitrate Treatment Reduces Cost by 40% Compared to Ion Exchange

A city in Arizona has three drinking water wells which have been contaminated with nitrate. To provide safe drinking water the city blends treated and untreated water with the help of two treatment facilities utilizing ion exchange (IX) technology.

With rising nitrate levels, blending to reduce nitrate concentrations will not be a viable option. The City chose to compare [Microvi MNE™](#) (MicroNiche Engineering) with ion exchange plus Electrochemical Denitrification (ECD), and their existing conventional IX system.

In a demonstration project, Microvi MNE™ for nitrate treatment was found to be more favorable than IX since it does not produce a secondary waste stream (brine) or require high maintenance. These factors can significantly impact the cost of treatment.

In an economic analysis, the 20-year Present Worth Cost for the Microvi system was found to be 40% less than both the conventional Ion Exchange and Ion Exchange with ECD.

## Project Details

**Site Owner:** City in Arizona, U.S.A.

**Issue:** Blending water to reduce nitrate levels will not be viable in the future.

**Solution:** Microvi MNE™ for Nitrate Treatment

### Key Results:

- High nitrate removal rates
- Reduced total lifecycle cost by 40%+ compared to two ion exchange (IX) technologies.
- High water recovery (i.e. no loss of water)
- No secondary waste stream (brine)

CONTACT US TO LEARN MORE →

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