



# Award-winning Well Nitrate Removal Helps Avoid Drinking Water Purchases

**CUSTOMER:** Crescenta Valley Water District  
**LOCATION:** La Crescenta, California

## CHALLENGE

Like so many California water providers, the Crescenta Valley Water District (CVWD) had to shut down an important well due to nitrate contamination. However, due to increasing water demand in the area over the years, the CVWD knew it had to re-activate the well for much-needed drinking water supply to avoid purchasing expensive water from the neighboring Foothill Municipal Water District (FMWD).

## SOLUTION

When the CVWD was able to obtain a Proposition 84 Grant from the California Department of Water Resources to fund the installation of a non-salt generating nitrate removal system, APT's state-of-the-art ARoNite® technology was selected for commercial implementation. The final system was designed to recover up to 150 GPM of nitrate-contaminated water and achieved effective, repetitive nitrate concentration control. With filters running at a specific design condition, 99.5% water recovery was achieved. The ARoNite system runs remotely based on a pre-defined nitrate concentration set point leveraging a cascade control system that adjusts hydrogen supply based on current nitrate concentration.

## WHY ARoNite?

ARoNite's biggest strengths are that it requires no salt, no carbon, has no waste brine stream, and produces minimal waste for disposal while effectively reducing nitrate levels to below drinking water required standard levels with less energy. ARoNite is a cost-effective alternative to conventional RO and IX processes as demonstrated in La Crescenta where their critical well was brought back online to meet their increasing drinking water demand.

## IMPACT

Not only did the CVWD produce on-spec drinking water again and avoid expensive water purchases with their ARoNite implementation, but the project was also recognized by industry organizations like The Association of California Water Agencies (ACWA) and The American Council of Engineering Companies (ACEC) for its demonstrated success in "creatively addressing water industry issues" with an "exceptional degree of innovation and achievement". The system has been successfully running for over five years.

*"ARoNite met all our Proposition 84 Grant requirements and delivered the nitrate treatment and water recovery we required from our well in a small, affordable footprint."*

