Located on the southern edge of California’s ever-expanding Silicon Valley, the San Jose Water Company treats and distributes water to over 1 million people. Founded in 1866, the investor-owned public utility has built a reputation for being focused on customer service and has been an early adopter of new treatment technologies.

Like many water utilities, San Jose Water has had to adapt to the challenges of using chloramines for secondary disinfection to mitigate potential DBP (disinfection byproduct) formation. Chloramine can be a more stable disinfectant in distribution systems and is formed by reacting aqueous chlorine with ammonia. While the optimal laboratory ratio of chlorine to ammonia is 5:1, “real world” water sources that contain varying levels of ammonia can wreak havoc on residual concentrations.

Getting mix ratios of ammonia and chlorine wrong can not only result in reduced bacterial control in distribution systems, but create nitrification or taste and odor problems as well. Storage tanks pose particular problems to operators as out-of-control chloramine residuals can require a utility to flush or dump an entire tank – an increasingly unacceptable outcome in water stressed California. San Jose Water’s Nitrification Monitoring Program identified the need to boost chloramine residuals in some of its tanks.
As a result of the successful pilot, San Jose Water plans, as an integral part of its disinfection residuals management effort, on installing additional Monoclor® RCS chloramine management systems over the next four years.