

Las Gallinas Valley Sanitary District

Secondary Treatment Plant & Water Expansion



AQUA Engineering assisted in the planning and design of a plant upgrade for this facility on a very tight sight while maintaining the existing treatment plant in operation. The main goals of the project included plant conversion to achieve total nitrogen limits soon to be imposed on the plant's discharge permit and to achieve treatment of wet weather flows up to 18 MGD.

Working with the District on the upgrade, AQUA assisted in designing and constructing a fast track project to provide recycled water to the North Marin Water District (NMWD). The recycled water facility was added to the back end of the existing facility processes and includes coagulation, pressure filtration using GE membranes, UV disinfection, and effluent pumping to deliver the water. The existing site did not allow much space for the addition of facilities, but working creatively with the District, the necessary facilities were added to the site. This upgrade allows the District to provide Title 22 compliant recycled water to NMWD. The initial phase provides 1.4 MGD of capacity and can be expanded by just adding additional equipment to 5.6 MGD. AQUA also provided onsite construction management for the upgrade project.

Reference: Mike Cortez, District Engineer
Contact: P:415.472.1033 ext. 18 | E: engineer@lgvsd.org
Capacity: 18 MGD | Dates: Engineering: 2015/Construction: Current
Costs: Engineering: \$3.5M / Construction: \$49M

Features:

- ✓ Four (4) train fixed film, activated sludge system
- ✓ New secondary clarifiers
- ✓ WAS thickening
- ✓ Modifications to the disinfection process
- ✓ Multiple phases were required to achieve the work on this land restricted site while continuing to meet discharge requirements

Expansion of the Recycled Water Facility

- ✓ Expanded to treat and deliver 5.6 MGD of treated water
- ✓ Feed pumps
- ✓ Membrane expansion
- ✓ New recycled water disinfection and storage tank
- ✓ New distribution pump station that allows water delivery to two adjacent Water Districts



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