

PROJECT LOCATION

Rancho Cordova, CA

PROJECT TYPE

Design, Manufacture,
Installation & Commission

PROJECT TIMEFRAME

April 2017 – August 2017

PROJECT PHASE

Complete

CONSTRUCTION COST

\$1,300,000

AV[®] SCOPE OF WORK

\$640,000

END USER

California American Water
Sacramento, CA

GENERAL CONTRACTOR

Auburn Constructors, Inc.
Sacramento, CA

SALES CONTACT

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California American Water Selects Aqueous Vets[®] Team to Design-Build a PFOA/PFOS Removal Treatment Plant

In February of 2017, Aqueous Vets[®] (AV[®]) teamed with Auburn Constructors and Brown and Caldwell for the design-build project at the Nut Plains Well Site for California American Water. The project required AV to design, manufacture, install, and commission a 1.4 million gallon per day (MGD) Granular Activated Carbon Treatment System to remove Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) (180-200 ppt combined) from the potable water well.

Project Background

California American Water is committed to delivering the highest quality of potable water to its consumers and provides a product that meets or exceeds current drinking water standards. As suggested by the U.S. EPA health advisory issued on May 19, 2016, California American Water seeks to ensure that potential levels of PFOA and PFOS in drinking water served to customers in California American Water's Suburban Rosemont system remain below 70 parts per trillion (ppt combined).



Key GAC Design & Operational Parameters	Value
Number of Systems/Vessels per System	2/2
Operating Configuration	Parallel/Lead-Lag
Carbon Type – Direct Activated	Coal Carbon
Media Capacity/Volume per vessel	667 ft ³
Empty Bed Contact Time @ 475 gpm/system	10 Minutes
Design Flow Rates, per System / per Site	475 gpm / 950 gpm
Total Facility Capacity	1.4 MGD
PFOA/PFOS Combined Concentration	180-200 ppt
Influent TOC Concentration	1 ppm
Underdrain	Septa/External Ring header
Overall System Height to Top of Pipe	15'-10"

AqueoUS VETS®

Why Aqueous Vets

California American Water selected our team to design, build, and install a GAC treatment system given AV's flexibility to custom design the most cost effective, operational solution that met all the water quality and permitting challenges. For California American Water, AV differentiated itself from the old industry incumbents who took a standardized "one-size fits all" approach.

Expedited Delivery and Height Restriction

Other companies were unable to meet delivery and the overall permitted system height requirement. AV committed to an expedited delivery schedule of 12 weeks, which was met. AV delivered two engineered low-profile PF 10-820 GAC systems, each consisting of dual ten-foot diameter vessels containing 20,000 pounds of granular activated carbon, all of the welded steel onsite process piping, system installation, and commissioning. Each system is configured for parallel or lead-lag operation and contains system header and bypass piping. At an **overall height of less than 16-feet**, the AV low-profile systems are designed to meet the building height code associated with the project site.

To view AV's installation video, please visit our website at: <http://www.aqueousvets.com/installation-videos.html>

Project Site Design

