

PROJECT LOCATION

Perris, CA

PROJECT TYPE

Design, Manufacture, Supply

PROJECT TIMEFRAME

September 2019 – June 2020

PROJECT PHASE

Complete

AV® SCOPE OF WORK

\$535,000

END USER

Eastern Municipal Water District

GENERAL CONTRACTOR

RSH Construction

DESIGN ENGINEER

Kennedy Jenks

SALES CONTACT

Kelsey Hakes
khakes@aqvets.com
925-331-0573, Ext. 1

Eastern Municipal Water District Well 59 PFAS Removal Wellhead Treatment Facility

Eastern Municipal Water District (EMWD) provides safe, reliable, economical, and environmentally sustainable water to the cities of Moreno Valley, Menifee, Murrieta, and Temecula, California and surrounding unincorporated communities. EMWD monitors and provides treatment to ensure the quality of water for all customers.

Well 59 Wellhead Treatment Facility Details

Finding concentrations above the EPAs health advisory levels of a combined concentration of PFOS and PFOA of 70 ppt, EMWD and the U.S. Air Force contracted with Kennedy Jenks to design a treatment system to address the contaminants. AqueoUS Vets® (AV®) supported Kennedy Jenks through the design package development to select a mechanical system that provides the best overall value from initial installation to long term operation.

The design of AV featured: lowest head loss, minimizing operational energy costs; system geometry with a continuous internal vessel lining, minimizing sources of long-term corrosion; and an internal distribution/collection design that ensures maximum use of carbon bed.

In August 2019, EMWD solicited general contractors to rehabilitate the well and install the GAC treatment system for PFAS removal. RSH Construction was selected for the project. AV provided a complete package that exceeded the expectations of the project stakeholders, while also providing the best value offer to RSH Construction, the chosen general contractor.

Key GAC System Design & Operational Parameters	Value
Number of Systems/Vessels per System	2/2
Operating Configuration	Parallel/Lead-Lag
Carbon Capacity/Volume per Vessel	690 ft ³
Carbon Type	Coal
Design Flow Rate	500 gpm
Hydraulic Loading	6.4 gpm/ft ²
Empty Bed Contact Time	10.3 Minutes
Underdrain	Septa/External Ring header
Overall System Height to Top of Pipe	17'-3"

Aqueous Vets® Scope

AV designed, manufactured, and delivered two (2) 10-foot diameter GAC systems where 1,380 cubic feet of virgin bituminous coal carbon was supplied for PFAS removal of ground water from a well within one mile of March Air Reserve Base.



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