



GAC SYSTEMS HELP MUNICIPALITIES AND UTILITIES PROTECT WATER USERS

AQUEOUS VETS® CUSTOM GAC SYSTEMS OFFER COMPREHENSIVE SOLUTION FOR PFAS AND VOC COMPOUND REMOVAL FOR GOLDEN STATE WATER COMPANY

“It was a pleasure working with the Aqueous Vets team. The team was responsive to all requests and delivered the product on schedule without deficiencies. We look forward to working with them in the future.” - Richard Quattrocchi, Engineering and Contracts Manager, Metro Builders & Engineers Group.

BACKGROUND

Serving California for more than 90 years, Golden State Water Company (GSWC) provides water service to more than 1 million customers in over 80 communities, including the City of Norwalk.

GSWC water treatment plant previously employed air strippers to remove volatile organic compounds (VOCs) found in well water including 1,1 dichloroethylene (DCE), trichloroethylene (TCE) and perchloroethylene (PCE). When water quality tests indicated elevated levels of PFOS and PFOA above response levels, GSWC sought to outfit the water treatment plant with filtration technology that could remove both the VOCs and PFAS compounds by installing granular activated carbon (GAC) treatment systems. The target removal for PFOS-PFOA levels was non-detect and less than 0.5 ppb for 1,1 DCE, TCE and PCE.

PROJECT DETAILS

Together with the general contractor, AV was awarded the design-build project for the Imperial Well Site in Norwalk, CA. The award was based on technical qualifications, schedule, and cost effectiveness. Two AV PF-12-520 GAC systems were installed and filled with AV’s proprietary AV1240 LDX, a bituminous coal carbon shown in lab tests and pilots to perform as well or better than competitors’ coal carbon media.

AV worked closely with GSWC through each step of the process, from concept to commission. Extremely satisfied with AV’s results and customer service, GSWC will continue to work with AV on other PFAS treatment projects throughout the state, including the Studebaker, McKinley and Clara water treatment plants.

PROJECT LOCATION

Norwalk, CA

PROJECT TIMEFRAME

Oct. 2021 – May 2022

END USER

Golden State Water
Company

DESIGN ENGINEER

Metro Builders & Engineers
Group

PROJECT TYPE

Design-Build

PROJECT PHASE

Complete

GENERAL CONTRACTOR

Metro Builders & Engineers
Group, Ltd

CONTACT AV SALES

sales@aqvets.com
(925) 331-0573

AqueoUSVETS®



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	802 ft ³
Resin type	Coal carbon GAC
Design flow rate (overall/per vessel)	1,200/600 gpm
Hydraulic Loading	5.3 /ft ²
Empty bed contact time (per vessel/per system)	10/20 minutes
Underdrain	Septa/External Ring Header
Overall system height top of pipe	15'-11'

“GSWC Capital Program Management would like to recognize Aqueous Vets for being a good partner and for being responsive to our needs. AV provided GSWC with valuable expertise in preliminary studies, and the design of PFAS treatment facilities at several plants. They worked well with our contractors to manufacture and deliver quality treatment vessels on time, and with minimal installation effort.”

AV PROJECT SCOPE

AV designed, manufactured, delivered, offloaded, and assembled two (2) PF 12-520 GAC systems for drinking water, two (2) Fil-Trek Cartridge Filters and the above ground site pipe connecting the filters, meeting NSF 61 standards.

